

May 9, 1933.

F. ALBACH

1,908,211

WARDROBE OR LOCKER

Filed July 27, 1932

2 Sheets-Sheet 1

Fig. 1.

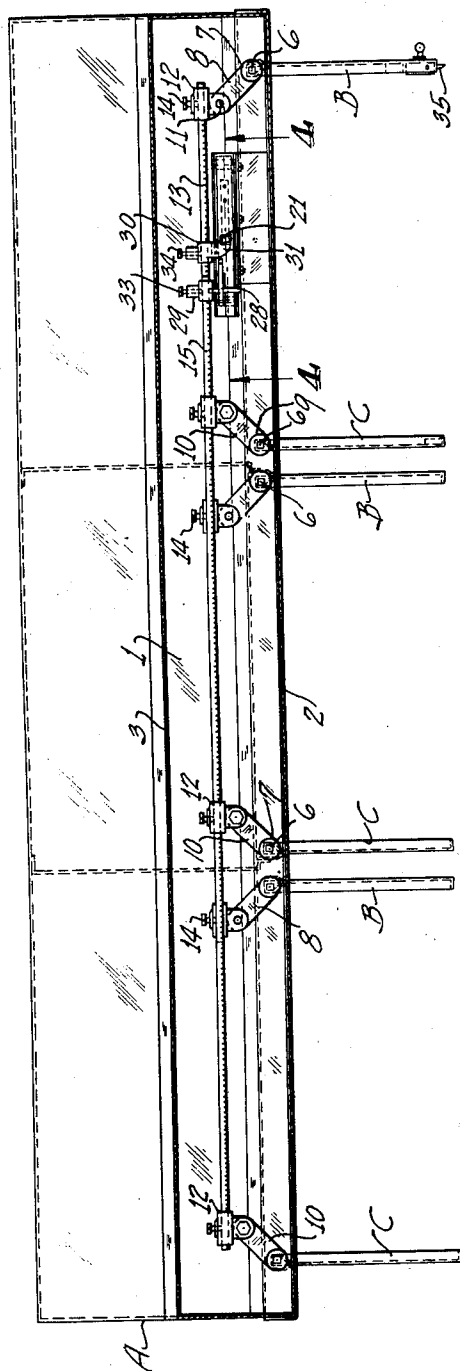


Fig. 3.

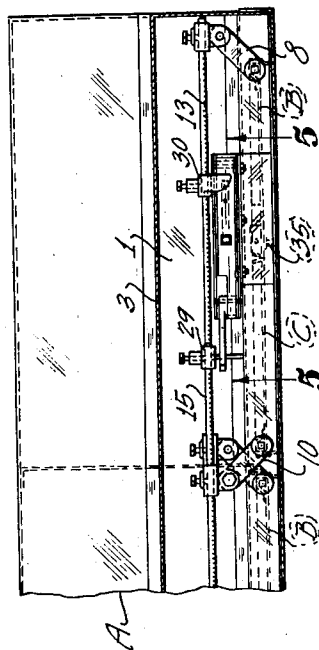
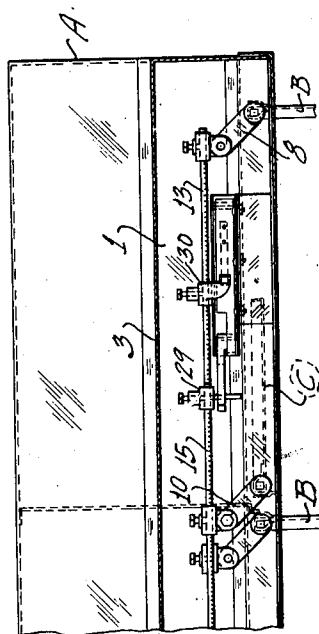


Fig. 2.



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Fig. 4.

