A. H. KLUG.

CABINET.

APPLICATION FILED FEB. 7, 1908.

926,946. Patented July 6, 1909.

FIG. 3.

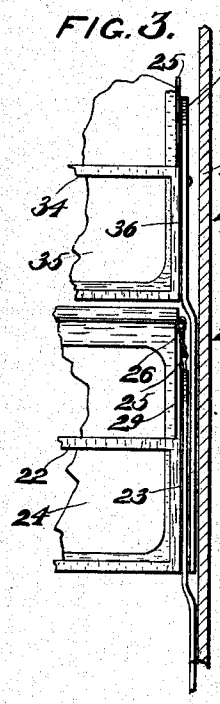


FIG. 2.

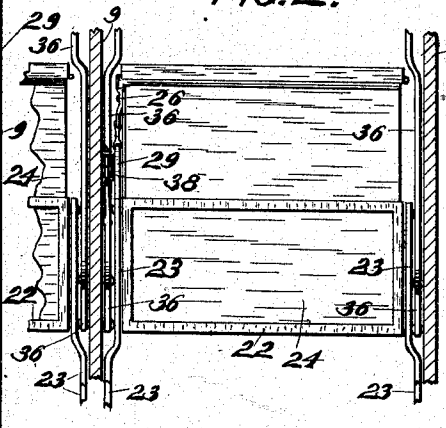


FIG. 1.

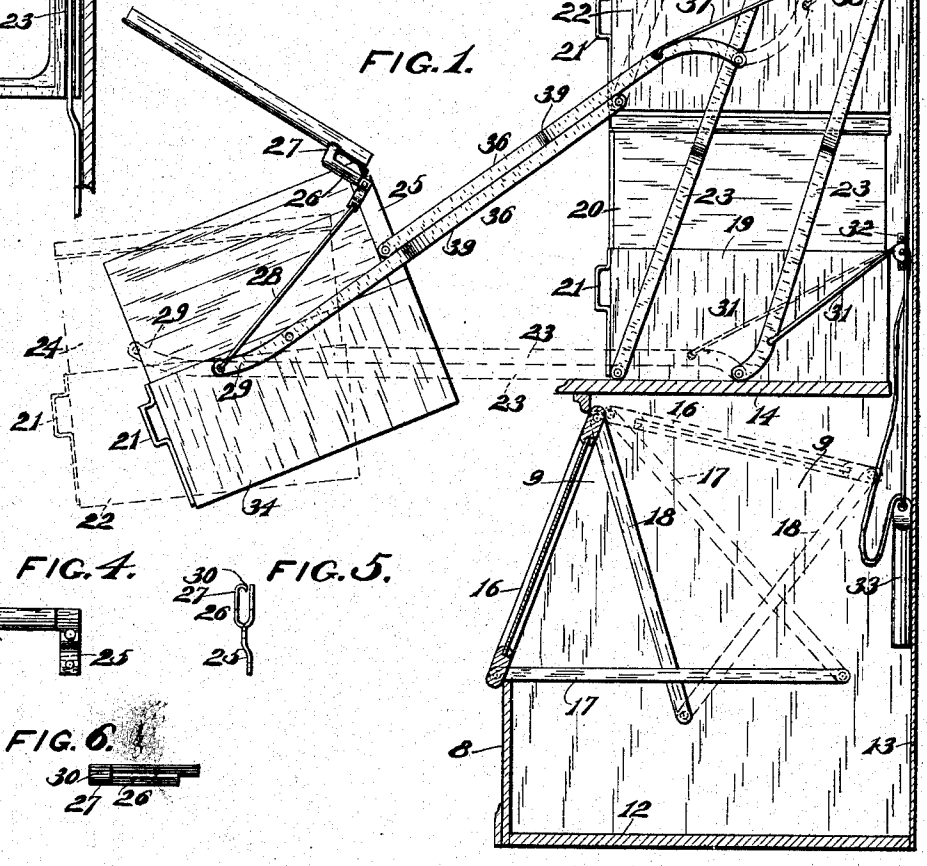


FIG. 4.

FIG. 5.

FIG. 6.

WITNESSES.

L. C. Thenner

Anna F. Schmidbauer

INVENTOR.

August H. Klug,

By Benedict, Morsell & Caldwell.

ATTORNEYS.

