

UNITED STATES PATENT OFFICE

2,531,925

SCREW MOUNTING FOR PLATFORMS
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Application July 26, 1948, Serial No. 40,768

1 Claim. (Cl. 74-424.8)

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This invention relates to screw mounting for platform or tray, and has among its salient objects to provide an improved screw mounting and support for a platform, table or tray, movably supported at one side or end on an operating screw, with its outer side or end free and unsupported, whereby it can be raised and lowered by turning said screw, and without binding or wedging by reason of the weight at the outer end of said table or tray.

This mechanism is particularly well adapted for supporting, raising and lowering a table, tray or platform in a display or dispensing cabinet, as for popped corn, or for supporting, raising and lowering any sort of table or shelf, as in a dumb-waiter, where it is supported at one side only and is raised and lowered by a single screw.

In order to explain our invention more fully, we have illustrated the same in a simple embodiment thereof on the accompanying sheet of drawings, in which:

Figure 1 is an end elevation of a housing or cabinet structure, with a part broken out to show the attached end of a table or platform therein and which is to be raised and lowered by a screw;

Figure 2 is an enlarged horizontal sectional view taken at the line 2-2 on Fig. 1, with parts broken out to show construction;

Figure 3 is an enlarged fragmentary vertical sectional view taken on the line 3-3 on Fig. 1, and showing the operating screw and the supporting connection with said screw;

Figure 4 is an enlarged fragmentary sectional view through the screw and a supporting member for a table or tray;

Figures 5 and 6 are cross sectional details taken, respectively, on the line 5-5 and 6-6 on Fig. 4; and

Figure 7 is an enlarged view taken on line 7-7 on Fig. 3.

Referring now in detail to the drawings, we will describe the embodiment of the invention here shown to illustrate one practical form thereof. In the drawings, a simple cabinet or housing 10 is shown, of rectangular form in cross section, with a hinged door 11 at one side. This cabinet can be of any desired style, design or size, to be determined by the purpose for which it is to be used.

Mounted in one end of said housing is a vertical supporting and operating screw 12, revolvably supported at its lower end upon a ball 13, in a tubular bearing member 14, adjustably held in a nut 15, secured upon a supporting bracket 16, on the

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inside of the housing wall, as clearly shown in Fig. 3.

The upper end of said screw is held in another bracket 17, and is provided with a beveled gear 18, which is in mesh with a beveled gear 19, on an operating shaft 20, provided with an operating handle 21, whereby said screw can be turned in either direction by turning said handle.

A connecting and supporting member 22 has upper and lower bearing ring portions, as 23 and 24, to fit around said screw. In said bearing rings are secured two threaded bushing or lining elements, as 23' and 24', bearing, respectively on the outer and inner sides of said screw, as clearly illustrated in Fig. 4, and seen in Figs. 5 and 6.

Connected with said member 22 is a frame, as 25, having angular brace members 26, 26, said frame being of such size as will fit in the housing, as illustrated in Fig. 2. The attached end of said frame is secured to the supporting member 22, as by bolts or rivets 27, 27, as seen in Figs. 2, 3 and 4.

Mounted upon said frame 25 is a perforated plate, or other reticulated member, as 28, and upon which popped corn or other things can be placed. This platform, table, shelf or tray, whatever kind is desired, can be supported at one side or end in the manner indicated for raising and lowering it by the simple turning of the supporting screw. It is the first object of the invention to provide a mounting for such a table, shelf or tray, at one side or end only, whereby it can be raised and lowered without binding on account of weight thereon.

We do not limit the invention to the details of construction and arrangement shown for illustrative purposes, except as we may be limited by the hereto appended claim forming a part of this specification.

We claim:

40 In combination with a platform to be horizontally supported by one side with its other side free, a vertical screw for supporting said platform, said screw being supported at its lower and upper ends, with means for turning said screw manually in either direction, of a platform supporting member having two vertically spaced ring portions to receive said screw therethrough and not threaded, and two half bushings, internally threaded to mesh with said supporting screw, one of said bushings being inserted in the upper ring portion on the outer side of said screw and the other of said bushings being inserted in the lower ring portion on the inner side thereof, whereby said bushings engage said screw on opposite sides to take the pressure caused by the tilting move-

ment of said spaced ring portions, in the manner illustrated.

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Number
1,042,611
1,125,911
1,293,759
1,346,997
1,676,660
2,220,419
2,386,767

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
667,277	Williams	Feb. 5, 1901

10

Number
17,620

Name	Date
Schulz	Oct. 29, 1912
Periolat	Jan. 19, 1915
Groot	Feb. 11, 1919
Van Berkel	July 20, 1920
Moyer	July 10, 1928
Meldahl	Nov. 5, 1940
Arens	Oct. 16, 1945

FOREIGN PATENTS

Country	Date
Great Britain	Aug. 16, 1898