A. R. ULP.

FOLDING TABLE.

APPLICATION FILED DEC. 19, 1916.

1,270,568.

Patented June 25, 1918.

2 SHEETS—SHEET 1.

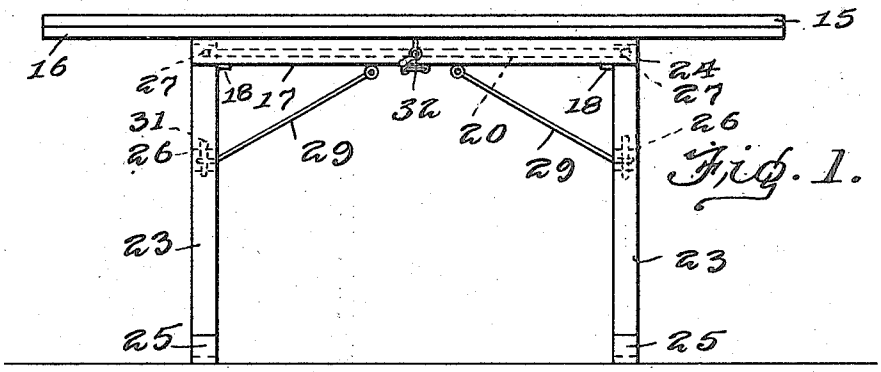


Fig. 1.

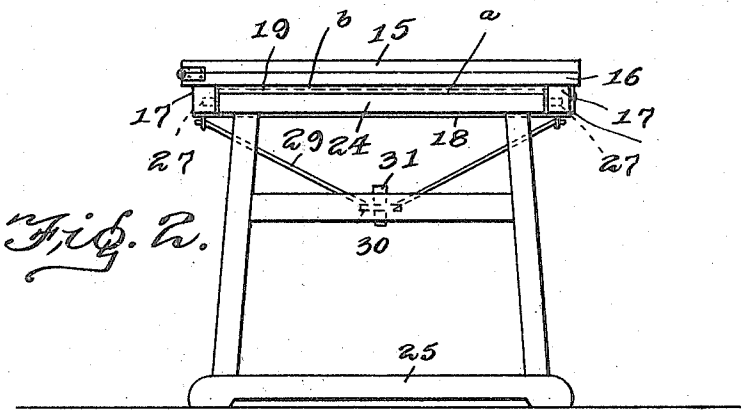


Fig. 2.

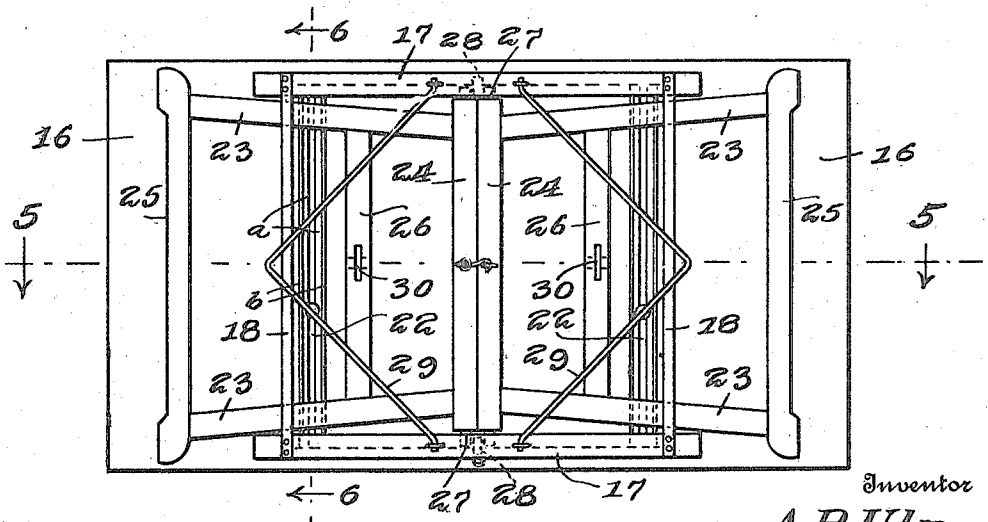


Fig. 4.

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Witnesses

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2 SHEETS—SHEET 2.

