Aug. 3, 1954 W. A. DUNCAN 2,685,488

SLIDING SUPPORT FOR DROP-LEAF TABLES

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Fig. 1

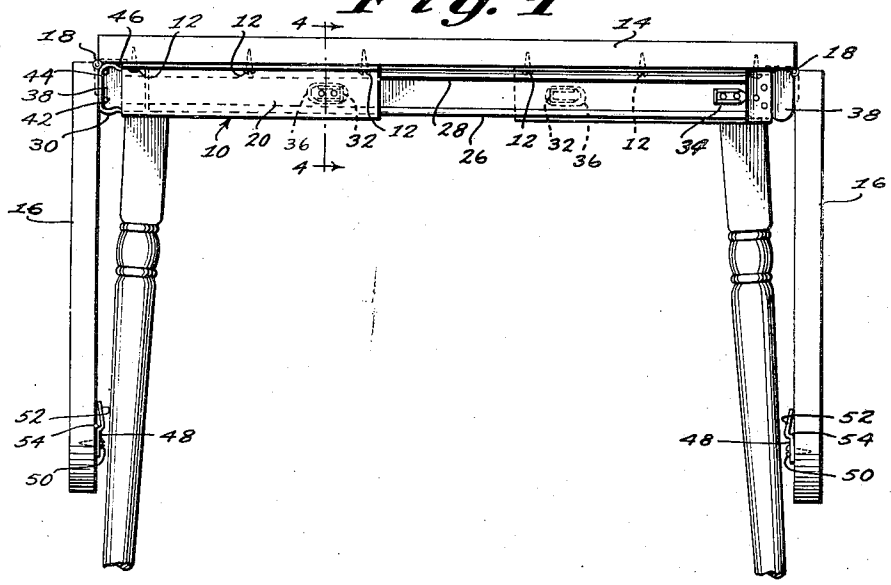
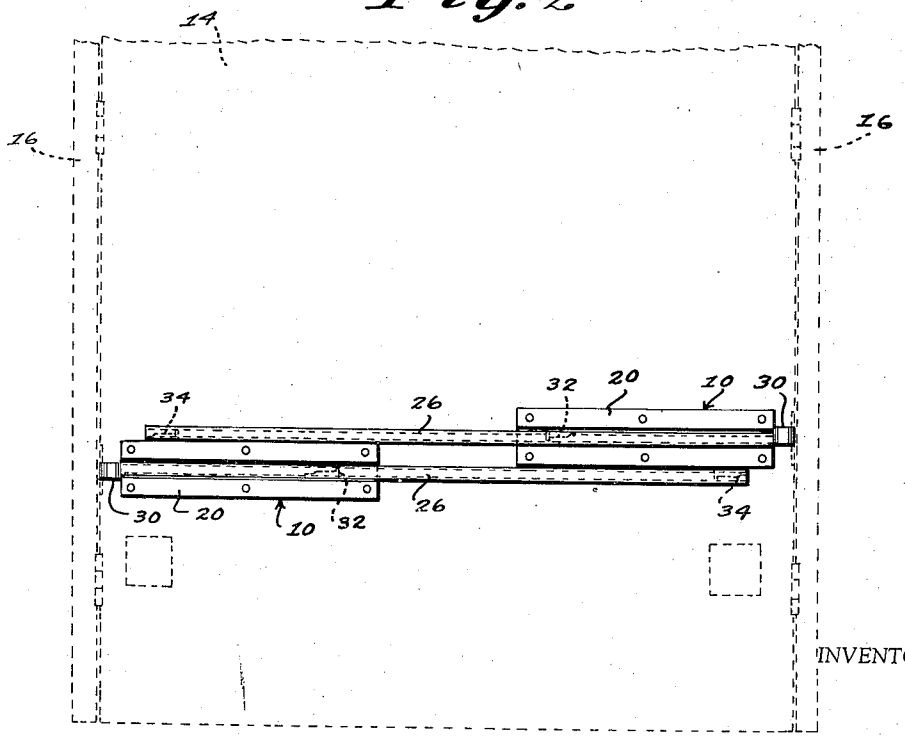