ANDREW. B. GRAHAM CO., PHOTO-LITHOGRAPHERS, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

AUGUST H. KLUG, OF MILWAUKEE, WISCONSIN.

CABINET.

No. 926,946. Specification of Letters Patent. Patented July 6, 1909.

Application filed February 7, 1908. Serial No. 414,671.

To all whom it may concern:

Be it known that I, AUGUST H. KLUG, residing in Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Cabinets, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

This invention relates to improvements in cabinets.

The primary object of the invention is to provide a cabinet in which the different articles contained therein may be moved to a position in which they are more easily accessible for sale or use.

A further object of the invention is to provide a cabinet in which articles are contained in covered display receptacles which may be swung to a position of convenient accessibility and the covers of the receptacles will be automatically swung open, and when the receptacles are swung back into the cabinet the covers will be automatically closed.

A still further object of the invention is to provide the lower immovable receptacles of the cabinet with doors or covers which may be swung into the cabinet and practically disappearing from view.

A still further object of the invention is to provide a cabinet in which the receptacles are removably held in holders and may be easily removed therefrom when empty and filled receptacles substituted therefor.

With the above, and other objects in view, the invention consists of the parts and their combinations, and all equivalents thereof.

In the accompanying drawing in which the same reference characters refer to the same parts in all of the views: Figure 1 is a vertical sectional view of the cabinet showing one of the upper receptacles swung to a position of accessibility, and also showing in dotted lines one of the lower receptacles swung to the same position; Fig. 2 is a rear vertical sectional view of a fragment of the cabinet and one of the holders; Fig. 3 is a front view of a fragment of the cabinet; Fig. 4 is a detail view of the bell crank lever for lifting the receptacle cover; Fig. 5 is a rear edge view thereof; and Fig. 6 is a plan view of the lever.

Referring to the drawing, the numeral 8 indicates the casing of the cabinet which may vary in size and shape according to the class of articles to be contained therein, the drawing for convenience illustrating a cabinet adapted to contain and display crackers and cookies of different kinds.

The casing consists of a box-like structure formed with sides 9, vertical partitions 10, a top 11, a bottom 12, a back 13 and a horizontal partition or shelf 14. The lower portions of the sides and the vertical partitions are wider than the upper portions to form bins 15 with inclined doors 16 pivotally connected to the ends of a horizontal link 17 and a vertical link 18. The opposite ends of these links are pivotally connected to the inner faces of the side 9 and the vertical partition 10 in such positions as to swing the cover 16 upwardly and rearwardly beneath the shelf 14 in opening the bin, and when swung to the open position (shown in dotted lines) the cover will remain in this position until again closed.

Sliding holders 19 are positioned in the compartments immediately above the horizontal partition or shelf 14. These holders are adapted to contain receptacles 20 in which articles to be sold or kept are placed. A handle 21 is provided on the holder for convenience in withdrawing the holder from the cabinet to get at the contents of the receptacle.

Immediately above each sliding holder receptacle is positioned a swinging holder 22 supported by means of pairs of substantially parallel links 23 which are pivotally connected to the upper portions of the holders 22 on each side thereof. The lower ends of these links are pivotally connected to the inner portions of the sides and to the vertical partitions at a point immediately above the horizontal partition 14. The pivotal connections of the pairs of links to the holders and to the cabinet are such as to permit the holders being swung outwardly and downwardly to a convenient position so that access may be had to the receptacle 24 supported in said holder, and also so as not to interfere with the sliding of the holder 19, which is slightly narrower than the space between the pairs of links. The holders 22 are provided with standards 25 projecting upwardly from the rear portions thereof, and to these standards are pivotally connected bell-crank levers 26. The ends 27 of the horizontal portions of the levers are constructed to engage

the covers of the receptacles supported in the holders, and the ends of the vertical portions of the levers are connected by means of a flexible wire or chain 28 to extensions 29 of the forward links 23, so that as the holder and its receptacle are swung outwardly and downwardly from the cabinet to a position of convenient access the cover of the receptacle will be automatically swung to an open position by reason of the tightening of the wire or chain caused by the swinging of the extension 29 away from the bell-crank lever, and conversely as the holder is swung back into the cabinet the cover will be automatically closed.

In order to releasably engage the receptacle cover the bell-crank lever 26 is formed of spring brass or other metal and the horizontal portion thereof is bent over and upwardly forming a U-shaped portion in cross section, the ends 27 of which are adapted to engage the lower edge of one side of the cover. The outer member of the U-shaped portion is bent inwardly and downwardly to form a shoulder or catch 30 which is adapted to spring over the rounded lower edge of the receptacle cover and securely hold the cover to the bell-crank lever.

