Sept. 12, 1944. T. E. McFALL 2,358,174

TABLE LEAF HINGE

Filed Oct. 19, 1942

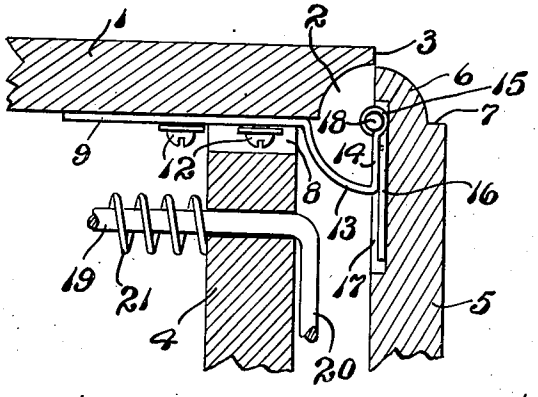


Fig. 1.

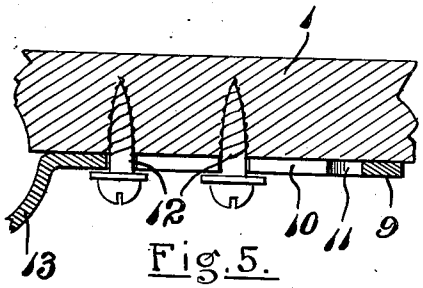


Fig. 5.

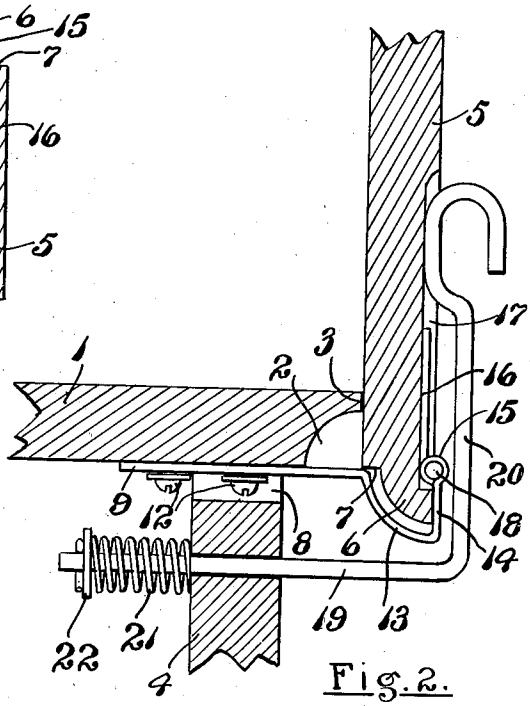


Fig. 2.

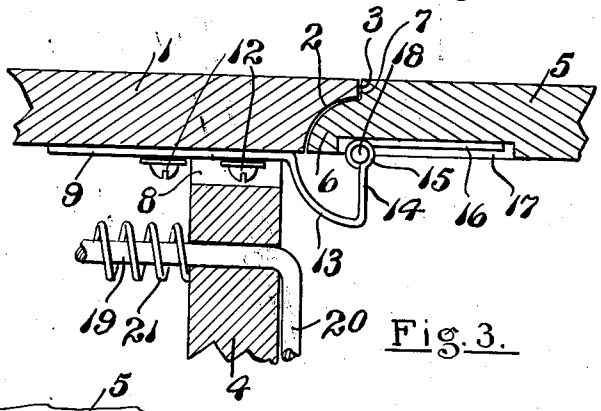


Fig. 3.

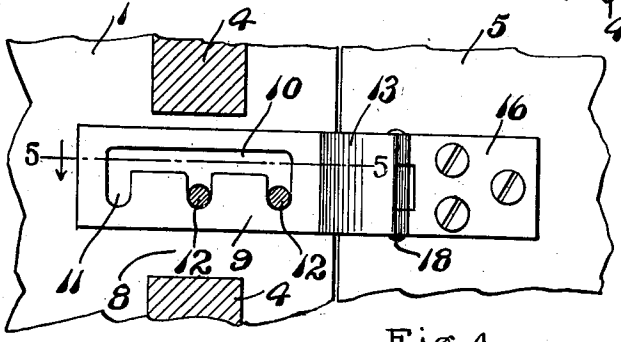


Fig. 4.

