

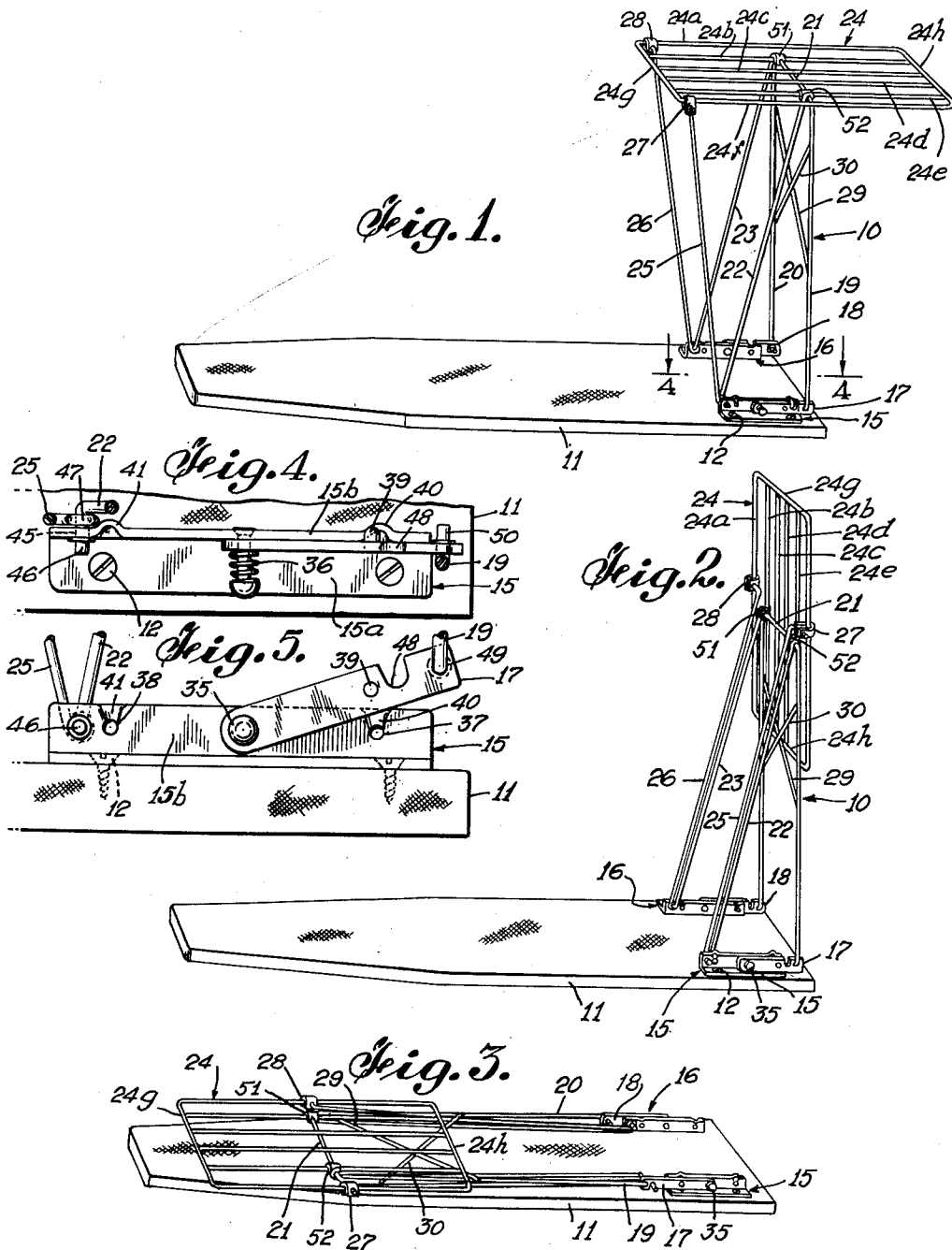
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FOLDABLE CLOTHESRACK FOR IRONING BOARDS AND THE LIKE

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FOLDABLE CLOTHES RACK FOR IRONING
BOARDS AND THE LIKE

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3 Claims. (Cl. 38—106)

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This invention relates to a foldable clothes rack for ironing boards and the like.

It is a well known fact that among the problems of ironing clothes at home is the problem of properly arranging and temporarily storing the clothes once they are ironed. Thus the average housewife places some of her ironing upon a table, drapes some of it over the back of a chair, and arranges the rest in a pile on another article of furniture. This practice is common in many households despite the fact that it is obviously inconvenient, wasteful of time and effort, and generally annoying.

