

Feb. 16, 1937.

H. DERMAN

2,070,924

WARDROBE, CABINET, AND THE LIKE

Filed July 20, 1936

2 Sheets-Sheet 1

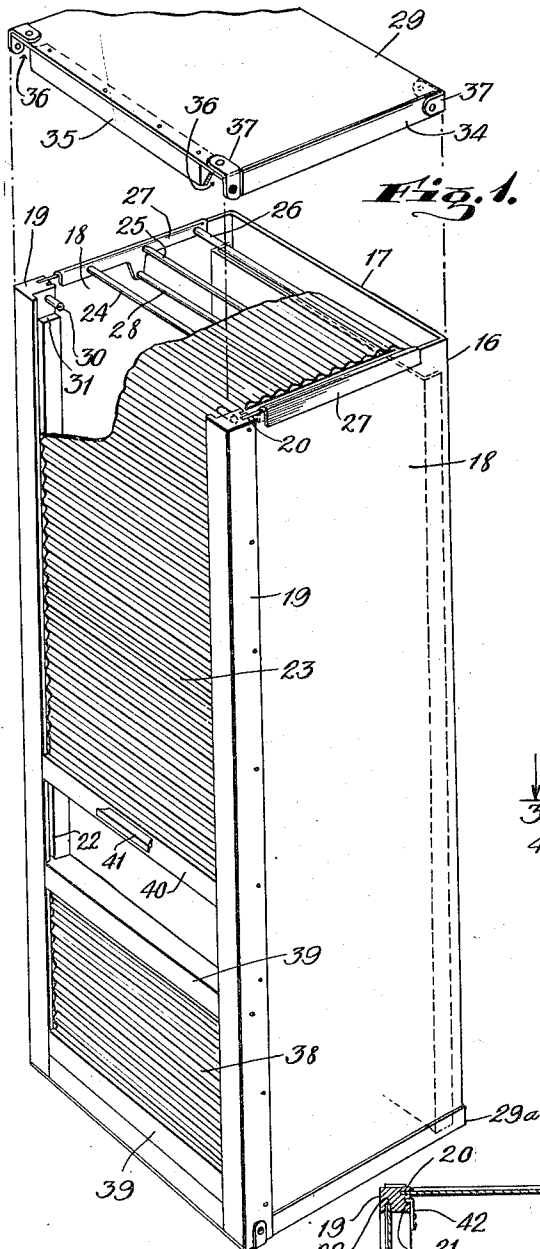


Fig. 2.

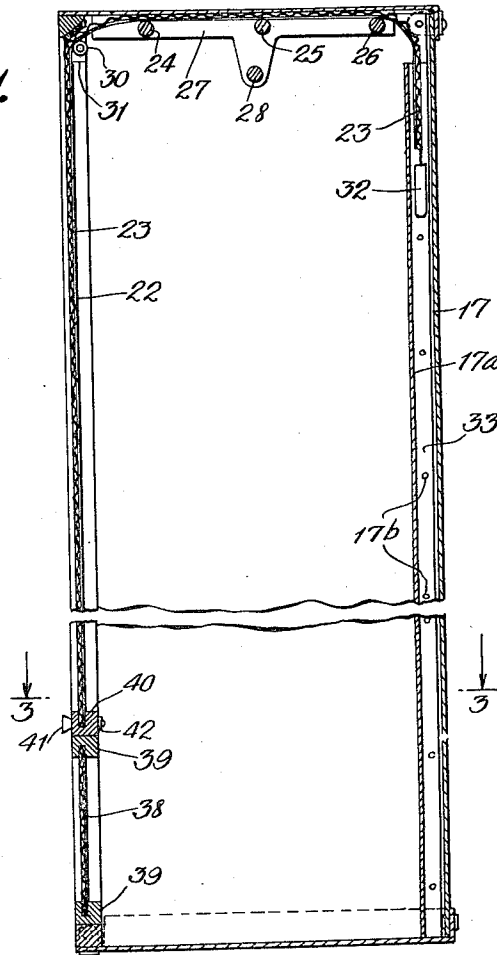
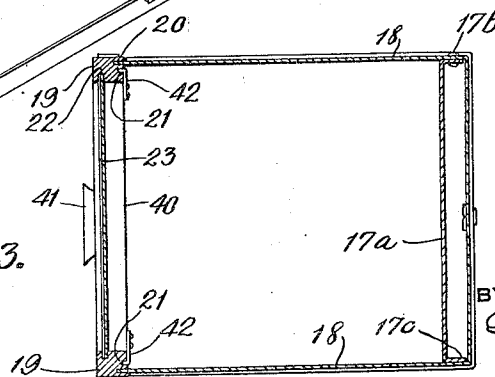


Fig. 3.