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Patented Sept. 12, 1944

2,358,174

UNITED STATES PATENT OFFICE

2,358,174

TABLE LEAF HINGE

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Application October 19, 1942, Serial No. 462,583

1 Claim. (Cl. 311—62)

This invention relates to drop leaf tables and is more concerned with a novel hinge construction used in connection with drop leaves and tables whereby the leaf may hang downwardly at an edge of the table top, be turned to and supported in horizontal position with its upper surface in the same plane with the upper surface of the top of the table, and be moved to a third position in which it is positioned vertically at the edge of the table top and extends above it. The invention further contemplates a simple and novel means for releasably retaining the leaf in the last mentioned position.

It is a primary object and purpose of the present invention to provide a practical, simple and very effective construction including a novel hinge and mounting therefor, whereby the drop leaf may be selectively located in any of the three positions mentioned. An understanding of the invention and of a structural embodiment thereof which I have produced may be had from the following description, taken in connection with the accompanying drawing, in which,

Fig. 1 is a fragmentary longitudinal vertical section at one end of the top of the table with a drop leaf mounted in association therewith at an edge of the top, the drop leaf being shown in depending position.

Fig. 2 is a similar view showing the leaf in its vertical position extending above the table top and releasably retained in such position.

Fig. 3 is a similar view showing the drop leaf in horizontal position.

Fig. 4 is a somewhat enlarged fragmentary under plan view illustrating the novel hinge construction used, and

Fig. 5 is a fragmentary vertical section on the plane of line 5—5 of Fig. 4 looking in the direction indicated.

Like reference characters refer to like parts in the different figures of the drawing.

The top and drop leaf associated therewith may be of the general type of drop leaf table shown in my pending application, Serial No. 441,636, filed May 4, 1942. The top which lies in a horizontal position at one or both opposite edges is provided with a continuous groove of arcuate form at the lower outer corner thereof as indicated at 2, above which the adjacent edge of the table is narrowed as at 3. As shown the top adjacent such edge is located over a vertical end cross rail 4 of the table under structure, the edge of the top extending a short distance beyond the outer side of said rail.

The drop leaf 5 at its upper edge when it is in depending position (Fig. 1) is formed with a rib 6 shaped to be received within the groove 2 and with a shoulder 7 to come against the narrowed edge portion 3 of the top 1 when the leaf is turned to horizontal position, as in Fig. 3.

The hinges used to hingedly connect the drop leaf 5 are made of two parts of flat metal. One of said hinge parts comprises a relatively long body 9 in which a longitudinal slot 10 is cut to one side of the center line thereof, from which a plurality of branch slots 11 extend spaced equal distances apart from each other. Three of the branch slots are shown (Fig. 4) but the number may be varied if desirable. Two screws 12 used when there are three branch slots 11 spaced a distance from each other equal to the distance between the slots 11 are passed through the slot 10 and driven into the under side of the top 1. The screws are not driven so as to tightly engage against the part 9 of the hinge but the hinge has a freedom of movement permitting it to be moved laterally so as to locate the shanks of the screws in two of the branch slots 11, as in Fig. 4, or by moving in the opposite direction the shanks of the screws 12 will be located in the longitudinal slot 10 whereby the hinge may be then moved outwardly in the direction of its length to bring the screws 12 in position to enter other of the branch slots. For example, referring to Fig. 4, moving the hinge in a downward direction and then outwardly and thence back, the shanks of the screws 12 will be changed in position and received in the middle branch slot 11 and the one at the left instead of the middle branch slot and the one at the right. In the position shown in Fig. 4 the drop leaf is located with reference to the table top so that it may be turned to horizontal to lie in the same plane with the top as in Fig. 3, and abut against it.

