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C. M. HARBISON ET AL

FOLDING STAND

Filed Feb. 28, 1923

Fig. 1,

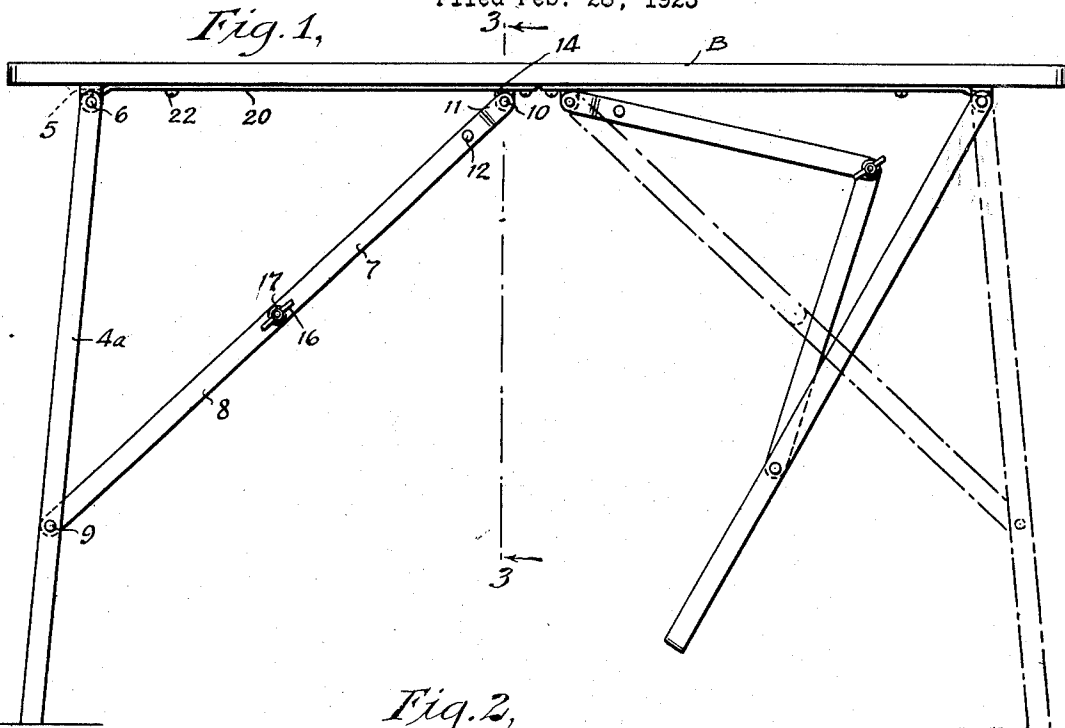


Fig. 2,

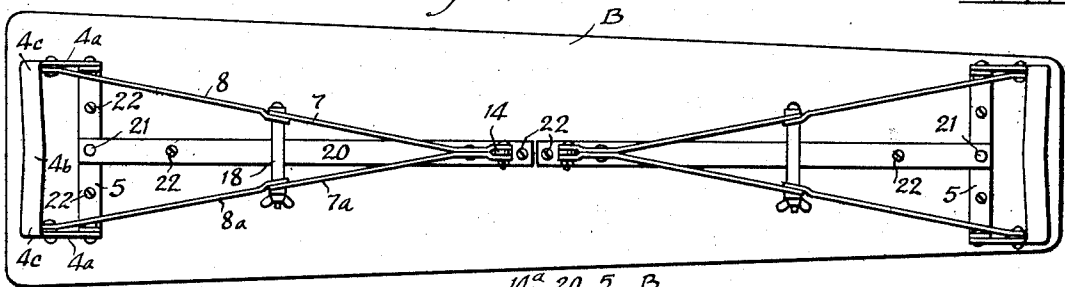
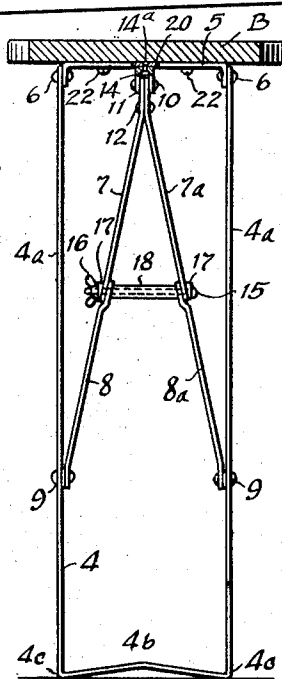


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

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FOLDING STAND.

