Aug. 16, 1932. W. R. TINGLE 1,871,634

FOLDING ARTICLE OF FURNITURE

Filed Dec. 3, 1930 2 Sheets-Sheet 1

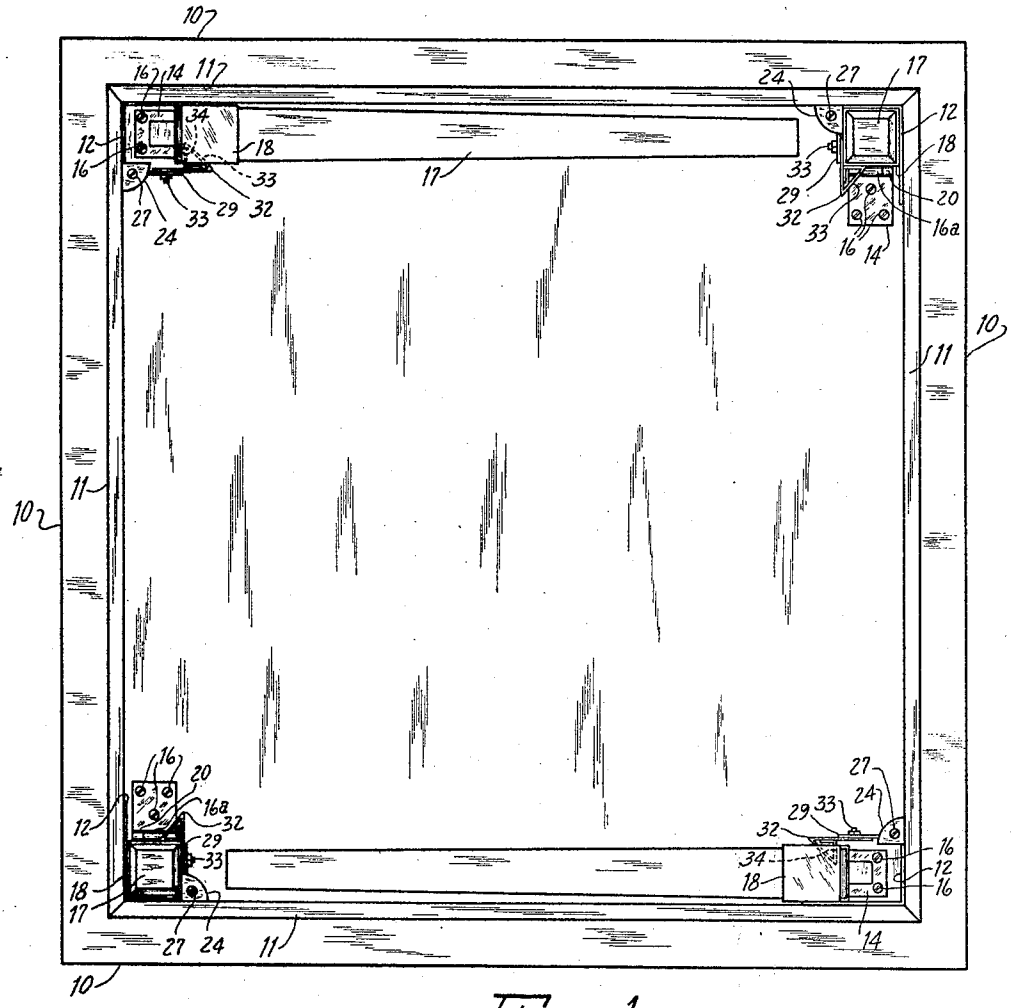


Fig. 1

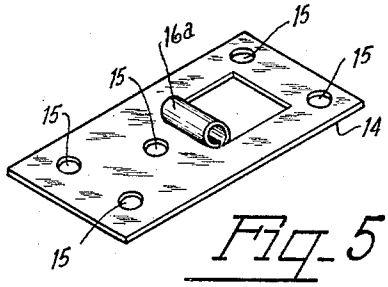


Fig. 5

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FOLDING ARTICLE OF FURNITURE