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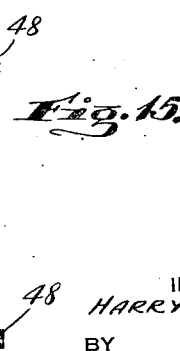
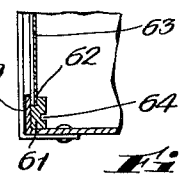
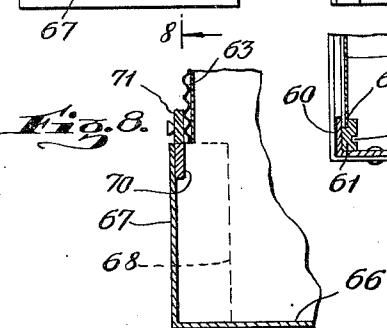
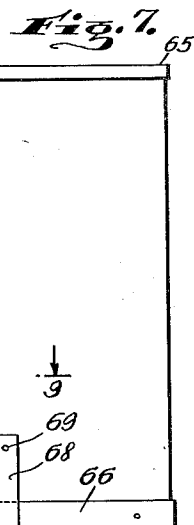
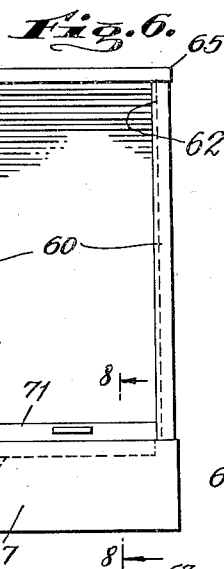
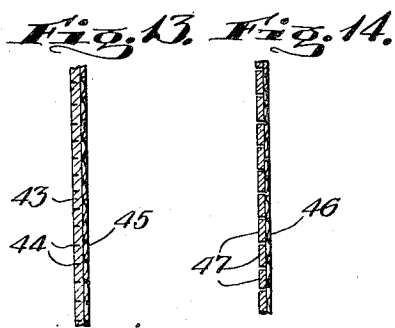
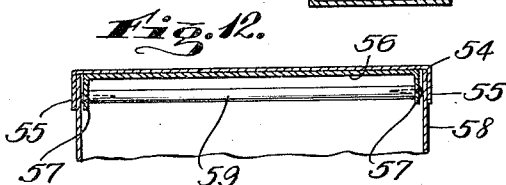
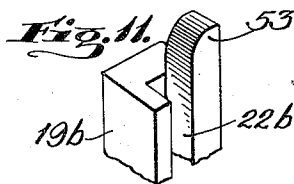
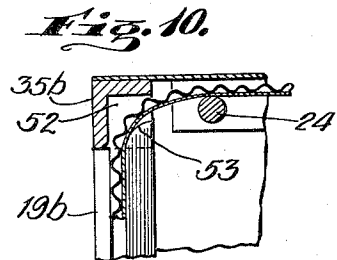
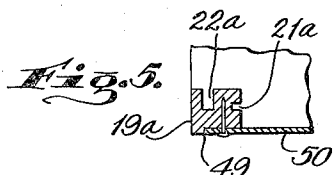
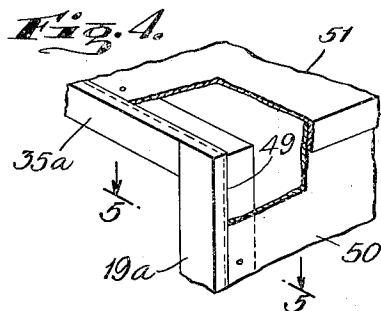
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WARDROBE, CABINET AND THE LIKE

Harry Derman, Laurelton, Long Island, N. Y.

