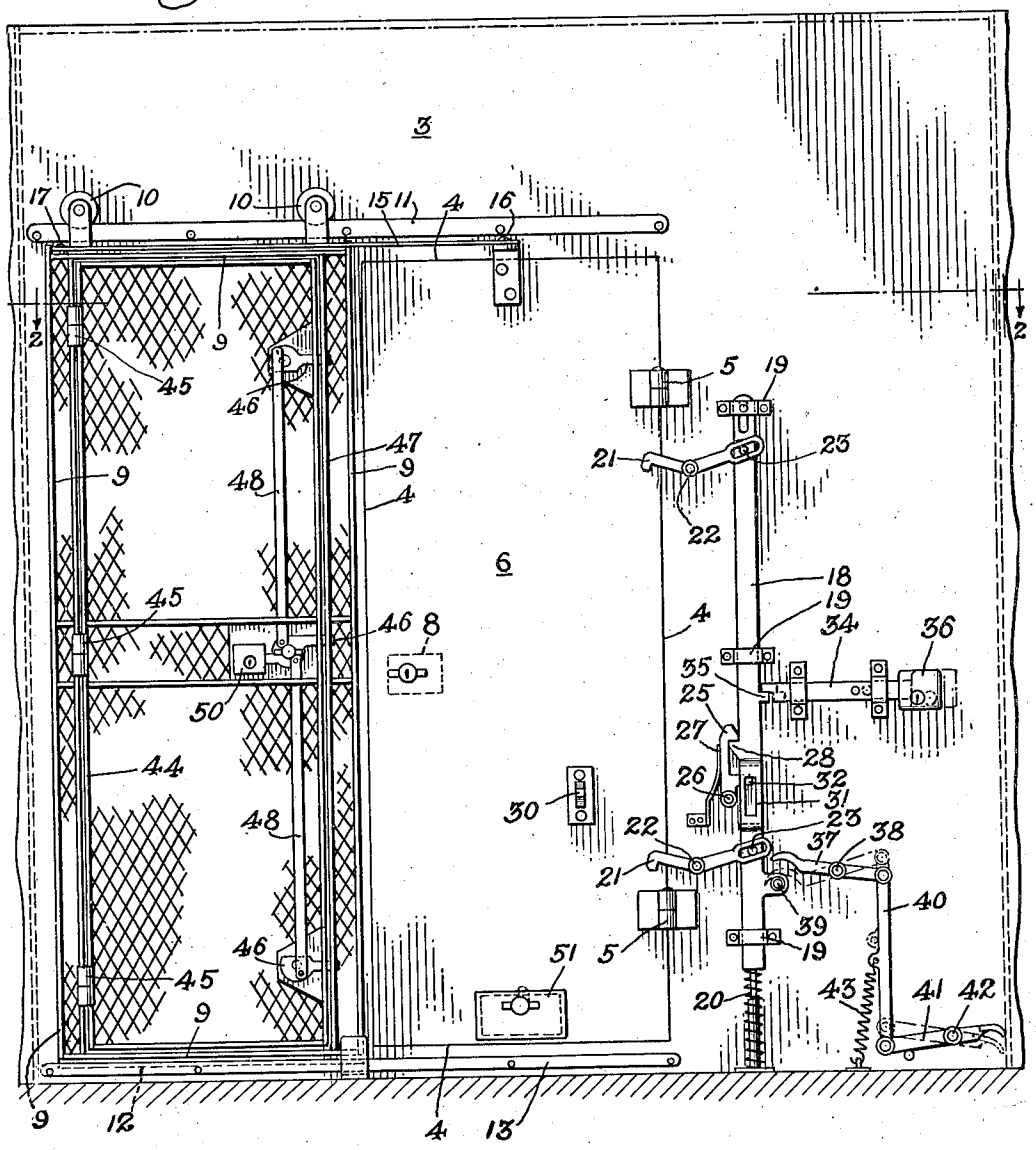
April 9, 1946. J. E. CREECH 2,397,926

DOOR CONSTRUCTION FOR CUSHIONED CELLS

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Fig. 1.



