May 10, 1927. 1,627,557

H. J. GILBERT

FOLDING TABLE

Filed Oct. 15, 1924 2 Sheets-Sheet 1

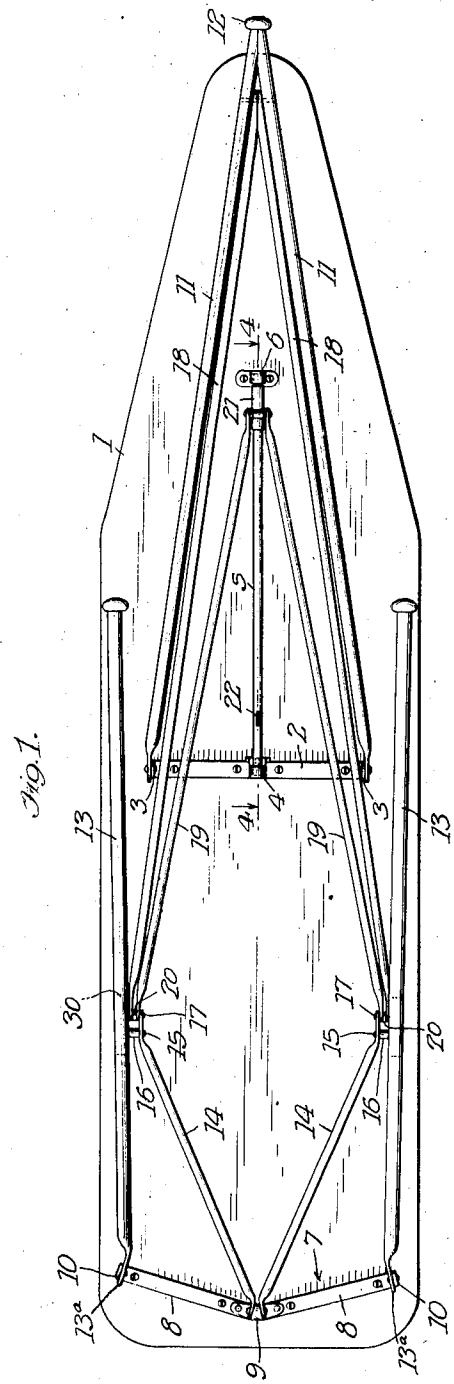


Fig. 1.

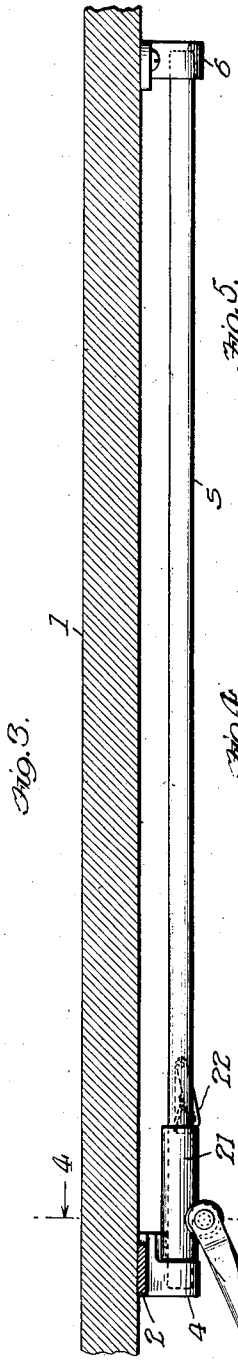


Fig. 3.

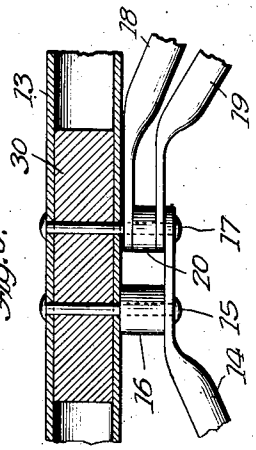


Fig. 5.

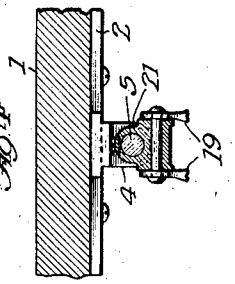


Fig. 4.