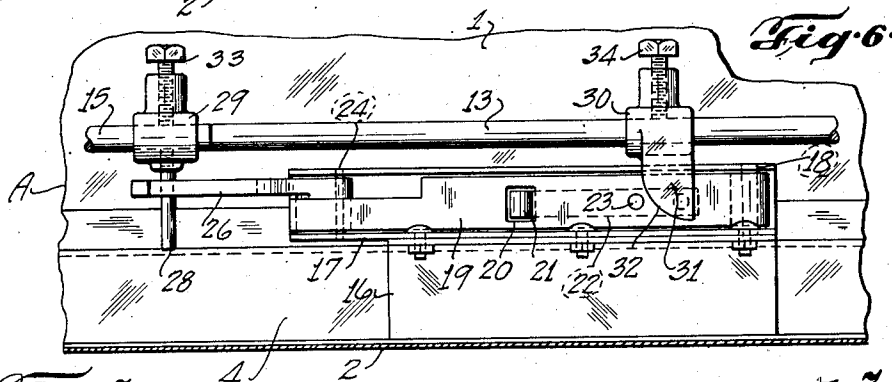
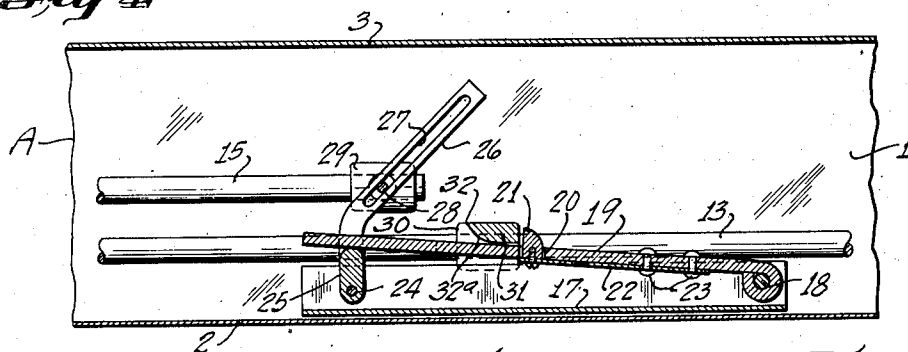


Fig. 5.

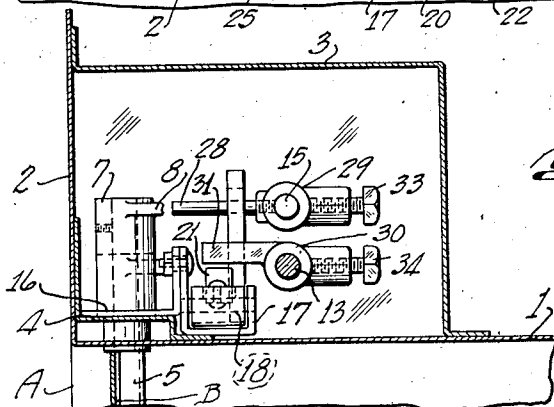
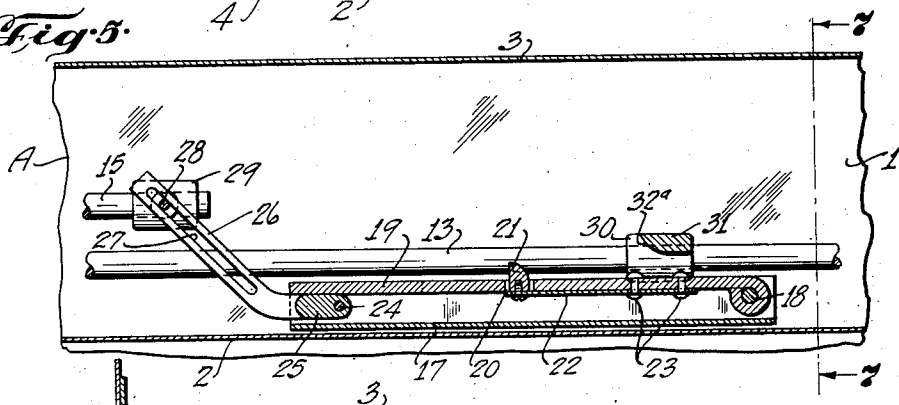


Fig. 7.

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FRANK ALBACH, OF ST. LOUIS, MISSOURI, ASSIGNOR TO FRED MEDART MANUFACTURING COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI

WARDROBE OR LOCKER

Application filed July 27, 1932. Serial No. 624,988.

This invention relates to a certain new and useful improvement in wardrobes or lockers of the type especially, though not exclusively, adapted for use in schools.

Wardrobes or lockers of the type stated are generally equipped with companion oppositely opening doors, and very frequently the child or other person manipulating the doors to closed position innocently or thoughtlessly grips the doors for such purpose at their free margins, with the result that the fingers of the child or other such person are crushed or jammed between the closing doors to their more or less serious injury.