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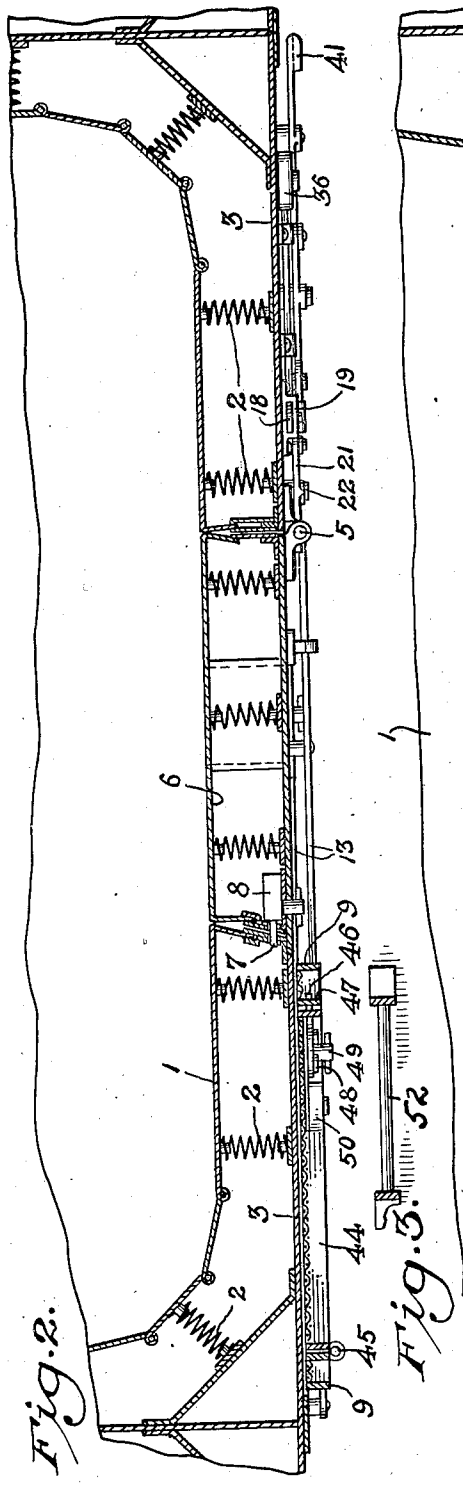


Fig. 2.

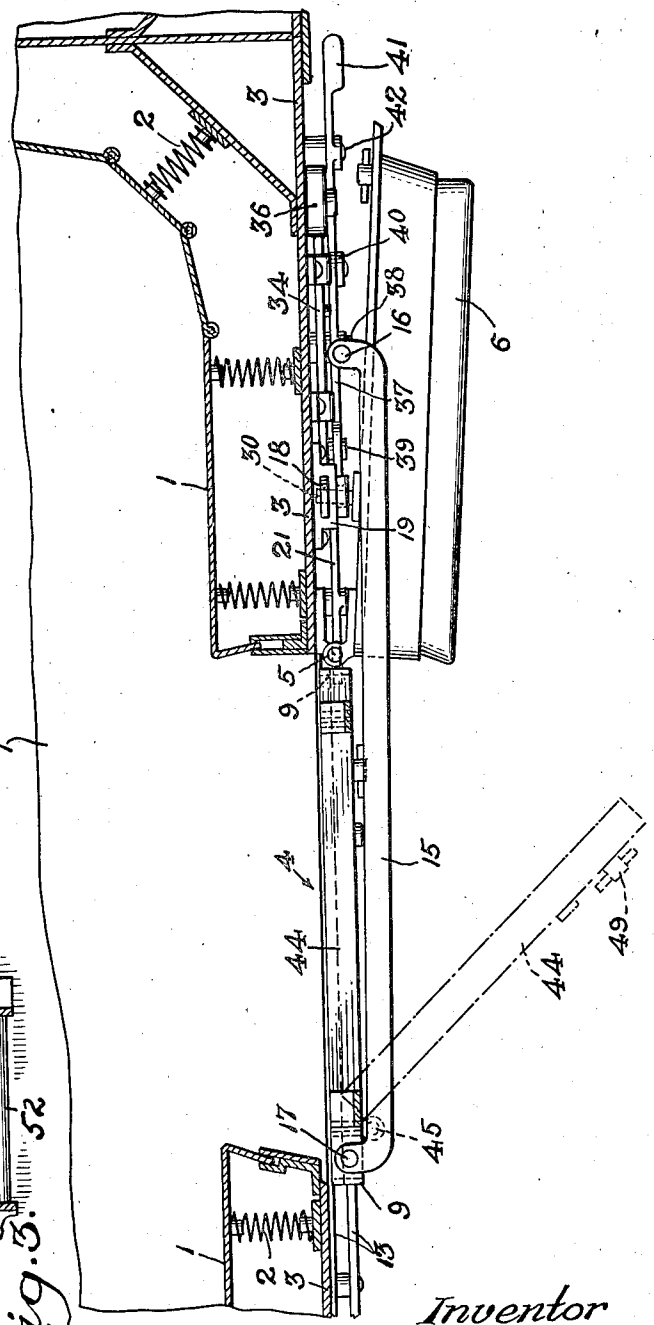


Fig. 3.

