Feb. 4, 1947. C. M. WOODWARD 2,415,122

COMBINATION DOOR LATCH AND HANDBAG SHELF

Filed May 8, 1945

FIG. 1.

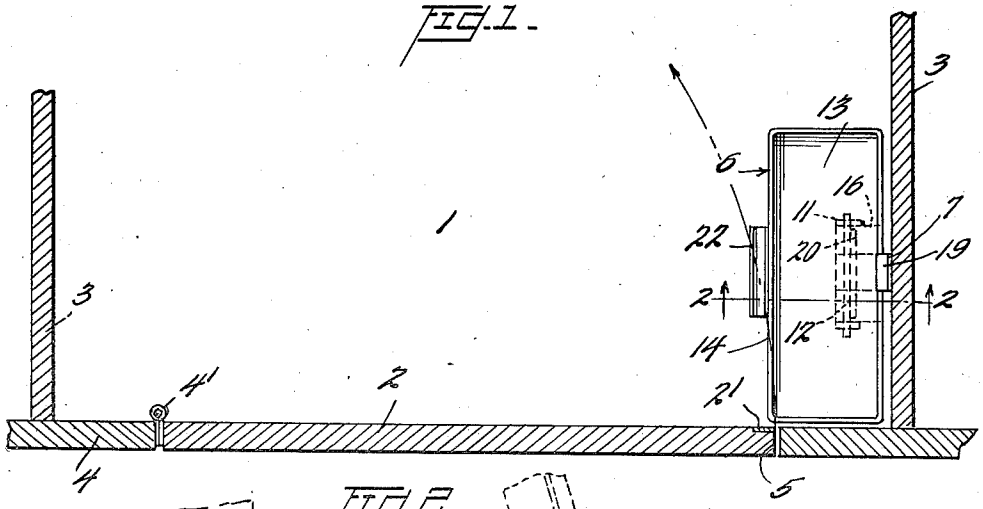


FIG. 2.

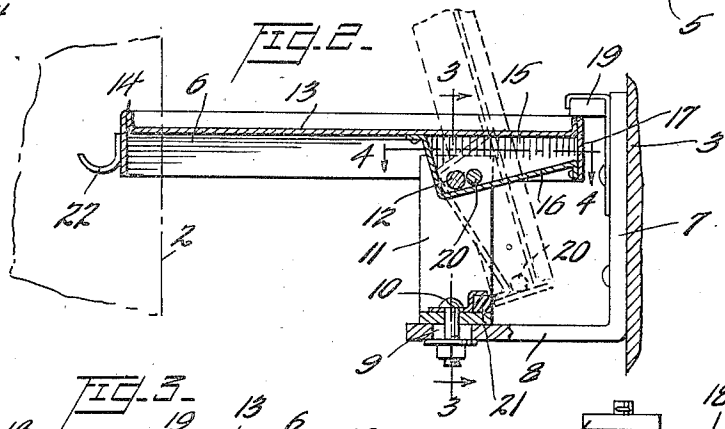


FIG. 3.

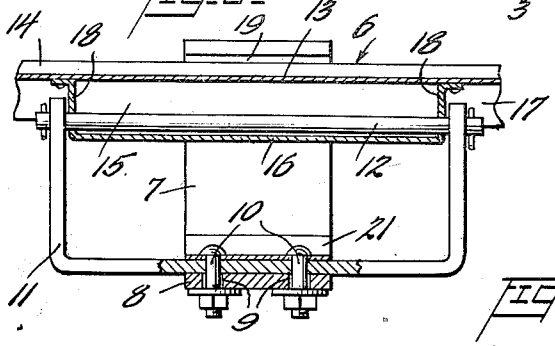
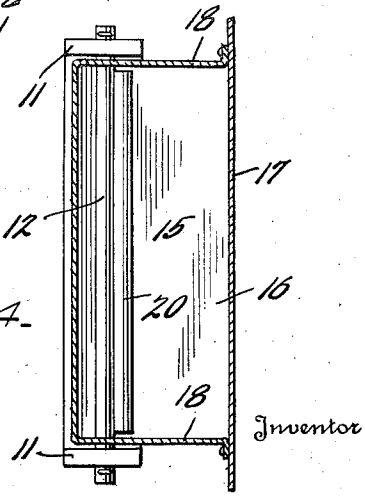


FIG. 4.



