R. H. VESEY.

LOCK FOR GARMENT HOOKS.

APPLICATION FILED JAN. 24, 1913.

1,067,694.

Patented July 15, 1913.

3 SHEETS—SHEET 1.

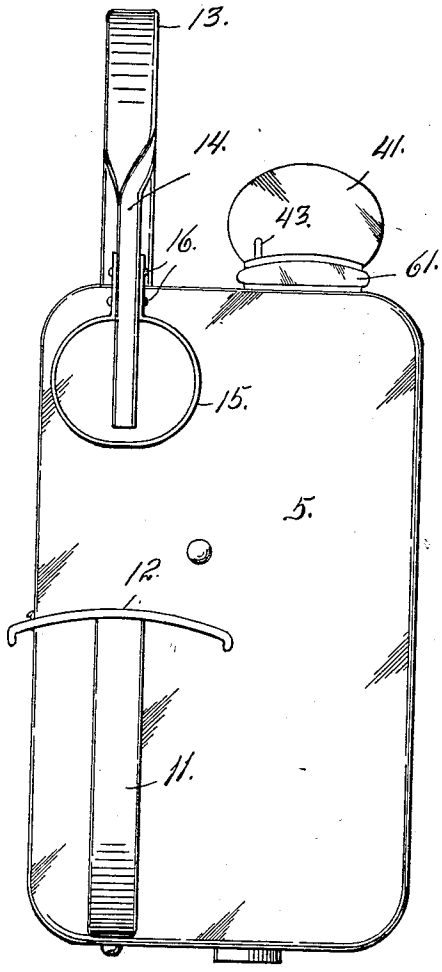


Fig. 1.

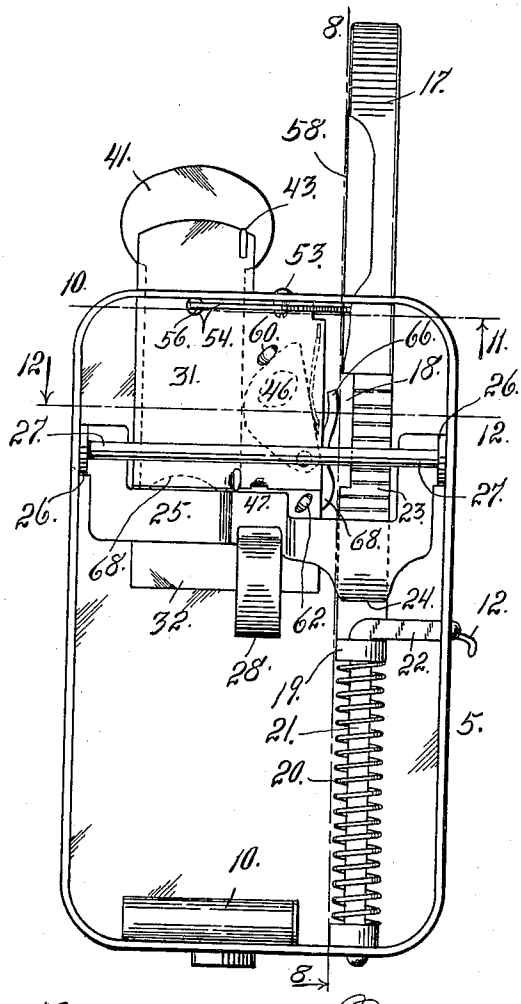


Fig. 2.

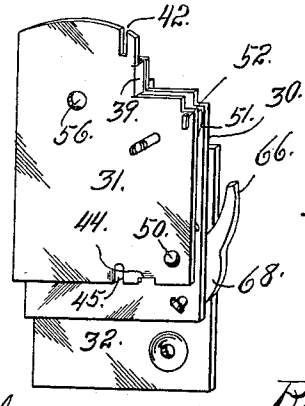


Fig. 3.

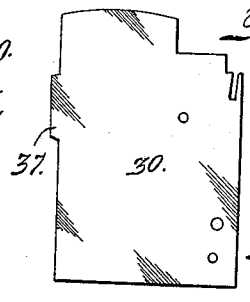


Fig. 4.

Witnesses

Otto E. Haddick.