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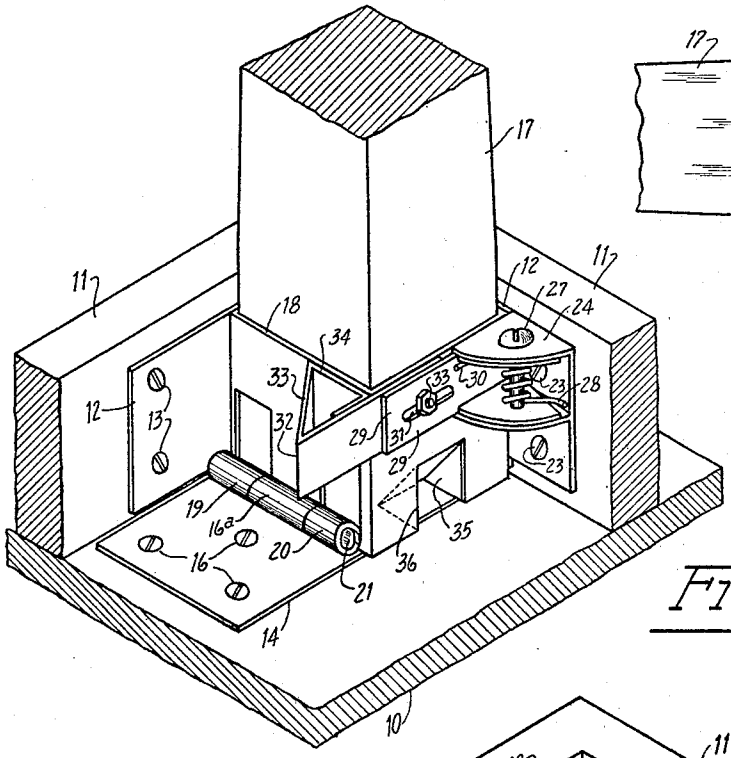


Fig. 2

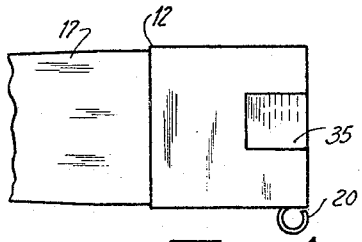


Fig. 4

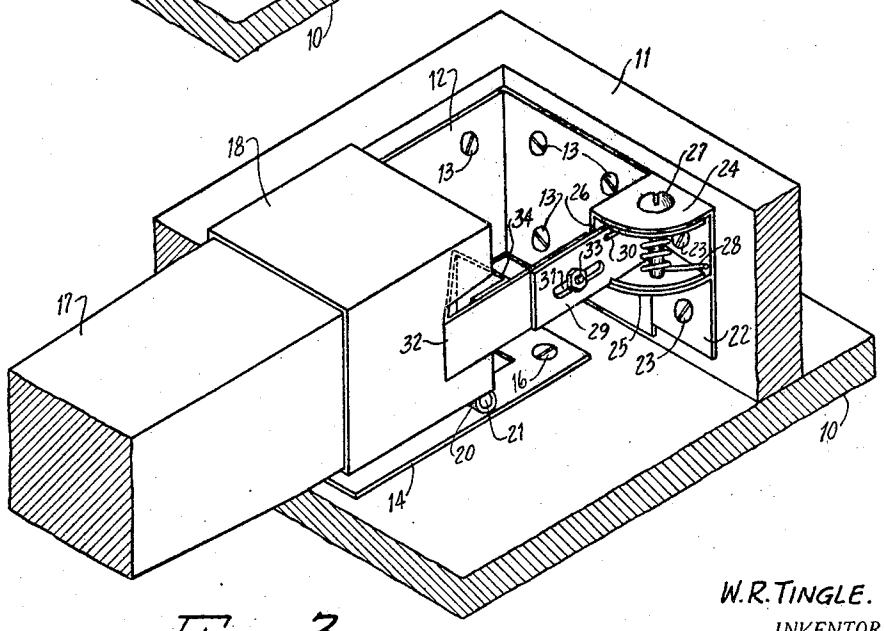


Fig. 3

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Patented Aug. 16, 1932 1,871,634

UNITED STATES PATENT OFFICE

WILLIAM R. TINGLE, OF MORGANTON, NORTH CAROLINA

FOLDING ARTICLE OF FURNITURE

Application filed December 3, 1930. Serial No. 499,794.

