Oct. 11, 1932. J. J. GOETZ 1,881,491

DETACHABLE LEG

Filed May 20, 1931

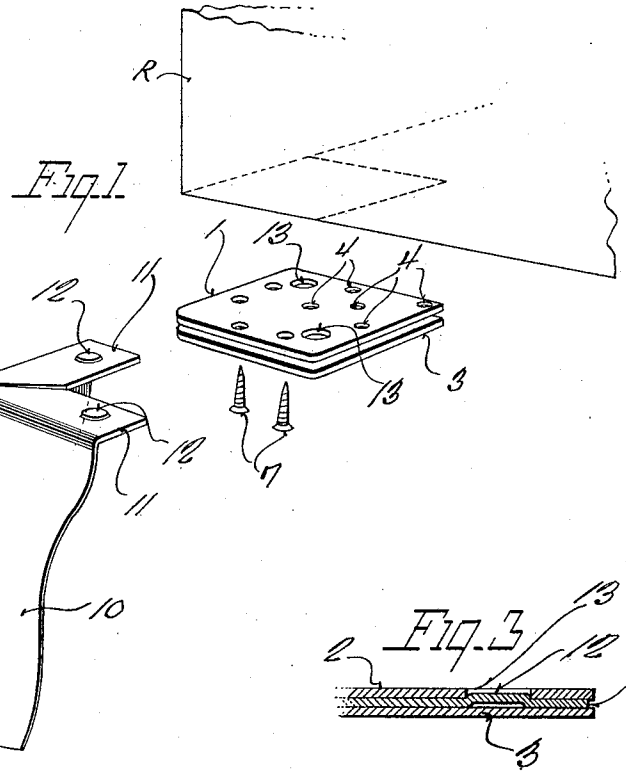


Fig. 1

Fig. 3

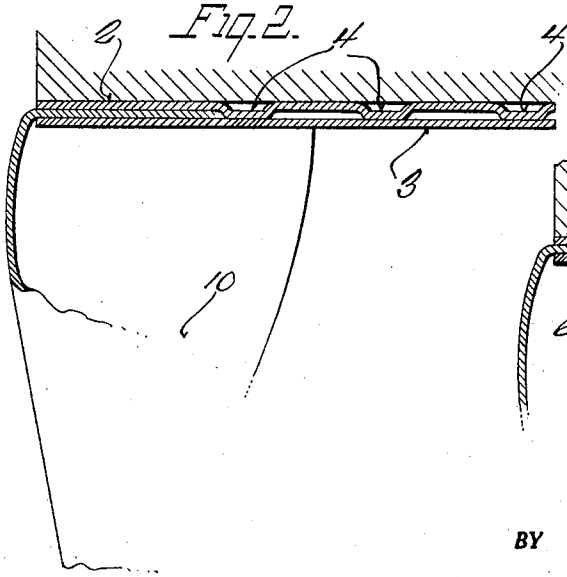


Fig. 2

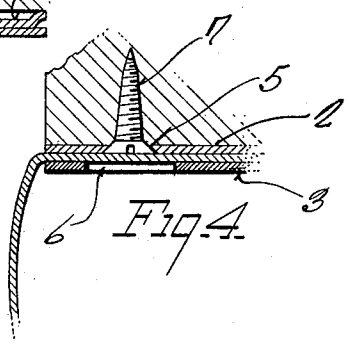


Fig. 4

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UNITED STATES PATENT OFFICE

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DETACHABLE LEG

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This invention relates to a detachable leg structure especially designed and adapted for use with mechanical refrigerators although also capable for other uses and applications.

One of the principal objects of the present invention is to provide a detachable leg structure which includes a keeper or socket arrangement permanently attached to the refrigerator or other article at the factory and so constituted that each leg may be readily snapped into locking and secure fastening engagement with its keeper structure without the use of any special tools or the employment of any fastening devices. The keeper structures lie flatly against the underside of the refrigerator or other article and hence presents no projections liable to be broken off or necessitating an increase in the size of the crate or shipping container.

Another object is to provide a device of this character which is extremely simple and durable in construction, reliable and effective in operation, and easy and comparatively inexpensive to manufacture.

Other objects and advantages reside in certain novel features of the construction, arrangement and combination of parts which will be hereinafter more fully described and particularly pointed out in the appended claims, reference being had to the accompanying drawing, forming a part of this specification, and in which:

Figure 1 is a group view in perspective showing a portion of a refrigerator, one of the keepers and one of the detachable legs and also the fastening devices which are used to permanently attach each keeper to the refrigerator;

Figure 2 is a fragmentary view taken in vertical section through the keeper and through the leg assembled therewith and illustrating one type of spacing means which may be employed between the plates of the keeper;

Figure 3 is a fragmentary sectional view showing the manner in which each locking boss of the leg is inter-engaged with the socket or opening of its keeper plate; and

Figure 4 is a similar view illustrating the manner in which the keeper plates are fastened to the refrigerator.

