May 4, 1943. E. H. BODDY 2,318,363

STORAGE DRAWER ASSEMBLY

Original Filed Jan. 4, 1941 2 Sheets-Sheet 1

Fig. 1.

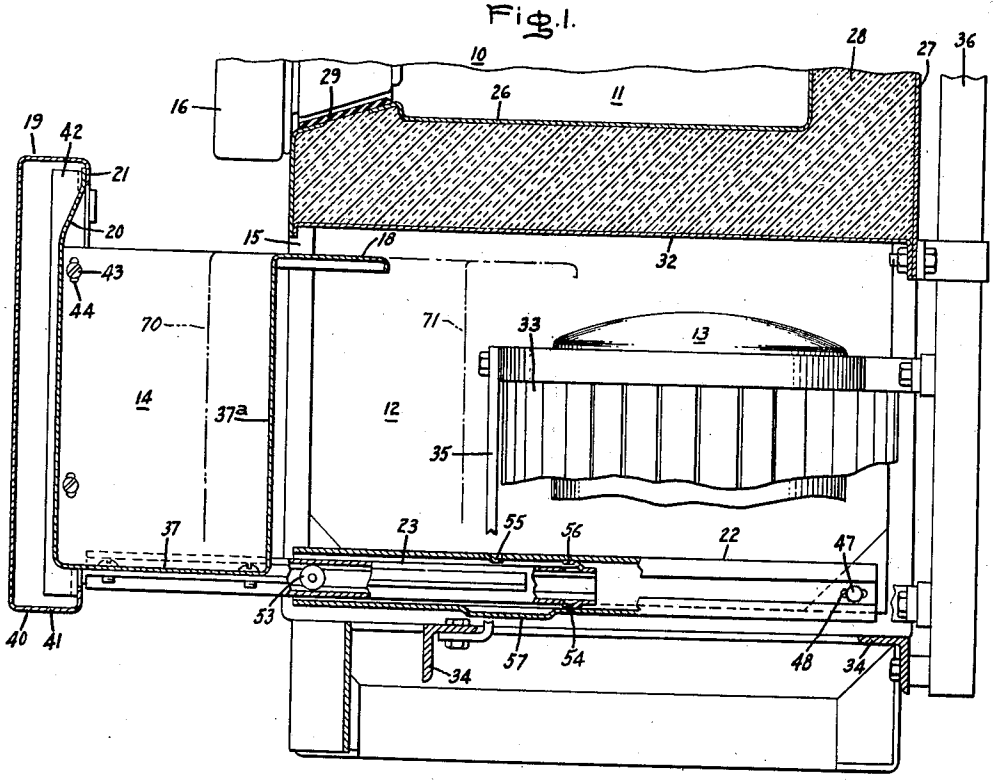

Fig. 2.