Fig. 2



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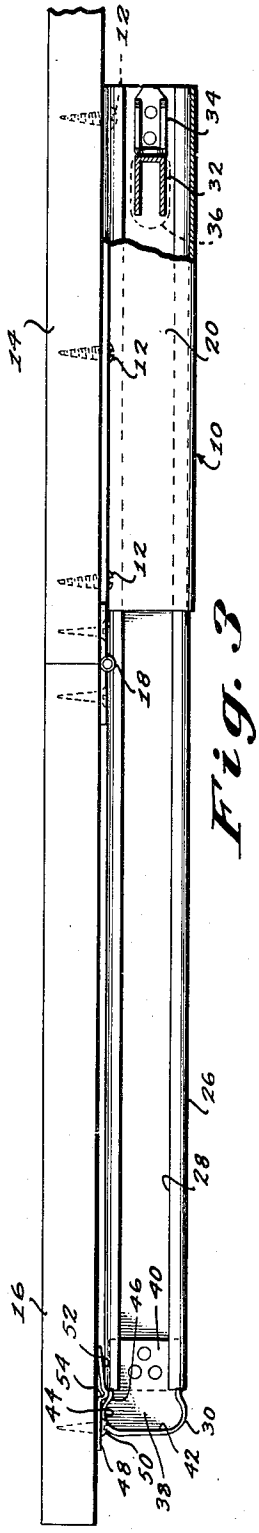


Fig. 3

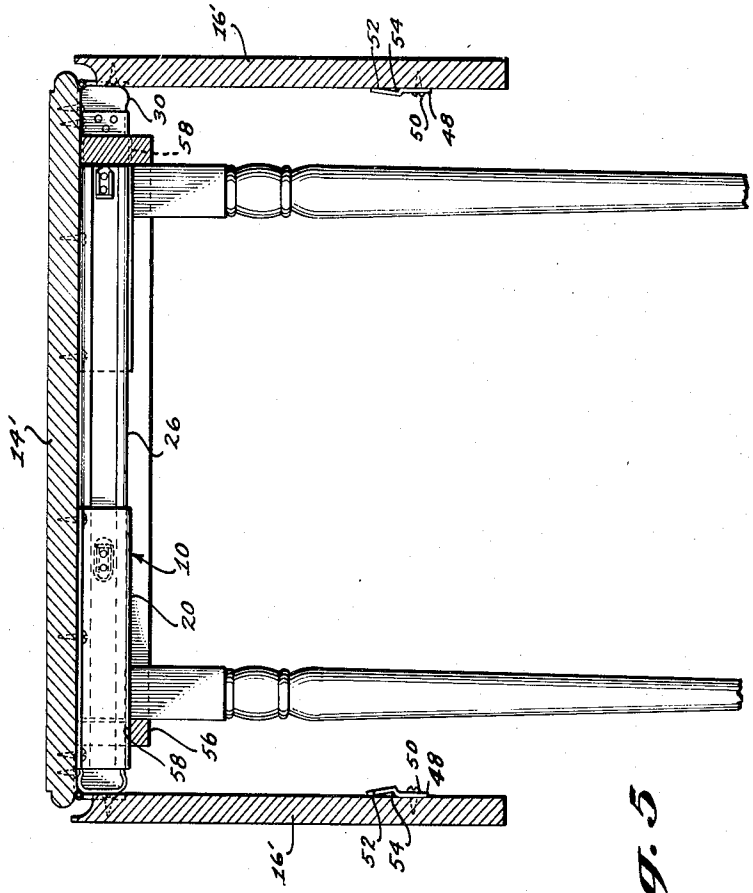


Fig. 5

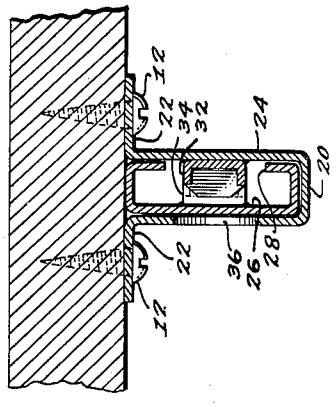


Fig. 4

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SLIDING SUPPORT FOR DROP-LEAF TABLES

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Application February 29, 1952, Serial No. 274,219

1 Claim. (Cl. 311—61)

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This invention relates generally to drop leaf table constructions of the type in which one or more drop leaves are hinged at the edge of a main table surface member, and more particularly to an improved means for supporting the drop leaves of such tables in raised position when desired.

As is well known, a considerable variety of devices, such as jointed brace elements, extensible arm members and gate legs, and the like, are used to provide a support for table drop leaves when they are raised. It is also well known that such commonly employed devices are usually characterized by an inferior supporting action or by difficulty and inconvenience in manipulation.