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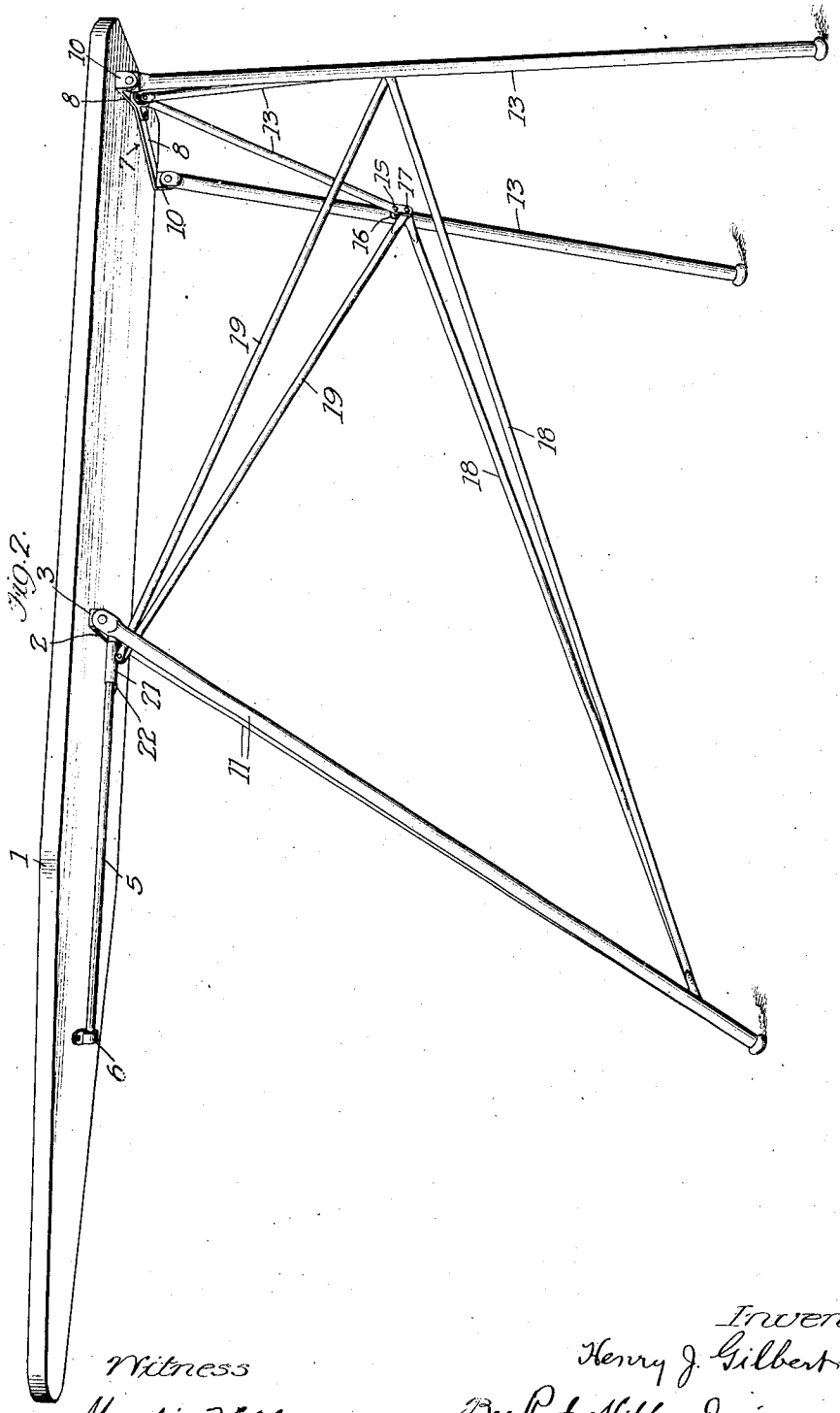
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Witness
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# UNITED STATES PATENT OFFICE.

HENRY J. GILBERT, OF SAGINAW, MICHIGAN.

## FOLDING TABLE.

Application filed October 15, 1924. Serial No. 743,658.

My invention relates to folding tables, and is more particularly adapted to collapsible ironing boards or tables of the type in which the board is provided with collapsible legs which fold against the board, so that the device occupies little space when not extended for use, and in collapsed form is convenient for shipment or storage. The object of my invention is to provide a board of such character in which the leg structure shall be strong, stable and mechanically efficient, simple to operate and compact in construction. These advantages I attain by a novel arrangement of the legs and connecting bracing and supporting members hereinafter described in detail, the essential elements of my invention being more particularly pointed out in the appended claims defining my invention.