Solon J. Boughton

Inventor

Richard H. Vesey

By N. J. Bowen

Attorney

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

R. H. VESEY.

LOCK FOR GARMENT HOOKS.

APPLICATION FILED JAN. 24, 1913.

1,067,694.

Patented July 15, 1913.

3 SHEETS—SHEET 2.

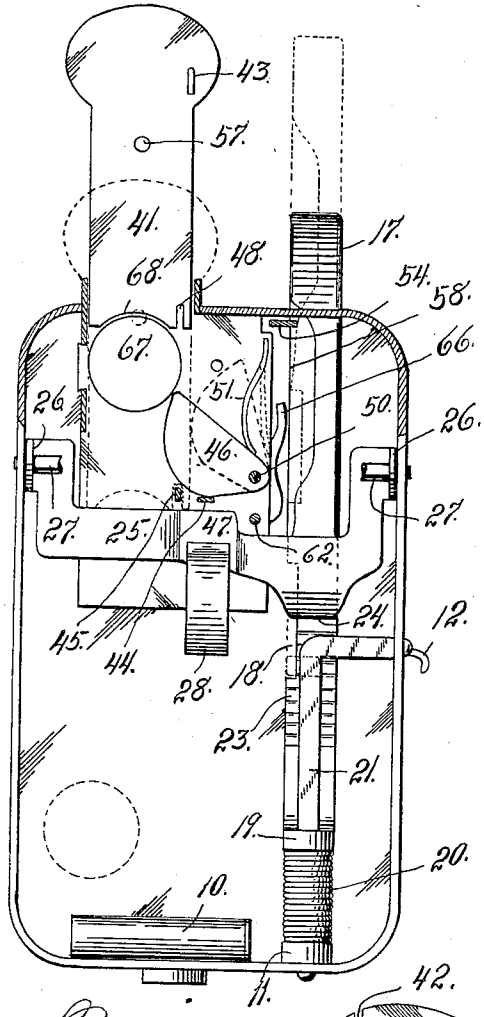


Fig. 5.

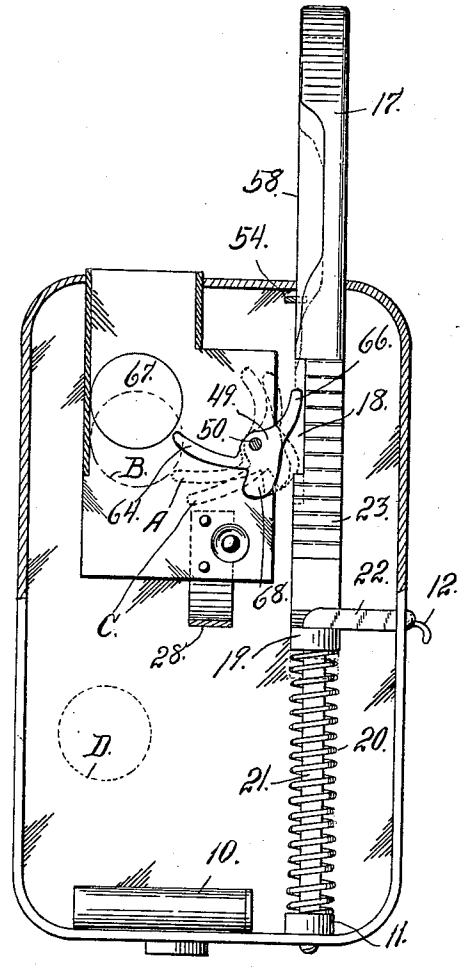


Fig. 6.

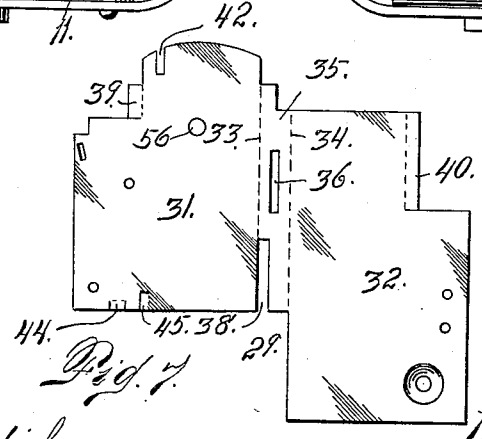


Fig. 7.