Application July 20, 1936, Serial No. 91,488

9 Claims. (Cl. 312—190)

This invention relates to wardrobes, cabinets and similar articles of manufacture, designed for use in the storage or preservation of various articles of manufacture, and particularly articles of apparel; and the object of the invention is to provide a wardrobe, closet or the like with a sliding door or closure member which will facilitate the use of the cabinet in a closet or other compartment without requiring the space usually occupied for the swinging of doors as in other articles of this class, while at the same time, producing a better seal and closure for the cabinet and a neater and more attractive appearance to the resulting article; a further object being to provide a sliding closure for wardrobes, closets, cabinets or the like which is composed of a sheet or strip of single-faced corrugated board, whereby a sliding door or closure may be produced at a very nominal cost, and by arranging the corrugations externally, a neat and finished appearance is provided on the sliding door frame; a still further object being to provide a door of the class described to cabinets of the knock-down or collapsible type, regardless of the manner of constructing the same, the sliding door or closure being readily attached or mounted in position in the assemblage of the device; a further object being to provide means for guiding and bracing the door in its sliding movement with respect to the front door frame or side rails of a cabinet frame; a still further object being to provide a cabinet of the class described, the front of which includes an upwardly extending fixed wall or closure portion whereby the lower end of the sliding door assumes a position when closed which may be readily reached by the operator to provide convenient opening and closing of the door opening to such cabinet; and with these and other objects in view, the invention consists in a device of the class and for the purpose specified, which is simple in construction, efficient in use, and which is constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which:

Fig. 1 is a perspective view of a wardrobe or cabinet made according to my invention showing the top in a detached position, with part of the construction broken away.

Fig. 2 is a longitudinal, sectional view through

the cabinet shown in Fig. 1 in assembled position and with the door fully closed, part of the cabinet being broken away intermediate the ends thereof.

Fig. 3 is a section on the line 3—3 of Fig. 2.

Fig. 4 is a perspective view of one corner portion of a cabinet showing a modified form of construction.

Fig. 5 is a section on the line 5—5 of Fig. 4.

Fig. 6 is a front view of another form of cabinet which I employ.

Fig. 7 is a side view of the construction shown in Fig. 6.

Fig. 8 is a partial section on the line 8—8 of Fig. 6.

Fig. 9 is a partial section on the line 9—9 of Fig. 7.

Fig. 10 is a sectional view substantially similar to that shown in Fig. 2, but showing only a part of the construction on an enlarged scale and showing a modification.

Fig. 11 is a perspective view of one part of the construction shown in Fig. 10, detached.

Fig. 12 is a sectional view through the upper end portion of a cabinet showing a modified form of top wall construction.

Fig. 13 is a longitudinal sectional view through a modified form of door element which I may employ.

Fig. 14 is a similar view of another form of door element; and,

Fig. 15 is a cross section through one of the door elements which I employ showing a modification.

In the accompanying drawings, I have shown my invention as applied to the construction of what may be termed a wardrobe, cabinet, closet or the like, and it will be understood that in using any of these terms reference would be made to any type of article or container constructed in accordance with the teachings forming the subject matter of the construction herein shown, described and claimed, the present disclosure being illustrative of certain methods of carrying the invention into effect.

In Figs. 1 to 3 inclusive, I have shown a cabinet of what may be termed the knock-down or collapsible type, which consists of a part 16 folded to form a central back wall 17 and similar side walls 18. These walls are hingedly related at the corners where the side walls join the back wall. The forward edges of the side wall have longitudinal frame strips 19 channeled at one side to receive the forward edges of the walls 18 as seen at 20, said side of the strips 19 having

other channels 21. The inner or opposed side surfaces of the strips 19 when the cabinet is in set-up condition are provided with grooves or channels 22 to receive the side edges of a sliding door or closure member 23 as clearly illustrated in Figs. 1 and 3 of the drawings.