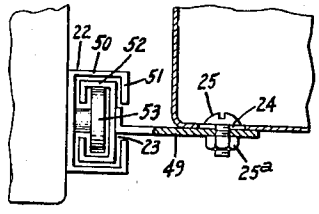

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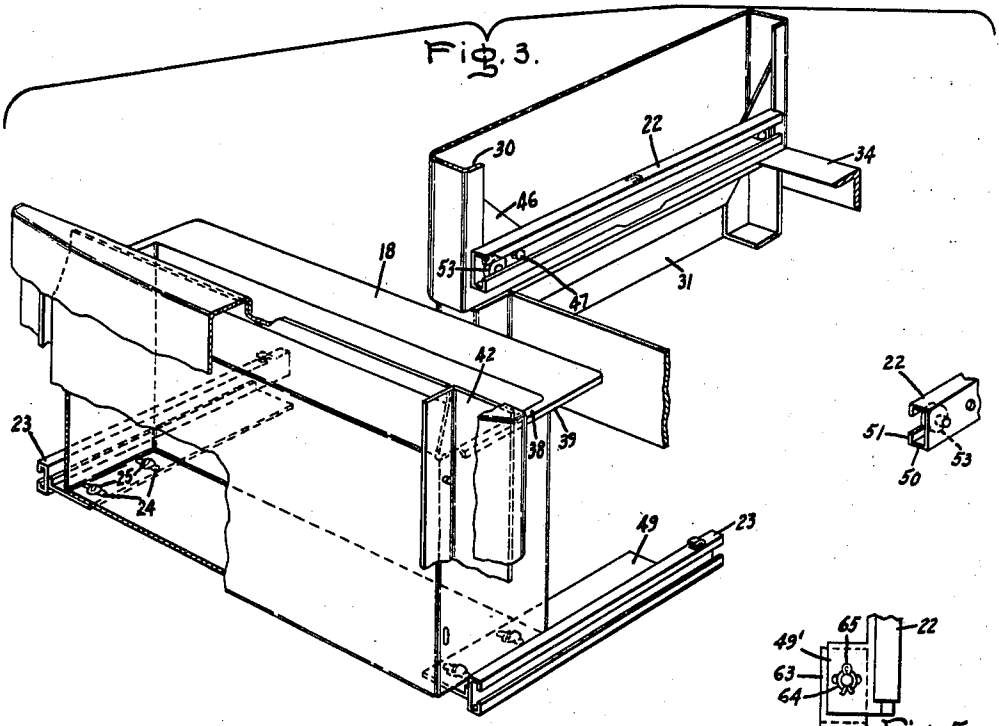
Fig. 3.



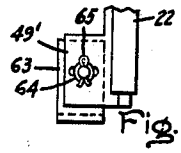


Fig. 5.

Fig. 4.

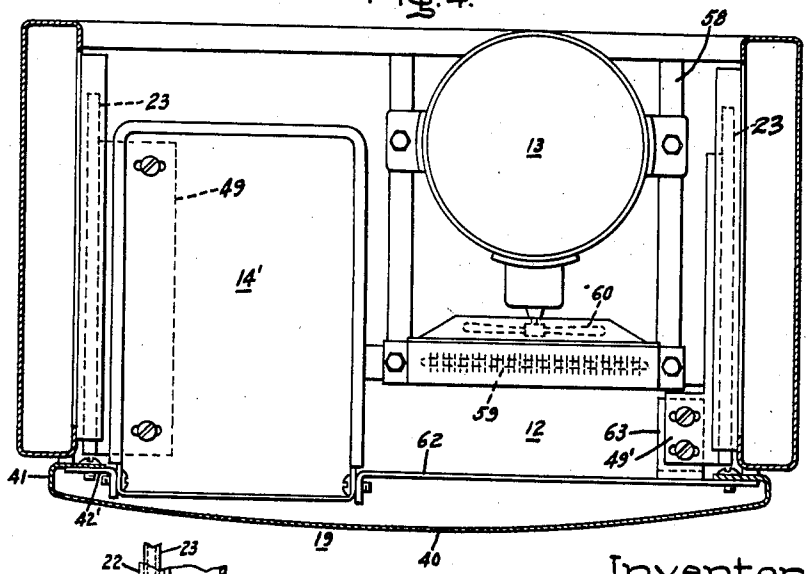
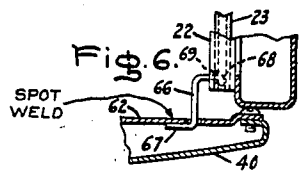


Fig. 6.



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UNITED STATES PATENT OFFICE

2,318,363

STORAGE DRAWER ASSEMBLY

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Original application January 4, 1941, Serial No. 373,119. Divided and this application May 7, 1941, Serial No. 392,383

3 Claims. (Cl. 45—77)

This invention relates to storage drawers and more particularly to drawers especially adapted for use in cabinets, such as stoves or refrigerators of the domestic type, for example.

This is a division of my copending application Serial No. 373,119, filed January 4, 1941, and assigned to the same assignee as the present invention.

Objects and advantages of my invention will become apparent as the following description proceeds and the features of novelty which characterize my invention will be pointed out with particularity in the claims annexed to and forming a part of this specification.