Witnesses

Otto E. Hoddick.

Solon J. Boughton

Inventor

Richard H. Vesey.

By A. J. Boone

Attorney

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

R. H. VESEY.

LOCK FOR GARMENT HOOKS.

APPLICATION FILED JAN. 24, 1913.

1,067,694.

Patented July 15, 1913.

3 SHEETS—SHEET 3.

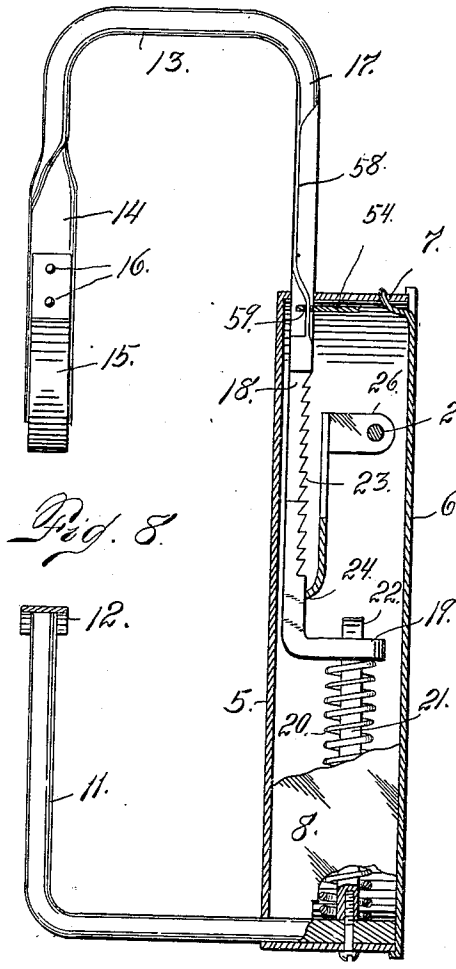


Fig. 8.

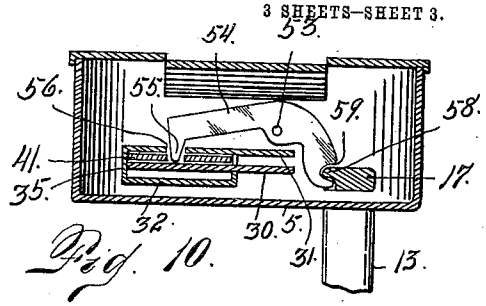


Fig. 10.

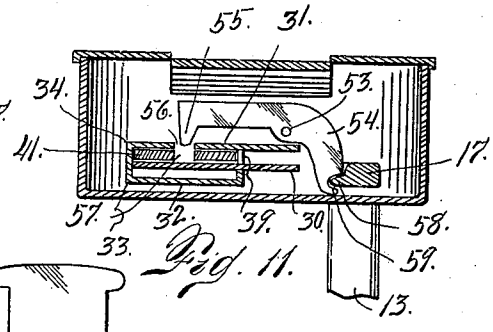


Fig. 11.

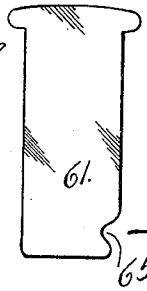


Fig. 13.

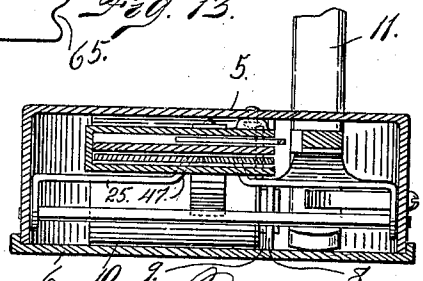


Fig. 12.

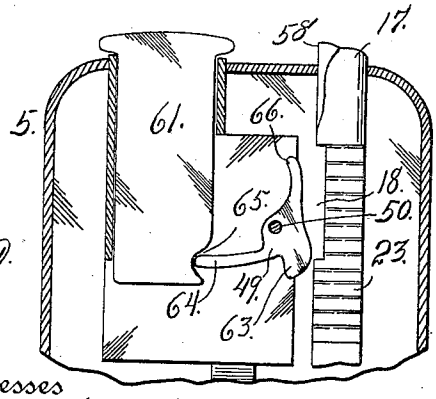


Fig. 9.

