March 20, 1951 J. J. MAYER 2,546,129

WASHBASIN LOCK FOR SLEEPING CAR ROOMS

Filed Aug. 23, 1948

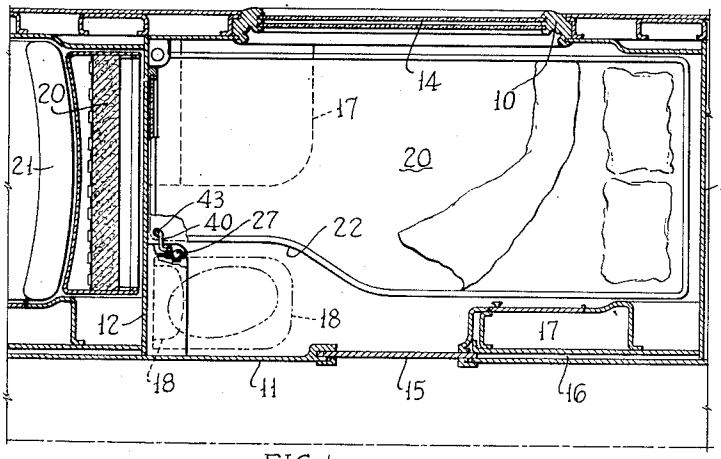


FIG. 1

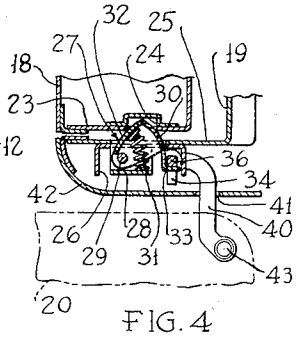


FIG. 4

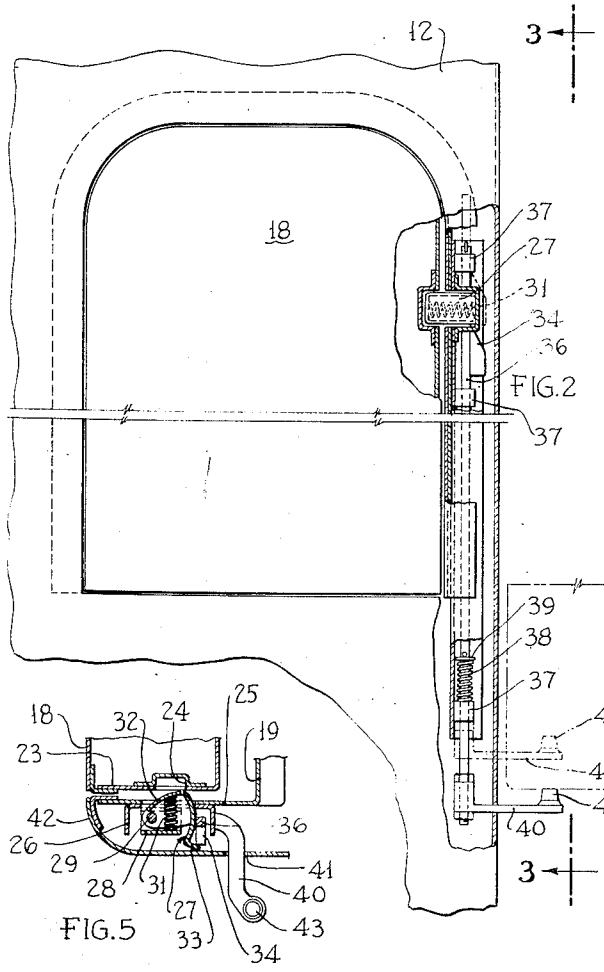


FIG. 2

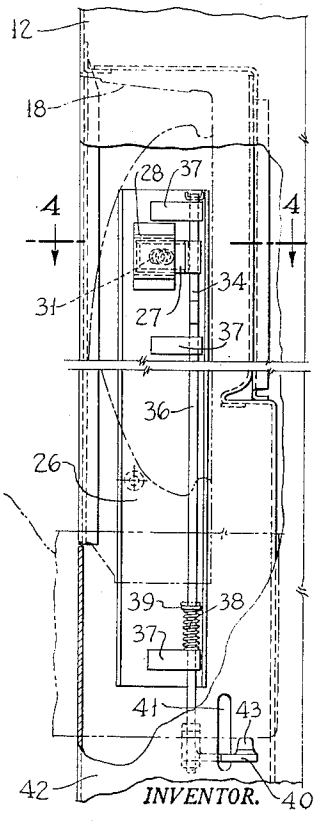


FIG. 3

FIG. 5

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Patented Mar. 20, 1951 2,546,129

UNITED STATES PATENT OFFICE

2,546,129

WASHBASIN LOCK FOR SLEEPING CAR ROOMS

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Application August 23, 1948, Serial No. 45,668

4 Claims. (Cl. 105—315)

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The invention relates to a bedroom arrangement and, more particularly, to an arrangement for single-occupancy bedrooms, such as are used on certain types of railway sleeping cars.