For a better understanding of my invention reference may be had to the accompanying drawings in which Fig. 1 is a side elevational view, partly in section, of a portion of a refrigerator cabinet illustrating a vegetable drawer constructed and assembled according to the principles of my invention; Fig. 2 is an enlarged view, partly in section, of a detail of the invention illustrated in Fig. 1; Fig. 3 is an exploded view, in perspective, illustrating details of the invention illustrated in Fig. 1; Fig. 4 illustrates a different embodiment of my invention; and Figs. 5 and 6 illustrate modifications of a detail of the arrangement shown in Fig. 4.

Referring to the drawings, I have disclosed a refrigerator cabinet 10 having a food storage compartment 11 and a machinery compartment 12 therebelow. In the form of my invention shown in Fig. 1, there is disposed at the rear of the machinery compartment a motor-compressor unit 13. In the front portion of the compartment 12, there is disposed an article supporting device or element in the form of a slidably mounted storage drawer 14 arranged to be withdrawn through an opening 15 in the front wall of the cabinet. The closed and withdrawn positions of the drawer are indicated by the dot-dash lines 71 and 70, respectively.

The machinery compartment is closed by a door or panel member 19, shown in Fig. 1 as attached to the front wall of the drawer. The panel member preferably corresponds in design to the door 16 to improve the cabinet appearance and may be considered a decorative front for the drawer.

In order slidably to support the drawer along each side thereof, there is provided a slide suspension means comprising a pair of horizontally disposed parallel members 22 associated with opposite sides of the opening 15 and being fixed with respect to the cabinet. A set of horizontally disposed members 23 are attached to the drawer assembly and arranged for slidable movement with respect to the fixed members 22, the fixed members being arranged to maintain the slidable element in operative association during the sliding movement of the drawer. The parallel members 22 are suitably secured to the cabinet at opposite sides of the opening, as by means of plates 46 suitably secured to the flanges 30 of said sides as by welding, for example, and threaded fastening means 47 extending through openings 48 in the members 22 into engagement with suitably tapped openings in the plates 46, for example. In order to permit longitudinal adjustment of the slide members 22, the openings 48 may be in the form of longitudinally extending slots. There is provided a pair of slidable elements 23 having operative engagement with the members 22, each of the slidable elements being provided with a bracket 49 suitably secured, as by welding, for example, to the sliding element and being provided with openings disposed for alignment with the elongated openings 24 in the bottom wall of the drawer. In order to retain the members 22 and 23 in operative association during the sliding movement, the fixed members 22 are, for example, substantially C-shaped in cross-section, and may have laterally and inwardly directed flanges 50 and 51, respectively. As illustrated in the drawings, the slidable member 23 is also substantially C-shaped in cross-section, the upper flange 52 thereof being arranged to ride on a roller 53 suitably journalled near the front end of the member 22. As best seen in Fig. 2, the members 22 and 23 are dimensioned so that the member 23 is telescopically received within the member 22 although the relationship of the parts could be reversed, if desired and the member 23 is made sufficiently smaller than the member 22 to ride on the roller without binding.

In order to permit free sliding action of the drawer even though the distance between the side walls of the compartment 12 varies from the desired dimension, I have provided an adjustable connection between the slidable members 23 and the drawer 14. In the form of my invention shown in Figs. 1 to 3, inclusive, this connection comprises a plurality of elongated slots or openings 24 in the bottom wall of the drawer and suitably tapped openings in the slidable member arranged to be aligned with the slots and fastening means, such as suitably threaded bolts 25, extending through the openings, and nuts 25a, whereby the slidable mem-

bers 23 may be adjusted laterally with respect to the drawer. In the embodiment of Figs. 4, 5 and 6, one member 23 is attached to the drawer as described above, while the other member 23 is carried by a portion of the panel element 19.

In order to prevent tipping of the drawer and possibly binding during the movement of the drawer, there is provided a projection 54 as, for example, by punching downwardly a portion of the lower flange of the member 23 for engagement with the lower flange of the member 22. In order to provide a stop for limiting the forward movement of the drawer, I have provided a projection 55 extending downwardly from the upper flange of the member 22 and an upwardly directed projection 56 on the upper flange 50 of the element 23, the projections being arranged for engagement at the desired limit of forward travel of the drawer.