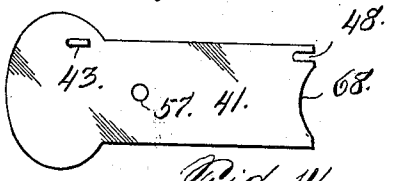


Fig. 14.

Witnesses

Otto E. Haddick.

Solon J. Boughton

Inventor

Richard H. Vesey.

By N. J. O'Connor

Attorney

UNITED STATES PATENT OFFICE.

RICHARD H. VESEY, OF DENVER, COLORADO.

LOCK FOR GARMENT-HOOKS.

1,067,694. Specification of Letters Patent. Patented July 15, 1913.

Application filed January 24, 1913. Serial No. 743,901.

To all whom it may concern:

Be it known that I, RICHARD H. VESEY, a citizen of the United States, residing in the city and county of Denver and State of Colorado, have invented certain new and useful Improvements in Locks for Garment-Hooks; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in locks for garment hooks of the class illustrated in my previous applications Serial No. 656,293 and No. 671,591, filed October 23, 1911, and January 17, 1912, respectively.

One object of the invention is to provide a means for positively locking the key in place when the clamping hook is in inoperative position, and for positively withdrawing said locking means when the clamping hook is in operative position, the use of springs in this connection being eliminated.

Another object of the invention is to prevent the operation of the locking device by any instrument other than the key with which it is intended to be operated.

A further object is to prevent the insertion of the wrong key in a slot far enough to operate the lock.

Still another object of the invention is to accomplish the formation of a double coin and key sheath from two pieces of metal only.

Other objects will appear hereinafter as I proceed with the description of that embodiment of the invention which for the purposes of the present application I have illustrated in the accompanying drawings, in which:

Figure 1 is a front elevation. Fig. 2 is a rear elevation with the rear cover removed the lock being arranged for operation without a coin. Fig. 3 is a view in perspective of the coin and key sheath, with certain of the operating parts assembled therein. Fig. 4 is a detail view of the dividing or partition wall of the sheath. Fig. 5 is a view similar to Fig. 2 but showing the device arranged for operation by means of a coin. Fig. 6 is a rear elevation with the rear portion of the sheath removed and showing a different mechanism for operation by means of the coin. Fig. 7 is a detail view of a blank which is to be used in the formation of my improved coin and key sheath. Fig. 8 is a vertical section taken upon the line 8—8, Fig. 2, and looking in the direction of the arrow. Fig. 9 is a fragmental detail showing certain parts illustrated in Fig. 6, and the use of a false key which is employed to render the coin unnecessary. Fig. 10 is a cross section taken upon the line 10—11, Fig. 2, and looking in the direction of the arrow. Fig. 11 is a view similar to Fig. 10, but showing the parts in a position occupied when the clamping hook is down. Fig. 12 is a cross section taken upon the line 12—12, Fig. 2, and looking in the direction of the arrow. Fig. 13 is a detail view of the false key. Fig. 14 is a detail view of the operating key.

Similar reference characters refer to like parts throughout the views.

In the drawing, which forms a part of this application the main portion of the casing which is pan-shaped is designated by the numeral 5. It is provided with a rear cover 6 having a short tongue 7 entering a groove in the top of the casing. Near the bottom the cover 6 has extending inwardly at right angles therefrom a partition or wall 8 provided with a bolt hole into which a bolt 9 may be thrust, by means of a key lock 10, which is operable from the outside of the casing.

Upon the casing 5 is mounted a relatively stationary lower hook 11, which extends outwardly from the front face of the casing at its lower extremity and is located at one side of the center. The upper extremity of this hook has attached thereto a T-shaped head 12 arranged to give a relatively long bearing to the hat, coat, or other article hung thereon. Coöperating with this hook is a vertically movable clamping hook 13 whose body portion 14 is in alinement with the corresponding part of the hook 11, the lower extremity of the portion 14 being equipped with an oval spring 15 whose extremities are secured to the hook, as shown at 16. This oval shaped spring normally extends below the lower extremity of the body of the hook,

thus allowing considerable range for elasticity, due to the downward pressure of the movable hook after it is brought into engagement with the T-shaped extremity 12 of the stationary hook.