A cord or cable 31 is connected to one of the levers 23 a short distance above its pivotal connection with the cabinet and this cord passes over a pulley 32 fastened to the cabinet near its back. A weight 33 is connected to the end of the cord and serves to counterbalance the weight of the holder and its receptacle so that but little exertion is required to raise and lower the holder and its receptacle. The holder is provided with a handle similar to the handle 21 of the sliding holder. Another series of holders 34 and receptacles 35 are positioned immediately above the receptacles 24 and similar in every respect to the other holders and receptacles located beneath them. The holders are swung and supported on swinging links 36 similar to the links 23 with the exception that the lower ends of the rear links are more curved to permit the holders to swing down to a plane below the pivotal connections of the links 36 with the cabinet and to prevent the holders from tilting too much. The relative point of pivotal connection of these rear links are also above the horizontal plane of the pivots of the forward links as compared with the pivotal connections of the front and rear links 23. These links 36 are positioned between the links 23 and their pivotal connection with the cabinet to prevent interference of said links with each other, and sufficient space is provided between the sides of the holders and the cabinet to permit free play of the links. The holders 34 are also provided with the bell-crank levers for automatically opening and closing the receptacle covers as before described. A cord or cable 37 is connected to the rear link 36 and passes over a pulley 38 and extends downwardly and is also connected to the weight 33 so that the same weights are adapted to counterbalance each vertical series of holders and receptacles.

The pivotal connections of the swinging links are so positioned and curved that when the receptacle is swung down to a position of convenient access they will contact with each other edgewise, as they travel in the same vertical plane, and act as a stop to limit the downward movement of the holder. In the case of the lowest swinging holder the front edge of the horizontal partition or shelf 14 serves as an additional stop to limit the movement of the links.

The holders are all similar in construction and consist of box-like structures formed of sheet metal and strap iron with open tops for the insertion of the receptacles and with partial open fronts to display the contents of the receptacles through the glass front thereof. The links 36 are offset or bent as indicated at 39 in order to clear the links 23 in moving the holders.

In use the holders are provided with receptacles which are placed therein and the covers of said receptacles are connected to the bell-crank levers and the holders are then swung up and into the cabinet and the cabinet is now ready for use. If the cabinet is one adapted for holding crackers and cookies as shown in the drawings the contents of the different receptacles will be visible to the customers and will tend to increase the sale thereof, and if a sale is made it is only necessary to take hold of the handle of the holder containing the articles selected and pull outwardly. This will cause the holder and its receptacle to swing outwardly and downwardly to a position of convenient accessibility, which is its lowest position, and the cover of the receptacle will be automatically swung to an open position so that the salesman has merely to remove the required number or weight of the article required. The receptacle will remain in this position until the salesman pushes the holder back into the cabinet, and during this operation the cover of the receptacle will automatically close. All of the receptacles of the cabinet regardless of their location when in said cabinet may be swung down to substantially the same horizontal plane so that receptacles may be placed at a considerable height and still be within convenient access.

It is obvious that holders may be positioned above the upper receptacle shown in the drawing and the same general manner of link connections used and the same results obtained and it is to be understood that the invention contemplates the use of any number of holders arranged in the manner described. It is also obvious that the holders

themselves may be adapted to hold general merchandise, books etc., without departing from the spirit of the invention.

What I claim as my invention is:

1. A cabinet, comprising a casing provided with links of such lengths that their outer ends may be independently swung to substantially the same horizontal plane, and a plurality of holders positioned one above another within the casing and connected to the outer ends of said links and adapted and constructed to be independently moved to the same horizontal plane with the outer ends of said links.

2. A cabinet, comprising a casing provided with a plurality of holders positioned one above the other, and links pivotally connecting the holders to the casing whereby the holders may be independently moved to substantially the same horizontal plane.

3. A cabinet, comprising a casing provided with a plurality of holders positioned one above the other, and pairs of links pivotally connected to each side of each holder and to the casing whereby the holders may be independently swung to substantially the same horizontal plane.

4. A cabinet, comprising a casing, a plurality of holders positioned within the casing and located one above the other, and pairs of links pivotally connected to each side of each holder and to the casing whereby the holders may be independently swung to substantially the same horizontal plane and when this position is reached the links also serve as stops to prevent further movement of the holders.

