A. HAHN.

FASTENING DEVICE FOR FOLDING TABLES.

APPLICATION FILED NOV. 14, 1912.

1,079,006. Patented Nov. 18, 1913.

Fig. 1.

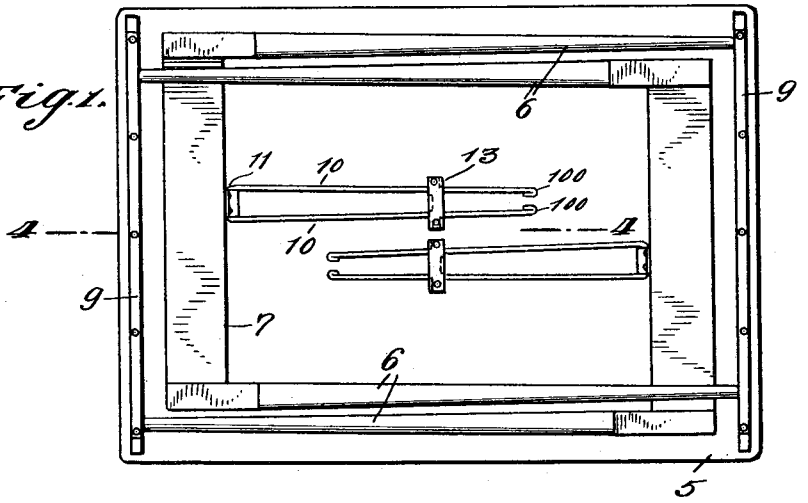


Fig. 2.

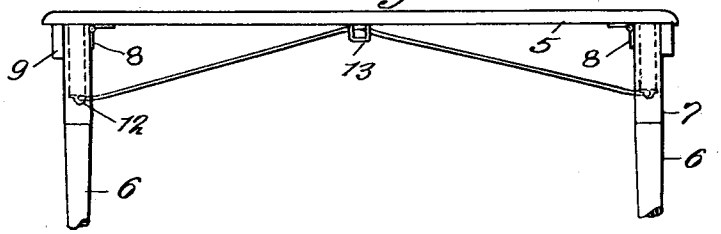


Fig. 3.

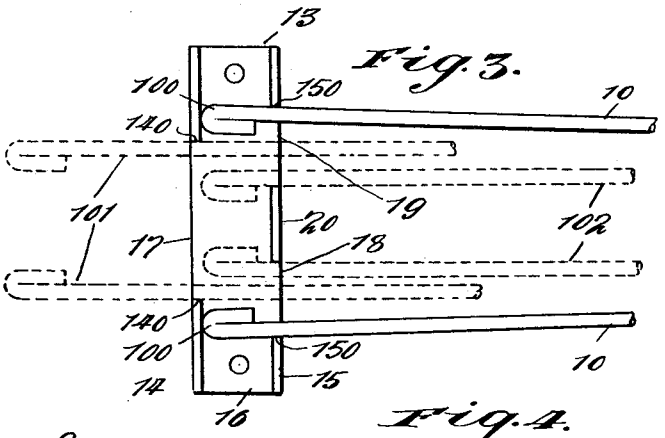
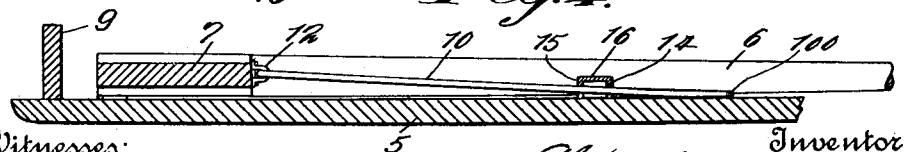


Fig. 4.



Witnesses:
Harry C. Hebig
Wm. C. Dretin

Inventor
Alexander Hahn
By his Attorney
Chas. Lyon Russell

UNITED STATES PATENT OFFICE.

ALEXANDER HAHN, OF NEW YORK, N. Y.

FASTENING DEVICE FOR FOLDING TABLES.

1,079,006. Specification of Letters Patent. Patented Nov. 18, 1913.

Application filed November 14, 1912. Serial No. 731,233.

To all whom it may concern:

Be it known that I, ALEXANDER HAHN, a citizen of the United States, residing at the city of New York, borough of Manhattan, in the county and State of New York, have invented certain new and useful Improvements in Fastening Devices for Folding Tables, of which the following, taken in connection with the accompanying sheets of drawings, is a full, clear, and concise description.

This invention relates to folding tables and has for an object to provide an improved, efficient, and economical fastening device for the legs of folding tables in their opened and in their closed positions.

In the drawings accompanying this specification one practicable embodiment of my invention is illustrated and wherein—

Figure 1, is an under side view of a table equipped with this improvement and showing the table closed or folded. Fig. 2, is an elevational view showing the table open. Fig. 3, is a detail embodying a plan view of a detached box, full size, and the ends of the resilient arms in the Fig. 2 position and in dotted lines in other positions which they will assume, and Fig. 4, is an enlarged longitudinal section taken on a plane at about the line 4—4 of Fig. 1.

