(No Model.)

J. D. BURNS.

HAT AND COAT LOCK.

No. 592,276. Patented Oct. 26, 1897.

Fig. 9.



Fig. 1.

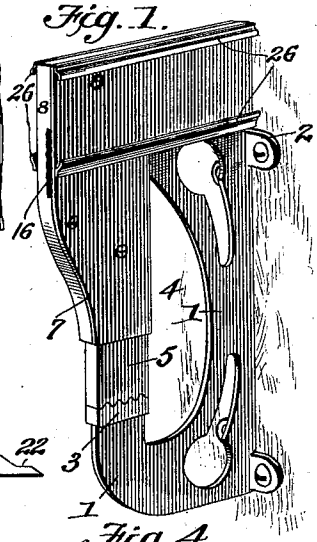


Fig. 10.

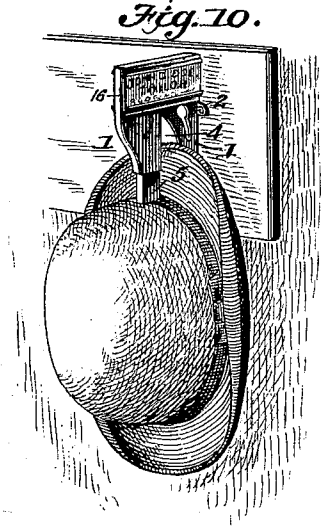


Fig. 7.

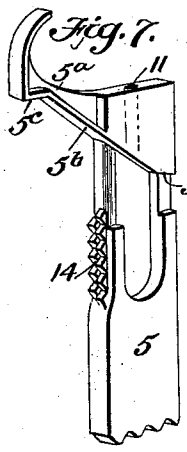


Fig. 8.

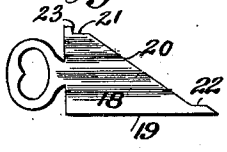


Fig. 2.

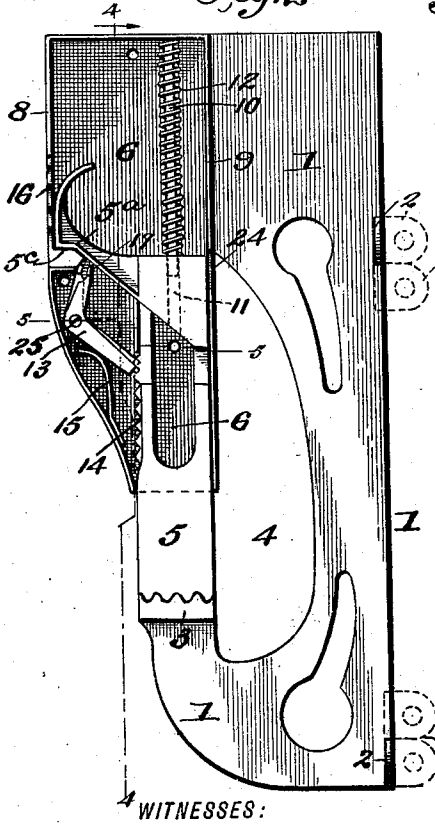


Fig. 4.

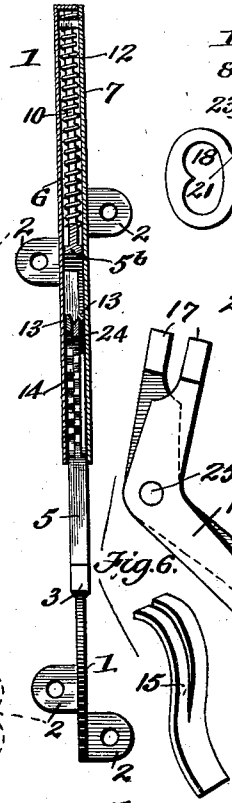


Fig. 3.