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To all whom it may concern:

Be it known that we, CLIFFORD M. HARRISON and THEODORE V. SMITH, both citizens of the United States, and residents, respectively, of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, and the city of New York, borough of Manhattan, in the county of New York and State of New York, have invented a certain new and Improved Folding Stand, of which the following is a full, clear, and exact description.

The prime aim of the invention is to provide a new and improved folding stand for an ironing board, table or the like; and in this connection, particularly to provide such a stand constructed wholly of metal, as I have found that previous collapsible leg structures for articles of furniture of any type are, to say the least, unsatisfactory as a practical, reliable and long-lived adjunct.

Another object of the invention is to provide a self-complete structure, easily attachable to a table or board and readily collapsed and extended when so attached; and so constructed and arranged that in either collapsed or extended condition the new structure may be quickly and securely locked in that condition.

A further object is to provide a wholly metallic folding stand of the kind above characterized, which stand is a leg structure preferably including two legs, whereby one such structure need only be attached to an ironing board, while two of such structures are only required to be used to convert a board or a table-top element into a table standing on four legs. In this connection, it is an equally important object to provide a leg structure as just described, and one wherein there is avoided entirely the use of special castings, forgings or the like for leg members, stay members, for connections, mounting and adjusting fixtures, and, indeed, for any other element of the new structure.

A very important object of the invention is to avoid certain disadvantages of constructions heretofore suggested and intended to be used as collapsible leg structures for articles of furniture. Among the disadvantages thus avoided by the present invention are interconnected leg structures, that is, a single leg structure having four legs arranged in groups of two each on opposite

ends of the table, ironing board or the like; leg structures complicated, expensive and bulky when collapsed, due to the presence of leg and stay members defining trapeziums or trapezoids when the leg structure is extended; and leg structures so designed as to necessitate the use of one or more pin and slot connections to be made use of during collapsing and extending operations.

The invention will be best understood from a consideration of the following detailed description when taken in connection with the accompanying drawing forming part of this specification; with the understanding, however, that such drawing illustrates, merely by way of example, one possible embodiment of the invention, and that the invention is not confined to any strict conformity with the showing in the drawing, but may be changed and modified so long as such changes and modifications mark no material departure from the salient features of the invention as expressed in the appended claims.

In said drawing,

Fig. 1 is a side elevation of an ironing board equipped with a plurality of leg structures pursuant to the present invention, and thus adapted to serve as a table when such leg structures are both fully extended;

Fig. 2 is a bottom plan view of the embodiment of Fig. 1, with both leg structures extended; and

Fig. 3 is a transverse section taken on line 3—3 of Fig. 1.

Similar reference characters refer to similar parts throughout the several views of the drawing.

Referring to the details of such drawing, each leg structure illustrated comprises merely a pair of legs 4^a forming parallel terminal lengths of a U-shaped leg member 4 preferably shaped as indicated at 4^b in Fig. 3 to provide a pair of spaced tread portions or feet 4^c; a connecting and attaching strip 5 pivotally mounting the free ends of leg members 4^a by means of two loose rivets indicated at 6; four stays 7, 7^a, 8 and 8^a constituting when expanded a single bracing structure relative to the adjacent pair of leg members 4^a and including a pair of divergent brace or strut elements 7—8 and 7^a—8^a; two loose rivets as indicated at 9 for connecting up the brace structure and the leg members 4^a; a standard rivet indicated