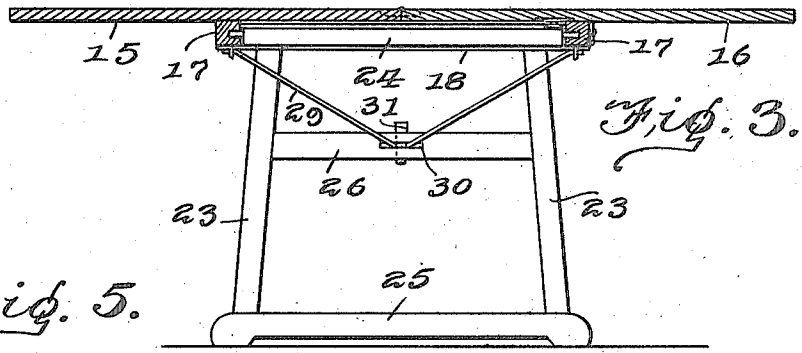


Fig. 3.

Fig. 5.

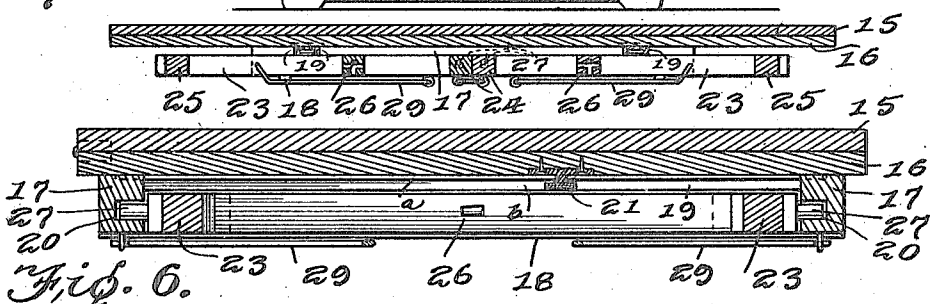
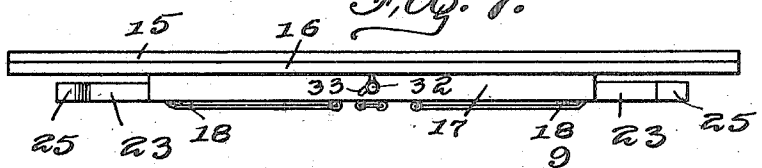


Fig. 6.

Fig. 7.



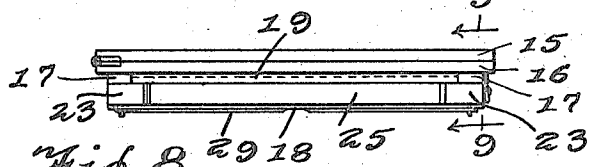


Fig. 8.

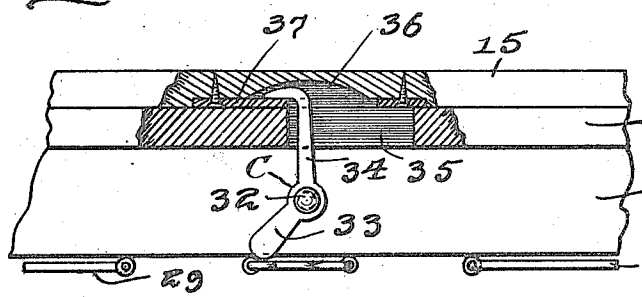


Fig. 9.

Witnesses

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UNITED STATES PATENT OFFICE.

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FOLDING TABLE.

1,270,568. Specification of Letters Patent. Patented June 25, 1918.

Application filed December 19, 1916. Serial No. 137,850.

To all whom it may concern:

Be it known that I, ALFRED R. ULP, a citizen of the United States, residing at Richmond, in the county of Henrico and State of Virginia, have invented new and useful Improvements in Folding Tables, of which the following is a specification.

This invention relates to folding tables, and it has for its object to produce a simple and improved folding table which may not only be folded so as to vary the area of the table surface, but which may also be collapsed for transportation and for storage in very limited space.

A further object of the invention is to produce a simple and improved folding and collapsible table for dining room, library and other purposes which will admit of the legs or supporting members folding flat against the table top, thereby minimizing space.

A further object of the invention is to simplify and improve the detailed construction and arrangement of the table and the component parts thereof.