My present invention has hence for its chief object the provision upon the wardrobe or locker of mechanism for positively and automatically preventing the companion doors of a pair being simultaneously moved or actuated to closed position, thereby most efficiently eliminating any accidents or injuries of the kind mentioned.

And with the above and other objects in view, my invention resides in the novel features of form, construction, arrangement, and combination of parts presently described and pointed out in the claims.

In the accompanying drawings,—

Figure 1 is a plan view of a wardrobe or locker equipped with mechanism of my invention for preventing simultaneous closing of a companion pair of the doors, the several doors of the wardrobe being so connected that the right-hand doors and the left-hand doors of the several pairs thereof may, as respective units, be successively swung to open or closed position and the several doors of the locker being illustrated as in fully open position;

Figure 2 is a broken similar view, the left-hand doors being shown in fully closed, and the right-hand doors being shown in fully open position;

Figure 3 is also a broken similar view, the right and left-hand doors being shown in fully closed position;

Figures 4 and 5 are enlarged detail sectional views taken approximately on the lines 4—4 and 5—5, respectively, Figures 1 and 3;

Figure 6 is an enlarged plan view of the

door-retaining mechanism as shown in Figure 1; and

Figure 7 is a detail sectional view taken approximately on the line 7—7, Figure 5.

Referring now more in detail and by reference characters to the drawings, which illustrate a preferred embodiment of my invention, the wardrobe proper A is preferably of the multiple compartment type fully described in my co-pending application Serial No. 592,527 and, as there illustrated and described, includes a top wall 1, fixed to and upstanding from which and extending longitudinally along the front of the cabinet, is a head-board 2 preferably forming the front wall of a box-like housing 3 likewise extending on the top wall 1 the length of the cabinet. Also extending longitudinally of the cabinet at the lower front corner of the housing 3, is a head-plate or angular Z-shaped member 4 having its horizontal web portion spaced vertically from the cabinet top-wall 1, as best seen in Figure 7.

The several compartments of the cabinet are each suitably equipped and closable, as in my said co-pending application fully described, by a respective companion pair of oppositely or opposingly swingable leaf-members or doors B, C, the doors B swinging right-hand and the doors C swinging left-hand, and the several doors being preferably so pivotally mounted in the cabinet as to project, when fully open, as in Figure 1, in parallel relation approximately right angularly to the front of the wardrobe.

At its upper end, each door-supporting pivot-shaft 5 has a reduced squared end or non-circular pintle-extension or stub 6, which projects upwardly through the top-wall 1 and head-plate 4.

Suitably fixed on the stub-shafts 6 of the respective doors B, are hub-bodies 7 carrying lateral arms 8, and similarly mounted on and secured to the stub-shafts 6 of the doors C, are hub-bodies 9 also carrying lateral arms 10 disposed, however, for swingable movement in a plane above or over the plane of swingable movement of the arms 8.

At its free or outer end, each of the arms 8 is suitably faced and apertured for disposi-

tion between the bifurcated arms of, and pivotally, as by a pivot-pin 11, suitably secured to, a yoke 12, the body of which has an aperture for reception of an actuator-rod 13 extending longitudinally in the housing 3 and supported by and from the series of arms 8 of the doors B, suitable fastening means, as set-screws 14, serving to adjustably secure the yokes 12 on the rod 13.

In a similar manner, as shown, the arms 10 are pivotally connected to and support a second actuator-rod 15 in a plane above that of the rod 13, the rods 13, 15, being oppositely reciprocable in the housing 3 for correspondingly, through the arms 8, 10, respectively, swingably actuating the doors B and C, also respectively from open to closed, or closed to open, positions.

Thus there is a positive mechanical connection between all the right-hand doors B, whereby merely on manual manipulation of any one thereof, all of the doors B may be simultaneously and in unison swung to open or closed position, as the case may be. In like manner, there is a positive mechanical connection between all of the doors C, whereby similarly on manual manipulation of any one thereof, all of the doors C may be simultaneously and in unison swung to open or closed position, as the case may be. And it will be observed that, when the several doors B and C are in open position, the arms 8 of the right-hand doors B are disposed obliquely to the left, while the arms 10 of the left-hand doors C are disposed obliquely to the right, as best seen in Figure 1; and that, when the doors B and C are in closed position, the arms 8 of the right-hand doors B are disposed obliquely to the right, and the arms 10 of the doors C are disposed obliquely to the left, all as best seen in Figure 3.