The door or closure member 23 may be formed of a sheet of single faced corrugated board with the corrugations preferably exposed outwardly in the manner shown in Fig. 1 of the drawings so that the inner smooth surface of said door is free to ride over guide rods or rollers 24, 25 and 26 mounted on channeled strips 27 secured to the upper edges of the side walls 18 as clearly seen in Figs. 1 and 2 of the drawings. The strips 27 also support a clothes hanging rod 28 which is arranged below the rollers 24, 25 and 26. In the construction shown in Figs. 1 and 2 of the drawings, the rods 24, 25 and 26 are independent of the top or closure member 29 of the cabinet so as to facilitate the attachment and detachment of the door member 23 whenever desired.

To aid in guiding the door, I may also employ rollers 30 in the cut out upper corner portions 31 of the strips 19 to guide the door 23 in its movement from the channels or grooves 22 over the rollers 24, 25 and 26. The rear end of the door 23 is preferably provided with a weight 32 to aid in drawing and guiding said end of the door downwardly along the back wall 17 of the cabinet and between this wall and a supplemental back wall 17a which is arranged in spaced relation to the wall 17 and has one side flange 17b thereof fixed to one side wall 18 of the cabinet, whereas, the other flange 17c is adapted to frictionally engage the opposed wall 18. The purpose of this construction is to provide a chamber or compartment 33 along the back wall in which the door is free to pass and so as to protect the door from coming in contact with clothing or other articles supported within the cabinet. The bottom wall 29a of the cabinet is of the same construction as the top wall and is detachable with respect to the part 16 in the same manner as the wall 29, and the brief description of one wall will apply to the other. The wall 29 consists of a rectangular sheet fitting over the top of the cabinet and having downwardly extending side and rear flanges 34. The forward edge of said wall has a reinforcing strip 35 which terminates short of the side flanges 34 to provide recesses 36 into which the upper ends of the rails 19 are adapted to pass. The corner portions of the end walls 29 are preferably reinforced by metallic corner pieces 37. The front corner pieces are attachable to the upper ends of the rails 19.

At the lower portion of the front of the cabinet is a fixed or stationary closure wall 38, the upper and lower edges of which are provided with reinforcing strips 39 which have projecting tongues adapted to enter the channels or grooves 22, it being understood that the side edges of the closure 38 also enter such grooves. This closure 38 is preferably composed of a single faced corrugated sheet so as to make the front of the cabinet uniform in its appearance—in other words, to be consistent with the door or closure 23. The lower end of the door or closure 23 is provided with a reinforcing strip 40 having a finger piece or handle 41 which facilitates the sliding movement of said closure or strip 40 slidably engaging the channels 22. In addition thereto, L-shaped or angle iron clips 42 are attached to the inner surfaces of the strip 40 and

are adapted to engage the channels or grooves 21 to hold or retain the door against detachment from the guide rails 19, especially by a careless operator. However, the use of the guide clips 42 is not absolutely essential.

It is preferred that the fixed front wall 38 including the strips 39 be of sufficient height to place the lowermost point of travel of the door 23 at a distance above the floor to conveniently reach the same, but, if desired, the door may slide substantially the full length of the door opening. When the top wall 29 is in position, the strips 27 are concealed by the side flanges 34 of said wall, the latter being arranged outwardly of the side walls 18 and the channeled strips 27 will be composed of very thin sheet metal.

When the cabinet is in knocked-down position, the walls 23 and 38 are removed as well as the end walls 29, 29a, and the walls 18, 17 are folded one upon the other and the resulting package will be long and flat. In shipment, the wall 23 may be folded over one of the other wall members, or, if desired, may be rolled, depending entirely upon the type of packing which is preferred.

Instead of employing a door or closure of corrugated board such as shown at 23, I may employ a sheet of fibre board, paper board or the like 43, as indicated in Fig. 13, one surface of which will have a plurality of closely arranged slits or cuts 44 to render the sheet 43 flexible and free to make relatively sharp bends, and the other surface of the sheet 43 will be faced by a sheet of cloth or other fabric 45 to act as a binder. On the other hand, the door or closure may be constructed from a sheet of canvas or other fabric 46 to one surface of which is attached a plurality of independent strips or cleats 47, the latter being composed of cardboard, thin wood or any other suitable material.