With these and other ends in view which will readily appear as the nature of the invention is better understood, the invention consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the claims may be resorted to when desired.

In the drawings,—

Figure 1 is a side view showing the table with the top folded.

Fig. 2 is an end view of the same.

Fig. 3 is a transverse sectional view showing the table with the top extended.

Fig. 4 is a bottom plan view showing the table folded and collapsed.

Fig. 5 is a sectional view taken on the line 5—5 in Fig. 4.

Fig. 6 is a sectional view taken on the line 6—6 in Fig. 4.

Fig. 7 is a side view showing the table folded and collapsed.

Fig. 8 is an end view of the same.

Fig. 9 is a sectional detail view taken on the line 9—9 in Fig. 8.

Corresponding parts in the several figures are denoted by like characters of reference.

The table top is composed of two leaves which for convenience will be designated as the top leaf 15 and the bottom leaf 16, said leaves being hinged together so that the top leaf may be folded upon the bottom leaf.

The table frame includes side rails 17 which are connected together in spaced relation by cross bars 18, said cross bars being secured on the under faces of the side rails near the ends of the latter. The side rails are also connected together near the respective ends thereof by pairs of angle bars 19 which are terminally embedded in the side rails adjacent to the upper faces thereof, said angle bars having horizontal flanges *a* that lie flush with the top faces of the side rails and vertical flanges *b*. Each side rail is provided in the inner face thereof with a longitudinal groove 20, and it will be observed that the vertical flanges *b* of the angle bars 19 are disposed between the top wall of said groove and the top face of the side rail so that the groove will be unobstructed by the flange of the angle bar.

The bottom leaf 16 of the table top is provided with headed studs or buttons 21 extending downwardly from the bottom face thereof in engagement with the angle bars 19, the latter being spaced apart so as to produce guide slots 22 in which the shanks of the studs or buttons 21 are guided, the heads of said buttons being accommodated between the vertically disposed flanges *b* of said angle bars. The table top is in this manner connected slidably with the frame, and it will be seen that by moving the top transversely of the frame the hingedly connected edges of the top and bottom leaves may be disposed substantially in the vertical plane of one side rail 17 of the table frame, or in an intermediate position about midway between the side rails 17. In the first position the leaves will be folded, the top leaf on top of the bottom leaf, as seen in Figs. 1 and 2. When the table top is moved so as to dispose the hingedly connected edges of the leaves intermediate the side rails of the frame, the top leaf may be unfolded to the position shown in Fig. 3, thereby doubling the area of the table top. The buttons 21 will constitute stop members whereby the sliding movement of the table top will be properly limited. It is desired to be understood that in view of the inter-

engaging angle bars 19 and buttons 21 interengaging slides of well known construction may be used when preferred.

The legs or supporting members 23 are connected together in pairs, each pair of legs being connected together by a top bar 24 and a bottom bar 25, said legs converging upwardly and diverging downwardly, as shown clearly in Fig. 4 of the drawings. Each pair of legs, together with the connecting bars 24 and 25, thus constitutes an independent frame which is furthermore reinforced by a cross bar or brace 26, whereby the legs 23 are connected together intermediate their upper and lower ends. The top cross bar 24 is provided with terminal trunnions 27 operating in the grooves 20 in the inner faces of the side rails 17. Each of said grooves is provided midway between its ends with a stop member 28. The leg frames are adapted to slide between the side rails 17 of the frame, and owing to the convergent disposition of the legs, the leg frames when they approach the inward limit of their respective movements will become wedged between the side rails 17, thereby preventing rattling of the parts when handled for the purpose of storing the same. The stop members 28 will positively limit inward movement of the respective leg frames.

Pivotally connected with the side rails 17 are V-shaped yokes 29. Each cross bar 26 has a V-shaped recess 30 to receive the apex of one of the yokes when the table frame is extended, the yoke being secured in the recess 30 by means of a fastening member 31 which may be of any description. Thus, the said fastening member may consist of a pin or bolt extending transversely through the cross bar 26, or a spring snap or fastening device may be used.