It follows that, if any one of the series of doors B is locked or retained in fully or partially open or closed position, the remaining doors of the series will be likewise locked or retained in corresponding open or closed position. Similarly, with respect to the series of doors C; and any pair of the doors B, C, may be readily equipped with latching-means, as at 35, for retaining the respective series of doors in cabinet closing position. Likewise, while not here specifically shown, the cabinet may be equipped with suitable means for releasably retaining the series of doors B and C in fully open position. To, however, positively present simultaneous movement of both series of doors B, C, to closed position, which might seriously crush or otherwise injure the fingers of a child or other person accidentally caught between the so closing doors, the cabinet A is provided longitudinally upon the head-plate 4 with a suitable preferably elongated angle-bracket 16, bolted or otherwise fixed to which in operative relation to the actuator-bars 13, 15, is

a longitudinally extending substantially U-shaped strip 17 having its legs presented upwardly.

Extending lengthwise of the strip 17 and pivotally attached thereto at an end, as at 18, is a flat strip 19 apertured or slotted suitably within its length, as at 29, to freely accommodate a suitable latch-member 21 supported for yielding movement on the free end of a spring-strip 22 riveted or otherwise fixed at its rear end, as at 23, to and upon the under face of the strip 19, as best seen in Figures 4 and 5.

Pivotally mounted, as at 24, in the strip 17 for engagement with the free end of the pivoted strip 19, is a cam 25 having an obliquely laterally extending arm 26 lengthwise slotted, as at 27, for movably accommodating a pin or stud 28 supported by a hub-member 29 suitably mounted for adjustment on the actuator-rod 15. And also suitably mounted for adjustment on the actuator-rod 13, is a second hub-member 30 provided with a lateral extension or tongue 31 preferably rounded, as at 32, on its forward face and there having a preferably arcuate under face, as at 32^a, for purposes presently appearing. By means of set-screws or the like 33, 34, the respective hub-members 29, 30, may be readily and conveniently secured in properly adjusted positions on the rods 13, 15, to meet the conditions of any particular wardrobe.

Normally, as may be said, the doors B and C are fully closed, in which position the several parts are disposed as best seen in Figures 3, 5, and 6.

Assume now that a right-hand door B is pivotally opened. In such movement, the rod 13 is shifted towards the left, and the tongue 31 correspondingly shifted to occupy a position to the left of the now depressed latch 21. As long as the door or doors C remain closed, the door or doors B may be freely pivotally closed. However, a door C is now opened, whereupon the rod 15 is shifted to the right, in which movement the stud 28 rides in the slot 27 and pivotally swings the arm 26 and the connected cam 25. Through the cam 25, the strip 19 is pivotally elevated, and the latch 21 carried into operative engagement with the tongue 31, as best seen in Figure 4. With the latch 21 and tongue 31 in such engaging relation, it will be evident that the door B is now positively retained in open position and that it cannot be moved to closed position until the latch 21 is again moved out of the path of movement of the tongue 31, which follows as soon as the door C is first closed, in which movement, reversely, the cam 25 is lowered, when the strip 19 with its carried latch 21 assume normal position, as best seen in Figures 3 and 5.

Assume now that a door C is first opened, whereupon the cam 25 will similarly be rocked and the strip 19 and its carried

latch 21 similarly shifted to elevated position into the path of movement of the tongue 31. Of course, so long as the right-hand door or doors B remain closed, the door C may be freely pivotally moved to closed position. However, if a right-hand door B is now opened, the tongue 31 will, as described, be shifted by and with the actuator bar 13 to the left and in such movement depress and ride over the latch 21 substantially into the position shown in Figure 4, whereupon the latch 21 yieldingly takes its normal position. Through engagement then of the latch 21 with the tongue 31, again the door or doors B will be positively retained in open position and cannot be moved to closed position until the door or doors C are first moved to closed position, the latch 21, in such latter movement, as described, being carried out of the returning path of movement of the tongue 31.

The movement of the tongue 31 over and past the latch 21 is greatly facilitated by the rounded, arcuate formation of the tongue 31, as described, and thus the companion pair of pairs of doors B, C, are most positively and effectively prevented from being simultaneously closed, it being necessary that the door or doors C be first shifted or moved to fully closed position before the door or doors B may be closed, and accidents of the type that I have mentioned being hence absolutely avoided. The mechanism described is relatively simple and inexpensive in structure, is durable, and efficiently performs its intended functions.