Such bedrooms are ordinarily arranged along opposite sides of a center aisle with their greatest dimension extending lengthwise of the car. They are of dimensions not substantially greater than the length and width of a bed, and are usually equipped with a folding bed, a folding seat, a hopper, a folding washbasin, a wardrobe and other accessories for the comfort and convenience of the person occupying such a room.

When the bed is extended for use, it extends over the hopper and thus renders the latter inaccessible when the bed is in this position. The washbasin is, however, mounted in such relation to the bed that it can be extended for use, even when the bed is in this extended use position. It is desirable to have the washbasin locked in its folded or inoperative position to avoid misuse of the washbasin when the hopper is inaccessible.

It is an object of the invention to provide a simple and inexpensive locking means for the washbasin which is rendered effective, in the movement of the bed to its extended use position, to secure the basin in its folded inoperative position when the bed is extended.

It is a further object of the invention to provide such a locking means which, if the washbasin is in extended or use position when the bed is moved to horizontal use position, is rendered operative by the movement of the bed, so that the washbasin is automatically locked if it is swung to folded position after the bed is moved to use position.

These objects and other and further objects and advantages will become apparent from the following detailed description when read in connection with the accompanying drawings forming a part of this specification.

In the drawings, which are more or less diagrammatic,

Figure 1 is a sectional plan view through one room and part of an adjacent room equipped according to the invention, the bed being shown in operative or use position and the folding washbasin being shown in dotted lines in folded or inoperative position and in dot-and-dash lines in extended or use position;

Figure 2 is an enlarged elevational view of the wall in which the washbasin is folded, parts being broken away and parts shown in section, and the bed being indicated fragmentarily in dot-and-dash lines in its use position;

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Figure 3 is an elevational view looking toward the parts shown in Figure 2 along the line 3—3 of Figure 2, parts being broken away and shown in section;

Figure 4 is a detail sectional view through the washbasin latch and adjacent parts, the section being taken along the line 4—4 of Figure 3; and

Figure 5 is a view similar to Figure 4 showing the position of the parts when the latch is retained in its inoperative position.

In the form of the invention selected for illustration, the room in which the invention is embodied is generally similar and similarly arranged in the car to the rooms shown in copending application Serial No. 583,259, "Sleeping Car Arrangement," filed March 17, 1945.

The room is bounded by the longitudinally extending car side wall 10 on the one side, and the aisle wall 11 on the opposite side, and longitudinally spaced transverse end walls 12. In the car side wall, the room is provided with a large window 14 and, in the aisle wall, it is provided with a doorway and door 15, the latter sliding into a recess 16 when opened. The doorway is shown arranged approximately centrally of the lengthwise extent of the room, and along the aisle wall at one side of the doorway is arranged a wardrobe 17 extending toward one end wall 12 of the room.

Adjacent the opposite transverse wall 12 of the room, a hopper 17 is disposed in the corner between said transverse wall and the car side wall, and the folding washbasin 18 is foldable into a recess 19 on said transverse wall adjacent the aisle side of the room. When the room is made up for day-time occupancy, the bed 20 is folded about a pivoted connection (not shown) to the vertical position against the transverse wall 12, as shown at the left of Figure 1 in the next adjoining room. A seat and seat back 21 is then positioned with its back resting against the bottom of the bed.

When the bed is moved to the operative position shown, the seat and seat back fold down under the bed, as shown in the above referred to application, and the bed extends substantially from end wall to end wall of the room and nearly across the entire width of the room. It is locked in this position by any suitable means (not shown).

Preferably, to provide standing-room space between the bed and the aisle wall and to permit the lowering and raising of the bed with the occupant standing in this space, the inner side of the bed is provided with an offset portion 22 narrowing the width of the bed in this re-

gion. This narrowed bed portion extends from adjacent the doorway to the foot end of the bed. The offset also provides the necessary width between the inner margin of the bed and the aisle wall to permit the mounting of a washbasin 18 of suitable size on the adjacent transverse wall. As shown in Figure 1, when the washbasin is lowered, it extends part-way into this space, so that even when the bed is down, the occupant can stand in front of the basin when it is in open position. Ordinarily, since the space is restricted by the extended washbasin, the operator would naturally move the washbasin to the folded position, shown in dotted lines in Figure 1, before lowering the bed to the horizontal use position. However, if he should fail to do so, no harm to the washbasin would result by the lowering of the bed, inasmuch as the paths of movement of the two lie outside each other, and the washbasin can be moved to the folded position after the bed is lowered.

The wash basin can be operated freely except when the bed is in its operative use position. If the basin should be left in extended position, while the bed is being moved to the operative position, the basin can still be folded to the inoperative position when the bed is in said operative position. As soon as the basin reaches such folded position, it will be positively and automatically locked. The means by which the control of the wash basin is accomplished will now be described in detail.