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Fig. 4.

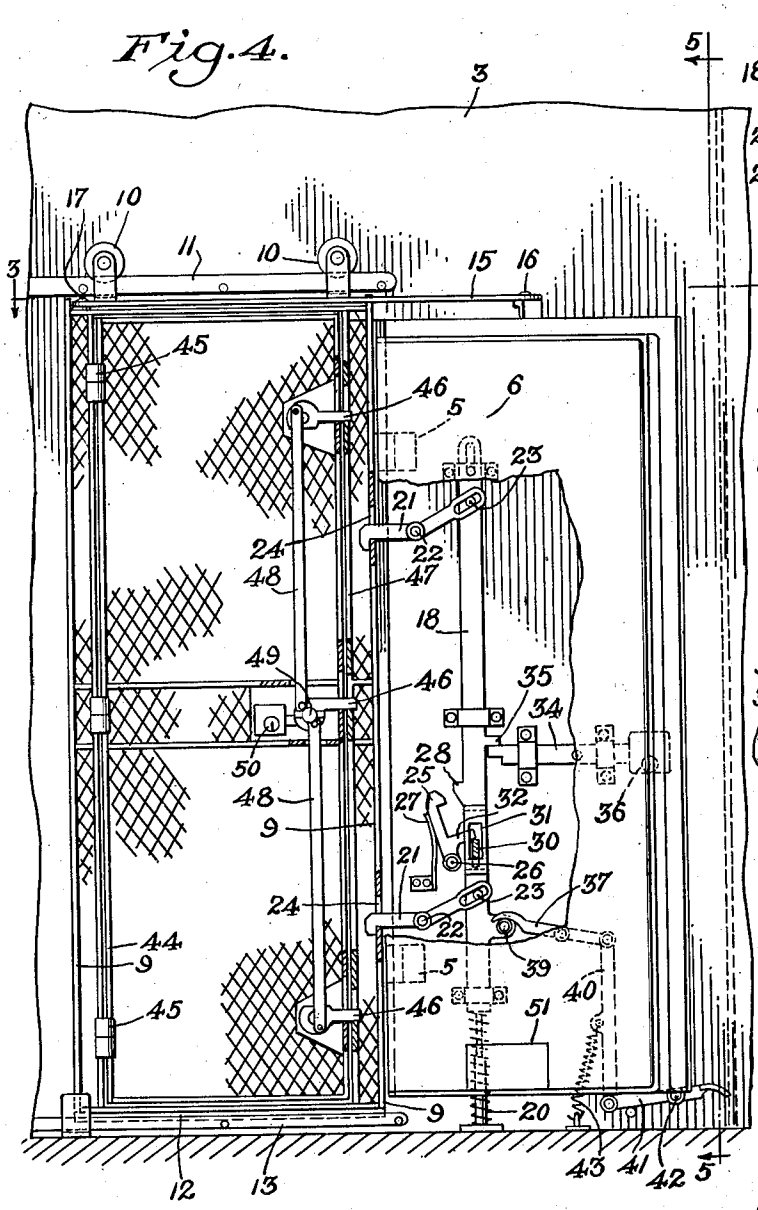
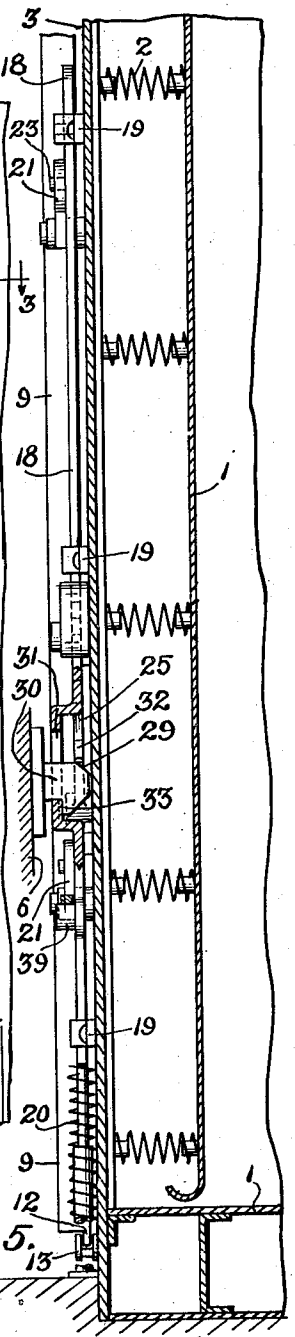


Fig. 5.



