March 25, 1958 H. RITZENBERG 2,827,863

SAFETY DEVICE FOR REFRIGERATORS

Filed Aug. 22, 1955

FIG. 1

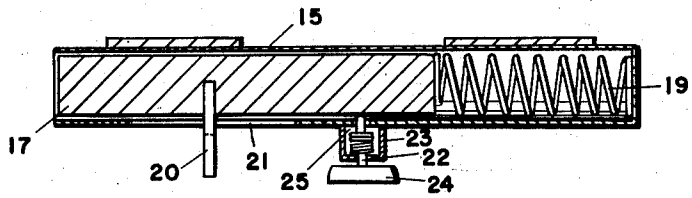


FIG. 2

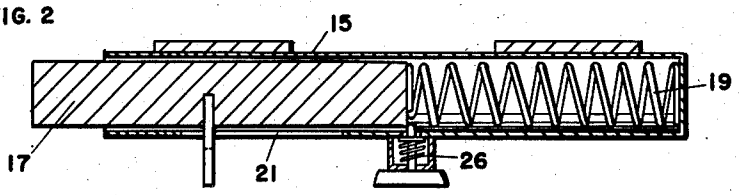


FIG. 3

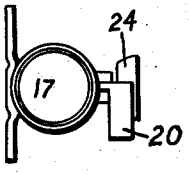


FIG. 4

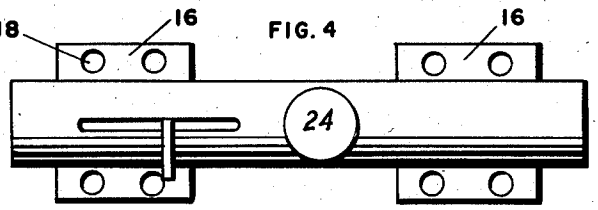


FIG. 5

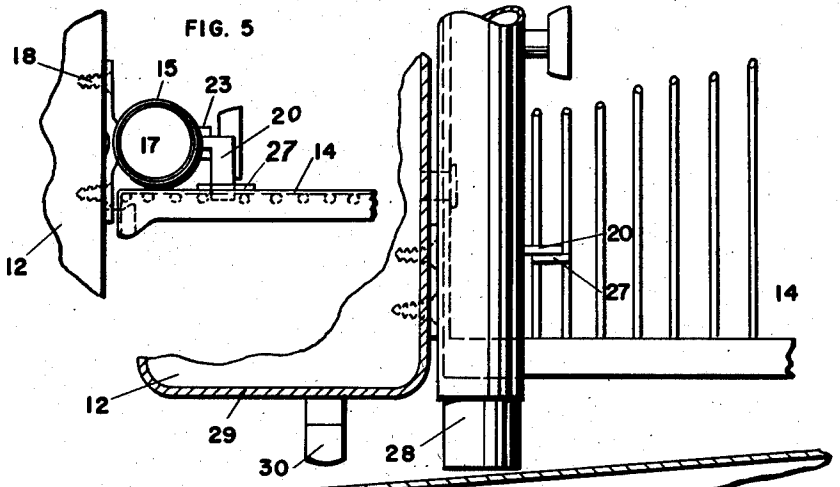
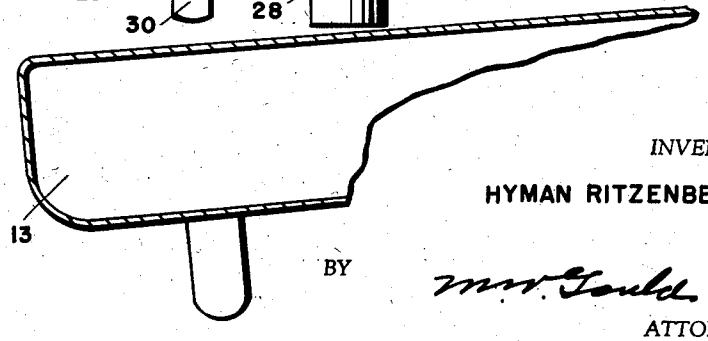


FIG. 6



INVENTOR

HYMAN RITZENBERG

BY

ATTORNEY

United States Patent Office 2,827,863 Patented Mar. 25, 1958

2,827,863

SAFETY DEVICE FOR REFRIGERATORS

Hyman Ritzenberg, Arlington, Va.

Application August 22, 1955, Serial No. 529,727

2 Claims. (Cl. 109—63.5)

This invention relates to an attachment for refrigerators to be used as a safety device for preventing the door from closing when the regfrigerator has been discarded or is temporarily out of service.

Old refrigerators which are abandoned seem particularly attractive to small children as a place to play, the children many times entering the refrigerator and having the door shut have sometimes been smothered. For even a small child to enter the refrigerators the shelves must be removed. By attaching a safety device to the refrigerator which is normally held inactive and which would become active with the removal of the shelves so as to prevent the complete closing of the door, these tragedies would be avoided. The present invention seeks to provide an inexpensive bolt which may be attached to refrigerators now in use or built into new refrigerators which will move into a position to prevent the complete closing of the refrigerator door should the shelves be removed.

The object of the present invention is to provide a simple inexpensive means of rendering unused refrigerators safe for small children to play around.

A further object of the invention is to provide a simple and inexpensive bolt which will automatically move into position to prevent the closing of the refrigerator door.

