W. L. DEMING.

FOLDING WALL ATTACHMENT FOR ARTICLES OF FURNITURE.

APPLICATION FILED JUNE 4, 1912.

1,142,404.

Patented June 8, 1915.

2 SHEETS—SHEET 1.

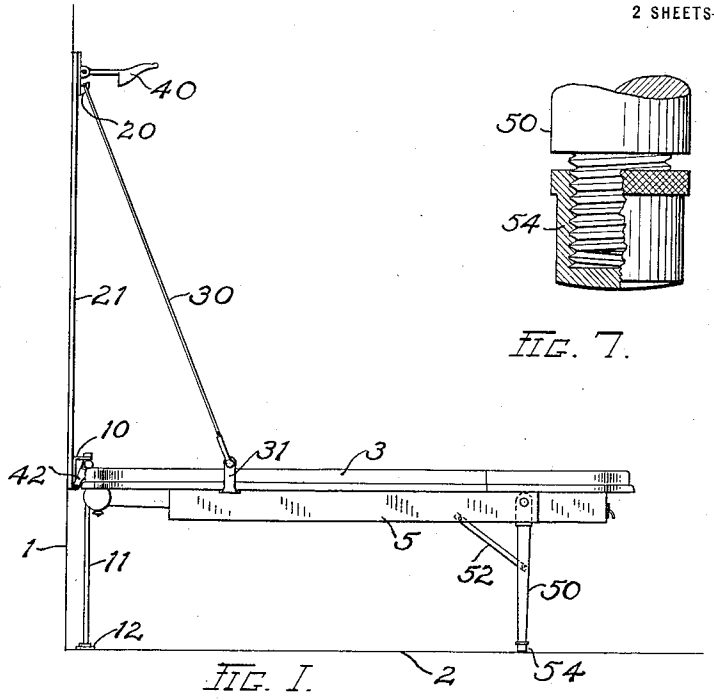


FIG. I.

FIG. 7.

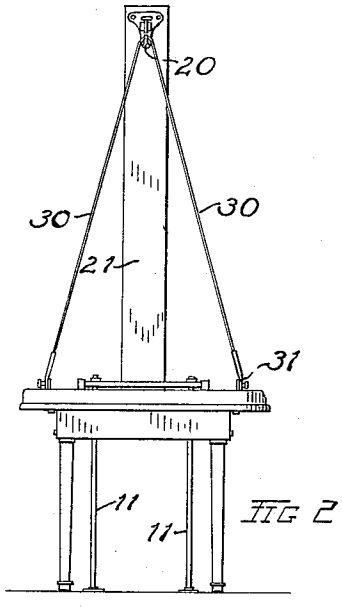


FIG 2

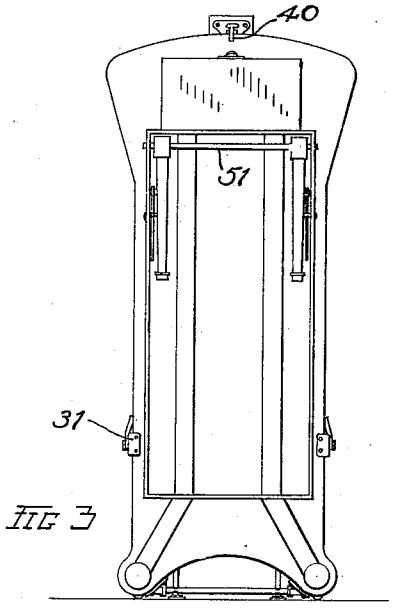


FIG 3

Witnesses

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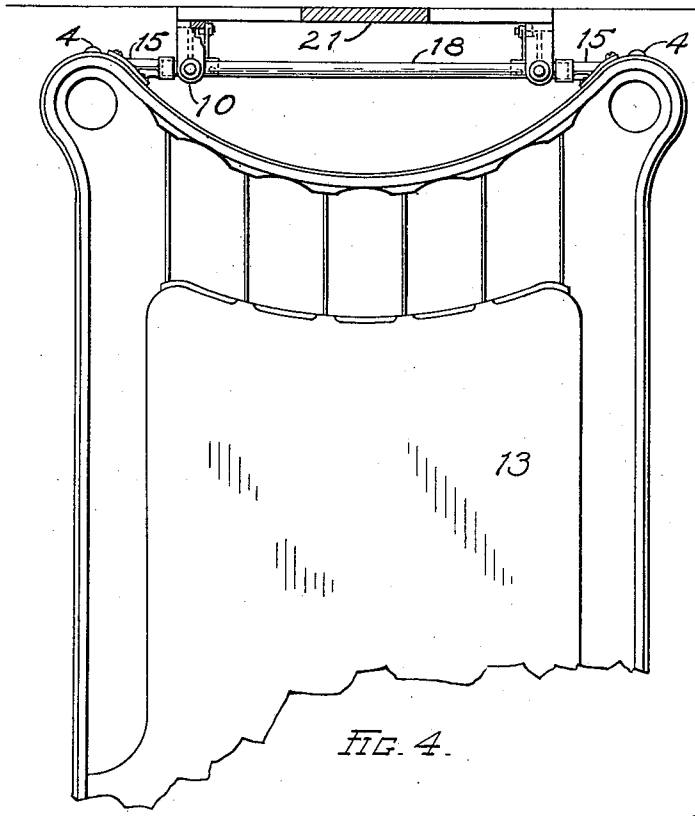


FIG. 4.