Figure 1 of the accompanying drawings is a bottom plan view of the table with the legs folded; Fig. 2 is a perspective view of the device set up in extended position for use; Fig. 3 is a longitudinal vertical section, partly in elevation, showing the arrangement of a guide rod connection for the front end of the locking rod; Fig. 4 is a cross-sectional detail of the locking catch, on the line 4—4 of Fig. 3; and Fig. 5 is a fragmentary section of the central portion of a rear leg of the table.

The same reference characters indicate the same parts in all the figures of the drawings.

The ironing board 1 of my novel ironing table is in the present instance secured to the collapsible leg structure, which may conveniently be constructed of metal tubing, by means of bearing members directly secured to the board. These members are preferably formed of malleable iron castings provided with integral ears and blocks extending at right angles to constitute bearing lugs, as shown in the drawings. The front bearing member 2 is provided adjacent its opposite ends with the bearing lugs 3—3, and at its center is formed with a block 4 in which is rigidly secured the rear end of a guide rod 5 which at its forward end is secured in a block 6 secured to the underside of the ironing board. The rear bearing member 7 consists of two branches 8—8 extending forwardly at a broadly oblique angle to each other from a central hollow pivoting block 9, the ends of the branches 8—8 being formed with the bearing lugs 10—10.

The centrally arranged front leg consists of two diagonal branches 11—11, secured together at the bottom and having their meeting ends equipped with a foot block 12, the upper or inner ends of such branches being pivoted respectively on the bearing lugs 3—3 of the front bearing member. The pair of rear legs consists each of a straight leg member 13 and a bracing member 14 riveted to such leg member at a point intermediate its ends by means of a rivet bolt 15 passing through the leg and bracing member and also through an interposed spacing block 16. The leg member and bracing member are also connected by a second rivet bolt or pin 17, which serves as a pivot for other members hereinafter described. In the present instance, I employ a wooden filler block 30 inside the leg member opposite the rivet bolts 15 and 17, to stiffen and strengthen the leg at that point. The inner ends of the rear leg members are pivoted to the bearing lugs 10—10 at the ends of the rear bearing member 7, and the inner ends of the bracing members 14 are pivoted on opposite sides of the central bearing block 9 of such bearing member adjacent the center line of the board.

The rear legs are set at obtuse angles with respect to the two lines extending from their respective bearings in the lugs 10—10 to the corresponding bearings in the bearing block 9, so that the centers of rotation of the feet lie outside the outermost points of pivotal support, the arrangement of the parts with relation to the board being such that when the legs are in folded position they lie within and approximately parallel with the opposite margins of the board, and spread outwardly and away from each other beyond the vertical planes of such margins when the legs are unfolded to extended position, thus affording a very broad footing and giving great stability to the table. This peculiar movement of the legs is due to the fact that the oblique mounting of the pivotal supports of rear legs on the board, and the oblique angle which the legs make with their pivotal supports cause the feet to travel in planes which are equally and oppositely inclined to the vertical plane of symmetry of the table structure passing longitudinally

through the center line of the board and which intersect the line of the edge of the board at a point such that the feet will fall within the margin of the board when the legs are folded and project outwardly beyond the line of the table edge when they are extended.

The rear legs, it may here be noted, are formed with stop lugs 13a—13a arranged to cooperate when the legs are extended with portions of the rear side of the rear bearing member adjacent the bearing lugs 10 on the opposite ends of such member.

The rear legs of the table are connected with the front leg by means of a pair of connecting rods 18—18 pivoted at their front ends to the front leg between its branches and near its foot, and also pivoted respectively to the rear legs by means of the pivot bolts 17—17 before mentioned.

The connected front and rear legs are maintained in extended position by means of a pair of locking rods 19—19 which are pivoted at their rear ends on the pivot bolts 17—17 inside the connecting rods 18—18 before mentioned, spacing blocks 20—20 being interposed between the connecting rods and locking rods to properly separate them from each other. At their front ends the locking rods are pivotally connected to opposite hubs of a tubular sliding block 21 which is mounted to slide on a guide rod 5 before mentioned. This guide rod is equipped near its rear end with a spring-stressed reciprocating catch 22 having a front cam face and a rear locking face and adapted to automatically latch against the rear face of the block 21 when the block is shifted rearwardly to its extreme locked position.

