C. MAHONEY.

SLIDING SHELF FOR KITCHEN CABINETS.

APPLICATION FILED AUG. 30, 1916.

1,227,813. Patented May 29, 1917.

Fig. 1.

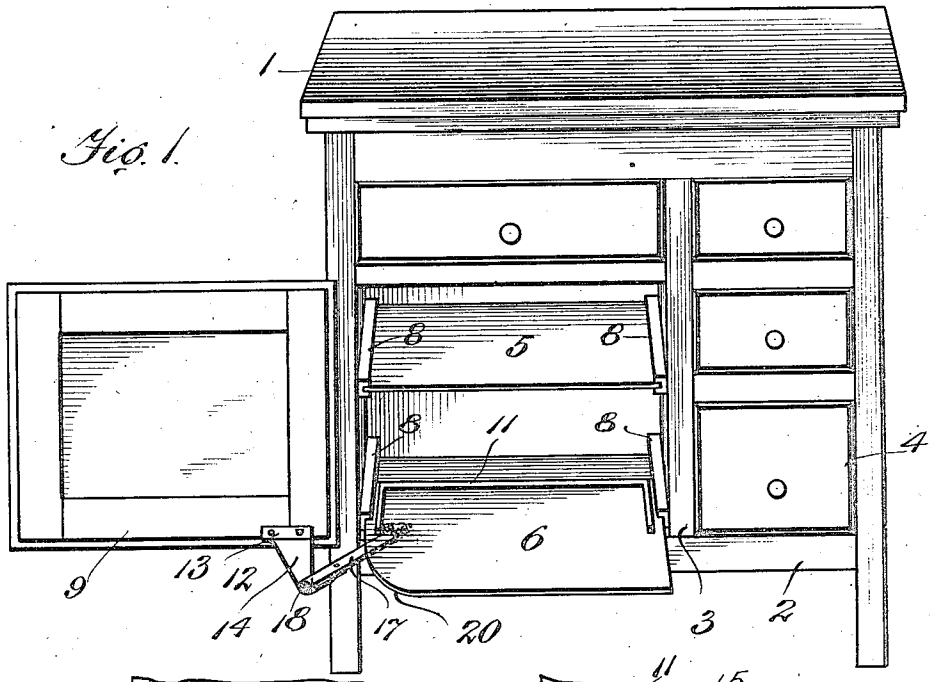


Fig. 2.

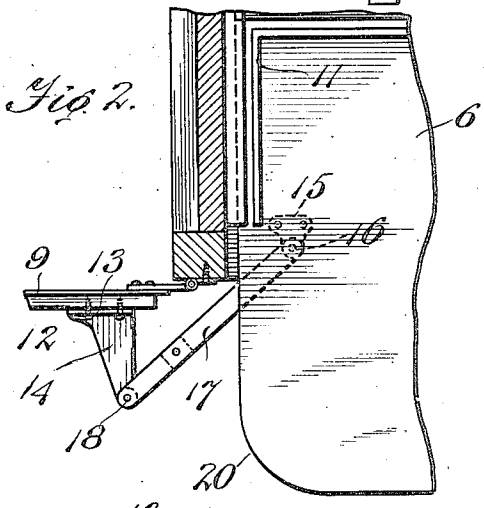
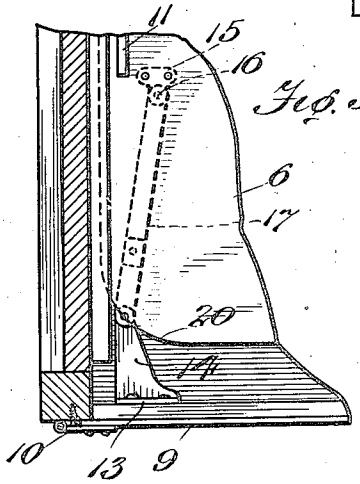


Fig. 3.



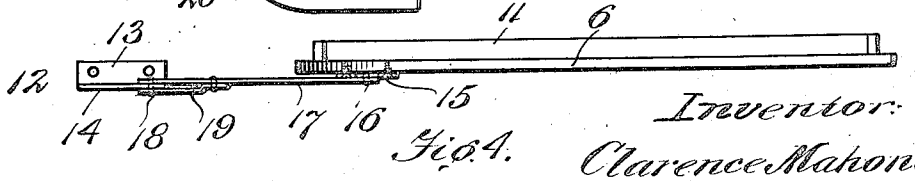


Fig. 4.

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UNITED STATES PATENT OFFICE.

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SLIDING SHELF FOR KITCHEN-CABINETS.

1,227,813. Specification of Letters Patent. Patented May 29, 1917.

Application filed August 30, 1916. Serial No. 117,563.

To all whom it may concern:

Be it known that I, CLARENCE MAHONEY, a citizen of the United States, residing at Elwood, in the county of Madison and State of Indiana, have invented a new and useful Sliding Shelf for Kitchen-Cabinets, of which the following is a specification.

This invention relates to improvements in kitchen-cabinets and the like, and more particularly to the shelving of the lower compartment thereof.

The shelving referred to is of considerable depth, and necessarily so, as it is mainly for the accommodation of the larger utensils for cooking, &c., and being in the bottom of the cabinet is rather difficult of access, requiring one to stoop and reach back into the compartment in attempting to remove any of the articles therefrom. This difficulty of access is generally increased by reason of the presence of a companion shelf located a few inches thereabove.