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DOOR CONSTRUCTION FOR CUSHIONED CELLS

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3 Claims. (Cl. 189—5)

The invention relates to cushioned cells for confining violent prisoners and mental patients, as, for example, the type of cell disclosed in my Patent No. 2,323,455. The general object of the invention is to facilitate the rendition of service to the occupant of the cell without danger to the attendant, and particularly to protect the attendant from attack by the occupant when the main door is opened.

The accompanying drawings disclose one embodiment of the present invention, Figure 1 being a fragmental front view of the cell. Fig. 2 is a horizontal section on line 2—2 of Fig. 1, the door mechanism being in closed position. Fig. 3 is a fragmental view on line 3—3 of Fig. 4, showing the door mechanism in open position. Fig. 4 is a view similar to that of Fig. 1, but showing the door mechanism in open position. Fig. 5 is a vertical sectional view on dotted line 5—5 of Fig. 4.

The supporting framework of the cell may be of any desired construction. The interior surfaces of the cell walls and floor are formed of smooth, flexible, imperforate sheets 1 of metal or any other suitable material yieldingly supported by means of springs 2 or the like.

The front wall of the cell is shown in cross-section in Figs. 2 and 3. The outer surface or face of the front wall is indicated at 3. In the front wall is formed a door opening 4. Hinged to the front wall of the cell at 5 is a main door 6 adapted to fit within and close the opening 4. The inner surface of the door 6 is constructed similarly to that of the walls and floor, so as to be smooth, imperforate and resilient, as indicated in Fig. 2. The door 6 may be locked in closed position by any suitable means, as, for example, a bolt 7 (Fig. 2) entering a slot in the wall of the door opening and operated by a locking mechanism 8 on the door.

A rectangular barrier 9 (Fig. 1) is provided of a size to cover the door opening 4 when the main door 6 is in fully open position, as shown in Fig. 3. The barrier 9 is mounted in any suitable way to slide parallel with the front wall of the cell into and out of position to close the door opening 4. Herein I have shown supporting rollers 10 journaled on the upper edge of the barrier to run upon a horizontal track bar 11 mounted on the front wall of the cell above the door opening 4. The lower edge of the barrier is guided in any desired way, as by means of a guide bar 12 fixed to the lower edge of the barrier and sliding in a horizontal channel bar 13 fixed to the front wall of the cell below the door opening 4.

The barrier 9 is caused to move in unison with the main door 6 by means of a link 15 (Fig. 3) pivoted at one end to the door 6 at 16, and at its opposite end to the barrier at 17. When the door 6 is in closed position, as shown in Figs. 1 and 2, the right-hand edge of the barrier 9 is relatively close to the left-hand or free edge of the door 6. Thus, as the door 6 is swung open, the barrier 9 moves in unison to restrict the gap between the doorway and the door, the clearance or open space between the outwardly-swinging door and the advancing edge of the barrier being so narrow as not to permit the occupant of the cell to reach and injure the attendant.

Means is provided to lock the door 6 and the barrier 9 in the position shown in Figs. 3 and 4. The means herein disclosed for this purpose comprises a bar 18 (Fig. 1) mounted on the front wall of the cell to slide up and down in guides 19. A compression spring 20 tends to raise the bar into locking position. Two latch levers 21 are pivoted on the front wall of the cell at 22 and are connected to the bar 18 by means of pins 23 on the bar sliding in elongated openings in the levers. These levers are adapted to enter openings 24 in the right-hand edge of the barrier 9 and engage the bottom wall of said openings to latch the barrier in effective position, as shown in Fig. 4.

The bar 18 is normally held down in the position represented in Fig. 1 by means of a latch 25 pivoted at 26 to the front wall of the cell and urged by a spring 27 into position to engage a shoulder 28 on the bar 18. As the door 6 swings into the fully-open position, the latch 25 is automatically withdrawn into ineffective position by means of a cam surface 29 (Fig. 5) on a lug 30 mounted on the outer side of the door 6 in position to enter a vertically elongated opening 31 in the bar 18 and press upwardly the arm 32 of the latch 25. When the latch 25 releases the bar 18, said bar moves up to place the lower wall of the opening 31 behind a locking shoulder 33 on the lug 30, thereby locking the door 6 in open position and the barrier 9 in effective position, as shown in Fig. 4. The barrier is held in effective position through its link connection with the locked door 6, but is also latched by the levers 21 which engage the lower walls of the openings 24 in the barrier, as shown in Fig. 4, when the bar 18 is moved upwardly by the spring 20. Both door and barrier may be further deadlocked by means of a lock bolt 34 mounted to slide horizontally on the front wall of the cell in position to lie beneath a lug 35 on the bar 18. 36

is the key-operated locking mechanism of the bolt 34.