In Fig. 15 of the drawings, I have shown means for reinforcing as well as sealing the side edges of a sliding door or closure, and in this figure, the closure 23 is shown for illustrative purposes. On the inner surface of the side edges of the closure 23 are arranged longitudinal strips 48 of any suitable material, preferably thin fabric or flat strips which will act to reinforce said edges, and at the same time, may also be employed to form a better seal for the side edges of the door in its sliding movement in the grooves or channels of the cabinet. One of the great aims in cabinets or wardrobes of the kind under consideration is to effect, as near as possible, a sealed cabinet, and this construction produces a better seal than other cabinets of its kind, thus materially improving the efficiency and utility of the device. This is true regardless of the use of the strips 48, and it will be understood that these strips are applicable to any type of sliding door structure.

In Figs. 4 and 5 of the drawings, I have shown a slight modification of the construction shown in Figs. 1 to 3, wherein the side rails 19a, only one of which is shown, include as an integral part thereof top and bottom rails 35a, only one of which is shown, so that the rails 19a, 35a constitute a rectangular frame which is detachable with respect to the side walls and the top and bottom walls of the cabinet; whereas, in Figs. 1 to 3 inclusive, the rails 19 are fixed to and are collapsible with the walls 18. In other words, with the structure shown in Figs. 4 and 5 of the drawings, the grooves 20 are eliminated, and 75

the outer surfaces of the rails 19a are recessed as seen at 49 to receive the forward edges of the side walls 50 of the cabinet, and the rails 35a are correspondingly formed to receive the forward edges of the top and bottom walls 51. The rails 19a will be provided with grooves 21a similar to the grooves 21 and grooves 22a similar to the grooves 22. It will be understood in connection with the modifications shown in Figs. 4 and 5, that the rectangular frame may be conveniently packed with the other walls of the cabinet when in collapsed position.

In Figs. 10 and 11 of the drawings, I have shown a slight modification of the construction shown in Figs. 1 to 3 inclusive, wherein the side rails 19b which are substituted for the rails 19 are shorter in length and the top strip 35b is longer in length than the strip 35 so as to rest upon the upper edges of the rails 19b. The inner surface of the strip 35b is cut out or recessed as seen at 52, and the rails 19b are provided with upwardly extending cam portions 53 in alignment with the grooves or channels 22b so that the door or closure member may pass freely from the channels or grooves 22b and be guided by the cam portions 53 into the first roller 24 as clearly seen in Fig. 10 of the drawings. In other words, the cam portions 53 take the place of the guide rollers 30 and with this construction, the roller 24 will be moved forwardly a greater degree in the manner shown. The length of the recess 52 in the strip 35b will be equal to the distance between the depth of opposed grooves 22b. While only one rail is shown in Figs. 10 and 11, both rails will be of the same construction.

In Fig. 12 of the drawings, I have shown another form of top wall construction which may be employed. With this construction, the wall consists of an outer part 54 having depending side flanges 55 and an inner part 56 having depending side flanges 57 arranged in spaced relation to the flanges 55 so as to form a channel or groove to receive the upper edges of the walls of the cabinet which is represented at 58 in this figure. With this construction, the guide rollers 59 similar to the rollers 24, 25, and 26 as well as the hanger, if the latter is employed, are secured to the inner flanges 57 which constitutes a part of the top wall structure. In assembling a cabinet of this type, the door or closure employed will first have to be threaded through the rollers 59 of the top wall before said top wall can be mounted in position, and in certain types of cabinets, this may be found to be desirable. Whereas, in the structure shown in Fig. 1 of the drawings, the door 23 is assembled with the cabinet before the top wall 29 is placed in position. The channeled strips 27 including the rollers attached thereto, form a unit which is detachable with respect to the walls 18 to facilitate the collapsing and compact folding of the complete cabinet.

In Figs. 6 to 9 inclusive, I have shown another modification which is designed primarily for the construction of a cheap or economical cabinet. With this construction, the side and back walls of the cabinet are of unitary construction as in Fig. 1 and the forward edges of the side walls include foldable front flanges 6a which take the place of the strips 19 in trimming or appearance. The flanges 60 are reinforced by wooden strips 61 secured to the inner surfaces thereof, note Fig. 9, the strips being grooved as seen at 62 to form between the same and a part of the flange 60 the grooves or channels for the slid-

ing door or closure 63 which may be the door 23 or a door of the type shown in the other figures. At 64 is shown a groove equivalent to the grooves 21.