In order to permit the complete removal of the drawer from the cabinet, I have depressed a portion of the lower flange of the members 22 as indicated by the numeral 57. By withdrawing the drawer until the projections 55 and 56 engage, and then lifting the drawer at the front edge thereof to pivot the drawer about the roller 53, the projection 56 will be lowered sufficiently below the projection 55 to permit further withdrawal of the drawer, the projection 54 entering the depression 57.

In assembling the drawers, the fixed slide members 22 are secured in place, the slidable members 23 inserted into operative engagement with the members 22, the drawer then placed in position and the fastening means inserted and loosely adjusted. The drawer and movable members 23 may then be slid in and out a few times until the drawer and slide suspension properly align themselves and the fastening means are then tightened. Thus, there is provided a drawer assembled for free sliding operation rapidly and simply and without requiring any modification of parts on the part of the assembler.

In the form of my invention illustrated in Fig. 4, I have provided a refrigerating unit disposed at one side of the machinery compartment 12. The refrigerating apparatus comprises a refrigerant circulating unit 13 of the hermetically sealed type suitably supported on brackets or angle members 58. A condenser 59 of the finned sinuous coil type is also secured to the members 58 and there is illustrated a motor driven fan 60 for inducing circulation of air across the condenser 59 and the unit 13.

The storage drawer 14' is placed at the opposite side of the compartment 12 and is secured to one of the slidable members 23 instead of to both of the slidable members. The panel member is attached to the bin or drawer in any suitable manner as, for example, by means of an angle member 42' and suitable fastening devices, and a bracket or panel member 62 and suitable fastening means. The other slidable member 23 is secured to the panel element of member 62 as by means of the bracket 49' attached to the slidable member 23 and a bracket 63 suitably secured to the rear wall member 62 of panel 19. As previously described, elongated openings are provided for permitting lateral adjustment of the slidable elements.

In Fig. 5 there is illustrated a different means for connecting the bracket 63 to the bracket 49' of the slide member 23. In this arrangement, fastening means, such as a headed pin extending through aligned openings in the brackets is secured in place by means of a washer 64 and a cotter pin 65, a "loose" connection resulting. Preferably, one of the openings is slotted to permit lateral movement between the slide member 23 and the panel and drawer assembly.

In Fig. 6, I have illustrated still another "loose" connection means for connecting the panel 62 to the slide member 23. This means comprises a connecting member 66 having at one end a securing portion 67 suitably secured to the panel 62, as by welding, for example, and at the other end a hook-shaped portion 68 arranged to be inserted through an opening 69 in the vertical portion of slide member 23.

Modifications will occur to those skilled in the art. Accordingly, while I have shown a particular embodiment of my invention, I do not desire my invention to be limited to the particular construction shown and described and I intend in the appended claims to cover all modifications within the spirit and scope of my invention.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. In a drawer assembly, a panel element, a drawer element carried by said panel element, and slide suspension means for said elements comprising a pair of horizontally disposed, spaced-apart, parallel members, and a second pair of members constructed and arranged for slidable engagement with the first-mentioned members and for retention in operative association therewith during the sliding movement of said elements, one member of said second pair being adjustably secured to one of said elements and the other member of said second pair being secured to the other of said elements thereby permitting assembly in such a way that no binding occurs during the sliding movement of said elements.

2. In a drawer assembly, a panel element, a drawer element carried by said panel element, and slide suspension means for said elements comprising a pair of horizontally disposed, spaced-apart, parallel members, and a second pair of members constructed and arranged for slidable engagement with the first-mentioned members and for retention in operative association therewith during the sliding movement of said elements, one member of said second pair being adjustably secured to the drawer element and the other member of said second pair being adjustably secured to the panel element thereby permitting assembly in such a way that no binding occurs during the sliding movement of said elements.

3. In a drawer assembly, a panel element, a drawer element carried by said panel element, and slide suspension means for said elements comprising a pair of horizontally disposed, spaced-apart, parallel members, and a second pair of members constructed and arranged for slidable engagement with the first-mentioned members and for retention in operative association therewith during the sliding movement of said elements, one member of said second pair being adjustably secured to the drawer element and the other member of said second pair being loosely secured to the panel element thereby permitting assembly in such a way that no binding occurs during the sliding movement of said elements.

EDWIN H. BODDY.