Means is provided to release the door 6 and the barrier 9, which means is herein shown as being pedal-actuated. In Fig. 1, 37 is a lever pivoted on the front wall of the cell at 38, one arm of the lever overlying a stud 39 on the bar 18, and the other arm being connected by a link 40 to one arm of a pedal 41 pivoted at 42 on the front wall of the cell. A contractile spring 43 normally holds the lever 37 in disengaged position. When the parts are in the position shown in Fig. 4, withdrawal of the bolt 34 will permit actuation of the pedal lever 41 to depress the bar 18, thereby disengaging said bar from the lug 30 and withdrawing the latch levers 21 from the coacting shoulders on the barrier 9. The depression of the bar 18 also enables the latch 25 to engage the shoulder 28 on said bar, thus latching the bar in its ineffective position. The bar may be deadlocked in such position by means of the bolt 34, as shown in Fig. 1.

The barrier 9 comprises a hinged portion or gate 44 of suitable size and form to permit the passage of the occupant or the attendant into and out of the cell when the barrier is in the position shown in Figs. 3 and 4. The gate 44 consists of a rigid frame filled with heavy wire mesh or the like. The gate is hinged to the barrier at 45 so as normally to lie in the same vertical plane as the remainder of the barrier, as shown in full lines in Figs. 3 and 4. The gate may be locked in such position by means of latches 46 (Fig. 4) pivoted on the gate in position to engage within vertically elongated openings in a bar 47 forming a rigid part of the barrier. The latches are interconnected for unison movement by links 48 and are moved into and out of effective position by a handle 49 (Fig. 3) fixed to the middle latch 46. 50 is a key-operated locking mechanism on the gate to lock the latches in closed position. The handle 49 and lock 50 are on the outside of the gate 44 and of course inaccessible to the occupant.

In the lower portion of the door 6 is a removable section 51 (Fig. 1) for use in passing food, etc., into the cell without the necessity of opening the door.

The cell is preferably open at the top, save for a wire mesh covering (not shown), so that the interior of the cell can be viewed without opening the door. 52 (Fig. 2) is a ladder secured to the cell and affording means to ascend to view the interior of the cell. The ladder is so located as to prevent opening of the gate 44 when the barrier 9 is in its withdrawn position.

From the foregoing description it will be apparent that the attendant can open and close the door 6 without danger of injury from the occupant of the cell. As the door is swung open, the right-hand edge of the barrier is automatically inserted into the gap between the door and the doorway to maintain said gap at a practicable minimum. While the door is open, the barrier and the door are effectively locked by means out of reach of the occupant. When the door is closed, it presents an interior cushioned surface, like the remainder of the interior surface of the cell, to reduce to a minimum the possibility of self-inflicted injury by the occupant. While it may be possible for the occupant to injure himself on the barrier, it will be understood that the barrier is in use only at infrequent intervals and for short periods.

It will be seen that the door 6 and the barrier 9 constitute two barriers for the doorway 4, said barriers being arranged to be automatically substituted one for the other for the purpose of barring passage through the doorway 4.

I claim as my invention:

1. A cushioned cell provided with a doorway, a door having an inner cushioned surface and hinged to swing into and out of position to close the doorway, a barrier for the doorway automatically insertable into the doorway as the door is swung open, whereby the barrier is automatically substituted for the door as a bar to the passage of the occupant through the doorway, and automatically withdrawable from the doorway when the door is swung shut, and a gate in the barrier registering with the doorway to permit entrance directly into the doorway when the door is open.

2. A cell having a doorway, two barriers arranged to be automatically substituted one for the other to extend across the doorway to prevent passage through the doorway, and a gate in one of said barriers registering with the doorway to permit entrance directly into the doorway when the last-mentioned barrier extends across the doorway.

3. A cell having a wall provided with a doorway, a door hinged to swing into and out of position to close the doorway, a barrier comprising a rigid rectangular frame mounted to slide as a unit parallel with the wall into and out of position to extend across and close the doorway, said frame having a gateway for the passage of an attendant through the frame and said doorway, a gate hinged to said frame and having means to secure the gate to the frame to close the gateway, and means connecting the frame to the door to cause the frame to slide to close the doorway as the door is swung open, said gate registering with the doorway when the frame is in doorway-closing position.

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