April 25, 1933. G. H. HAMILTON 1,905,859

CHAIR WITH SWINGABLE TABLE LEAVES

Filed April 6, 1931

Fig. 1.

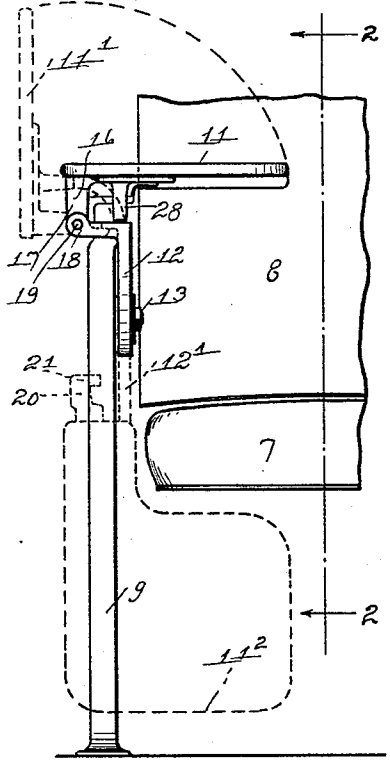


Fig. 3.

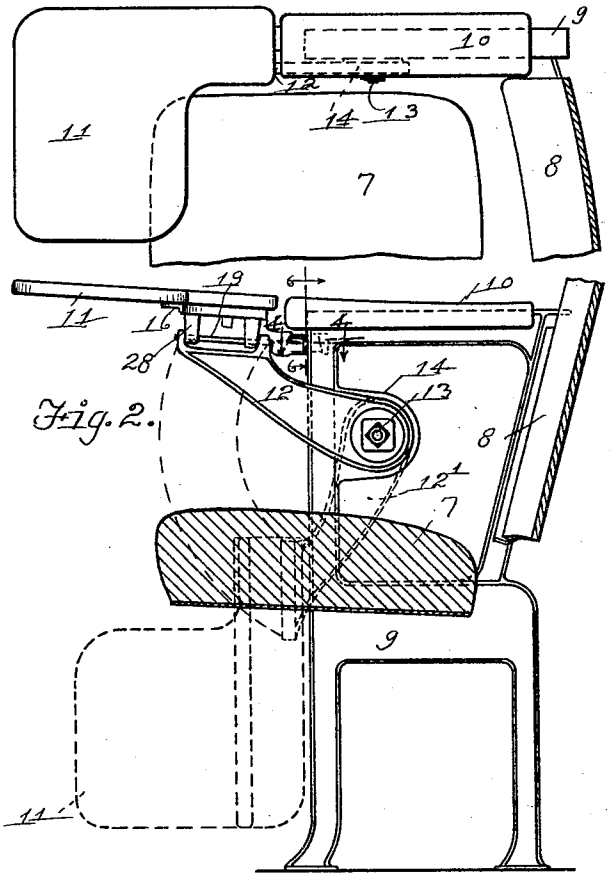


Fig. 2.

Fig. 4.

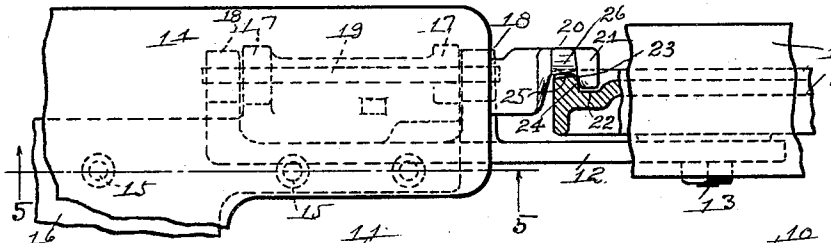


Fig. 5.

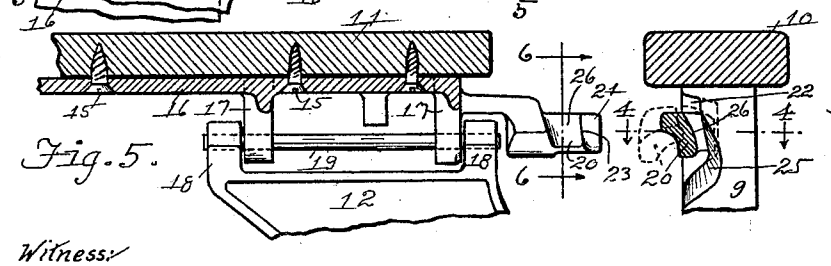


Fig. 6.

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UNITED STATES PATENT OFFICE

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CHAIR WITH SWINGABLE TABLE LEAVES

Application filed April 6, 1931. Serial No. 527,975.

The present invention relates to chairs provided with swingable table leaves; and its object is, generally, to provide an improved structure of that character; and particularly, to provide such a structure having no projecting parts likely to tear the clothing of the occupant; and further, to provide in such a structure improved means for mounting the table leaf turnably to a position of use and firmly maintaining the same therein, and to a retracted position wherein the same is removed from contact with persons passing thereby.

These and other objects hereinafter appearing are attained by, and the invention finds preferable embodiment in, the chair structure particularly described in the body of this specification and illustrated by the accompanying drawing, in which:

Figure 1 is a front view of a table leaf and of a portion of a chair on which it is turnably mounted;

Figure 2 is an inner side view thereof, the chair's seat and back being shown in vertical section taken on line 2—2 of Figure 1;

Figure 3 is a top plan view thereof;

Figure 4 is a top plan view (enlarged) of parts of the same, a portion of the chair's side frame being sectioned on a horizontal plane corresponding to line 4—4 of Figures 2 and 6;

Figure 5 is a vertical sectional view of some of said parts taken on line 5—5 of Figure 4; and

Figure 6 is a sectional view of some of said parts taken on a vertical plane corresponding to line 6—6 of Figures 2 and 5.