To the under side of the table top 5 two pairs of legs 6 are shown pivoted. The leg construction illustrated comprises the legs 6, the connecting frame 7, and the hinge 8 which constitutes the pivotal connection between the legs and the table top. A suitable back stop may be provided. A cleat 9 is shown secured to the table top for strengthening this and located in position to engage the legs when open or in operating position.

The fastening device in the illustration embodies a pair of resilient arms 10, 10, having a connecting or pivotal portion 11. The arms 10, 10, and connecting portion 11 are shown bent from a piece of spring wire. A strap 12 is shown carried by the lower side of the frame 7 and affording a bearing for the connecting or pivotal portion 11.

In the Fig. 1 and Fig. 4 positions the legs are held in their closed or folded relation to the table top by the resiliency of the spring arms, and in the positions of Figs. 2 and 3 the legs are held open or in their operative relation. A box 13 is shown secured to the underside of the table top. The box is traversed by the arms 10, 10, and affords means for applying tension to the arms for maintaining the legs closed when the table is folded, and for affording an abutment or stop for the arms for holding the legs in operative position, when the table is open. This box comprises a front flange 14, a rear flange 15, and a bottom 16 connecting the flanges. The flange 14 furnishes an abutment for the ends 100, 100, of the arms 10, 10, and is provided with the opening 17 for the passage of such ends.

When the table is closed and it is desired to open it, one of each pair of legs will be seized and the pairs pulled apart. The crank movement of the pivot 11 with its bearing 12 will draw the arms 10 backwardly causing them to traverse the opening 17 in the flange 14. The arms during this movement will be in the dotted line position 101 of Fig. 3 pressing against the flange ends 140, 140, and upon the arm ends 100, 100, passing inwardly of the flange 14, the arms will spring apart and assume the full line position of such figure, engaging the faces 150, 150 and being held under tension thereby. The flange 14 will be located in such position relative to the other parts that the legs will abut the back stop 9 just as the arm ends come into engagement with abutment provided therefor—in the present showing the flange 14. The legs will thus be securely held in their operative position.

The rear flange 15 of the box 13 is provided with openings 18, 19, which are respectively traversed by the arms 10, 10. Between the openings or slots 18, 19 is a spacing or separating post 20, for assuring the proper and sufficient movement of both arms upon release. When it is desired to fold the table the arms 10, 10 are forced into the dotted line position 102 of Fig. 3 and against the post 20 in which position they are in line to enter and traverse the slot or opening 17, and after the ends 100 have passed the flange 14, the arms may be permitted to assume the 101 position. The post assures that each arm end will be moved into a position to be able to clear the flange 14, upon its forward movement. When the parts approach the closed or folded position the box bottom 16 exerts pressure upon the arms and forcing the ends 100 against the surface of the table top puts these arms under sufficient tension to hold the parts in their folded relation.

The embodiment of the invention shown and described is illustrative of the inven-

tion and it will be understood that changes in construction may be made without departing from the scope of the claims.

Having described my invention, I claim:

1. A fastening device for a folding table comprising a pair of resilient arms for securement to a table leg, of a box for securement to a table top and comprising a pair of flanges each of said flanges having a slot for the passage of the arms one of the slots being longer than the other and a spacing post located in position in the longer slot for guiding the arms into the shorter slot.

2. The combination with a table top and a leg hinged thereto of a pair of resilient arms pivotally secured to the leg, a box mounted on the table top and provided with a pair of flanges disposed transversely of the line of movement of the arms responsive to the leg movement, each of said flanges having a slot for the passage of the arms, the slot in the flange on the far side being shorter than the slot on the side next the table leg, the flange on the far side being located in position to form an abutment for the arm ends and the box to house the same when the table is open.

3. The combination with a table top and a leg hinged thereto, of a pair of resilient arms pivotally secured to the leg, a box mounted on the table top and comprising a pair of flanges disposed transversely of the line of movement of the arms, each of said flanges having a slot for the passage of the arms, the slot in the flange on the far side being shorter than the slot on the side next the table leg, a post being located centrally of such latter slot for guiding the arms into the shorter slot, the flange on the far side being located in position to form an abutment for the arm ends when the table is open.

4. The combination with a table top, a leg hinged thereto and a back stop for limiting the opening movement of the leg, of a pair of resilient arms carried by the leg and mounted on the table top, engaging faces for affording abutments to the arm ends when the leg is against its back stop, engaging faces for limiting the separating movement of the arms and for holding these under tension while in engagement with the abutments, faces for flexing the arms inwardly of the abutment engaging position, faces for flexing the arms and holding the leg folded against the table top, and faces for centering the arms upon flexure from the abutment engaging position.

5. The combination with a table top and a leg hinged thereto, of a pair of arms having a pivotal connecting portion formed from spring wire, the leg being provided with a bearing for the said pivotal connecting portion at an appreciable distance from the hinge axis and from the table top when the table is closed, abutments carried by the table top for engaging the arms and holding the table open, and for engaging the arms and flexing them one toward the other when the table is closed, and means for engaging the arms inwardly of their free ends when the table is closed for flexing the arms transversely of their general plane for holding the table open.

In witness whereof I have hereunto set my hand in the presence of two subscribing witnesses.

ALEXANDER HAHN.

Witnesses:

LILIAN MALZER,

HENRIETTA E. WORKMAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."