Dec. 18, 1962 A. B. CHRISTENSEN 3,068,937

DRAW CLOSURE

Filed Jan. 4, 1960 2 Sheets-Sheet 1

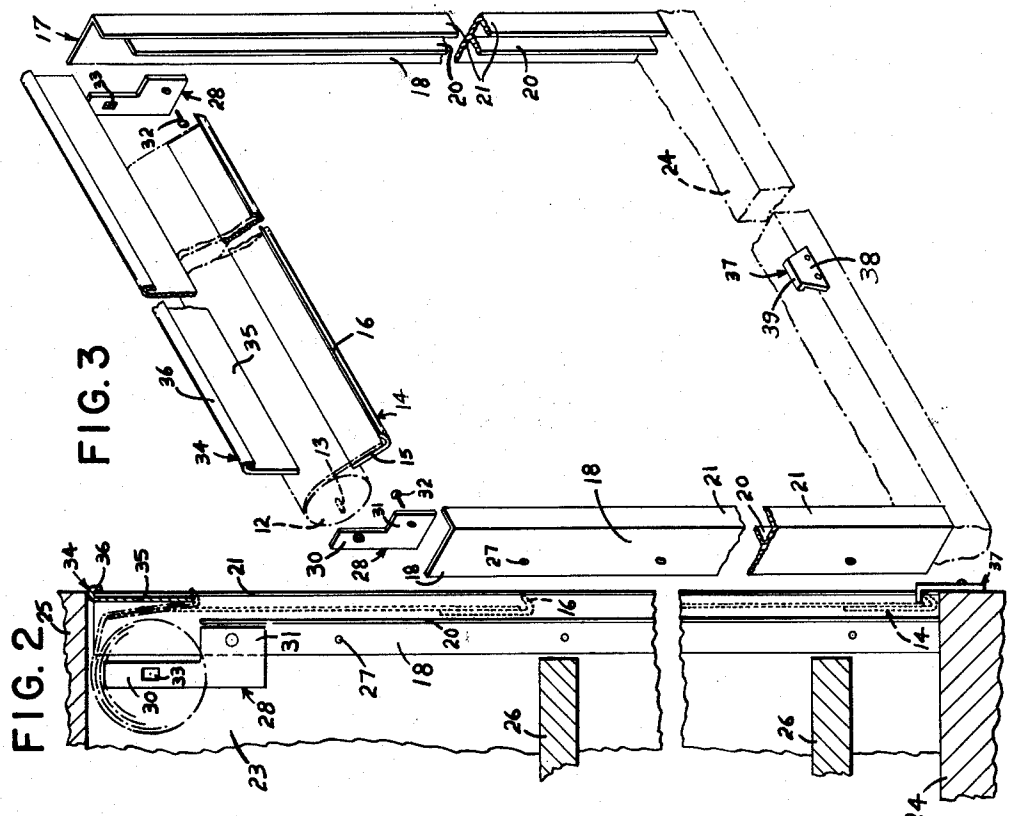


FIG. 3

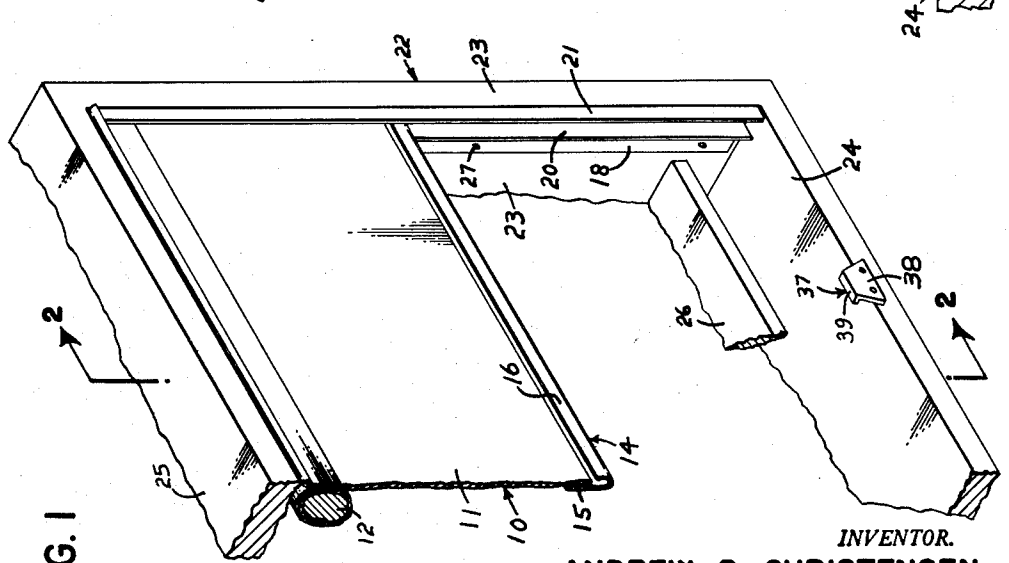


FIG. 2

FIG. 1

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FIG. 4

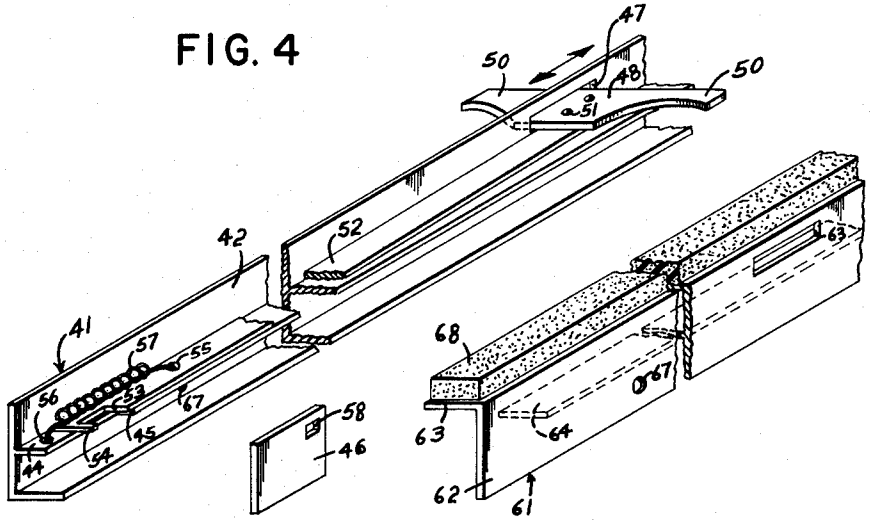


FIG. 5

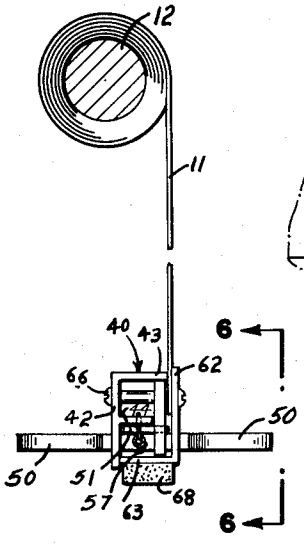
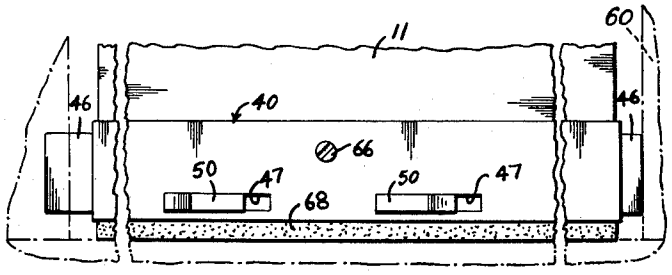


FIG. 6



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DRAW CLOSURE

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This invention relates to a draw closure which can be used for a cupboard, a storage shelf, a doorway and the like.

In a kitchen it is often desirable to have a storage cabinet for dishes and cooking utensils. But, due to the layout of the kitchen, it is objectionable to have the cabinet in a particular location as outward swinging doors would interfere with a door or other cupboards. Because of this, the storage cabinet is never installed. As a result of the inconvenience of the swinging doors, I have invented a draw closure which can be installed in an open cabinet so as to be opened for access to the shelves of the cabinet and can be drawn to a closed position so as to hide from view the contents of the cabinet.

In a variation of this draw closure, the same may be used in a doorway so as to screen off a room or an area. For example, in a house there may be a small room which cannot conveniently handle a swinging door. However, a degree of privacy is desired. This privacy can be achieved by the installation of my closure in the doorway.

In much of present day construction there is used a flush type fitting for doorways and cabinets. One of the advantages is the modern appearance of the room. Another desirable advantage is the relief from projecting doors with the result flowing therefrom of greater safety by not running into the door and its edges. Further advantages are a closure for openings which can easily be rolled into a compact unit; which can be readily unrolled into the screen; which is simple to operate; and which is relatively inexpensive to manufacture.