The objects of the invention are to provide a cheap and simple mechanism adapted to be struck up from sheet-metal and for connecting the lower shelf and the door to said compartment, whereby, the shelf having been made slidable instead of stationary, the act of opening and closing the door will act to operate the shelf—that is, slide the same outward and inward in accordance with the movements of the door, so that when the door is opened and the shelf slid outward, access to the latter may be readily and most conveniently had.

With these objects in view, the invention consists in certain features of construction hereinafter specified and particularly pointed out in the claim.

Referring to the drawing—

Figure 1 is a front perspective view of the lower portion of the conventional style of kitchen-cabinet, the same having my improvements applied, and the door to the lower compartment being shown swung open and the lower shelf of the compartment consequently advanced or partly withdrawn;

Fig. 2 is a horizontal sectional view taken through the compartment immediately above the sliding shelf, parts being broken away;

Fig. 3 is a view similar to Fig. 2, the door being shown closed and the shelf retracted; and

Fig. 4 is an edge view of the shelf showing the operating means attached and the door omitted.

Similar numerals of reference indicate similar parts in all the figures of the drawing.

The conventional form of kitchen-cabinet, in connection with which I have illustrated my invention, as the illustration shows, comprises the usual top 1, surmounting the lower or base-portion 2. This base-portion is subdivided into two vertical compartments by means of a partition 3, the compartment at the right accommodating a tier of drawers 4, and that at the left upper and lower horizontal shelves 5 and 6 respectively, all as usual. These shelves may each be mounted in opposite horizontal ways 8, so that they may be removed for cleaning, &c.

The compartment at the left and wherein are located the upper and lower shelves 5 and 6, is closed by a door 9, the same being hinged at one side of the compartment, as at 10. The lower shelf 6 is preferably, both at its back and sides, provided with a shallow guard-rail 11, whereby to avoid any tendency of the utensils supported thereon rolling therefrom when the shelf is moved in its ways 8.

Secured to the inner face of the door 9, near its bottom and close to its hinge-edge, is a bracket 12. This bracket may be cheaply formed from sheet-metal, and is angular, comprising a vertically disposed attaching-portion 13, perforated to receive the attaching-screws to secure it to the door, and a forwardly horizontally disposed rigid arm 14, located just below the horizontal plane of the shelf 6, a triangular pivoting bracket 15, is attached by means of screws to the underside of the shelf 6, and at a suitable point relative to the hinge-edge of the door 9, and to the latter bracket there is pivoted, as at 16, the inner end of a straight sheet-metal connecting-link 17, the outer end of said link being pivoted, as at 18, to the outer end of the arm 14 of the bracket 12. To avoid buckling that portion of the link 17 beyond the shelf when the latter is withdrawn during the operation of closing the door and sliding the shelf within the compartment, I may reinforce said link by a strip 19 (see Fig. 4), the same being simply a short strip of metal agreeing in width

with the link 17 offset near its front or outer end and riveted, at its rear or inner end, to an intermediate point of the link, the remaining offset end of the strip passing under the arm 14 of the bracket and being pivotally connected thereto by the pivot 18, heretofore mentioned. In order that the shelf 6 shall not interfere with the closing of the door 9 even though the connections are comparatively short, the forward corner adjacent the door is cutaway or rounded off, as at 20.

It will be apparent from the foregoing description that as the door 9 is opened and closed the shelf 6 will be slid forward or backward, in the direction of movement of the door, the shelf moving in the opposite slides or guides 8 in which it is mounted. When the door is open and the shelf thus advanced, it will be obvious that the contents of the shelf are accessible without the necessity of the person stooping and groping for the article desired.

All of the parts—the two brackets, the link and its reinforcing piece—may be readily stamped from sheet-metal at a slight cost, there being no bending or slotting required. The reinforcing piece not only reinforces that portion of the link beyond the shelf when the door is open and the shelf withdrawn, but it and the outer end of the link embraces the bracket 12 at both top and bottom, the pivot 18 connecting these parts so that the strain is divided and life added to the wear of the pivot. Back of the pivot, where the reinforcing piece ends, the link is in slidable contact with and is therefore reinforced by the underside of the shelf. It is not desirable to use heavy stock, preferably on account of the increase of cost, and yet when the door is in the act of closing and the shelf more or less full of utensils, the link and its parts are subject to considerable strain. This my invention provides for in the utilization of the reinforcing piece and the cost of the device is but immaterially increased.

Having described my invention, what I claim, is:

The combination with a kitchen cabinet provided in its base with a compartment having opposite horizontal ways, a door for closing the compartment and hinged in vertical alinement at one side of the compartment, and a shelf slidably mounted in the ways and having one of its outer or front corners adjacent the door cut away or rounded, of an angular bracket of sheet-metal having an outwardly disposed rigid arm attached to the inner side of the door immediately adjacent the hinge-edge thereof, the plane of the arm being but slightly below that of the underside of the shelf, a bracket attached to the underside of the shelf adjacent that edge thereof next the door, a straight link of sheet-metal pivoted at its ends to the two brackets, and a reinforcing strip attached to the link at an intermediate point and having its outer end offset to embrace the arm of the bracket on the door and connected thereto by the pivot of the link and arm.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CLARENCE MAHONEY.

In the presence of—
H. A. PROBST,
ERNEST DANIELS.