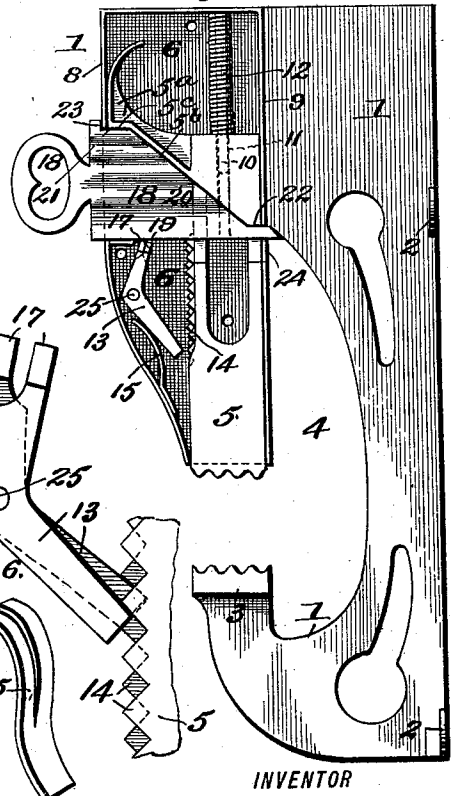
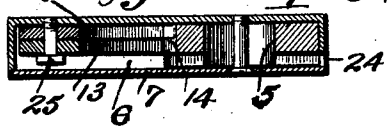


Fig. 6.

Fig. 5.



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HAT AND COAT LOCK.

SPECIFICATION forming part of Letters Patent No. 592,276, dated October 26, 1897.

Application filed January 27, 1897. Serial No. 620,981. (No model.)

To all whom it may concern:

Be it known that I, JEREMIAH D. BURNS, of Washington city, in the District of Columbia, have invented a new and Improved Hat and Coat Lock, of which the following is a specification.

It is the object of my invention to provide an improved device for use in hotels, restaurants, barber-shops, and other public places for locking or securing hats and coats, as well as other garments, suspended therefrom, and which shall be distinguished by simplicity, cheapness, and security of fastening, as well as form an unobtrusive wall attachment.

The special or most important features of novelty are the recessed or chambered body of the device, a hat or garment locking bolt adapted to slide vertically therein, one or more pivoted tumblers or pawls for engaging and locking said bolt in the closed position, and a peculiarly-constructed key which is adapted while being inserted to work in sliding contact with the bolt and its locking-pawls in such a manner as to disengage the latter and force the bolt upward, and when the key has been fully inserted it holds the bolt locked in the open position, so that a hat or coat may be conveniently suspended from the device; but when the key is withdrawn the bolt descends and locks the garment so securely that it is impossible to remove it without tearing it.

In the accompanying drawings, Figure 1 is a perspective view of my improved device. Fig. 2 is a side view, the cover or cap of the bolt-chamber being removed to show the interior mechanism and the bolt itself being in normal closed position. Fig. 3 is a view similar to Fig. 2, save that the key is shown inserted and the locking-bolt in raised position. Fig. 4 is a vertical section on line 4 4 of Fig. 2. Fig. 5 is a horizontal section on line 5 5 of Fig. 2. Fig. 6 is a detail perspective illustrating the means for locking the sliding bolt in closed position. Fig. 7 is a perspective view of the sliding bolt. Fig. 8 is a side view of the key employed for raising the locking-bolt. Fig. 9 is a perspective view showing the device in use. Fig. 10 is a perspective view of a modification hereinafter described.

The body or main portion 1 of the device is a flat and approximately rectangular metal plate, the same being preferably struck up from a blank of soft sheet-steel by means of suitable dies. It may, however, be cheaply constructed by casting in a mold. The back edge of such plate 1 is provided with perforated lateral lugs 2, through which screws are in practice inserted for securing the device to a wall or other vertical support. Said lugs 2 are formed integrally with the body 1 for the sake of strength and economy of manufacture.

The plate 1 is cut out centrally and at the front edge to form a hook or jaw 3 and a recess 4, adapted to receive a coat-collar or a hat-brim, as shown in Fig. 9.

