CABINET DOOR RESTRAINT

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Filed: July 21, 1972

Appl. No.: 274,047

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ABSTRACT

A disposable device is provided to serve as a combination door lock, gauge and support for use in the assembly and shipping of cabinets. The device is of a semi-boxed configuration having a leg mountable at one corner of the door opening opposite the hinged side thereof. One wall of the device is articulated and latches with another wall whereby when the door of the cabinet is closed, the articulated wall is snapped into a latched position over the outside corner of the door, locking it in place. The leg may be temporarily stapled to the cabinet or may have an extension which hooks around the inside face of the cabinet.

4 Claims, 5 Drawing Figures
CABINET DOOR RESTRAINT

BACKGROUND OF THE INVENTION

1. Field of the Invention
This invention relates generally to cabinet hardware and the like and more particularly is directed towards a device of a disposable nature which serves as a combination temporary lock to hold the door in a closed position, a gauge for positioning the door during assembly and a support for the door during shipment.

2. Description of the Prior Art
In the fabrication and subsequent shipment of cabinets such as kitchen cabinets, for example, a common problem exists with respect to keeping the door closed. Most cabinets of this type use either a magnetic latch or a light spring latch which are sufficient to keep the door closed while upright against slight pressure since the door should be relatively easy to open for convenient operation. However, the latches now in use are not particularly effective in keeping the door closed. During shipment and damage will frequently occur when a cabinet is removed from its shipping container or on delivery. If the cabinet is removed improperly from its container, the door may swing open and either damage the finish on the door or crack the stiles of the cabinet.

Heretofore, there has been no satisfactory means for preventing this type of accident and, while pressure-sensitive tape might be employed, this has the disadvantage of possibly marring the cabinet surface when the tape is removed.

Accordingly, it is an object of the present invention to provide an effective, low cost device adapted to provide a positive locking action between the cabinet and a door hinged thereto. A further object of this invention is to provide a device which, when in position, serves as a gauge during initial assembly of the door to the cabinet, supports the door during shipment against lateral displacement and maintains the door in a positive locked condition until removal of the device.

SUMMARY OF THE INVENTION
This invention features a combination gauge, support and lock for a cabinet with a hinged door, comprising a unitary part having walls defining a semi-boxed configuration, one wall being hinged with respect to a second wall and formed with a latch portion adapted to lockably engage with a cooperating latch portion of a third wall whereby a door corner, when received within the semi-boxed recess, may be locked in position by latching the one wall to the third wall. A leg portion extends from a base wall inwardly over the cabinet stile for attachment thereto as by stapling or by means of an optional hook extension.

BRIEF DESCRIPTION OF THE DRAWINGS
FIG. 1 is a view in perspective of a combination door lock, gauge and support made according to the invention and showing the device in an open position. FIG. 2 is another view in perspective from a different aspect showing the device in the latched position. FIG. 3 is a view in perspective showing the device in place on a cabinet with the door open. FIG. 4 is a view similar to FIG. 3 but showing the door cabinet closed and the device locked, and, FIG. 5 is a fragmentary elevation showing the interior rear view of a stile with the device in position.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT
Referring now to the drawings, the reference character 10 generally indicates a combination temporary gauge, support and lock for a door 12 hinged to a cabinet 14. The device 10 of the preferred embodiment is of a unitary molded plastic construction adapted to be mass produced at low price so as to be conveniently disposable. Normally, one device 10 will suffice for each cabinet door being mounted at the lower corner of the door opening opposite the hinge side of the opening. This support and locking action may be increased by adding a second device 10 to the upper corner of the opening.

The device 10, as best shown in FIGS. 1 and 2, is of a semi-boxed configuration, comprised of base wall 16, mutually perpendicular side walls 18 and 20 and a hinged wall 22 formed by an extension of the wall 18 and connected thereto by means of a living hinge 24. The living hinge 24 typically is formed by molding the part with a V-groove 26 facing inwardly to allow the hinged wall 22 to be swung from the open position of FIG. 1 to the closed position of FIG. 2, generally perpendicular to both walls 18 and 20.