As will be understood from the description above given of the construction and arrangement of the parts of the table, the legs may be extended from the collapsed position shown in Fig. 1 in which all of the parts lie in a single plane without overlapping, to the extended position illustrated in Fig. 2. The triangular relation of the connecting rods to the locking rods, and of the connecting rods and locking rods to each other, in connection with the triangular form of the front leg and the triangular form of the upper or inner part of the rear leg and its associated bracing member, pivoted in the rigidly connected bearing member, all produce when the leg structure is extended a series of trusses which most effectively and rigidly support the table, and prevent the collapsible frame work from yielding either longitudinally, transversely, or obliquely.

It is obvious that the front bearing member 2 and rear bearing member 7, instead of being separately directly secured to an ironing board, may constitute part of an equivalent top frame member of any desired construction to which the ironing board, or a table top of other form may be secured. Detachable and interchangeable top members may thus be provided for a single folding leg unit.

I claim:

1. A folding table comprising a board equipped with front and rear pivot bearing members, the rear bearing members being arranged in spaced converging relation, a centrally arranged front leg structure pivoted in said front pivot bearing members, a pair of rear legs pivoted in said rear pivot bearing members and adapted to spread outwardly when unfolded, a pair of connecting rods pivoted to said front leg structure near its foot and also pivoted to said rear legs at points intermediate their ends, and a pair of locking truss rods pivoted at one end to said rear legs at said intermediate points, said locking truss rods meeting at their other ends and being equipped with a common connecting member, and a stationary member carried by the table top, said stationary member being disposed adjacent the longitudinal center line of the table top and adjacent the axis of the front leg bearing members and said connecting member being arranged to make interlocked engagement with said stationary member when the legs are in extended position.

2. A folding table comprising a board equipped with front and rear pivot bearing members, a front leg structure pivoted in said front pivot bearing members, a pair of rear legs pivoted in said rear pivot bearing members, connecting rod means pivoted to said front leg structure adjacent its foot and also pivotally connected with said rear legs at points intermediate their ends, a pair of locking truss rods pivoted at one end to said rear legs at points intermediate their ends, said locking truss rods meeting at their other ends and being equipped with a common slide, and a guide rod carried by the table top and engaged by said slide, said guide rod extending longitudinally of the table top and its rear end extending to a point adjacent the axis of the front leg bearing members, and said slide being arranged to make interlocked engagement with said guide rod at said point adjacent the axis of the front leg bearing members when the legs are in extended position.

3. A collapsible ironing table or the like, comprising a board having a pair of rear legs pivoted adjacent the rear end of the board and folding forwardly, a centrally-arranged triangular front leg structure having inclined branches pivoted to an intermediate part of the board at points on each side of its center line and arranged to fold forwardly, connecting rods pivoted to said triangular front leg structure near its foot

and arranged to nest when folded between the branches of the front leg structure, said connecting rods being pivoted also to said rear legs, and a locking truss member having branches respectively pivoted to said rear legs and arranged to nest when folded between said connecting rods.

4. A collapsible ironing table or the like comprising a board having a pair of legs pivoted adjacent the rear end of the board and folding forwardly within the margin of the ironing board, a centrally-arranged forwardly-folding triangular front leg pivoted to the board at opposite points midway of its length and between the folded rear legs, connecting rods pivoted to said rear legs and the branches of said front leg on their inner sides and arranged to nest when folded within the rear legs and said branches of the front leg, locking rods pivoted to said rear legs adjacent and inside the pivotal connections of said connecting rods, and a central longitudinal guide rod secured to the ironing board between said front legs, the front ends of said locking rods being arranged to slidingly engage said guide rod and nest when folded within said connecting rods.

5. An ironing table comprising a board having collapsible supporting means including a pair of rear legs hinged adjacent the opposite rear sides of the ironing board, a front leg structure including spaced members hinged to the intermediate portion of the board near opposite edges thereof and arranged when extended to incline forwardly and downwardly, a pair of connecting rods pivoted at one end to said rear legs intermediately and also pivoted at the opposite end to said front leg member near the bottom thereof, a locking truss frame having side members pivoted at one end to said rear legs intermediately on the same axis as the connecting rods and arranged when extended to incline upwardly and forwardly to a point adjacent the top of said front leg structure, and locking means adjacent such point for stationarily locking the front end of said locking truss frame.

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