The upper edge of the hook or jaw 3 is roughened or corrugated similarly to the lower end of a locking-bolt 5, which is held and adapted to slide vertically in a recess or chamber 6, formed in the upper front portion of the device. Such chamber or recess 6 is produced by a depression formed in the plate 1 when striking it up and by providing a removable cover or cap 7, (see Figs. 1 and 4,) which is secured to the plate 1 by means of screws, Fig. 1. The said locking-bolt 5 is guided vertically by the front and rear walls 8 and 9 of the chamber 6 and has an upwardly and laterally extended arm 5^a, whose convex side works in contact with the outer side or wall 8 of the chamber 6. The under side of said arm 5^a has a straight inclined portion 5^b and horizontal portions 5^c and 5^d.

A rod 10 is fixed to the top of the chamber 6 and extends into and is adapted to slide freely in a longitudinal hole 11 in the bolt 5. The function of said rod is to hold and guide a helical spring 12, which is coiled about it, being free to press down upon the head of the bolt and tending to force it into engagement with the fixed hook or jaw 3 or seating it upon a coat or garment hung thereon.

The means provided for locking the bolt 5 in such engagement is curved or obtuse-angle tumblers or pawls 13, Fig. 6, which are pivoted at their angle and so arranged that their lower ends may engage rack-teeth 14, formed in parallel rows on the front side of the bolt 5. (See Fig. 6.) They are held normally in

such engagement by a plate-spring 15, Figs. 2, 3, and 6. The upper ends of said pawls 13 project normally, Fig. 2, slightly above the lower edge of a vertical key slot or socket 16, Figs. 1 and 2, formed in the front side of the bolt-chamber, and such ends are provided with lateral flanges or projections 17, with which the key 18 comes in contact when introduced, as shown in Fig. 3.

As shown in Figs. 3 and 8, the flat key 18, constructed of sheet metal, has a straight lower edge 19, while its upper edge is composed of a straight inclined or diagonal portion 20 and short straight portions 21 and 22 at each end of the incline 20, also with a shoulder 23 at the outer end. The functions of these several portions will be hereinafter apparent.

The operation of my invention is as follows: Suppose the device to be secured to a wall and the bolt 5 to be in normal closed position, as shown in Figs. 1 and 2. Then to open the same the key 18 is inserted in the slot 16 and pushed straight inward horizontally until it reaches the position shown in Fig. 3. In such movement the point of the key strikes the upper ends of the pawls 13, disengaging the latter from the bolt 5 and throwing them into the position shown in Fig. 3, whereby the bolt 5 is left free to slide upward whenever sufficient force is applied to overcome the tension of the coiled spring 12, which is done by medium of the inclined portion 20 of the key 18, working in sliding contact with the similarly-inclined portions 5^b of the bolt-arm 5^a until the key is arrested by its shoulder 23, in which position it locks the bolt 5 in raised position, as shown in Fig. 3. This lock is produced chiefly by contact of the straight horizontal portions of the key 18 with the corresponding portions of the bolt and chamber 6. The inner wall of the chamber is slotted at 24 to receive the key, Figs. 2 and 3. While the bolt 5 is thus held elevated by the key 18, it is apparent the jaw or hook 3 may be used for suspending a hat, coat, or other garment like the ordinary open hooks in common use; but by withdrawing the key 18 the bolt 5 is instantly forced down by its spring 12 upon and into contact with the hat or other garment thus suspended, as shown in Fig. 9, and the tumblers 13, being no longer retracted by reason of contact with the key, at the same time reëngage the rack-teeth 14 and lock the bolt so securely as to absolutely prevent removal of the hat or other garment. This engagement and the locking position of the bolt are fully illustrated in Figs. 2 and 6.

As shown best in Fig. 6, the rack-teeth of the two opposite rows 14 alternate in position, so that each tooth of one row is directly opposite a notch or interdental space in the adjoining row. The pawls have unequal angles or curves and equal length, but are pivoted on the same journal 25. By this construction and combination of parts it is apparent (see Fig. 6) that one pawl will engage or seat upon a tooth of one rack and thus lock the bolt 5, while the other pawl bears against the end of a tooth in the adjacent row without actual locking engagement. The advantage of this is that a finer adjustment of the bolt 5 is obtained than would be practicable if one pawl and one rack were used.