The side 23 of the washbasin adjacent the bed is provided with a recess forming a locking shoulder 24. The adjacent side 25 of the recess in which the washbasin folds carries the mechanism for controlling the locking of the basin. This mechanism may be mounted on a channel-shaped base plate 26 secured to the outer face of the basin-receiving support. Opposite the recess forming locking shoulder 24 is provided an opening in the side 25 and base plate 26, and a latch 27 is mounted on a bracket 28 by a hinge pin 29 so as to swing through said openings to engage, through a rounded locking face 30 thereon with the locking shoulder 24, as shown in Figure 4. A coil spring 31 reacting between the latch and its mounting bracket constantly urges the latch toward its locking position. The latch is also provided with a cam face 32, which is engaged by the washbasin side to swing the latch aside when the washbasin is moved to its inoperative position.

As shown in Figures 1 to 4, inclusive, the latch 27 is free to move into engagement with the locking shoulder 24 under the action of its spring 31. This is the condition in which the bed is in the down or operative position, as shown in these figures.

Normally, i. e., when the bed is in folded or inoperative position, the latch is retracted to the position shown in Figure 5, and the washbasin can be operated freely. To effect such retraction, a flange 33 is provided on the free edge of the latch, and this flange is engaged by cam 34 movable parallelly to the pivot of the latch. Preferably, the cam 34 is carried by a rectangular bar 35 guided in spaced brackets 37 on the base plate 26. Normally, the cam is held in raised position shown in dotted lines in Figure 2 and in full lines in Figure 5, where it restrains the latch in the inoperative position, by a coil spring 38 encircling the bar 36 and reacting against one of the brackets 37 and a shoulder 39 on the bar 36. This spring 38 must be sufficiently strong to overcome the spring 31 and the frictional resistance between the latch flange 33 and the cam 34.

As shown in the figures, the bar 36 has secured to its lower end a laterally extending arm 40 of roughly S-form in plan, this arm projecting through a vertical slot 41 in the fairing sheet 42 closing the side of the washbasin support. At its outer end, the arm 40 is formed with a rubber bumper 43, which lies in the path of the bed and is adapted to be engaged by the bottom of the bed to move the cam 34 out of restraining engagement with the latch in the last of the downward movements of the bed to its use position. While the bed is locked in its use position, the cam is thus held in inoperative position, freeing the latch to be moved by its spring to engage the washbasin shoulder 24 and lock the basin in its inoperative position.

Since the latch 27 and its control mechanism are all mounted on the base plate 26, they can be readily assembled with this on a bench and the base plate unit so formed finally assembled or disassembled with the room wall supporting the basin.

The operation of the device is believed clearly understandable from the foregoing description.

While a specific form of the invention has been described in detail, it will be understood that changes and modifications may be made by those skilled in the art without departing from the main features of the invention, and such changes and modifications are intended to be covered by the appended claims.

What is claimed is:

1. In a room, a washbasin movable between operative and inoperative positions, a latch for locking said basin in its inoperative position, means constantly urging said latch toward its locking position, means biased to lock the latch in its inoperative position against the action of said urging means, and a bed movable between operative and inoperative positions, said biased means being operable by the bed against its bias, when the bed is moved to its operative position, to free the latch and permit it to be moved to its operative position under the action of said urging means.

2. In a room, a washbasin movable between operative and inoperative positions, a latch for locking said basin in its inoperative position, a spring urging the latch toward its locking position, means for locking the latch in its inoperative position, a spring for moving said means to its locking position, and a bed movable between operative and inoperative positions, said means being operable by the bed, when the bed is moved to its operative position, to free the latch and permit it to be moved to its operative position under the urging of its spring.

3. In a room, a washbasin movable between operative and inoperative positions, a spring-pressed latch for automatically locking said basin upon movement of the basin to its inoperative position, cam means normally locking said latch, against the pressure of its spring, in an inoperative position, a spring for moving said cam means to, and normally holding it in, its locking position, a bed movable between operative and inoperative positions, and means projecting into the path of movement of said bed and connected to said cam means for moving the latter, against the action of its spring means, out of locking engagement with said latch when the bed is moved to its operative position, thereby freeing the latch and

permitting it to be moved to its operative position under the action of its spring.

4. In a room, a bed foldable against one end wall of the room and movable to horizontal use position in which it extends substantially to the opposite end wall of the room from said first-named end wall, a hopper adjacent said opposite end wall of the room rendered inaccessible by the bed when the latter is in its use position, a folding washbasin mounted on a room wall and movable between folded and horizontal use positions, means for automatically locking said washbasin when moved to its folded position while the bed is in horizontal use position, and means for normally retaining said locking means in an inoperative position, said last-named means being operable by the bed, when the bed is moved to its horizontal use position, to release said locking means to enable it to perform its locking function.

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