These and other important objects and advantages of the invention will be more clearly presented and brought out by the following drawings, detailed description the invention and the claims.

In the drawings:

FIGURE 1 is a fragmentary perspective view looking at a specific embodiment of the invention constructed in accordance with the preferred teachings thereof, and which embodiment is in a wall cabinet;

FIGURE 2, on an enlarged scale, is a vertical cross-sectional view taken on line 2—2 of FIGURE 1;

FIGURE 3 is a fragmentary perspective view of the essential elements of the invention and shows the same in disassembled state but with the elements in their approximate relative positions;

FIGURE 4 is a fragmentary perspective exploded and inverted view of a clamping device for the closure, and illustrates the elements comprising this clamping device;

FIGURE 5 is a vertical, side-elevational view showing the clamping device in position on the lower end of the draw closure; and,

FIGURE 6 is a fragmentary elevational view of the central portion and the ends of the clamping device.

Referring to the drawings it is seen that the invention comprises a draw closure **10** comprising a flexible screen **11** which is capable of being wound on a spring-loaded rod **12**. This rod may be a conventional spring-loaded curtain rod which has been in use for a number of years, and the screen may be of laminated construction. Projecting outwardly of each end is a pin **13**.

The upper part of the screen **11** is attached to the roll **12** and attached to the lower edge of the screen is a protective edge **14** having a relatively large base portion **15** and an upwardly curving leading edge **16**.

Additional elements of the draw closure are vertical guides **17**. Each of these guides comprises a flat base

portion **18** and two parallel spaced-apart longitudinal ribs **20** and **21**. The rib **21** is positioned at the edge of the base **18** and the rib **20** is positioned near the central longitudinal axis of the base **18**. As is readily appreciated, the ribs **20** and **21** define a guide channel for receiving the protective edge **14** and the flexible screen **11**.

In use in an open cupboard **22** having sides **23**, a bottom **24**, a top **25** and shelves **26**, a vertical guide **17** is fastened to the inner face of the side **23** and adjacent the outer edge. In the base **18** are a number of holes **27**. The vertical guide **17** may be attached by nails or screws passing through these holes and into the side **23**.

Attached to the inner face of the side **23** and near the top of the base **18** is an L-shaped bracket **28** for positioning the rod **12**. This bracket comprises a main vertical leg **30** and a horizontal leg **31**. The leg **31** of this bracket is positioned to overlie the upper part of the base **18** and is attached to the side **23** by means of a pin or screw **32**.

In the leg **30** of the bracket **28** is a slot **33** for receiving the pin **13** on the end of the rod **12**. This slot may be of a rectangular configuration so as to receive the lock pin associated with the spring in the rod.

A molding member **34** is positioned in the upper part of the guides **17** so as to hide from view the rod **12** and the screen **11** thereon. This molding member comprises a base **35** and a curved edge **36**. The base **35** is slipped in between the upper part of the two ribs **20** and **21** and on the outside of the screen **11**. The curved edge **36** is directed outwardly with this edge being supported on the upper edge of the rib **21**.

On the edge of the bottom **24** is a catch **37** having a base **38** and an inwardly directed finger **39**. This catch is attached by means of screws or nails.

In operation the screen **11** can be drawn down and the leading edge **16** of the screen **11** hooked under the finger **39**. The screen in this state hides the interior of the cabinet from view. By releasing the edge **16** from the catch **37**, the screen is allowed to roll up so as to expose the shelves to view.

From a construction and manufacturing standpoint the protective edge **14** and the molding member **34** may be the same.

In place of the protective edge **14** there may be used a clamping device **40**. This device is attached to the lower end of the screen **11** and is used to position the lower edge of the screen at a desired level in a cupboard or doorway.

This clamping device comprises a main member **41** generally F-shaped in cross section having a relatively large base **42**. Projecting inwardly from one edge of this base and running the length thereof is a rib **43**. On the same face of the base as the rib **43** and spaced at about the middle of the base is a rib **44**. This rib runs the length of the base and is parallel to the rib **43**. The end portions of the rib **44** are cut away as at **45** so as to receive block **46**.

In the middle part of the base are two slots **47**. Projecting through each slot **47** is an actuating means having a base portion **48** and two handle portions **50**. These slots are in the free area of the base **42**, i.e., that area which is not between the ribs **43** and **44**.