The hook 13 merges at its upper extremity into a bar 17 which passes through a slot formed in the top of the casing close to the front wall of the latter. The part of this bar which is within the casing when the bar is at its upward limit of movement is provided with a recess 18, its lower extremity having an ear 19 turned at right angles to the body of the bar and engaged by the upper extremity of a spiral spring 20, the lower extremity of the spring bearing upon the lower portion of the hook 11, to which is secured the lower extremity of the polygonal stem 21 which is surrounded by the spring 20. The upper extremity of this stem passes through an opening of corresponding shape formed in the ear 19, the upper part 22 of the stem being bent at right angles to its vertical part, thus limiting the upward movement of the bar since the ear 19 on the lower extremity of the latter engages this bent part of the stem. One of the flat faces of the bar namely, that which is toward the rear is toothed for a suitable distance as shown at 23 the said teeth being engaged, when the bar and its hook are in position to lock an article in place, by a curved extremity 24, of a rocking cross piece 25, whose journals 26 are loosely mounted upon a rod 27.

A leaf spring 28 bears upon the cross piece tending to maintain the extremity 24 in engagement with the teeth 23. It may be seen therefore that the clamping hook 13 may be pressed down to any one of a series of positions in which it will be retained. It will be observed that the cross piece 25 is set on edge, that is, the longer cross sectional dimension of the bar is vertically arranged. This construction places the metal where it is most needed to meet the strain under which the bar is placed when the key is being pushed home to operate the lock.

My improved key and coin sheath, I construct of two parts, namely a blank 29 and a flat metal plate 30. In Fig. 7 the broken lines indicate the lines upon which the parts are to be bent, the main portions 31 and 32 being bent upon the lines 33 and 34 until the parts 31 and 32 are parallel to each other and perpendicular to the middle portion 35. A perforation 36 is cut into the middle portion 35 to receive the projection or lug 37 upon the plate 30, the lug 37 being riveted down upon the back of the blank 29, when the two elements are assembled. A recess 38 is cut into the middle portion 35 of the blank in order to permit the passage into the casing of coins, larger than a cent. Small lips 39 and 40, are folded inwardly to define the edges of the slots when the parts are assembled. In the top of one wall of the slot in which the key 41 fits, I cut a small notch 42 these notches being located at different positions across the wall of the slot in different machines in order to make the use of different keys necessary. The depth of the notches 42 may be varied also for this same purpose. The keys 41 are provided with projections 43, the projection upon each key being properly positioned to correspond with the notch 42 of the machine for which it is made.

The wall 31 of the sheath at its lower end has two small inwardly bent projections 44 and 45. The projection 44 acts as a stop to prevent the dog 46 (to be presently described) from moving too far downwardly and the projection 45 extends across the lower extremity of the rear coin slot just above and to one side of the rearwardly bent portion 47 of the cross piece 25, the portion 47 being the only part of the cross piece which lies in the plane of this slot. It will therefore, be clear that no instrument other than a key 41, with the exception of a wire could be inserted in the slot between the projection 45 and the edge of the slot, and a wire of this size would bend before sufficient power could be exerted to overcome the pressure of the spring 28. A notch 48 is made in the key to fit over the projection 45.

After the double key and coin sheath is assembled as heretofore described, the dog 46 is placed within the rear slot and a dog 49 is placed within the forward slot. A pin 50 is then inserted through perforations in these dogs and alining perforations in the two members of the sheath 29, and the plate 30. A spring 51 mounted at 52 in the sheath wall 31 and plate 30, bears upon the dog 46 tending to keep it in the full line position of Fig. 5. The dog 49 is so weighted with reference to its pin 50 as to cause it to maintain the position illustrated in full lines in Fig. 6.