The hinged wall 22 is formed with a co-planar extension 28 which, in turn, is formed with a right angular tab extension 30 formed by a leading beveled face 34 and a shoulder 36. The tab 30 in the open position of FIG. 1 extends perpendicularly from the plane of the hinged member 22 and is generally parallel with the wall 20. The wall 20 on its upper outer surface is formed with a latch portion 38 formed by means of a cooperating beveled face 40 and a shoulder 42. The latch portion 38 interlocks with the hook portion 32 of the tab 30 when the hinged wall 22 is bent down into the closed position best shown in FIG. 2. In this position, the wall 22 is locked closed and may be easily released by merely inserting a finger in between the beveled face 34 of the hook and the outer surface of the wall 20 to bend the tab back sufficiently to allow the opposing shoulders 36 and 42 to separate. The living hinge 24 is somewhat resilient and provides a certain spring action when the parts are unlatched.

Extending outwardly of the hinged wall 16 from a point opposite the corner between the walls 18 and 20 is a leg 44 of triangular cross-section. The outer face of the leg 44 is flat while the inner faces define a right angle to provide a proper fit at the corner of a cabinet opening as best shown in FIGS. 3 and 5. The length of the leg 44 typically corresponds with the thickness of an average front wall of a cabinet and may be of perhaps an inch or so in length. The leg extends in a direction perpendicular to the plane of the wall 16 originating at a diagonal edge 46 on the outer corner of the wall 16. In practice, the leg 44 serves to position the device in place and also serves to receive a staple or the like for fastening the device temporarily to the cabinet. A staple, for example, may be driven through the flat face of the leg to hold the device in the corner of the door opening as suggested in FIG. 3. Since the preferred form of the device is in plastic, the staple is easily driven through the leg 44.

Instead of stapling the device in place, the device may be held in position by providing an optional second leg 48 shown in dotted line in FIGS. 1, 2 and 5. The second leg 48 extends from the outer end of the leg 44
in a direction parallel with the right-hand edge of the wall 16 as viewed in FIG. 1. The leg 48 typically has a length of perhaps an inch or so, the free end terminating at a point generally even with the plane of the wall 18. The leg preferably is flat on both faces and is integral with the leg 44. In this embodiment, the device is merely slipped over the stile so that the leg 48 extends across the inner face of the front cabinet wall as best shown in FIG. 5. Thus, when the door 12 is closed against the wall 16 of the device and the hinged wall 22 is closed over the corner of the door and latched as best shown in FIG. 4, the device will be locked in position and the door cannot be opened until the latch elements 32 and 38 are disconnected.

The device serves a number of functions. Preferably, the device is a low cost disposable item which will keep a cabinet door locked during shipment. Once the cabinet has reached its destination and placed in an upright position, the device is removed by merely disconnecting the latching portions and removing the device from the cabinet. Thereafter the cabinet will be kept closed by its regular latching mechanism whether mechanical or magnetic. Secondly, the device serves to support the door itself should the cabinet be dropped accidentally. The door will be thus held at three points instead of the usual two support points provided by the hinges. Thirdly, the device may serve as a gauge when the door is first being assembled onto the cabinet. When used for this purpose, the hinges are first screwed or otherwise attached to the door, the device is mounted in position and the door is then placed on the front of the cabinet over the door opening with the door corner seating in the device. The device properly positions the door with respect to the cabinet so that the door hinges may be now be screwed onto the face of the cabinet.

Having thus described the invention what We claim and desire to obtain by Letters Patent of the United States is:

1. A restraint for the door of a cabinet, comprising
   a. a body portion formed with a base wall and a pair of mutually perpendicular contiguous side walls defining a semiboxed recess,
   b. one of said side walls being formed with a first latch portion,
   c. a hinged wall connected to the other of said side walls,
   d. said hinged wall being formed with a second latch portion adapted to lockably engage said first latch portion when said hinged wall is closed thereagainst, and,
   e. a leg extending perpendicularly from said base wall for engagement with said cabinet.

2. A restraint according to claim 1 wherein said body portion and said hinged wall are of a plastic material, said other wall being formed with a groove at the juncture of said hinged wall to form a flexible hinge.

3. A restraint according to claim 1 wherein said leg is formed with an extension substantially parallel to said base wall.

4. A restraint according to claim 1 wherein said first latch portion is in the form of a beveled face and shoulder and said second latch portion is in the form of an oppositely facing beveled face and shoulder.

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