Referring to the drawing, R designates a portion of the article to be equipped with the legs and it may be a refrigerator or any other type of article. At each corner of the bottom of the refrigerator a keeper designated generally at 1 is provided. Only one keeper is shown but, of course, usually four are provided. However, they are always exactly of the same construction so that a single illustration and description will serve for all. Each keeper 1 consists of a pair of spaced plates designated at 2 and 3. The plates 2 and 3 are maintained in spaced relation by suitable means as, for example, spacing bosses 4 integral with one of the plates and which, as illustrated in Figures 1 and 2, may be pressed down from the upper plate 2. The plates are secured together in any suitable manner but preferably by spot welding the bosses 4 of plate 2 to the plate 3.

Each keeper 1 is permanently fastened to the refrigerator or other article at the factory and for this purpose the plates 2 and 3 have a suitable number of screw holes designated at 5 and 6, the holes 6 of the plate 3 being larger than the holes 5 but being vertically alined therewith. Screws 7 are introduced through the openings 6 and passed through the openings 5 into the bottom of the refrigerator. The heads of the screws are countersunk in the openings 5.

A leg 10 coacts with each keeper and preferably is constructed of sheet metal. The body of each leg is formed at its upper end with horizontal attaching flanges 11 which are provided with locking bosses 12. The locking bosses 12 are designed to have releasable locking engagement with sockets or openings 13 provided in the upper plate 2 of the keeper.

It will be understood that the plates 2 and 3 and particularly the plate 3 are constructed of resilient metal. The resiliency is sufficient to permit the bosses 12 to spring or flex the plate 3 downwardly away from the plate 2 during the passage of the bosses between the plates and into registry with the socket openings 13. When alined with the socket open-

ings 13 the spring action of the plate 3 causes the bosses 12 to snap up into the sockets 13. The bosses 12 are rounded so that they may be pushed without difficulty in between the plates and also may be pulled out of the sockets when the leg is removed. The engagement of the bosses and sockets is, however, adequate to prevent accidental dislodgment of the attaching flanges 11 from the keeper plates. The flanges 11 and their bosses 12 may also be appropriately resilient but all elements of the structure are sufficiently stiff to provide a strong and durable supporting leg and keeper structure.

With the present invention the keepers may be permanently secured to the refrigerator or other article at the factory and as they lie flush against the bottom of the refrigerator they decrease the amount of crating required and further they do not offer any obstructions or projections liable to become broken off. The legs may be shipped separately or at least shipped detached and at the point of use may be readily assembled with the refrigerator or other article without the necessity of using any tools or fastening devices. The flanges 11 of the legs are simply introduced in between the plates 2 and 3 and the body of the leg given a push or blow with the hand to cause the bosses to snap into the sockets.

The locking bosses are registered or centered under the sockets 13 when the flanges 11 are forced as far as they may be into the space between the plates 2 and 3, one of the corners of the lower plate and the two edges diverging therefrom coacting with the corner of the leg and the intersection of the flanges and body portion of the leg to effect this registration or centering.

The plates maintained as they are in spaced relation define between them a slot which receives the flanges 11 of the leg. The fit of the flanges in the slot between the plates and the engagement of these flanges with the plates provides a secure and durable connection and the locking bosses and sockets prevent accidental dislodgment of the flanges from the slot and disengagement of the flanges from the plates.

The invention claimed is:

1. In combination, a keeper adapted to be attached to the article to be supported and comprising a pair of keeper plates, means for spacing the plates slightly and securing them to each other, one of the plates being adapted to be fastened to the articles to be supported, one of said plates having socket openings, and a leg provided with attaching flanges adapted to be fitted in between the plates, said flanges having bosses engageable in the sockets.

2. In combination, a keeper adapted to be attached to the article to be supported and comprising a pair of keeper plates, means for maintaining the plates in spaced relation to each other, means for securing the plates to the article to be supported, a leg provided with attaching flanges adapted to be fitted in between the plates, an inter-engaging means between the flanges and at least one of the plates functioning to prevent accidental dislodgment of the flanges from the space between the plates but providing for ready detachment or assembly of the flanges and the plates.

3. A keeper for securing a detachable leg to an article and comprising a pair of plates, at least one plate having spacing bosses struck therefrom and welded to the other plate whereby the plates are secured together in spaced relation, one of said plates having sockets adapted to receive locking bosses of the detachable leg, the other plate having resilient portions opposite said socket.

4. A keeper for use in securing a detachable leg to an article and comprising a pair of plates, means for maintaining the plates in slightly spaced relation to define between the plates a slot adapted to receive attaching means on said leg, means for securing the plates to the article to be supported, at least one of said plates having at least one socket adapted to coact with a correspondingly formed boss on said attaching means for detachably holding the attaching means in said slot.

5. A keeper for securing a detachable leg to an article and comprising a pair of plates, means for maintaining the plates, in slightly spaced relation to define a slot therebetween adapted to receive attaching flanges of the leg, at least one of said plates having sockets adapted to receive locking bosses on the attaching flanges, the other plate having resilient portions opposite said socket.

6. A keeper for securing a detachable leg provided with locking bosses to an article and comprising a pair of plates, at least one plate having spacing bosses struck therefrom and engaged with the other plate to maintain the plates in spaced relation, means for securing the plates to the article to be supported, one of said plates having sockets adapted to coact with the locking bosses of the leg to detachably secure the leg to the keeper structure.

In witness whereof, I hereto affix my signature.

JULIUS J. GOETZ.