Dec. 15, 1959 R. DE VIVO 2,917,010

SAFETY DEVICE FOR REFRIGERATORS

Filed Oct. 17, 1956

Fig. 1.

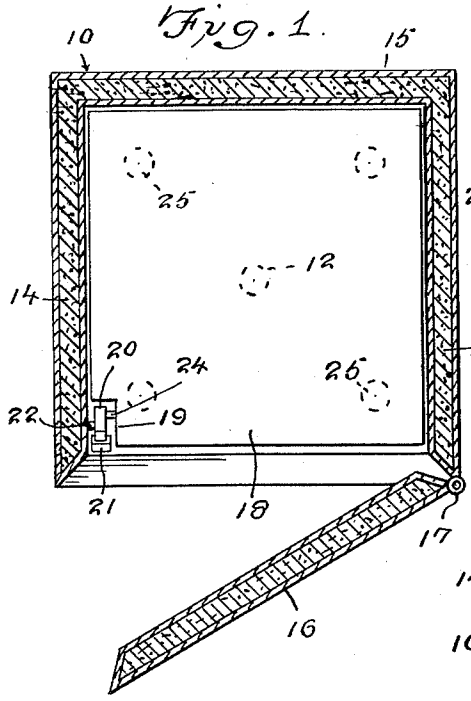


Fig. 2.

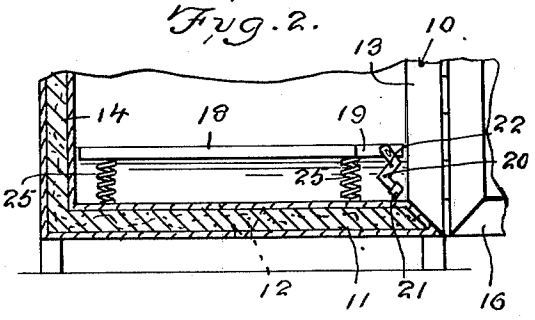


Fig. 3.

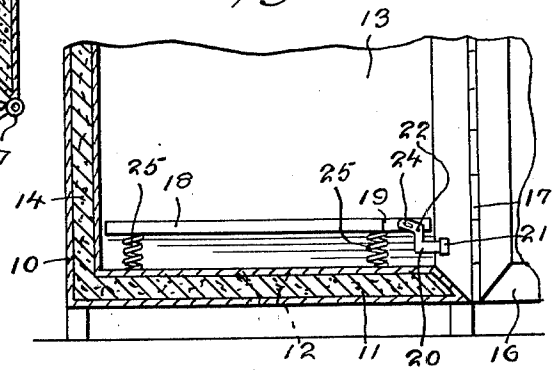


Fig. 4.

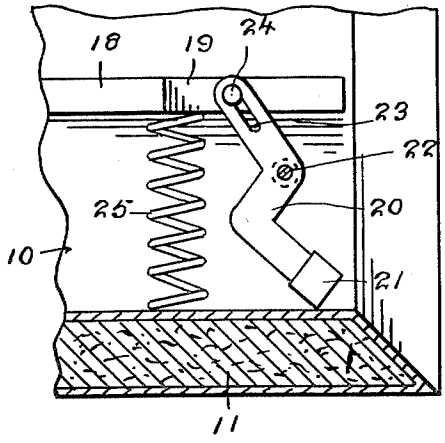
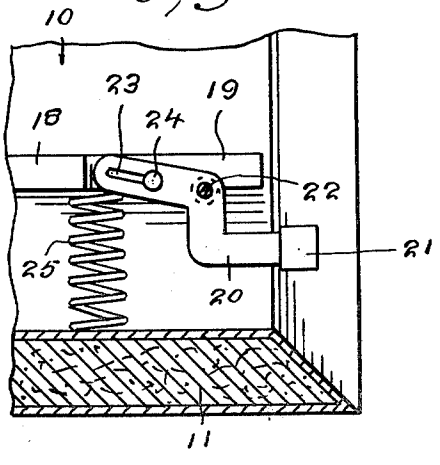


Fig. 5.



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SAFETY DEVICE FOR REFRIGERATORS

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1 Claim. (Cl. 109—63.5)

This invention relates to an enclosure, such as a refrigerator or ice box, and more particularly to a safety device for such an enclosure.

The object of the invention is to provide a safety device which will insure that a person such as a child, will not become accidentally locked in the refrigerator or other enclosure.

Another object of the invention is to provide a saftey device for a refrigerator or the like which is constructed so that in the event that a child climbs into a refrigerator, a mechanism will be actuated which will prevent closing and latching of the door until the child leaves the refrigerator so that there will be no danger or possibility of the child's becoming locked in the refrigerator and suffocating.

A further object of the invention is to provide a safety device for a refrigerator which is extremely simple and inexpensive to manufacture.

Other objects and advantages will be apparent during the course of the following description.

In the accompanying drawings, forming a part of this application, and in which like numerals are used to designate like parts throughout the same,

Figure 1 is a horizontal sectional view taken through a refrigerator equipped with the safety device of the present invention.

Figure 2 is a fragmentary vertical sectional view showing the safety device in one position.