It is the principal object of this invention to provide a foldable rack which may be mounted on ironing boards, ironing tables and the like, for temporarily storing the ironed clothes preparatory to putting them away in appropriate drawers, closets, and the like. The foldable rack herein described and claimed is adapted to be mounted either temporarily or permanently upon any suitable support, such as an ironing board or an ironing table. It is foldable or collapsible to very small proportions and to an inoperative position flat against its ironing board or ironing table support. When it is folded flat into inoperative position, it takes up little more room than the board on which it is mounted. When it is set up in operative position, it occupies but a small space on its supporting board, but it nonetheless provides a very considerable working area or space for storing the ironed clothes, and in addition, it provides adequate facilities for supporting the clothes by means of conventional clothes hangers. The structure of this folding rack is so arranged and situated that it does not and cannot interfere with the ironing chores per se.

It is an other important object of this invention to provide a foldable clothes rack of the character described which may very readily and conveniently be set up into operative position, and collapsed or folded into inoperative position by the average housewife. It is well known that housewives and housekeepers are generally unskilled and untrained in the mechanical arts and it is important that any mechanical device which is intended for their use, be adapted for proper handling by unskilled persons. The foldable rack constituting the present invention may be set up and collapsed without the slightest difficulty by totally inexperienced housewives and housekeepers, without prior or special instructions except such as may be set forth on the usual instructions sheet which accompanies new prod-

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ucts. The foldable rack herein described and claimed does not require special tools or any tools whatsoever for setting up or collapsing purposes, nor does it require the usual steps of assembling and disassembling a mechanical structure. The present rack need not be assembled or disassembled, either for the purpose of setting it up into operative position or for the purpose of collapsing it to inoperative position. Instead, all that need be done to move the present rack from inoperative to operative position or back from operative to inoperative position, is to change the relative positions of some of its component parts.

More specifically, this foldable rack is provided with a pair of slides which are in one position when the rack is in operative position, and in another position when the rack is in inoperative position. The rack also is provided with a pair of pivotally mounted supporting members or links which occupy one angular position when the rack is in operative position, and another angular position when the rack is in inoperative position. Other component parts of the rack are also pivotally mounted and they are adapted to pivot automatically from operative to inoperative position and back again when said slides and said pivotally mounted links are actuated.

It is still another important object of this invention to provide a foldable rack of the character described which is relatively steady and rigid in its operative position and which is so well balanced with respect to the structure which supports it that accidental collapsing or unbalancing thereof is prevented. As will hereinafter more fully appear, this foldable rack is well braced in every respect so as to avoid the unsteadiness which is generally associated with foldable structures and to definitely avoid and prevent collapsing thereof.

A preferred form of this invention is shown in the accompanying drawing in which:

Fig. 1 is a perspective view of a foldable rack made in accordance with the present invention, showing said rack set up in operative position on an ironing board.

Fig. 2 is a similar view showing the same rack in partly folded or collapsed position.

Fig. 3 shows the same foldable rack in fully collapsed or folded position flat against the ironing board.

Fig. 4 is an enlarged, fragmentary sectional view, taken on the line 4—4 of Fig. 1, and looking down upon one of the supporting bases of the foldable structure.

Fig. 5 is a side view of said base.

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The foldable rack 10 which is herein described and claimed is shown mounted on an ironing board 11, but it will be understood that this is but illustrative of the invention, and the same foldable rack may be mounted on any other suitable support. The foldable rack may be permanently secured to the ironing board by means of screws 12 or it may be temporarily secured thereby by means of C-clamps or any other suitable and conventional means.

The foldable rack shown in the drawing comprises the following component parts: a pair of base members 15 and 16 respectively, a pair of links or arms 17 and 18 which are pivotally supported, respectively, on said base members 15 and 16, a pair of uprights 19 and 20 which are pivotally supported by said links or arms 17 and 18, a cross bar 21 which is connected to the top ends of said uprights 19 and 20, a pair of struts or braces 22 and 23 respectively which are pivotally supported at their lower ends by base members 15 and 16, and which are pivotally connected at their upper ends to said cross bar 21, a rack 24 which is pivotally supported, intermediate its ends, by said cross bar 21, a second pair of struts or braces 25 and 26 which are pivotally supported at their lower ends by said base members 15 and 16 and which are pivotally and slidably connected at their upper ends to said rack 24 by means of slides 27 and 28 respectively, and a pair of cross braces 29 and 30 respectively which are fastened to the two uprights to maintain them in rigid, parallel relationship at all times.