Pivoted at 53 to the upper side of the casing 5 and upon the inside thereof is a lever 54 which at one extremity has a projection 55 extending through alining perforations 56 and 57 in the sheath wall 31 and key 41, respectively, when the clamping hook 13 is in the raised position. The bar 17 of this hook is provided upon one side with a tongue 58, (see particularly Fig. 8) which is composed of two parallel offset portions and an intermediate oblique connecting portion. In the extremity of the lever 54 remote from the projection 56 is a notch or recess 59 into which the tongue 58 extends. When the clamping hook is pushed downwardly the tongue 58 operates to shift the lever 54 from the position illustrated in Fig. 10, to that illustrated in Fig. 11, thereby withdrawing

the projection 56 from the perforation 57, in the key 41 when the key may be removed from the slot.

My improved lock may be adjusted to operate in three different ways, that is, first, without the use of a coin; second, it may be arranged to require the insertion of a coin before the clamping hook can be pressed into operative position upon the garment; and third, it may be arranged to require the insertion of a coin before the key may be pushed home for unlocking the clamping hook when the user desires to remove his garment. A combination of the last two methods might be employed if desired, but it is evident that it would seldom be advisable to require a customer to pay both before and after the service rendered.

When it is desired to arrange the device for operation without a coin, the dog 46 is pushed up into the dotted position of Fig. 5, where it is held by a pin 60 passed through alining openings in the sheath. The dog 49 is also held out of the path of the members 17 by means of a false key 61 (see Fig. 9) or by means of a pin 62 passed through alining openings in the sheath and caused to engage a shoulder 63 upon the dog. Now, should it be desired to require the insertion of a coin before the clamping hook may be lowered to operative position, the dog 46 is left in the position just described but the dog 49 is permitted to move freely upon its pivot, this being accomplished by withdrawing the false key 61 the dog being first rocked upon its pivot, to cause the fingers 64 to be withdrawn from the socket 65 in the false key or if the dog is held by a pin 62, the latter should be withdrawn. When the dog is free to move its center of gravity will cause it to assume the position indicated in Figs. 2 and 5, and in full lines in Fig. 6, when it is evident that the arm 66 will engage the upper flat end of the recess 18 in the bar 17 when any attempt is made to lower the latter. Now, by inserting a coin 67 in the front slot of the sheath, the finger 64 will be engaged thereby and the dog will be shifted to the position indicated by dotted lines A, still retaining the coin 67 in the position shown by dotted line B. The dog is prevented from moving farther in this first operation by the fact that its large lower portion 68 abuts against the side of the bar 17. However, the arm 66 is shifted laterally far enough to permit the descent of the bar 17 and when this has been pushed down slightly by the customer the large portion 68 of the dog rocks into the recess 18, causing the dog to be pushed by the coin into the position indicated by dotted line C, and the coin to drop down into the lower part of the casing as illustrated by dotted line D. By this time, the upper end of the recess 18 has passed arm 66, and may be pushed down into operative position at the same time rocking the lever 54 to cause it to release the key 41. When the customer desires to again obtain his garment he replaces the key 41 in its slot and presses down until the cross piece 25 rocks upon its pivot out of engagement with the rack 23 when the spring 20 forces the clamping hook upwardly.

Should it be desired to make the insertion of a coin necessary only when the garment is to be removed, the dog 49 is fastened by the false key 61 or by the pin 62 in its inoperative position and the dog 46 is rendered operative by the withdrawal of the pin 60. Now, when the clamping hook 13 is up and the key 41 locked in its slot by the lever 54, the dog is held by the key in the dotted line position of Fig. 5. After a customer has placed a garment upon the fixed hook, he presses down the clamping hook and removes the key which is released as heretofore explained. Immediately upon the withdrawal of the key the spring 51 forces the dog 46 into the full line position of Fig. 5, in which a considerable portion of the dog projects into the key slot, making the operation of the lock by means of the key alone impossible. When a coin is inserted, however, its round edge engages the round or cam edge of the dog 46. Then by inserting the key in the slot above the coin and pressing downwardly, the coin is caused to shift the dog to one side, the dog being so shaped that it will prevent the dropping of the coin until the dog is engaged by the edge of the key. This result is furthered by the concave end surface 68 of the key by means of which the operating edge of the key is brought down considerably below the top surface of the coin so that the dog, after passing the horizontal diameter of the coin does not have time to swing outwardly again before it is engaged by the key. This feature is a very important part of my invention. It will be evident that after the key has come into contact with the side of the dog 46 it may be pushed home to its operative position and the clamping hook unlocked.