The base of the handle is riveted at **51** to a connecting member **52** which extends almost to the end of the main member **41**. This connecting member near its free end is notched at **53** to form a finger **54**. Near the free end of the connecting member **52**, but spaced inwardly therefrom, is a hole **55**, and near the end of the rib **44** is a hole **56**. A spring **57** is stretched between these two holes so as to urge the connecting member **52** toward the end of the rib **44**. However, the base **48** of the actuating means prevents the movement of the connecting member **52** to the end of **44**.

Returning now to the block 46 there is a slot 58 near one corner. This slot is of sufficient size to fit over the finger 54. In assembled relation the block 46 is positioned over the finger 54 with one edge of the block bearing against the inner face of the rib 43 and the end projecting out and beyond the edge of the ribs 43 and 44 and the main member 42. This is illustrated in FIGURE 6 wherein it is shown that the end edge of 46 can abut against a wall or jamb 60 to position the draw closure, or 46 can be completely extended so as to fit behind a wall or jamb to restrict the backward and forward movement of the closure. It is to be realized that the block 46 is drawn inwardly by moving the handle 50 inwardly from either side of the closure.

There is provided a cover 61 for enclosing the movable elements of the clamping device. This cover is of the same general F-shaped cross-sectional configuration as the main member 41. This cover comprises a relatively large base 62 and a rib 63 on one edge. At substantially the central portion of this base, and on the same face as the rib 63, is a rib 64 which is spaced apart from and parallel to the rib 63. The rib 64 is not as long as the rib 63 and therefore does not extend to the end edges of the base 62.

In the base member 62 are two slots 65. These slots are between the ribs 63 and 64 and are so positioned, viz., between the ribs 63 and 64, that when the cover is positioned over the main member 41, the slots 47 and 65 are aligned to receive the handles 50.

The main members 41 and 61 are held together by sleeve-type nuts and bolts 66 which pass through holes 67 in these members.

On the outer face of the rib 63 is a flexible bearing material 68. When the closure is lowered to the bottom of a cupboard or a doorway, the flexible bearing material absorbs some of the shock of the clamping device hitting against the shelf or the floor, and also functions to seal the closure and the shelf or floor.

Although the closure has been described for a utilitarian purpose, it is to be realized that the closure may be used for its decorative effect. More particularly, the closure may have a decorative design which can blend with the furniture of the room. And, because of the inexpensive nature of the closure, the same may be replaced from time to time to vary the decorations of a room.

The materials of construction of the various components of this draw closure may be plastic and metal. For example, the closure 11 may be of sheet plastic such as polyethylene or may be a woven closure of cotton, nylon and the like. The elements 14, 17, 28, 34, 41 and 61 may be of plastic or aluminum. Suitable plastic materials are acetal resin (polyoxymethylene), cellulose acetate, polyethylene, nylon, polycarbonate and polyvinylchloride. The members 17, 14, and 61 may be extruded or the separate pieces bonded together by an adhesive. The cushioning material 68 may be felt, foamed polyurethane or rubber, to name a few.

Having presented my invention, what I claim is:

1. A clamping device adapted to be secured to the edge of a fabric and to hold itself in various selected positions between two spaced apart jambs comprising a main member generally F-shaped in cross section having a base, a first rib at an edge of said base, and a second rib parallel to said first rib and intermediate the edges of said base, said second rib at the ends thereof being of less width than the first rib, a generally F-shaped in cross section cover member having a base, a first rib at an edge of said base, and a second rib parallel to said first rib and intermediate the edges of said base, means securing said cover member in facing inverted relation to said main member, the width of the rib at the edge of the main member being less than the width of the ribs of the cover member to thereby provide an opening for fabric, the two ribs of the cover member abutting the base of the main member, the second rib of the cover member having the ends thereof spaced inwardly of the ends of the cover member base, a block at each end of the clamping device extending generally between the ribs at the edges of said members and between the end of the main member middle rib and the base of the cover member, at least one of said bases having a pair of slots therein, a pair of handles each extending through a said slot, means connecting said handles with said blocks, and spring means urging said blocks outwardly beyond the ends of said members.

2. The device of claim 1, and a sealing strip secured to the outer face of the end rib of the cover member.

3. The device of claim 1, wherein both said bases have pairs of slots therein, and said handles each extend through a slot in each said base.

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