at 10 for pivotally connecting the brace structure, at its forked portion marked 11 in Fig. 3 adjacent a tight rivet marked 12 in said Fig. 3, to a U-shaped cradle-piece 14; means for frictionally locking the bracing structure in either its expanded or extended condition and including merely a long bolt 15, a thumb nut 16, beveled washers 17 on the bolt beyond the bracing structure, and a tube 18 having beveled ends and sleeving the bolt between the sides of said bracing structure; and an auxiliary connecting and attaching strip 20, running longitudinally of the board and riveted at 21 to the strip 5 and also riveted at 22 to cradle-piece 14 as indicated at 14^a in Fig. 3.

Finally, strips 5 and 20 may be provided with suitable apertures for receiving wood-screws 23 for mounting a leg structure pursuant to the invention.

Referring to the clamping means afforded by the long bolt 15 and its associated parts, it will be observed that the bevel-ended tube 18 always maintains the bracing structure forming a part of each leg structure, V-shaped as disclosed, and that with the wing nut 16 tightened up on the bolt 15, the beveled washers 17 further facilitate the attaining of this end. It will also be seen that when once the wing nut 16 has been loosened to permit the stays 8 and 8^a to be bent up into parallelism with each other and into parallelism with leg members 4^a (see the full-line disposition of the leg structure parts to the right of Fig. 1), to collapse the complete leg structure flat against the undersurface of the board B, then, to tighten up the wing nut to maintain the parts thus collapsed, is an instantaneous operation due to the ready accessibility of such wing nut resulting from the V-shaped form of the bracing structure lying within the rectangular form of the U-shaped leg structure proper now in substantially the same plane with the bracing structure.

From the drawing and the foregoing description it will be seen that there has been provided an embodiment of the invention well calculated to attain all the various ends and objects thereof, especially if it be noted that for the purpose of showing the parts on rather a large scale in Figs. 1 and 2 the long strip 20 is given a length a trifle shorter than that required to eliminate overlapping of the tread portions 4^a of each leg structure when both leg structures are collapsed up against the underside of board B. In this connection, it is finally pointed out that while throughout there has been preserved

the object of eliminating entirely all auxiliary devices having to be specially cast, forged, or otherwise relatively expensively produced, (it being noted that even the tube 18 is of a standard type), the leg structure proper is a single length of a standard strip metal, as are strips 5 and 20 and as are stays 7, 8, 7^a and 8^a. The strip material actually found very strong, serviceable and light in weight, for the parts last mentioned, is strip iron $\frac{7}{8}$ " wide and $\frac{1}{8}$ " thick. Even cradle-piece 14 may well be made of such strip material.

We claim:

1. A foldable leg structure, comprising a U-shaped leg, a bar to which the arms of the leg are pivoted, a U-shaped member, a bar connecting the first bar and the U-shaped member, the said bars being adapted to be secured to the underside of an ironing board or the like, a sectional and pivoted brace pivoted to the leg and to the U-shaped member, each section of the brace consisting of two divergent members, and means for locking the sections of the brace in alignment.

2. A foldable leg structure, comprising a U-shaped leg, a bar to which the arms of the leg are pivoted, a U-shaped member, a bar secured to the first bar and to the U-shaped member, the said bars being adapted to be secured to the underside of an ironing board, or the like, a sectional brace pivoted to the leg and to the U-shaped member, each section of the brace consisting of a pair of divergent members, the ends of the members of the sections overlapping one another, a bolt passing through said overlapping ends, and a tube through which the said bolt passes.

3. The combination with an ironing board or the like, of a U-shaped leg having its arms hinged to the underside of the board, and a sectional brace, each section consisting of a pair of divergent members, the converging and diverging ends of the members of the sections overlapping one another, a bolt passing through the said overlapping ends, and a tube between the members at said ends and through which the bolt passes, one section of the brace having its members secured together at one end and pivoted to the underside of the board at a distance from the pivotal connection of the leg and the other having its members pivoted to the arms of the said leg.

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