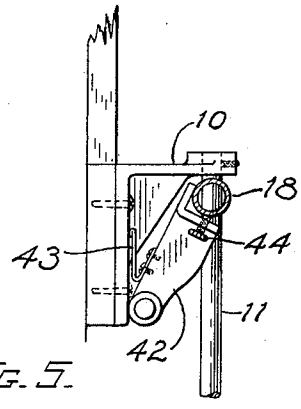


FIG. 5.

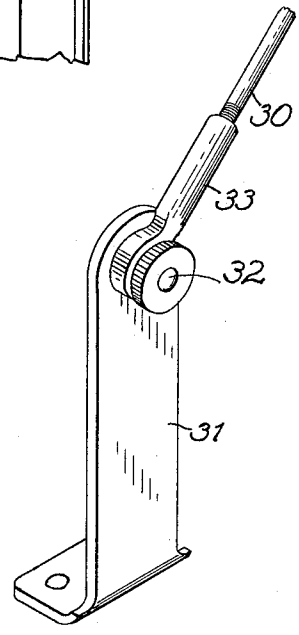


FIG. 6.

Witnesses

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UNITED STATES PATENT OFFICE.

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FOLDING WALL ATTACHMENT FOR ARTICLES OF FURNITURE.

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To all whom it may concern:

Be it known that I, WILLIAM L. DEMING, a citizen of the United States, residing at Salem, in the county of Columbiana and State of Ohio, have invented a certain new and useful Improvement in Folding Wall Attachments for Articles of Furniture, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

The present invention relates to a suitable support for an article of furniture so arranged and connected therewith that the article may occupy a horizontal position or be folded up alongside of a wall or into a vertical position. The supporting device is adapted to coöperate with various articles of furniture, as, for example, a bed, table, etc. In the particular embodiment shown, the device is designed for coacting with a game board, which, when in use, stands horizontal with one end adjacent to the wall or support; such, for example, as the boards for playing certain kinds of parlor billiards or pool or the game known as "Bilbola".

The invention is hereinafter more fully explained and its essential characteristics are set out in the claims, to which reference is hereby made.

In the drawings, Figure 1 is a side elevation of the game board in its horizontal or playing position, showing my supporting attachment; Fig. 2 is an end view of the board in its playing position, looking toward the wall; Fig. 3 is a view from a similar position, looking toward the wall when the board is folded against it; Fig. 4 is an enlarged plan of the rear portion of the board in playing position; Fig. 5 is a detail illustrating the adjustable rear support for the board; Fig. 6 is a detail showing the attachment of the supporting bail to the board; Fig. 7 is a detail, illustrating the adjustment at the front of the legs.

Referring by numerals to the parts shown in the drawings, 1 represents the wall of the room and 2 the floor thereof; 3 represents the game board, or other article, which it is desired to support horizontally upon the floor or fold up vertically against the wall.

Secured to the wall at a suitable point, preferably some distance higher than the normal horizontal top of the table, is a bracket 10. From this bracket depend a pair of vertical rods 11, the lower ends of which are secured to the floor, as shown at 12. Secured to the rear portion of the table are brackets 15 having socket openings on which is journaled a suitable rod or tube 18. Through transverse holes in this tube pass the rods 11, heretofore referred to. By this means the rear end of the table is held adjacent to the wall, but it may slide up or down as provided by the rods 11, and likewise may be turned into vertical position by reason of the pipe 18 turning on its axis in the brackets 15.

Firmly secured to the wall at a suitable point above the bracket 10 is a hook or other support 20. This hook may conveniently be mounted on an upright board or strip 21 secured to the bracket 10 and to the wall. Resting on the hook 20 is a bail 30, the arms of which flare outwardly and are pivotally connected at their lower ends with the sides of the table. I make the connection by brackets 31 secured to the underside of the table near its sides and rising above the sides and there connected by a bolt and thumb nut 32 with an eye in a sleeve 33 which screws onto the lower end of the bail. This bail makes a support for the table when it is being folded from one position to the other. It is to be understood, for example, that when it is desired to fold the table up against the wall, the outer end of the same is simply shoved upwardly and inwardly and the table swings on the bail pivots 32 and the tube 18 turns and slides downwardly on the rods 11, so that the table comes to rest in a vertical position with its lower end resting on or adjacent to the floor.