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COMBINATION DOOR LATCH AND HANDBAG SHELF

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4 Claims. (Cl. 292—230)

(Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757)

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The invention described herein may be manufactured and used by or for the Government of the United States for governmental purposes without the payment to me of any royalty thereon in accordance with the provisions of the act of April 30, 1928 (Ch. 460, 45 Stat. L. 467).

This invention relates particularly to a shelf for ladies' toilets, washrooms, etc., which is so arranged and constructed as to serve as a door locking means when the shelf is in operative position, and which will permit free opening of the door only when the shelf is tilted into inoperative position.

Ladies' purses, handbags and the like are frequently inadvertently left in toilets and washrooms, and it is the purpose of this invention to obviate these losses as far as possible by providing a conveniently located shelf for the reception of such articles, which articles must be removed from the shelf before the door to the toilet enclosure can be opened by the occupant.

With this in view, the invention consists of the novel details of construction and combination of parts, all of which will first be fully described and afterwards specifically pointed out in the appended claims.

Referring to the accompanying drawing:

Fig. 1 is a horizontal sectional view through a door and side panels or partitions of a conventional toilet enclosure and illustrating the door locking shelf in normal operative position.

Fig. 2 is a vertical transverse sectional view through the shelf taken on line 2—2 of Fig. 1 and showing the shelf in normal operative position in full lines and in tilted or inoperative position in dotted lines.

Fig. 3 is a vertical longitudinal sectional view through the shelf taken on line 3—3 of Fig. 2, and

Fig. 4 is a horizontal sectional view taken on line 4—4 of Fig. 2.

Like numerals of reference indicate the same parts throughout the several figures, in which: 1 indicates a toilet enclosure having a door 2 hinged to open inwardly of the room 1. 3 indicates the side panels or partitions and 4 the front wall. The front wall 4, as is usual, extends a short distance from the side panels or partitions 3 to form the opening for the door 2, which is butt hinged thereto at 4' so that the door lies flush with the front wall 4 but will not open outwardly. This construction provides a short space between the side panels or walls 3 and both edges of the door opening, and it is in the space adjacent the free edge 5 of the door 2, that I position the shelf 6.

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Secured to the side panel or partition 3 is an angle bracket 7 (Fig. 2) having its horizontal arm 8 provided with two slots 9 near its outer end. Fastened transversely on this horizontal arm 8 by means of bolts 10 passing through the slots 9 is a U-shaped yoke 11 which supports a horizontal shaft 12 at its upper end (Fig. 3). Said shaft 12 is retained as by cotter pins, as shown in the drawing.

Referring now to the shelf 6, which is best shown in Fig. 2, it is preferably formed of sheet metal or plastic having a top surface 13 surrounded by a shallow flange 14 similar to a tray.

Secured under the shelf 6 is a chamber 15 having a bottom 16 inclined downwardly from the side wall 17 of the tray toward the center thereof. The shaft 12 of the yoke 11 passes through the walls 18 of this chamber so that the chamber 15 and shelf 6 pivot on the shaft 12 so as to swing from full line position, in Fig. 2, to dotted line position.

As will be seen from Figs. 1 and 2, the shelf pivoting shaft 12 does not lie along the center of the shelf, but to one side of the center so that the shelf will retain its horizontal position and its side flange 14 will engage the resilient stop 19 at the top of the angle bracket 7, as shown in Fig. 2.