The top wall 65 of the cabinet may be of the construction shown in Fig. 12, or simply on outer part similar to the part 54 including the flanges 55 with a guide hanger similar to the strips 27 and the rollers attached thereto employed on the upper edge of the cabinet walls. The bottom wall 66, however, is different from all of the bottom wall structures disclosed, primarily in including a front part 67 which is integral with and foldable with respect to the bottom wall of the bottom part 66 and includes side flanges 68 foldable onto the side walls of the cabinet and secured in position by suitable fasteners as at 69. The part 67 has a reinforcing strip 70 secured to the inner surface thereof at its upper edge, which strip is adapted to fit within the flanges 60 and also forms a stop against which a strip 71 at the lower edge of the closure 63 is adapted to strike. In other words, the front part 67 takes the place of the detachable front or stationary panel part 38 including its strips 39, and at the same time, will produce the same functions and result.

Notwithstanding the fact that several different forms of construction have been described herein, my invention will be applicable to various other types and kinds of wardrobe and cabinet construction, regardless of the type and kind of material employed in the construction thereof. It is understood in this connection, that where the drawings illustrate wooden rails or strips, metal strips may be employed, and in fact, various other parts of the cabinet structure may be composed of metal.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. A knock-down cabinet of the class described comprising back, side and end walls and a front door opening, a sliding closure for said door opening comprising a member flexible in one direction, means forming part of the front edges of said side walls for engaging and guiding the side edges of the closure in the movement thereof to open and close said door opening, and means detachable with respect to the upper edges of the cabinet walls and arranged longitudinally of said edges and transversing the cabinet adjacent one end wall thereof for supporting and guiding said closure in its movement with respect to said end of the cabinet.

2. A knock-down cabinet of the class described comprising back, side and end walls and a front door opening, a sliding closure for the door opening comprising a freely flexible elongated member consisting of two flexible elongated strips, one of said strips being corrugated and secured to one surface of the other strip with the corrugations spaced longitudinally, said member being movable longitudinally of the door opening, channeled strips arranged longitudinally of the front edges of said side walls for engaging and guiding the side edges of said member in the operation of opening and closing said door opening, and means in the form of a unit detachable with one end of the cabinet and supported on opposed side walls thereof, said unit having spaced front and rear means for guiding said member over and forwardly and backwardly in the cabinet adjacent one end wall thereof.

3. A knock-down cabinet of the class described comprising back, side and end walls and a front

door opening, a sliding closure for the door opening comprising a freely flexible elongated member consisting of two flexible elongated strips, one of said strips being corrugated and secured to one surface of the other strip with the corrugations spaced longitudinally, said member being movable longitudinally of the door opening, channeled strips arranged longitudinally of the front edges of said side walls for engaging and guiding the side edges of said member in the operation of opening and closing said door opening, means in the form of a unit detachable with one end of the cabinet and supported on opposed side walls thereof said unit having spaced front and rear means for guiding said member over and forwardly and backwardly in the cabinet adjacent one end wall thereof, and means on said channeled strips adjacent said end wall for guiding said member onto and over said unit.

4. A knock-down cabinet of the class described comprising back, side and end walls and a front door opening, a sliding closure for the door opening comprising a freely flexible elongated member consisting of two flexible elongated strips, one of said strips being corrugated and secured to one surface of the other strip with the corrugations spaced longitudinally, said member being movable longitudinally of the door opening, channeled strips arranged longitudinally of the front edges of said side walls for engaging and guiding the side edges of said member in the operation of opening and closing said door opening, means in the form of a unit detachable with one end of the cabinet and supported on opposed side walls thereof, said unit having spaced front and rear means for guiding said member over and forwardly and backwardly in the cabinet adjacent one end wall thereof, means on said channeled strips adjacent said end wall for guiding said member onto and over said unit, and said end wall being notched to receive the upper ends of said channeled strips to dispose said last named means in close proximity to said end wall.