In the drawing is shown a chair, such as is installed and connected side by side in schools, lecture rooms and the like, having a seat 7 and back 8 supported by a pair of upright side frames or standards 9 provided with arms 10, only one of such standards—the one at the occupant's right-hand side—being shown in the drawing. A table leaf 11 for books, writing paper and the like is supported on this standard swingably to the elevated position of use shown in Figures 3, 4, 5 and in solid lines in Figures 1 and 2, and to a lowered position of non-use shown in dotted lines in Figure 1, the positions of this table leaf while being moved from one of these positions to the other being also indicated in dotted lines in Figures 1 and 2.

This table leaf is mounted, for maintenance in use position and for movement thereto and therefrom, by the following means: A bracket arm 12 is pivotally mounted at 13 on a portion 14 of the standard 9 to swing in a vertical plane, and on its free end the table leaf 11 is pivotally mounted, to turn in a plane transverse to the plane in which said arm swings, by the following means: To the under side of the table leaf is secured as by screws 15 a metallic member or casting 16 having ears 17 through which and through the ears 18 of the arm 12 extends a pintle 19. This member 16 has a rearwardly extending shank portion 20 with a head 21 at its extremity.

When the arm 12 is raised to the position shown in Figures 1 and 2, the table leaf may be turned about the pintle 19 from its position indicated in the dotted lines 11^1 to the horizontal position of use shown in solid lines in these views, during which movement the head 21 enters a keeper socket 22 formed in the outer side of the standard and the cam forward side 23 of the head slidingly bears on the forward wall 24 of said socket, the shank portion 20 entering sidewise into the standard's horizontal depression 25 extending rearwardly from its front edge.

The shank portion 20 has a cam side 26 which in said turning movement of the table leaf slidingly bears in the depression 25. It will be seen that in this turning movement of the table leaf, the camming action of the head's forward side 23 draws the arm 12 and table leaf upwardly and the camming action of the shank portion 20 cramps said arm and table leaf slightly outwardly, thus tightening the joints between the parts and maintaining the table leaf firmly in its elevated position of use.

These movements being reversed, the arm 12 may be swung downwardly to its position indicated in dotted lines 12^1 in Figures 1 and 2, and the table leaf is then turned inwardly to a position under the seat 7 indicated in

dotted lines 11^2 in Figure 1, not interfering with persons passing along in front of the chair. The member 16 has a leg 28 resting on the upper surface of the arm 12 in the table leaf's position of use.

It will be seen that in this construction there are no outward projections, hooks or the like (found in other structures of this character for engagement with the table leaf or parts thereof holding the same in use position) and that therefore the clothing of the occupant is not in danger of being torn by any part of this construction.

The invention being intended to be pointed out in the claims, is not to be limited to or by details of construction of the particular embodiment thereof illustrated by the drawing or hereinbefore described.

I claim:

1. In combination with a chair having a side standard with a keeper socket extending inwardly from its side; a bracket arm mounted on the standard swingably about a horizontal axis; a member, having a table leaf, mounted on the free end of the arm turnably about an axis transverse to the first-mentioned axis and having a shank portion with a cam side and a head movable by the turning movement of said member, in the arm's raised position, into the socket to locking engagement with the standard for releasably holding the table leaf in horizontal position of use, said cam side bearing on the side of the standard in the turning movement of said member to cramp the arm on the standard.

2. In combination with a chair having a side standard with a keeper socket extending inwardly from its side having a front wall; a bracket arm mounted on the standard swingably about a horizontal axis; a member, having a table leaf, mounted on the free end of the arm turnably about an axis transverse to the first-mentioned axis and having a shank portion with a cam side and a head with a cam forward side movable by the turning movement of said member, in the arm's raised position, into said socket to locking engagement with the standard for releasably holding the table leaf in horizontal position of use, the cam side of the head bearing on said wall in the turning movement of said member to draw said member upwardly and the cam side of the shank portion bearing on the side of the standard to cramp the arm on the standard.

3. In combination with a chair having a side standard with a keeper socket extending inwardly from its side and a horizontal depression in said side extending from the front edge of the standard to the socket; a bracket arm mounted on the standard swingably about a horizontal axis; a member, having a table leaf, mounted on the free end of the arm turnably about an axis transverse to the first-mentioned axis and having a shank portion and a head, the shank portion being movable into bearing engagement in said depression by the turning movement of said member in the arm's raised position and the head into the socket in locking engagement with the standard for releasably holding the table leaf firmly in horizontal position of use.

4. In combination with a chair having a side standard with a keeper socket extending inwardly from its side: a bracket arm mounted on the standard swingably about a horizontal axis; a member, having a table leaf, mounted on the free end of the arm turnably about an axis transverse to the first-mentioned axis and having a head movable by the turning movement of said member, in the arm's raised position, into the socket to locking engagement with the standard for releasably holding the table leaf in horizontal position of use, said member having a leg portion resting on the arm in said position of use.

In testimony whereof I have hereunto set my hand at Grand Rapids, Michigan, this 2nd day of April, 1931.

GEORGE H. HAMILTON.