The body 9 of this hinge part at its outer end is curved downwardly and outwardly in the arc of a circle as at 13 and then turned vertically at 14 terminating in a curled hinging knuckle portion 15. The other part of the hinge 16 is a flat leaf located in a recess 17 in the under side of and adjacent the upper edge of the drop leaf, screws or other suitable fastenings being used to permanently secure the hinge 16 to the leaf. It has a curl or knuckle at its upper end cooperating with the knuckle 15 of the first hinge member through which a hinge pintle 18 is passed thereby hingedly connecting the drop leaf to the table. It is to be understood that the axis of the hinge pintle 18 is in the same horizontal plane with the under side of the top 1 and with

the under side of the drop leaf when it is in horizontal position as in Fig. 3.

With the parts in position as in Fig. 1 the drop leaf may be turned upwardly to horizontal position, Fig. 3, and held in such position the same as is ordinary practice. When the leaf is to be turned to vertical position, as in Fig. 2, the drop leaf and the hinges connected therewith, a plurality of such hinges being used, are moved laterally to disassociate the shanks of screws 12 from the branch slots 11 in which they are located, the drop leaf and hinges pulled outwardly and then moved laterally in the opposite direction seat the screw shanks in the middle and left hand branch slots 11 (Fig. 4). This moves the drop leaf far enough that it may be turned to vertical position as in Fig. 2, coming against the edge 3 of the top 1 while the rib 6 at its lower end comes against the vertical portions 14 of the hinges.

If the table with the leaf in vertical position is placed against a wall said leaf 5 will be retained in vertical position without anything further. For holding the leaf 5 releasably in such vertical position a retaining device is provided made from a rod of metal having a horizontal section 19 from which a handle section 20 is turned at right angles. Said horizontal section 19 passes freely through a horizontal opening in the rail 4 and at its inner end portion is equipped with a coiled spring 21, one end of which bears against the inner side of the rail, the other end bearing against a washer 22 which is mounted and retained on the inner end portion of the section 19 of the rod. Except when the drop leaf is turned to its upper position the spring 21 holds the retaining device at inner position to bring the handle section against the outer side of the cross rail 4 (Figs. 1 and 3). When the leaf has been turned to the vertical position shown in Fig. 2 the handle section 20 may be grasped, pulled outwardly, with a compression of the spring 21, and then turned through 180° to position the handle portion vertically against the drop leaf, which may be suitably recessed to receive the upper end of the handle portion, as shown in Fig. 2, thereby insuring against the retaining member being accidentally moved. On returning the drop leaf to either horizontal position or to its depending position this releasable retaining member is turned back to original position thereupon freeing the drop leaf for pivotal movement; and of course the return of hinges to their original inner positions is accomplished by a reversal of the steps which carried them from such inner position to the outer position.

This invention while of a simple character is very useful and desirable in drop leaf tables.

The invention is defined in the appended claim and is to be considered comprehensive of all forms of structure coming within its scope.

I claim:

In a table, a top and a drop leaf, two part hinges, each having one of the parts thereof movably mounted with respect to the top, and the other part thereof connected to the drop leaf whereby said leaf and hinges may be moved outwardly from normal position, in which normal position the leaf may be turned to lie in the same plane with the top or depend at the edge of the top, said leaf when moved outwardly being turnable to a vertical position to extend above the top, and a cross rail located underneath the top and paralleling the edge thereof at which the drap leaf is mounted, a releasable retaining member mounted on said cross rail including a horizontal rod passing through the cross rail, said rod at its outer end having a handle portion turned therefrom, spring means normally holding the rod at inner position and yieldable to permit outward movement of the rod and a turning of the handle thereof to a vertical position to engage against the outer side of said drop leaf when it is turned to extend above the top.

THURLOW E. McFALL.