This invention relates to a folding table, and more especially to a table having legs which can be folded into a position parallel to the main portion of the table and comprises special means for holding the legs in a position where the table can be used, said means also being adapted to hold the legs in folded position.

I am aware that heretofore various tables having folding legs have been in use, but in the majority of these structures the means for holding the legs in folded position or in holding them in unfolded position are not positive in their action, thus causing the table to fail to support whatever is placed upon it on account of one or more of the legs moving from its adjusted position of support, and as this has been a source of great inconvenience, it is an object of this invention to provide automatic means for engaging the table legs when they are unfolded to prepare the table for use so as to positively hold the legs in unfolded position against normal strain, said means being of such a nature as to yield to proper pressure exerted thereon by a person when the legs are desired to be folded so that the holding means may yield to allow the leg to be folded and when said leg has been folded said holding means are adapted to again engage the leg to hold the said leg in folded position until manual pressure is applied to unfold the legs.

Some of the objects of my invention having been stated other objects will appear as the description proceeds when taken in connection with the accompanying drawings, in which—

Figure 1 is a bottom plan view of my table showing two of the legs in folded position and two of the legs in unfolded position;

Figure 2 is a perspective view looking at one corner of a table, or other article of furniture, showing the leg member in unfolded position.

Figure 3 is a view similar to Figure 2 but showing the leg in folded position;

Figure 4 is a side elevation of the upper inside portion of one of the legs and showing the depression or cavity adapted to be engaged by the yielding means for holding the leg in folded or closed position, said cavity having a sloping surface;

Figure 5 is a perspective view of the portion of the hinge which is adapted to be secured to the lower side of the top of the table.

Referring more specifically to the drawings, the numeral 10 indicates the top of a table or other article of furiture, having the supporting members indicated by the reference character 11 disposed on all four sides of the top and beneath the same and set inwardly from the top, though it is desired to be understood that these members 11 can be placed flush with the edge of the top or in any other position desired as it has no effect on the working of the foldable legs as these legs can be placed on any article of furniture such as chairs and the like, as well as on tables.

Secured to proximate ends of the members 11 at the four corners thereof is the L-shaped member 12 which is secured to members 11 by means of screws 13, and secured to the member 10 is a portion of a hinge said portion being indicated by a reference character 14. This member 14 has a plurality of holes 15 therethrough, through which screws 16 are adapted to be passed and be threaded in the member 10 for holding this portion of the hinge in position. This hinge has a portion 16*a* cut out of the member 14 and rolled to form a part of the hinge for connecting the legs thereto. Each of the table legs is indicated by a reference character 17 and the top portion of these legs has a metallic member 18 entirely surrounding the same and securely fastened thereon. This member 18 has two portions 19 and 20 cut therefrom on three sides and these portions are rolled to form the other portion of a hinge in conjunction with portion 16*a* of member 14 and a pin 21 is passed through portions 19 and 20 and also through portion 16*a* to hingedly connect leg 17 to member 14 and to the member 10. A member 22 is secured to member 11 in close proximity to one end of member 12, and this member 22 being secured to member 11 by means of screws 23 and this member 22 has laterally projecting portions 24 and 25 projecting therefrom with a portion 26 closing one end of the space appearing between mem-