According to the present invention, a drop leaf supporting means is provided which is formed of metal so as to afford fully adequate supporting strength, which is arranged to allow a particularly effective supporting action, and which is constructed in a manner that renders it easily and simply manipulated, all as is described in further detail below in connection with the accompanying drawings, in which:

Fig. 1 is a side elevation illustrating the arrangement of a drop leaf table top with the drop leaves in lowered position and with drop leaf supporting means installed in accordance with the present invention;

Fig. 2 is a fragmentary plan view corresponding generally to Fig. 1;

Fig. 3 is an enlarged detail in side elevation corresponding generally to Fig. 1 but showing the illustrated supporting means of the present invention extended in supporting relation to a raised drop leaf;

Fig. 4 is a transverse sectional detail of the supporting means taken substantially on the line 4—4 in Fig. 3; and

Fig. 5 is a further side elevation comparable to Fig. 1 but illustrating the manner of installing a supporting means embodying the present invention in a drop leaf table having a rim arranged below the main table surface member.

Referring now in detail to the drawings, and more particularly at first to Figs. 1 and 2, drop leaf supporting means arranged in accordance with the present invention are indicated generally by the reference numeral 10 in the position they assume when installed as by attaching screws 12 at the bottom or underside face of a main table surface member 14 of a drop leaf table, the drop leaves being shown at 16 hinged in the usual manner as at 18 along opposite side edges of the main table surface member 14.

The drop leaves 16 are shown in Figs. 1 and 2

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in lowered position, and it will be seen that the supporting means 10 of the present invention are installed at the underside of the main surface member 14 adjacent these drop leaves 16. The supporting means 10 comprise a bracket member 20 having flanges 22 formed with suitable apertures for engagement by the above noted attaching screws 12, and having an intermediate channel-shaped portion 24 in which a slide member 26 is slidably assembled in telescoped relation. As shown, the channel-shaped portion 24 of the bracket 20 may suitably be of generally rectangular cross section (compare Fig. 4), and the slide member 26 of corresponding cross sectional form with a longitudinal slot as at 28 in one side face thereof for a purpose which will be explained presently.

With the drop leaves 16 in lowered position as shown in Figs. 1 and 2, the supporting means 10 are arranged with the slide members 26 retracted within the brackets 20, the supporting means 10 being installed at opposite edges of the main table surface member 14 adjacent the drop leaves 16 in staggered relation as illustrated in Figs. 1 and 2, when necessary, to provide clearance for the inwardly extending ends of the slide members 26 when retracted. At the other ends of the slide members 26 adjacent the drop leaves 16 a loop element 30 is secured for manipulating the supporting means 10 as is described further below, and this loop element 30 also serves as an abutment means in relation to the bracket 20 for limiting the retracted position of the slide member 26 therein, the loop member 30 being wider than the slide member 26 so that it is offset to strike a side wall of the bracket channel portion 24 when the slide member 26 is retracted, as shown in Fig. 2.

The operation of the supporting means 10 when employed to support a drop leaf 16 in raised position is illustrated in Fig. 3 in which a slide member 26 is shown extended from its bracket 20 in supporting relation beneath the drop leaf 16. The extended position of the slide member 26 for this purpose is gauged and limited by abutment or stop elements 32 and 34 fixed respectively on the bracket 20 and slide member 26 in cooperative relation as shown. In this connection, the bracket 20 may be formed with a clearance opening as at 36 in one side wall of the bracket channel portion 24 to allow convenient access for securing of the stop element 32 by spot welding to the other side wall thereof. Also, it should be noted that the previously mentioned longitudinal slot 28 in the slide member 26 allows the slide member 26 to operate in the bracket

20 without interference with the stop element 32, and that this longitudinal slot 28 also allows the slide member stop element 34 to be fixed in place easily by spot welding.

Extension of the slide members 26 in supporting relation beneath the drop leaves 16 is easily manipulated from the loop elements 30, which are formed with a solid side face as at 38 having an extending tongue portion 40 adapted for disposition interiorly at the adjacent end of the slide member 26 for spot welding thereto, but which are otherwise constituted by a loop-shaped flange portion 42 that may be manually grasped conveniently for positioning the slide member 26 as desired in the bracket 20. It should also be noted that this loop-shaped flange portion 42 is formed in cross section with a rounded configuration at its top face 44 and is formed reentrantly adjacent the end of the slide member 26 to provide a seating groove as at 46. The bottom face of the loop-shaped flange portions 42 may be symmetrically formed, as shown in the drawings, for convenience in manufacture, or to allow the slide members 26 to be used interchangeably in the brackets 20 with right or left hand dispositions, but otherwise the exact shape of the bottom face of the flange portion 42 is immaterial.

