April 7, 1953 J. R. DAVIS 2,634,188

MECHANISM FOR RAISING AND LOWERING KITCHEN CABINETS

Filed Oct. 13, 1947 2 SHEETS—SHEET 1

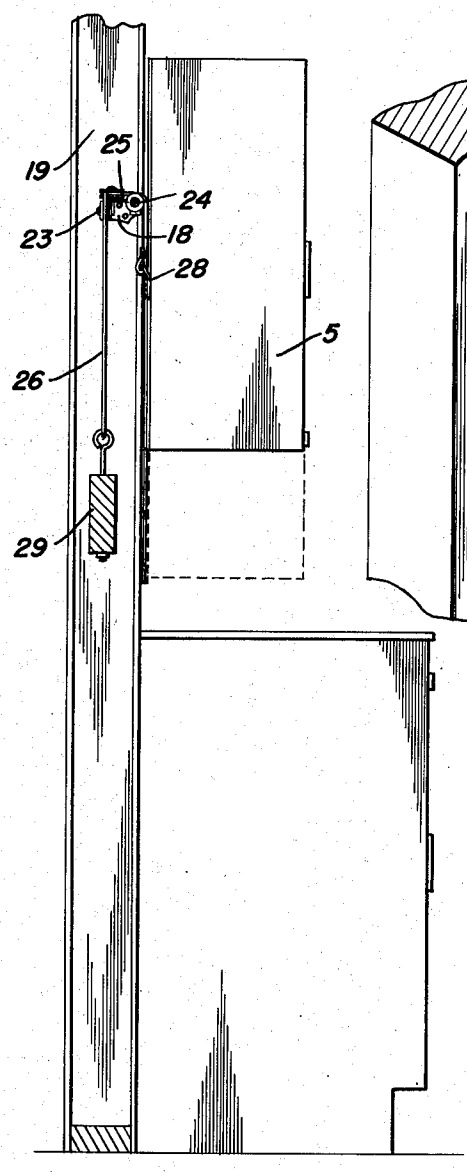


Fig. 1.

Fig. 3.

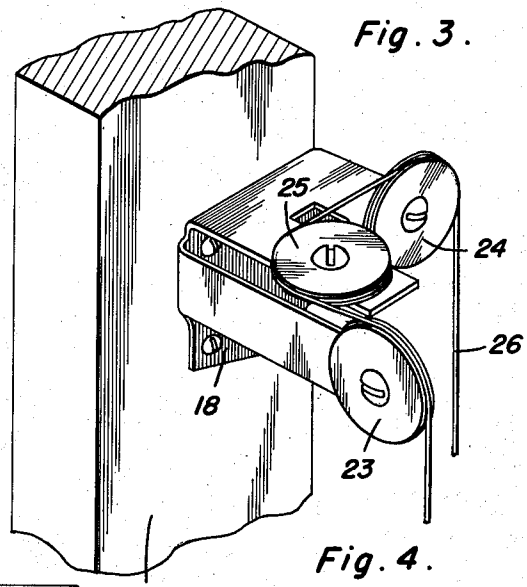
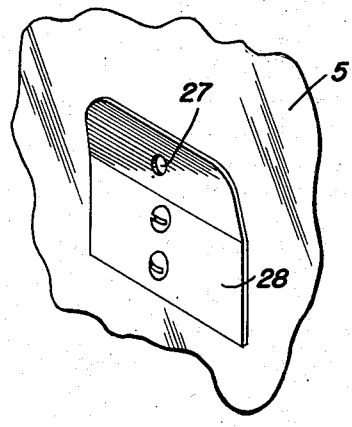


Fig. 4.