5. A knock-down sectional cabinet of the class described comprising paper board parts consisting of a back and side wall part, substantially similar end wall parts, a front wall part and a closure part, said wall parts when assembled forming a cabinet having an elongated opening at the front thereof, means longitudinally of opposed walls of said opening forming guide channels, said closure part comprising a freely flexing member consisting of an elongated strip of freely flexing material and a continuous corrugated strip of paper secured to one surface of the first named strip with the corrugations spaced longitudinally thereof, said member slidably engaging the channels of said means in the movement of said member longitudinally of said opening, means transversing the cabinet in close proximity to one end wall thereof for supporting and guiding said member in its movement forwardly and backwardly through the cabinet, and said last named means comprising a frame consisting of channeled strips adapted to be passed over the upper edges of the side walls of the first named cabinet part and rods coupling and spacing said channeled strips.

6. A knock-down sectional cabinet of the class described comprising paper board parts consisting of a back and side wall part, substantially similar end wall parts, a front wall part and a closure part, said wall parts when assembled forming a cabinet having an elongated opening at the front thereof, means longitudinally of op-

posed walls of said opening forming guide channels, said closure part comprising a freely flexing member consisting of an elongated strip of freely flexing material and a continuous corrugated strip of paper secured to one surface of the first named strip with the corrugations spaced longitudinally thereof, said member slidably engaging the channels of said means in the movement of said member longitudinally of said openings, means transversing the cabinet in close proximity to one end wall thereof for supporting and guiding said member in its movement forwardly and backwardly through the cabinet, said last named means comprising a frame consisting of channeled strips adapted to be passed over the upper edges of the side walls of the first named cabinet part and rods coupling and spacing said channeled strips, and a garment supporting rod on said frame below said first named rods.

7. A knock-down sectional cabinet of the class described comprising paper board parts consisting of a back and side wall part, substantially similar end wall parts, a front wall part and a closure part, said wall parts when assembled forming a cabinet having an elongated opening at the front thereof, means longitudinally of opposed walls of said opening forming guide channels, said closure part comprising a freely flexing material and a continuous corrugated strip of paper secured to one surface of the first named strip with the corrugations spaced longitudinally thereof, said member slidably engaging the channels of said means in the movement of said member longitudinally of said opening, means detachable with respect to the upper edges of the cabinet walls and arranged longitudinally of said edges and transversing the cabinet in close proximity to one end wall thereof for supporting and guiding said member in its movement forwardly and backwardly through the cabinet, and a supplemental back wall part hingedly coupled with and collapsible on one of the side walls of the first named part and engaging the other side wall thereof to form means to guide the inner end portion of the closure part in its movement longitudinally of said back wall.

8. A knock-down cabinet of the class described comprising back, side and end walls and a front door opening, a sliding closure for the door opening comprising a freely flexible elongated member consisting of two flexible elongated strips, one of said strips being corrugated and secured to one surface of the other strip with the corrugations spaced longitudinally, said member being movable longitudinally of the door opening, channeled strips arranged longitudinally of the front edges of said side walls for engaging and guiding the side edges of said member in the operation of opening and closing said door, means detachable with respect to the upper edges of the cabinet walls and arranged longitudinally of said edges and transversing the cabinet adjacent one end wall thereof for supporting and guiding said member forwardly and backwardly through the cabinet and substantially parallel to the end wall thereof, and means at the free end of said member cooperating with independent channels in said rails for providing supplemental guides for said member in its movement longitudinally of said rails.

9. A knock-down cabinet of the class described comprising detachably and collapsibly related wall parts which when assembled form an elongated cabinet consisting of back, side and end

walls, the front of the cabinet having an elongated opening, a door or closure member consisting of an elongated strip which is freely flexible in a longitudinal direction and substantially rigid in a transverse direction, means for
5 guiding said member in the side walls of the cabinet in the movement thereof to open and close said front opening, means in the form of a unitary frame detachably supported in connection with the cabinet at one end wall thereof,
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said unit having spaced front and rear means for supporting and guiding said member over and forwardly and backwardly through the cabinet adjacent said end wall, means forming a stationary closure for the front of the cabinet at one
5 end portion thereof, and said last named means constituting an integral part of one end wall of the cabinet.

HARRY DERMAN. 10