When in the folded position described, the table, being vertical, may stand without being latched, but, to insure against its being inadvertently tipped down, I provide a gravity latch 40 pivotally connected to the bracket 20 and adapted to overhang the front edge of the table when vertical. It is to be understood that the bracket 20 is placed a distance above the floor corresponding to the length of the table and the bail arms 30 are of such length, and they are connected with the table at such distance from the rear end, that, when folded against the wall the table stands with the lower end resting on or adjacent to the floor and the upper end caught under and held by the gravity latch 40. I prefer to have the table actually rest on the floor when in this posi-

tion, and to that end I may provide wear blocks 4, preferably elastic, on the ends of the table.

To more firmly hold the table when in its horizontal position I provide two gravity latches 42 carried by the bracket 10 and adapted to engage beneath the tube 18 when the table is horizontal. These latches are best shown in Fig. 5. They may be provided with springs 43 insuring their engagement and with adjustable bearing screws 44 to engage the tube 18. I also provide, near the outer end of the table, one or more folding legs 50 which are adapted, when the table is folded, to lie alongside of it, but when the table is horizontal to stand vertically and support it.

The folding legs described may be of any suitable form. As shown, the legs 50 are pivotally connected with the table top by being secured on a tubular rod 51 which is journaled in the skirt 5 of the table. The legs are provided with gravity brace rods 52 which allow them to fold but will hold them in place when extended.

When my foldable support is used with a game table, it is very desirable to have the table absolutely level when folded down. To this end I provide adjustments, some of which have been heretofore referred to: that is to say, I provide each of the gravity latches 42 with an adjustment, illustrated by the set screw 44, whereby the rear end of the table may be given the proper height, and I provide screw caps 54 at the base of each table leg adapted to be rotated to lengthen or shorten the effective leg. By this means, and by arranging the bail so that when the table is down it will be supported entirely by the catches and the legs, I am enabled to have the table absolutely level and hold it firmly in position. To adjust the bail so that the weight may be taken off of it and carried by the latches and legs, I provide the sleeves 33, heretofore referred to, and which are best illustrated in Fig. 6. By removing the nuts from the bolts 32 the sleeve may be disconnected from the bolt and turned in one direction or the other to lengthen or shorten the effective bail leg. Of course, if desired, the bail may be adjusted to itself carry the weight of the rear portion of the table, making the adjustment at this point and doing away with the necessity for adjusting the gravity latches.

My attachment enables a game table or other article to be turned up out of the way and held against the wall when not in use, while, when it is turned down into horizontal position, it stands firmly and level on its support. The parts are simple and cheap in construction and easily applied. The same or similar mechanism could be used for holding a bed or other article, though it will be understood that, where an absolutely level condition is not necessary, some of the adjustments may be omitted.

Having thus described my invention, what I claim is:

1. The combination, with an article to be folded, a vertical guide for the rear end thereof adapted to be secured to a wall, a support adapted to be secured to the wall above said guide, a tension device carried by said support and pivotally connected with the article to be folded, one or more legs pivotally connected with the article near its forward end to support it when down, and adjustable automatic latches to support the table at its rear end when down.

2. The combination, with an article to be folded, a vertical guide for the rear end thereof adapted to be secured to a wall and pivotally connected with the article, a support adapted to be removably secured to the wall above said guide, a tension device in the form of a bail carried by said support and having each leg pivotally and adjustably connected with the article to be folded, one or more legs pivotally connected with the table near its forward end to support it when down, means for adjusting the effective length of the legs, latches to support the table at its rear end when down, and means for adjusting such rear support.

3. The combination, with a table, of a pair of upright rods, brackets engaging the upper ends thereof and adapted to be secured to a wall for holding the rods upright, a cross-bar slidably embracing said rods, a pair of latches carried by the respective brackets and adapted to engage the cross-bar when elevated, a table, and brackets mounted thereon and swiveled to the cross-bar.

4. A support for a table adapted to be folded against a wall comprising a pair of upright guide members attached to the wall, a member pivotally mounted on the rear end of the table and slidably mounted on said guide members, a latch adapted to engage and support said member when the table is in a horizontal position, a bail removably pivoted at each side of the table at points intermediate the ends of the table so placed that the bail carries a majority of the weight of the table during transposition, said bail being adjustable in length when disconnected from the table, and a folding leg at the front end of the table adapted to carry a portion of the weight of the table when horizontal.

5. A support for a table adapted to be folded against a wall, comprising a bail pivotally mounted on the wall at a point above the table and pivoted at each side of the table at points intermediate the ends of the table and adapted to carry a portion of the weight of the table during transposition,

means for adjusting the length of the bail, a pair of upright guides supported on the floor and the wall, a member pivotally connected to the rear end of the table and slidably mounted on said guides, a latch adapted to support said member when the table is horizontal, means on said latch for adjusting the elevation of this end of the table, a folding leg at the front end of the table, and means on the leg for adjusting the elevation of this end of the table.

In testimony whereof, I hereunto affix my signature in the presence of two witnesses.

WILLIAM L. DEMING.

Witnesses:
JOHN N. GLIDDEN,
ALBERT H. BATES.

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