It is a further object of the present invention to provide a safety device which may be built into new refrigerators or may be attached to refrigerators already in use so that when the refrigerators are discarded and/or the shelves removed either by the user or by the child in entering it, the safety device will automatically function to prevent complete closing of the door.

The invention is shown in the accompanying drawing in which:

Figure 1 is a view of the bolt in retracted position.

Figure 2 is a similar view with the bolt in operative position.

Figure 3 is a front elevation of the bolt.

Figure 4 is a side elevation.

Figure 5 is a front elevation showing the bolt as applied to the refrigerator.

Figure 6 is a sectional view showing the bolt supporting the door in open position.

Referring particularly to Figures 5 and 6, a refrigerator having a side **12** and a door **13** is illustrated with a single shelf **14**. The invention may be attached to this single shelf or it may be duplicated on each and every shelf.

Referring to Figure 1, a sleeve **15** carrying supporting plates **16** slidably receives a bolt **17**. The sleeve is attached to the side **12** of the refrigerator by screws **18** secured to the supporting plates **16**. A coil spring **19** mounted in the sleeve normally forces the bolt outwardly from the sleeve, the bolt being restrained in its motion by a pin **20** secured to the bolt and projecting through a slot **21** formed in the sleeve. A housing **23** secured to the wall of the sleeve supports a pin **22** having a cap **24**. The pin **22** projects through a hole **25** in the sleeve

and is adapted to be projected by a coil spring **26** to a position behind the bolt upon the bolt being moved forward under the action of the spring **19**, thus preventing the return of the bolt until the pin **22** has been retracted by manual operation of the cap **24**.

Secured to the shelf **14** is a lug **27** adapted to engage the pin **20** of the bolt **17** and to maintain the bolt normally in retracted position. A spring **19** may be an extremely weak spring capable of simply pushing the bolt forward, as the holding of the bolt in its operative position depends on the pin **22** so that the force exerted by the pin **20** on the lug **27** need be but slight.

The operation of the safety device is obvious from the foregoing, the removal of the shelf releasing the pin **20** from the lug **27** and permitting the spring **19** to force the bolt forward to project beyond the door **12**, as shown at **28** in Figure 6. The forward motion of the bolt is limited by the action of the pin **20** in the slot **21** so there is no chance of the bolt being projected beyond the limits of the sleeve. Forward movement of the bolt permits the pin **22** to enter the sleeve behind the bolt, thus preventing the return of the bolt to the sleeve. With the bolt projected beyond the forward edge **29** of the refrigerator wall **12**, it is impossible to completely close the door, thus any child who was within the refrigerator would not be trapped as the door could be opened from the inside when it is not engaged with the latch **30**.

What is claimed is:

1. A safety device for refrigerators having removable shelves and a swinging door, comprising a cylindrical housing secured to the side of the refrigerator and terminating in contact with the inner side of the swinging door when closed, said housing being closed at the end farther from the door and formed with a longitudinal slot closed at each end and in that half of the housing having the open end and a centrally located hole communicating with the interior of said housing, a bolt of shorter length than said housing slidable in said housing and adapted to project through the open end of said housing, a pin extending from said bolt and through said closed slot in said longitudinal housing, the outer end of said pin being bent downwardly at right angles to the longitudinal axis of the bolt, said pin moving with the bolt longitudinally of the housing within the length of the slot, a coil spring carried within the housing between the closed end of said housing and the sliding bolt, a cap located over the hole of said housing, said cap having a centrally located hole in line with the hole of said housing, a pin slidably mounted in said holes, a spring carried within said cap urging said pin toward the interior of said housing, said pin contacting said bolt when said bolt is in retracted position, said pin being projected by said spring inwardly behind said bolt to prevent the return of said bolt when said bolt is in extended position, and means carried by the shelf engaging said right angle bent pin to normally hold said bolt in retracted position whereby said bolt will move to extended position beyond said housing upon the removal of the shelf and be locked in said position to prevent the complete closure of said door.

2. An attachment for the side wall of a refrigerator having a removable shelf and a swinging door, comprising a cylindrical housing closed at one end, a pair of flat bases secured to said cylindrical housing and formed with screw holes for attachment to the side wall of said refrigerator to bring the open end of the housing into contact with the inner side of the door when closed, said housing being formed with a longitudinal slot having closed ends and a centrally located hole, both communicating with the interior of said housing, a bolt of shorter length than said housing slidably mounted

within and adapted to be extended through the open end of said housing, a pin attached to said bolt and extending through said longitudinal slot, said pin movable with said bolt and within the length of said slot, a second pin capable of moving through said hole into the interior of said housing, means for normally urging said second pin toward the interior of said housing and in contact with said bolt, a coil spring carried between the end of said bolt and the closed end of said housing to normally urge said bolt to extended position, and means carried by the removable shelf engaging the pin extending through said longitudinal slot to normally hold said bolt in retracted position, whereby the removal of said shelf

will permit the bolt to move to extended position and be locked therein by said hole-mounted pin.

References Cited in the file of this patent

UNITED STATES PATENTS

108,361	Kent	Oct. 18, 1870
595,290	Dowman	Dec. 14, 1897
1,120,505	Johnson	Dec. 8, 1914
1,708,120	Canott et al.	Apr. 9, 1929
2,259,389	Metzerott	Oct. 14, 1941
2,726,113	Pisani	Dec. 6, 1955