Base member 15 is clearly shown in Figs. 4 and 5. It comprises an angle bar having a horizontal portion 15a and a vertical portion 15b. The horizontal portion rests upon the ironing board and it is provided with holes to accommodate screws 12, whereby said base member may be fastened to said ironing board. The vertical portion 15b of said base member 15 is provided with a hole formed centrally thereof to accommodate a rivet or bolt 35 whereon link or arm 17 is pivotally mounted. The rivet or bolt 35 is somewhat longer than the thickness of link 17 would normally require and it carries a compression spring 36 which bears at one end against the head of said rivet or bolt and at its opposite end against said link or arm 17. The action of spring 36 is to tensionally hold the link or arm 17 flat against the vertical portion 15b of the base member.

It will be noted that said vertical portion of the base member is also provided with two additional holes 37 and 38 respectively which are formed adjacent the two ends of said base member. It will further be noted that a pin 39 is provided on pivoted link or arm 17 for registration with either of said holes 37 and 38. The vertical portion 15b of the base member is flared or bent outwardly adjacent said holes 37 and 38 to form cam-faced approaches 40 and 41 respectively to said holes 37 and 38. Hence, when pivoted link or arm 17 is swung in clockwise direction as viewed in Fig. 5, its pin 39 will engage and ride up upon cam-faced approach 40 and said link or arm will thereby be caused to swing sidewardly a sufficient distance to enable said pin 39 to clear said approach 40 and to enter hole 37. This sideward movement of the link or arm 17 takes place against the action of spring 36.

When it is desired to free said pin 39 from hole 37, link 17 must be moved manually and laterally away from vertical portion 15b of the base member a sufficient distance to enable said pin

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37 to clear approach 40. Link or arm 17 may be swung in counter-clockwise direction until its pin engages and rides up upon cam-faced approach 41 and in the manner described hereinabove, pin 39 will thereby be enabled to enter hole 38. It will more fully hereafter appear, that when the foldable rack herein described and claimed is in its operative position, pin 39 is in engagement with hole 37. When the rack is in folded or collapsed position against the ironing board, pin 39 is in engagement with hole 38.

Still another hole 45 is formed in vertical portion 15b of the base member, this hole being formed adjacent hole 38. It accommodates a bent portion 46 which is formed at the bottom of strut 22. Accidental dislodgement of said bent portion 46 from hole 45 is prevented by conventional means as, for example, by upsetting the end of said bent portion 46. Strut 25 has an eye 47 formed at its lower end and it will be noted in Fig. 4 that bent portion 46 of strut 22 projects through said eye 47. It is by this means that struts 22 and 25 are pivotally connected to each other and it is by the same means that they are pivotally supported by base member 15. It will be noted in Fig. 5 that a cutout 48 is formed in pivoted link or arm 17 to enable said link or arm to clear bent portion 46 of strut 22 when said link is swung in counter-clockwise direction to the position which it is shown to occupy in Fig. 3.

The free end of pivoted link or arm 17 has a hole 49 formed therein and it will be seen that upright 19 has a bent lower end portion 50, similar to bent end portion 46 of strut 22, and that said bent end portion 50 projects through hole 49 in said link or arm 17. To prevent accidental dislodgement of said bent end portion 50 from hole 49, said bent end portion may be upset or any other conventional means may be utilized for the purpose indicated. It is by this means that upright 19 is pivotally supported by link or arm 17.

What has been said of base member 15 and the several members which it supports is equally true of base member 16 since the two base members are identical with each other in every respect, except that one is suitable for use on the left side of the entire rack structure and the other is suited for use on the right side thereof.