It will be seen in the operation of the leg frames, the same, when the table is folded, will slide lengthwise between the side rails 17, the cross pieces 18 and the angle bars 19, the table legs 23 being so proportioned as to fit snugly between the several parts. To set up the table for use, the leg frames are pulled outward until the trunnions 27 engage the outer ends of the grooves 20 in the side rails, beyond the cross pieces 18 of the table frame, thus permitting the legs to be swung downward with respect to the table top and the table to be set up, as seen in Figs. 1, 2 and 3. The yokes 29 are then manipulated to insert the apices thereof into the recesses 30 of the cross bars 26, where said yokes are secured by the fastening members 31, thereby securing the table frame in extended position for use. The table top may be permitted to remain folded, as seen in Figs. 1 and 2, or it may be extended as seen in Fig. 3, according to the use that it is desired to make of the table.

For the purpose of securing the leaves of the table top in folded or collapsed condition and to resist lateral shifting of the parts, a latch or fastening member C is employed, said latch member comprising a pintle or pivot member 32, a handle member 33 extending from one end thereof and a hook-shaped latch member or catch 34 extending from the other end of the pivot member, said catch being angularly disposed with respect to the handle member 33. The pivot member 32 is suitably pivoted on the table frame; the bottom leaf 16 is provided with a slot 35 for the passage of the catch 34, and the top leaf 15 has a recess 36 covered by a slotted face plate 37 through which the hook-shaped catch will project when the leaves are folded. It is obvious that when the folding leaves are extended, as seen in Fig. 4, the catch will be withdrawn by swinging the pivot member C about the axis of the pivot 32, so that the catch 34 will lie in a non-obstructing position with respect to the bottom leaf 16. When the leaves are folded together and moved to place the hingedly connected edges thereof in the plane of one of the side rails of the table frame, the slot 35 and recess 36 will be brought in alinement with the latch member which is now moved to a position where the hook-shaped catch 34 will extend through the slot 35 and in engagement with the face plate 37, as best seen in Fig. 9 of the drawings.

I would desire it to be understood that in place of the latch device herein shown, any convenient means for securing the table leaves in folded or collapsed condition may be employed without departing from the spirit of the invention.

From the foregoing description, it will be seen that I have produced a foldable and collapsible table of simple and improved construction which will be strong, durable and inexpensive and which may be suitably employed for dining room, library or other purposes, a great advantage residing in the facility with which the table may be collapsed and folded into very small compass for shipment or storage.

Having thus described the invention, what is claimed as new, is:—

1. In a folding table, a top frame comprising side rails having grooves in their inner faces and cross bars secured on the under faces of the side rails and securing said side rails together in spaced and parallel relation, a table top mounted on the top frame, and leg frames each comprising a pair of legs, and top and bottom bars connecting the same, the top bars having trunnions operating in the grooves in the inner faces of the side rails of the top frame.

2. In a folding table, a top frame comprising side rails having grooves in their inner faces and cross bars secured on the

under faces of the side rails and securing said side rails together in spaced and parallel relation, a table top mounted on the top frame, and leg frames each comprising a pair of upwardly convergent legs, a bottom bar, a top bar having terminal trunnions operating in the grooves in the inner faces of the side rails of the top frame, and an intermediate cross bar having a V-shaped recess; and V-shaped yokes pivoted on the side rails of the top frame and having apices adapted to be secured in the recesses formed in the cross bars of the leg frames.

3. In a folding table, a top frame comprising side rails having grooves in their inner faces and cross bars secured on the under faces of the side rails and securing said side rails together in spaced and parallel relation, a table top mounted on the top frame, and leg frames each comprising a pair of upwardly convergent legs, a bottom bar, a top bar, having terminal trunnions operating in the grooves in the inner faces of the side rails of the top frame, an intermediate cross bar having a V-shaped recess; and V-shaped yokes pivoted on the side rails of the top frame and having apices adapted to be secured in the recesses formed in the cross bars of the leg frames, and means for securing the apices of the yokes in the recesses of the cross bars when the table is extended for use.

4. In a folding table, a top frame including side rails, a folding top slidably connected with said top frame, and leg frames having top bars slidably connected with the side rails of the top frame, said leg frames being foldable flat-wise with respect to the table top, between said rails of the top frame, the top bars of the leg frames when thus folded being disposed midway between the ends of the top frame; each of said leg frames having downwardly divergent legs which, when the frames are folded, may be wedged between the side rails of the top frame.

In testimony whereof I affix my signature.

ALFRED R. ULP.

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