It may be added that changes and modifications in the form, construction, arrangement, and combination of the several parts of the wardrobe may be made and substituted for those herein shown and described without departing from the nature and spirit of my invention.

Having thus described my invention what I claim and desire to secure by Letters Patent is,—

1. In combination, a frame, a pair of doors hinged in the frame and opposite separately swingable, and means including co-operable tongue and latch members actuatable on opening movement of the doors for preventing movement of one of said doors to closed position until after closing movement of the other door.

2. In combination, a frame, a pair of doors hinged in the frame and oppositely separately swingable, a tongue having connection with, and shiftable on opening movement of, one of said doors, a latch-member mounted for movement on the frame, and means actuatable on opening movement of the second door for shifting the latch-member into engaging relation with the tongue for preventing closing movement of the first door until after closing movement of the second door.

3. In combination, a frame, a pair of doors hinged in the frame and oppositely separately swingable, a tongue having connection with, and shiftable on opening movement of, one of said doors, a pivoted-strip on the frame, a latch-member carried by the strip, and means actuatable on opening movement of the second door for pivotally shifting the strip for disposing the latch-member in engaging relation with the tongue for preventing closing movement of the first door until after closing movement of the second door.

4. In combination, a frame, a pair of doors hinged in the frame and oppositely separately swingable, a first bar connected to and shiftable by and on opening movement of the first door, a second bar connected to and shiftable by and on opening movement of the second door, a tongue mounted on and shiftable with the first bar, a pivoted strip on the frame, a latch-member on the strip, a cam pivoted on the frame for rocking the strip, a slotted arm extension on the cam, and a stud mounted on and shiftable with the second bar and working in the slot of the arm for actuating the arm for disposing the latch-member on opening movement of the second door in operable engagement with the tongue for preventing closing movement of the first door until after closure of the second door.

5. In combination, a frame, a pair of doors hinged in the frame and oppositely separately swingable, a tongue having connection with, and shiftable on opening movement of, one of said doors, a strip mounted for movement on the frame, a latch-member on the strip, and means actuatable on opening movement of the second door for shifting the strip for disposing latch-member into the returning path of movement of the tongue for preventing closing movement of the first door until after closing movement of the second door, the latch-member being shiftable by the tongue on opening movement of the first door subsequent to opening movement of the second door.

6. In combination, a wardrobe, a plurality of doors hinged for closure of the wardrobe, said doors being disposed in companion pairs and the doors of a pair being oppositely swingable, means connecting the respective right-hand doors of the several pairs for swingable movement as a unit, means for connecting the respective left-hand doors of the several pairs for swingable movement as a second unit, and means for preventing movement of one series of doors to closed position until after closing movement of the other series of doors.

7. In combination, a frame, a first door hinged in the frame for swingable movement, a second door hinged in the frame for swingable movement independently of, and oppositely disposed to, the first door, and means including co-operable members actuatable by,

and shiftable into engaging relation on opening movement of, the doors for preventing simultaneous swingable movement of the doors to closed position.

8. In combination, a frame, a first door hinged in the frame for swingable movement, a second door hinged in the frame for swingable movement independently of, and oppositely disposed to, the first door, and means including co-operable members actuatable by, and shiftable into engaging relation on opening movement of, the doors for preventing closure of one of said doors until the other door is in fully closed position.

9. In combination, a frame, a first door hinged in the frame for swingable movement, a second door hinged in the frame for swingable movement independently of, and oppositely disposed to, the first door, and means including co-operable members actuatable by, and shiftable into engaging relation on opening movement of, the doors for preventing movement of one of said doors to closed position until the other door is fully closed.

10. In combination, a frame, a pair of doors hinged in the frame and independently oppositely swingable, a tongue having connection with, and shiftable on opening movement of, one of said doors, a slotted strip mounted pivotally on the frame, a latch-member on the strip normally projecting depressibly through the slot thereof, and means actuatable on opening movement of the second door for shifting the strip for disposing the latch-member into the returning path of movement of the tongue for preventing closing movement of the first door until after closing movement of the second door, the latch-member being depressible by the tongue on opening movement of the first door subsequent to opening movement of the second door.

In testimony whereof, I have signed my name to this specification.

FRANK ALBACH.