It has been stated that rack 24 is pivotally supported intermediate its ends on cross bar 21. This cross bar may, if desired, be integral with uprights 19 and 20 and as a practical matter, said uprights and said cross bar may be made of a single length of steel rod or other suitable material, bent to the shape of an inverted U. Rack 24 in its preferred form comprises a plurality of longitudinally extending rods or bars 24a to 24f inclusive, and a pair of transverse rods 24g and 24h respectively which are fastened to the ends of said longitudinal rods to fix their positions relative to each other. A pair of clips 51 and 52 are fastened to two of the inner longitudinal rods or bars 24b and 24e respectively, and said clips are pivotally mounted on cross bar 21. Hence the rack is enabled to pivot on said cross bar 21 either in clockwise or counter-clockwise direction. Outer longitudinal rods or bars 24a and 24f are free along their entire length and slidably mounted thereon are slides 28 and 27 above mentioned. When these slides are brought leftwardly, as viewed in Fig. 1, as far as transverse bar 24g will allow them to go, struts 25 and 26 will be positioned in the manner shown in Fig. 1 to support rack 24 in horizontal posi-

tion. When it is desired to swing said rack into inoperative position, as shown in Fig. 2, slides 27 and 28 are moved rightwardly until they coincide, substantially, with the cross bar 21. The rack will then tilt to vertical position against the uprights 19 and 20.

The final step in folding the entire rack assembly flat against the ironing board involves disengaging pin 39 from hole 37 and the corresponding pin from the corresponding hole on base member 16. The two links or arms 17 and 18 are now free to pivot in counter-clockwise direction to the positions which they are shown to occupy in Fig. 3. Pin 39 will now engage hole 38 and the corresponding pin or link 18 will engage the corresponding hole in base member 16. The structure will now be locked in folded or inoperative position flat against the ironing board. To set the structure up into operative position, the steps above described are followed in reverse order.

It will be understood that the foregoing is descriptive of a preferred form of this invention and that other forms, and modifications of the form thus described and shown, may be had within the broad scope and spirit of the invention.

I claim:

1. A foldable clothes rack for ironing boards and the like, comprising a pair of base members which are attachable to the ironing board, a pair of arms which are pivotally supported at one end by said base members, a pair of uprights which are pivotally supported at their lower ends by the opposite, free ends of the arms, a rack which is pivotally supported intermediate its ends by the upper ends of said uprights, a pair of struts which are pivotally connected at their lower ends to the base members and pivotally connected at their upper ends to the upper ends of the uprights, and a second pair of struts which are pivotally supported at their lower ends by said base members on the same pivots which support the first pair of struts on said base, said pivots being axially aligned with each other, and pivotally and slidably connected at their upper ends to the rack adjacent the upper ends of said uprights, said pivotally supported arms being mounted for pivotal movement from one horizontal position to another horizontal position spaced 180° therefrom, and catches being provided at the free ends of said arms to lock them in either of their said horizontal positions.

2. A foldable clothes rack for ironing boards and the like, comprising a pair of base members which are attachable to the ironing board, a pair of arms which are pivotally mounted on said base members, a pair of uprights which are pivotally supported at their lower ends by said arms, a rack which is pivotally supported intermediate its ends on the upper ends of said uprights, a pair of struts which are pivotally connected at their lower ends to the base members on axially aligned pivots, and pivotally connected

at their upper ends to the upper ends of the uprights, the pivotal connections between the rack and the upper ends of the uprights, and the pivotal connections between the upper ends of the uprights and the upper ends of the struts, being coaxial with each other, and a second pair of struts which are pivotally supported at their lower ends by said base members on the same aligned pivots which support the first pair of struts on said base, and pivotally connected at their upper ends to said rack adjacent the upper ends of said uprights, said pivotal connections at the upper ends of said second pair of struts being slidably connected to said rack for movement toward and away from said coaxial pivotal connections.

3. A foldable clothes rack for ironing boards and the like, comprising a pair of base members which are attachable to the ironing board, a pair of arms which are pivotally supported at one end by said base members, a pair of uprights which are pivotally supported at their lower ends by the opposite, free ends of the arms, a rack which is pivotally supported intermediate its ends by the upper ends of said uprights, a pair of struts which are pivotally connected at their lower ends to the base members on axially aligned pivots and pivotally connected at their upper ends to the upper ends of the uprights, the pivotal connections between the rack and the upper ends of the uprights and between the upper ends of the struts and the uprights being coaxial with each other, and a second pair of struts which are pivotally supported at their lower ends by said base members on the same aligned pivots which support the first pair of struts on said base, said second pair of struts being also pivotally and slidably connected at their upper ends to said rack adjacent the upper ends of said uprights, said pivotal and slidable connections between the upper ends of the second pair of struts and the rack comprising a pair of spaced, parallel rods on said rack which intersect the axis of said coaxial pivotal connections, and a pair of slides on said rods, the upper ends of said second pair of struts being pivotally connected to said slides on a common axis which is parallel to the axis of said coaxial pivotal connections.

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