5. A cabinet, comprising a casing, a plurality of holders positioned within the casing and located one above the other, pairs of links pivotally connected to each side of each holder and to the casing whereby the holders may be independently swung to substantially the same horizontal plane, said links also serving to act as stops to limit the movement of said holders beyond a predetermined point.

6. A cabinet, comprising a casing, a plurality of holders positioned within the casing and located one above the other, pairs of links pivotally connected to each side of each holder and to the casing whereby the holders may be swung to substantially the same horizontal plane, and a counterbalancing weight operatively connected to said links.

7. A cabinet, comprising a casing, a plurality of holders positioned within the casing and located one above the other, pairs of links pivotally connected to each side of each holder and extending to a position near the plane of the bottom of the holders located immediately beneath said holders and pivotally connected to the casing whereby all of the holders may be independently swung to substantially the same horizontal plane.

8. A cabinet, comprising a casing, a plurality of holders positioned within the casing and located one above the other, receptacles provided with covers positioned in said holders, links pivotally connecting the holders to the casing whereby the holders may be moved to substantially the same horizontal plane, and means for opening the covers of the receptacles when the holders are so moved.

9. A cabinet, comprising a casing, a plurality of holders positioned within the casing and located one above the other, receptacles provided with covers positioned in said holders, links pivotally connecting the holders to the casing whereby the holders may be moved to substantially the same horizontal plane, and levers pivotally connected to the holders and in engagement with the receptacle covers and connected to the links for opening said covers when the holders are so moved.

10. A cabinet, comprising a casing, a plurality of holders positioned within the casing and located one above the other, receptacles provided with covers positioned in said holders, links pivotally connecting the holders to the casing whereby the holders may be moved to substantially the same horizontal plane, bell-crank levers pivotally connected to said holders, means provided on said bell-crank lever for engaging the receptacle covers, and connections between the bell-crank levers and the links whereby the covers will be opened when the holders are moved out of the casing.

11. A cabinet, comprising a casing, a plurality of holders positioned within the casing and located one above the other, receptacles provided with covers positioned in said holders, links pivotally connecting the holders to the casing whereby the holders may be moved to substantially the same horizontal plane, a weight operatively connected to said links for counterbalancing the holders, bell-crank levers pivotally connected to said holders, means provided on said bell-crank lever for engaging the receptacle covers, and connections between the bell-crank levers and the links whereby the covers will be opened when the holders are moved out of the casing.

12. A cabinet, comprising a casing provided with a plurality of holders positioned within the casing and located one above the other, receptacles provided with hinged covers positioned in said holders, links pivotally connecting the holders to the casing whereby the holders may be moved to substantially the same horizontal plane, a weight operatively connected to said links for counterbalancing the holders, bell-crank levers pivotally connected to said holders, means provided on said bell-crank lever for engaging the receptacle covers, and connections be-

tween the bell-crank levers and the links whereby the covers will be opened when the holders are moved out of the casing.

13. A cabinet, comprising a casing provided with a plurality of holders positioned within the casing and located one above the other, receptacles provided with hinged covers positioned in said holders, links pivotally connecting the holders to the casing whereby the holders may be moved to substantially the same horizontal plane, a weight operatively connected to said links for counterbalancing the holders, bell-crank levers pivotally connected to said holders, means provided on said bell-crank levers for engaging the receptacle covers, sliding holders positioned beneath the lower swinging holders, and bins provided with swinging doors positioned beneath the sliding holders.

14. A cabinet, comprising a casing provided with a plurality of holders positioned within the casing and located one above the other, receptacles provided with hinged covers positioned in said holders, links pivotally connecting the holders to the casing whereby the holders may be moved to substantially the same horizontal plane, a weight operatively connected to said links for counterbalancing the holders, bell-crank levers pivotally connected to said holders, means provided on said bell-crank levers for engaging the receptacle covers, sliding holders positioned beneath the lower swinging holders, and bins positioned beneath the sliding holders and provided with swinging doors connected to the casing by means of pairs of links pivotally connected to the side edges of each side of each door and to the casing.

In testimony whereof, I affix my signature, in presence of two witnesses.

AUGUST H. KLUG.

Witnesses:
C. H. KEENEY,
ANNA F. SCHMIDTBAUER.