I wish to call particular attention to the fact that the stem 21 is of polygonal cross section, preferably square, and that the perforation in the ear 19 fits it closely, although with sufficient play to permit the parts to slide freely upon each other. Furthermore, owing to the fact that the portion 22 of the stem 21 is secured to the side wall of the casing, all rotational movement of the stem 21 is prevented. It is therefore impossible for the clamping hook 13 to be turned sufficiently to rock the bar 17 out of engagement with the curved extremity 24 of the cross piece 25, thus releasing the clamping hook, which is a fault that is present in some machines of this class.

I claim as my invention:

1. In combination, a casing having a key slot therein, a key adapted to fit said slot and provided with a perforation therein, a lever pivoted to the casing, said lever having a projection adapted to extend into said perforation, a bar reciprocable in a direction parallel to the pivot of said lever, a tongue upon said bar composed of two parallel portions and an oblique connecting portion, said lever having a notch therein in which the tongue is adapted to slide whereby when the bar is reciprocated the tongue rocks the lever upon its pivot.

2. In combination, a casing having a key slot therein, a key adapted to fit said slot and provided with a perforation therethrough, a lever pivoted intermediate its extremities to the casing, said lever having a projection upon one end adapted to extend into said perforation, a coat and hat locking member having integral therewith a bar reciprocable within the casing in a direction parallel to the pivot of said lever, a tongue upon said bar composed of two parallel portions and an oblique connecting portion, the end of said lever opposite the projection having a notch therein in which the tongue is adapted to slide, whereby when the bar is reciprocated the tongue rocks the lever upon its pivot.

3. In a coat and hat lock mechanism, a key sheath, one wall of said sheath being provided at its outer extremity with a recess terminating abruptly a short distance from the end of the sheath, a key adapted to fit said sheath and a projection upon said key adapted to slide into said recess when the key is placed in position in the sheath and to contact with the inner end of said recess when the key has been pushed home far enough to operate the mechanism.

4. In combination, a casing, a clamping hook having integral therewith a bar extending downwardly into said casing and an ear extending laterally from said bar and provided with a polygonal perforation and a rod of polygonal cross section similar to that of the perforation, said rod being fixed within the casing, the rod being arranged to have the perforation in the ear slide thereupon and a radially extending arm integral with said rod and fixed at its outer extremity to the casing.

5. In combination a casing, a clamping hook having integral therewith a bar extending downwardly into said casing, said bar being provided upon one side with ratchet teeth, a horizontally arranged, horizontally pivoted cross piece formed of sheet metal set on edge and having a portion deflected toward the said teeth and adapted to engage therewith, said casing being provided with a key slot, a key adapted to slide in said slot, said cross piece having an offset portion extending into the path of said key.

6. In combination, a casing, a clamping hook having integral therewith a bar extending downwardly into said casing, said bar being provided upon one side with ratchet teeth, a horizontally arranged cross piece formed of sheet metal set on edge and having a portion deflected toward the said teeth and adapted to engage therewith, a spring tending to hold the last named parts in engagement, ears extending at right angles from the ends of said cross piece, a horizontal pivot upon which said ears are mounted, said casing having a key slot therein and a key adapted to fit said slot, said cross piece having an offset portion extending into the path of said key.

7. In combination, a casing having a key slot therein, a key adapted to fit said slot, a lever pivoted to the casing, a bar reciprocable in a direction parallel to the pivot of said lever, a tongue upon said bar composed of two parallel portions and an oblique connecting portion, said lever having a notch therein in which the tongue is adapted to slide whereby when the bar is reciprocated, the tongue rocks the lever upon its pivot and means adapted to be controlled by the said lever for locking the key against movement.

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

RICHARD H. VESEY.

Witnesses:
ANNA L. LEHMAN,
A. EBERT O'BRIEN.

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