In order to hold the shelf 6 in its tilted, inoperative position, as shown in Fig. 2, I provide a piece of round metal rod 20, or other type of shifting counter-balance, within the chamber 15 so that it will roll freely along its inclined bottom 16. As the shelf is tilted into position shown in dotted lines in Fig. 2, the metal rod 20, or counterbalance, will roll down to the edge of the chamber, as shown, and hold the shelf in its tilted position and against the resilient stop 21 on the yoke 11, by gravity.

If desired, a cigarette tray 22 may be attached to the side wall 17 of the tray 6.

Having thus described the invention, its operation is as follows:

The shelf 6 must be tilted into position shown in dotted lines in Fig. 2 in order to open the door 2. Therefore, during the periods that the toilet enclosure is not in use the door 2 may be freely opened to permit ingress into the toilet enclosure.

In order to lock the door 2, the occupant lowers the shelf 6 into its horizontal position which causes the same to extend over into the path of the door 2, as shown in Fig. 1. A wear-plate 2' at the edge of the door protects the door from being marred. As the shelf 6 is caused to assume its horizontal position, the metal rod 20, or coun-

ter-balance, in the chamber 15 rolls down the inclined bottom 16 and rests against the shelf pivoting shaft 12, so that the shelf is maintained in its horizontal operative position by gravity. The shelf is in position to receive a bag, pocket book or other personal belongings of the occupant and as long as the shelf is thus being occupied, the door 2 is effectively locked.

In order for the occupant to emerge from the toilet enclosure, any bag, pocket book or personal belongings must be removed from the shelf before the shelf can be tilted into its door-unlocking position and the door 2 is opened.

It will thus be seen that the likelihood of the occupant of the toilet enclosure leaving any personal belongings behind is practically nil.

Having thus described the invention, I do not wish to be understood as limiting myself to the exact construction shown and described, as various changes and modifications may be made therein, and I consider myself clearly entitled to all such changes as fall within the limit and scope of the appended claims.

I claim:

1. An article receiving shelf for use as a door locking device which includes means for pivoting it so that the shelf will be in horizontal position in the path of a door to lock the same, a chamber under the shelf, said chamber having a bottom which is inclined downwardly from one edge toward the center of the shelf, and a rod within the chamber and adapted to roll to the edge of the chamber when the shelf is tilted into inoperative door-releasing position and to maintain the shelf in such tilted position by gravity, the whole arranged whereby upon depression of the shelf into horizontal operative door-locking position, the said rod will roll on the inclined bottom of the chamber toward the center of the shelf so that the shelf is maintained in its horizontal operative position by gravity.

2. An article receiving shelf for use as a door locking device which includes means for pivoting it so that the shelf will be in a horizontal position in the path of a door to lock the same, a chamber under the shelf, said chamber having a bottom which is inclined downwardly from one edge toward the center of the shelf, a member within the chamber and adapted to roll to the edge of the chamber when the shelf is tilted into inoperative door-releasing position, and to maintain the shelf in such tilted position by gravity, the whole arranged whereby upon depression of the shelf into horizontal operative door-locking position the said member in the chamber will roll on the inclined bottom of the chamber toward the center of the shelf so that the shelf is maintained in its horizontal operative position by gravity.

3. An article receiving shelf for use as a door locking device which includes means for pivoting it so that the shelf will be in a horizontal position in the path of a door to lock the same, a member associated with the shelf and movable with respect thereto and away from the center thereof when the shelf is tilted into inoperative-door-releasing position and to maintain the shelf in such tilted position by gravity, the whole arranged whereby upon depression of the shelf into horizontal operative door-locking position the said member is caused to move toward the center of the shelf to maintain it in its horizontal operative position by gravity.

4. An article receiving shelf for use as a door locking device which includes means for pivoting the shelf so that it may lie in horizontal door locking position or in vertical door-releasing position, a shiftable weight adapted to move from one extreme position to another, and means for movably connecting the same to the shelf, the whole arranged whereby the shelf is held in horizontal position by gravity when the weight shifts into one of its extreme positions, and is held in vertical position by gravity when the weight shifts in the other of its extreme positions.

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