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MECHANISM FOR RAISING AND LOWERING KITCHEN CABINETS

Filed Oct. 13, 1947 2 SHEETS—SHEET 2

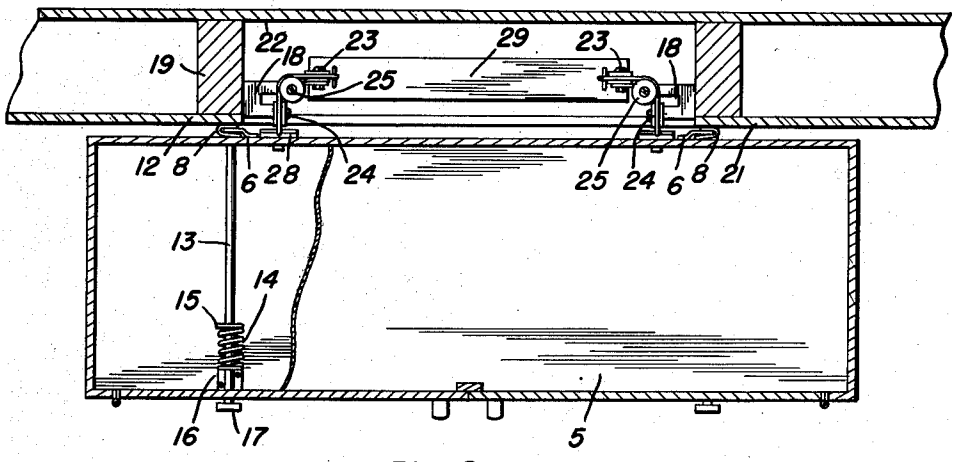


Fig. 2.

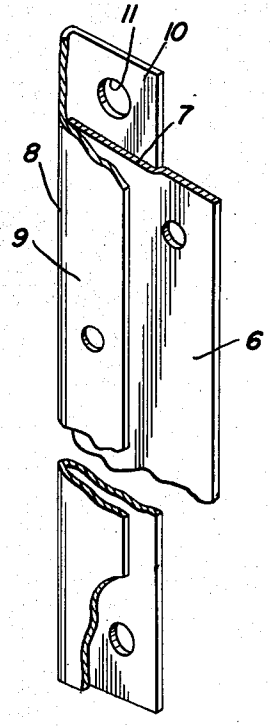


Fig. 5.

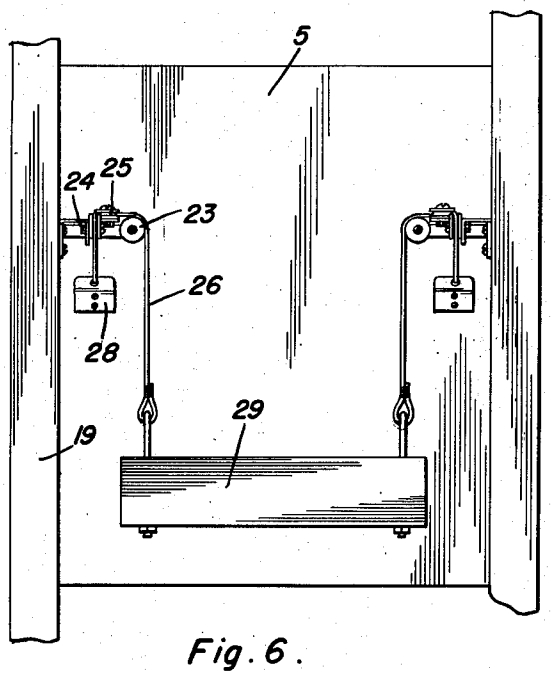


Fig. 6.

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UNITED STATES PATENT OFFICE

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MECHANISM FOR RAISING AND LOWERING KITCHEN CABINETS

James Richard Davis, Booneville, Ind.

Application October 13, 1947, Serial No. 779,489

1 Claim. (Cl. 312—247)

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The present invention relates to new and useful improvements in kitchen cabinets and more particularly to means for raising and lowering the cabinets to provide convenient access thereto.

An important object of the invention is to provide means for mounting a cabinet for vertical sliding movement on a wall together with counter-balancing means to facilitate raising and lowering thereof into a convenient position to afford access thereto when the cabinet is lowered and to move the cabinet in a raised out of the way position, when not in use.

Another object of the invention is to provide means for locking the cabinet in either its raised or lowered position.