Figure 3 is a view similar to Figure 2, but showing the position of the part as when the device is in operative position so as to prevent closing of the door.

Figure 4 is an enlarged fragmentary sectional view showing the position of the part which corresponds to the position shown in Figure 2.

Figure 5 is a view similar to Figure 4 but corresponding to the position shown in Figure 3.

Referring in detail to the drawings, the numeral 10 designates a refrigerator or ice box or the like, and the refrigerator 10 includes a horizontally disposed bottom wall 11, and the bottom wall 11 may be provided with a drainage opening 12 for the passage therethrough of water. The refrigerator 10 further includes the usual spaced parallel vertically disposed side walls 13 and 14, a rear wall 15, and a door 16 which is hingedly connected by means of hinges 17.

The present invention is directed to a means for preventing closing and latching or locking of the door 16 in the event a child climbs into the refrigerator 10, and the safety mechanism of the present invention includes a horizontally disposed vertically movable base 18 which is arranged in spaced parallel relation above the bottom wall 11 of the refrigerator, Figure 4. The base 18 is provided with a cutout 19 adjacent one corner thereof, Figure 1.

There is further provided a lever or link 20 which may include an intermediate offset portion, and arranged on one end of the lever 20 is an enlarged head 21 which is mounted for movement into and out of engagement with

the door 16 so that when thep arts are in position shown in Figures 3 and 5, the door cannot be closed. However, the parts are in the position shown in Figures 2 and 4, there is no interference with normal closing of the door 16.

Extending through the intermediate portion of the lever 20 is a pivot pin 22, and the pin 22 may be connected to the side wall 14 of the refrigerator. The other end of the lever 20 is provided with a slot 23, and a suitable securing element such as a bolt 24 extends through the slot 23 and into engagement with the base 18, Figures 4 and 5. A plurality of coil springs 25 are interposed between the base 18 and bottom wall 11 for normally urging or biasing the base 18 to the raised position shown in Figures 2 and 4. However, when a child climbs into the refrigerator and is supported on the base 18, the coil springs 25 will be compressed from the position shown in Figures 2 and 4 to the position shown in Figures 3 and 5 whereby the lever 20 will be pivoted to the position shown in Figures 3 and 5 so that the head 21 will be in the path of the door 16 whereby the door 16 cannot be closed as long as the child is within the refrigerator. As soon as the child leaves the refrigerator, the springs 25 will return the base 18 to its raised position so that the parts will move back from the position shown in Figures 3 and 5 to the position shown in Figures 2 and 4 so that the door 16 can be closed in the usual manner.

While the present invention has been described for use in connection with a refrigerator, it is to be understood that the safety device of the present invention can be used in any type of installation wherein there is a possibility of a person becoming accidentally locked therein.

Thus, it will be seen that there has been provided a means for preventing a door of an enclosure such as the enclosure 10 from accidentally locking or closing while a child or other person is in the enclosure. The safety mechanism of the present invention includes the movable base 18 which moves downwardly when a person is supported thereon so as to compress the springs 25 to thereby move the head 21 of the lever 20 into the path of the door 16 so that the door 16 cannot be closed as long as the person is within the enclosure. However, as soon as the person leaves the enclosure, the springs 25 will move the base 18 to its upward position so that the door 16 can close in the usual manner.

The present invention is especially suitable for use in preventing children from suffocating as when they are trapped in the interior of a refrigerator so that accidental death to the children will be prevented. As the child enters the refrigerator, the springs 25 are forced downwardly so that the member 20 pivots to provide the door stop as shown in Figure 5 which prevents the refrigerator door from closing on the child. As soon as the child leaves the refrigerator, the door can be closed in the normal manner.

I claim:

In a cabinet of the type including a doorway opening, a horizontally disposed bottom wall, spaced parallel vertically disposed side walls, a vertically disposed back wall, and a door hingedly connected to one of said side walls and mounted for movement into and out of opening and closing relation with respect to the doorway opening, a means for preventing closing of the door when a child or the like is in the cabinet, said means comprising a horizontally disposed vertically shiftable base arranged above said bottom wall, a plurality of coil springs interposed between said bottom wall and base, there being a cutout in a corner of said base, a lever arranged within said cabinet adjacent said cutout, said lever being provided with an offset intermediate portion, a pivot pin extending through the offset intermediate portion of said lever and into one of said side walls, a head on one end of said

lever mounted for movement into and out of registry with the doorway opening, there being an elongated slot in the other end of said lever, and a securing element extending through the slot in the other end of said lever and into engagement with said base, said last named securing element providing a pivotal connection between the lever and base.

References Cited in the file of this patent

UNITED STATES PATENTS

511,455	Plummer	Dec. 26, 1893
679,847	Ives	Aug. 6, 1901
1,271,363	Ralston	July 2, 1918
1,611,386	Stanley	Dec. 21, 1926
1,701,302	Griffith	Feb. 5, 1929
2,634,970	Rosebrook	Apr. 14, 1953
2,733,090	Coplen	Jan. 31, 1956
2,783,722	Fletcher	Mar. 5, 1957
2,818,825	Marek	Jan. 7, 1958