bers 24 and 25 and a pin, bolt, or the like indicated by the reference character 27 passes through member portions 24 and 25 and a torsion spring 28 is loosely secured thereabout with one end of said torsion spring pressing against member 22. Pivotally secured on bolt 27 is a member 29 against which the other end 30 of torsion spring 28 presses. This member 29 has an elongated slot 31 therein and another member 32 is provided to have engagement with member 29 and a bolt 33 is passed through slot 31 and through member 32 so that members 29 and 32 may be adjusted with relation to each other. This member 32 has an inwardly inclined base portion 32 and a square portion 34, said portion 34 being adapted to press against the metallic portion 18 of the table leg when the table is ready for use with the legs being unfolded. The portion 18 and also a portion of the table leg is cut away forming a cavity 35 into which the free end of member 32 is adapted to fit to hold the legs in closed or folded position as shown in Figure 3. When the table leg is desired to be unfolded the co-action between the edge 36 and the inclined surface 33 causes the member 32 together with member 29 to be forced outwardly, out of the cavity 35 to allow the leg to be unfolded under pressure and when the leg has reached its full unfolded position then the face portion 34 engages the member 18 on the top of leg 17 as shown in Figure 2.

It is thus seen that I have provided a table having folding legs which are positively held in folded position but said positive holding means are so tensioned as to give way under undue pressure so as to allow the leg to be unfolded and when the leg is unfolded and in a position at approximately 90 degrees to the member 10 the holding means will again engage a portion of the leg and hold it in its unfolded position with sufficient force against normal lateral pressure so as to prevent it from being folded again unless the leg 17 is seized by the operator and pressure applied thereto which will cause the member 32 to be forced out of cavity 35 and the leg will be moved to folded position as shown in a portion of Figure 1.

In the drawings and specification there has been set forth a preferred embodiment of my invention, and although specific terms have been employed, they are used in a generic and descriptive sence only, and not for purposes of limitation, the scope of the invention being set forth in the appended claims.

Claims:

1. In a folding table having a plurality of legs pivotally connected thereto, resilient means secured to said table and being adapted to swing into the path traversed by said legs when they are swung on their pivot, means for limiting the inward swinging movement of said resilient means, means associated with said legs having a cavity in the upper end thereof adapted to be automatically engaged by the resilient means to hold the legs in folded position with respect to the table, the resilient means being adapted to slide over said legs and engage a side of said legs to hold the legs in unfolded position.

2. Means for foldably securing a leg to a table comprising means for hingedly securing the upper end of the leg to the lower surface of the table top, a dog, means for securing the dog to the table framework for swinging movement in a plane parallel to the plane of the table top, the leg having a cavity in the upper end and side surface thereof, resilient means for normally forcing said dog into engagement with said leg to cause the dog to engage said cavity when the leg is folded and to cause the dog to engage one side surface of the leg when unfolded to hold the leg in unfolded position.

3. Means for mounting a foldable leg on a table comprising a shell secured on the upper end of the leg, means for hingedly securing said shell to the lower surface of the table top, a dog member having a hook on one end and being pivotally secured at its other end to the framework of the table, a torsion spring for forcing said dog toward said leg, said leg and its shell having a cavity therein in which the free end of the dog is adapted to rest to hold the leg in folded position, said dog being adapted to ride out of the said cavity and over the side of the leg and its shell and engage the side of the leg and its shell to hold the leg in unfolded position.

4. Means for foldably securing legs to an article of furniture comprising a rectangular shell member adapted to fit over the upper end of the leg and having a portion cut therefrom on three sides and rolled to form one part of a hinge, a plate member having two separated portions cut therefrom on three sides and rolled to form another portion of a hinge, a pin penetrating all of said rolled portions forming a hinge, an angle member secured to the article of furniture and having spaced parallel projections thereon, a dog member pivotally mounted between said projections, a torsion spring normally forcing the dog against the said shell, said shell and said leg having a cavity therein in which said dog is normally pressed by said spring to hold the leg in folded position, said dog being adapted to ride out of the cavity and over said shell and engage the side of the shell to hold the leg in unfolded position.

In testimony whereof I affix my signature.

WILLIAM R. TINGLE.