The purpose of the top face configuration for the loop element 30 as just described is to adapt this loop element 30 to serve additionally for wedging the drop leaf 16 to a level disposition in relation to the main table surface member 14 when the supporting means 10 is extended beneath the drop leaf 16, it being understood that as many supporting means 10 as are deemed necessary will be spaced in relation to the length of the drop leaf 16 for supporting it adequately in raised position. The wedging action of the loop elements 30 is obtained in cooperation with contact plates 48 fastened at the underside of the drop leaves 16 as by attaching screws 50 in relation to the extended disposition of the drop leaf supporting ends of the slide members 26. These contact plates 48 are formed with an inclined surface as at 52 facing the extending ends of the slide members 26, and the raised edge of this inclined surface portion 52 forms a shoulder as at 54 in the contact plates 48.

The interaction of the loop elements 30 and these contact plates 48 is first to compensate for a tendency of the slide member 26 towards downward angling as it is extended from the bracket 26, as indicated in Fig. 3. This downward angling results from the play that must necessarily be provided to allow easy operation of the slide members 26 in the brackets 20, unless the assembly for the supporting means 10 is made extremely precise and therefore substantially more complicated and expensive than the embodiment illustrated in the drawings.

The compensation for this downward angling is accomplished as the rounded top flange face 44 of the loop element 30 comes in contact with the inclined surface portion 52 of the contact plate 48 and forces the drop leaf 16 upward as the rounded loop element face 44 rides toward the raised edge of the inclined plate surface 52. The inclined plate surface 52 and the rounded top flange face 44 are proportioned so that the drop leaf 16 will be momentarily sprung upwardly beyond a level disposition as the rounded top face 44 passes over the shoulder 54 at the raised edge of the inclined surface 52, but so that the drop leaf 16 will return to a level disposition with the

shoulder 54 engaged in the seating groove 46 of the loop element 30 to lock or bias the slide member 26 releasably in its fully extended position. Whenever it is desired to lower the drop leaf 16 again, it is only necessary to push inwardly on the loop element 30, while perhaps raising the drop leaf 16 slightly if desired, to release the shoulder 54 from the seating groove 46 and thereby free the slide member 26 for retraction within the bracket 20.

Fig. 5 of the patent drawings illustrates the manner in which supporting means 10 of the present invention may be installed in a drop leaf table construction incorporating a table rim 56 below a main table surface member 14' having drop leaves 16' hinged thereon. As shown, it is only necessary to provide spaced notches in the upper portion of the table rim 56 as at 58 to allow clearance for installation of the supporting means 10 in the same manner and for the same purpose as explained in detail in connection with the previous embodiment described above.

The present invention has been described in detail above for purposes of illustration only and is not intended to be limited by this description or otherwise except as defined in the appended claim.

I claim:

A supporting means for a table drop leaf, said means being formed of metal and comprising a channel-shaped bracket member attachable to the underside of a main table surface adjacent a drop leaf associated therewith, a slide member assembled in telescoped relation beneath said main table surface for extension from said bracket member in supporting relation beneath said drop leaf when raised, said slide member and bracket member being fitted with cooperating abutment elements limiting the extension of said slide member at a desired length beneath said drop leaf, a contact plate formed for attachment to the underside of said drop leaf in relation to the disposition of the extending end of said slide member at said limited extended length, said contact plate having an inclined surface facing said extending slide member end and forming a shoulder at its raised edge in said contact plate, and a loop element secured at said extending slide member end, said loop element being formed with a curved flange portion disposed transversely with respect to said slide member and serving as a manipulating handle for said slide member, said loop element flange portion being wider than said slide member and thereby serving as an abutment means in relation to said bracket member for limiting the retracted position of said slide member therein, and the top face of said loop element flange portion being rounded and formed reentrantly adjacent the extending end of said slide member and thereby further serving to engage the inclined surface and shoulder of said contact plate for wedging said drop leaf to a level disposition and releasably locking said slide member in extended position.

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