The upper ends of the pawls are separated, so that one is acted on by the key in advance of the other until it clears its engaging tooth. Then both pawls move together.

The key 18 is crimped or corrugated longitudinally and the sides of the key-slot have a corresponding shape, so that no differently-constructed key can be used in its place.

By slight changes in the crimps or corrugations of the keys and key-slots a great number of devices may be provided which are not interchangeable.

The upper side portion of the body 1 is provided with opposite horizontal flanges 26, Fig. 1, which serve as guides for receiving and holding a card bearing the name of the person who owns or customarily uses the device; but I show in Fig. 9 my preferred construction for this purpose, the same consisting of triangular claws or teeth 27, which are formed by slitting the body of the plate 1 and bending them outward and curving them inward, so that the teeth of the two opposite rows project toward each other. Thus the claws are integral with the plate 1 and produced at minimum cost in the process of manufacture.

I desire it understood that a recess or chamber for the locking-bolt is not indispensable, since it is obvious it may be arranged in open guides.

What I claim is—

1. An improved hat and coat locking device comprising a rigid body portion having a fixed hook or jaw arranged in front of a recess, and a recessed or chambered front upper portion provided with key-slot, a slidable locking rack-bolt arranged in such chamber above the fixed jaw, and working between parallel guide-walls, and one or more pivoted spring-actuated pawls whose lower ends engage the bolt, their upper ends projecting into proximity to the aforesaid key-slot, substantially as shown and described whereby the pawls normally lock the bolt automatically in the closed position, but are tilted and released therefrom when the key is inserted, as specified.

2. The improved hat and coat locking device, comprising a flat rigid body adapted to be secured vertically to a wall or other support, its front lower portion being formed at a forwardly-projecting hook or jaw, and its front upper portion provided with a recess or chamber having vertical guide-walls and a key-slot in its front edge, a slidable spring-pressed locking-bolt arranged between said walls and directly over the fixed jaw, and having rack-teeth on its front side, also provided with an inclined surface as specified, one or

more spring-actuated pawls, pivoted in front of the bolt, and their upper ends lying between its inclined surface and the aforesaid key-slot, substantially as shown and described to operate as specified.

3. In a hat and coat locking device, the rigid body having the fixed lower hook, or jaw, and a recessed upper portion having a key-slot, a spring-pressed slidable bolt arranged in the recess, and having an inclined surface which is opposite said slot when the bolt is in normal position, and also one or more horizontal portions adjacent to the incline, and a key having its upper side constructed with an inclined and horizontal portion adapted to work in sliding contact and also lock with the corresponding surfaces of the bolt for raising the latter and holding it raised, all combined substantially as shown and described.

4. The combination with the rigid body portion having a fixed lower hook or jaw, a recessed, or chambered upper portion having a key-slot, as specified, a slidable spring-pressed bolt or movable jaw arranged in such recess, one or more pivoted pawls, which normally engage the bolt and project above the lower edge of the key-slot; said bolt having an inclined surface and shoulder, and the key having a corresponding inclined edge and shoulder for engaging the bolt, to raise and lock it as specified.

5. In a hat and coat locking device, the combination with the rigid body having a fixed hook or jaw and recessed or chambered upper portion provided with a key-slot, of a bolt or movable jaw adapted to slide and having two rows of rack-teeth which alternate in position as specified and two pivoted pawls whose upper ends are separated so that one is acted on by the key in advance of the other, and they are never in engagement simultaneously with the rack-teeth, substantially as shown and described.

6. In a hat and coat locking device, the combination with the rigid body having a fixed hook or jaw and a recess or chamber provided with key, guides, one or more pawls and a locking rack-bolt which is slidable in the chamber and constitute, the movable jaw, of a key which having its upper and lower edges conformed to the aforesaid key-guides and surfaces on the bolt substantially as shown and described for the purpose specified.

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Witnesses:
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M. D. BLONDEL.