A further object of the invention is to provide a cabinet raising and lowering mechanism which is simple and practical in construction, strong and durable, easy to install in position for supporting a cabinet on a wall, relatively inexpensive to manufacture and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a side elevational view showing a vertically slidable kitchen cabinet and the counter-balancing means for raising and lowering the same;

Figure 2 is a transverse sectional view;

Figure 3 is an enlarged perspective view of one of the group of pulleys for the counter-balancing cables;

Figure 4 is an enlarged perspective view of the attaching means connecting the cable to the back of the cabinet;

Figure 5 is an enlarged perspective view of the guide for the cabinet; and

Figure 6 is a rear elevational view.

Referring now to the drawings in detail wherein for the purpose of illustration I have disclosed a preferred embodiment of the invention the numeral 5 designates a kitchen cabinet of conventional construction to the rear of which is secured a pair of vertically extending guide strips 6, each having a free vertical edge 7 offset or spaced rearwardly from the rear wall of the cabinet and slidably mounted in vertically positioned guides 8 of V-shape or channel-shape in cross section to provide a rear attaching flange 9 and a front cabinet locking flange 10 having openings 11 at its upper and lower portions.

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The attaching flange 9 of the guide 8 is secured in a vertical position to a wall or other supporting structure 12 and the cabinet is locked in either its raised or lowered position by a locking bolt 13 slidably mounted in the lower portion of the cabinet transversely thereof and having its rear end projected rearwardly by a coil spring 14 mounted on the bolt with one end bearing against the washer 15 carried by the bolt and its other end bearing against a bracket 16 secured within the cabinet. The rear end of the bolt selectively enters either the upper or lower openings 11 in the flange 10 of the guide 8 to hold the cabinet in either its raised or lowered position. The front end of the bolt is provided with a pull knob 17 to release the bolt from the opening.

Counter-balancing means is provided to facilitate the raising and lowering of the cabinet and the contents thereof and comprises a pair of pulley supporting brackets 18 secured to the opposed surfaces of a pair of wall studs 20 between which the finishing surface 21 of the wall, such as the wall-board, plaster or the like is removed to provide a recess 22 in the wall behind the cabinet and in which the brackets 18 are positioned.

A pair of vertical pulleys 23 and 24 and a horizontal pulley 25 are journaled on the bracket 18, the pulley 23 having its axis parallel to the rear of the cabinet and the pulley 24 having its axis at right angles to the pulley 23. The horizontal pulley 25 is positioned between the pulleys 23 and 24 to guide a rope or cable 26 thereon.

One end of the rope or cable 26 is attached in an opening 27 at the upper edge of an attaching plate 28 secured to the rear of the cabinet and the other end of the cable is attached to a weight 29 positioned in the recess 22, the ropes or cables for the pair of pulley assemblies being attached to adjacent ends of the weight to center the weight in the recess 22.

In the operation of the device the cabinet 5 is slidably supported against the wall 12 by the strips 6 secured to the rear of the cabinet and slidable in the guides 8 secured to the wall. The weight 29, and ropes 26 trained over the groups of pulleys 23, 24 and 25 counterbalances the weight of the cabinet whereby the cabinet may be easily lowered to a convenient position to reach the contents thereof or raised into an out-of-the-way position, when not in use. The bolt 13 selectively engaged in the upper or lower openings 11 of the guide 8 will lock the cabinet in its raised or lowered position.

In view of the foregoing description taken in

conjunction with the accompanying drawings it is believed that a clear understanding of the construction, operation and advantages of the device will be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though there is herein shown and described a preferred embodiment of the invention the same is susceptible to certain changes fully comprehended by the spirit of the invention as herein described and the scope of the appended claim.

Having described the invention, what is claimed as new is:

As an article of kitchen furniture, a cabinet, supporting means for the cabinet, said supporting means including a pair of vertical channeled guides, a pair of vertical guide strips secured to the back of the cabinet and nested with said channeled guides to thereby slidably support said cabinet for vertical movement, counter-balancing means operatively connected with the cabinet and including a weight, a pair of flexible support elements each flexible element being connected at one end to one end of said weight and means fastening the opposite ends of said elements directly to the cabinet, said cabinet having a pair of aligned openings therein, a locking bolt located in said aligned openings, and at least one of said channeled guides and one of said guide strips being provided with openings accommodating said bolt to thereby lock said cabinet releasably in a selected position.

JAMES RICHARD DAVIS.

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