March 20, 1951 A. P. LANTZ 2,545,475

PORTABLE COLLAPSIBLE IRONING BOARD

Filed Jan. 15, 1947 2 Sheets-Sheet 1

FIG. 1.

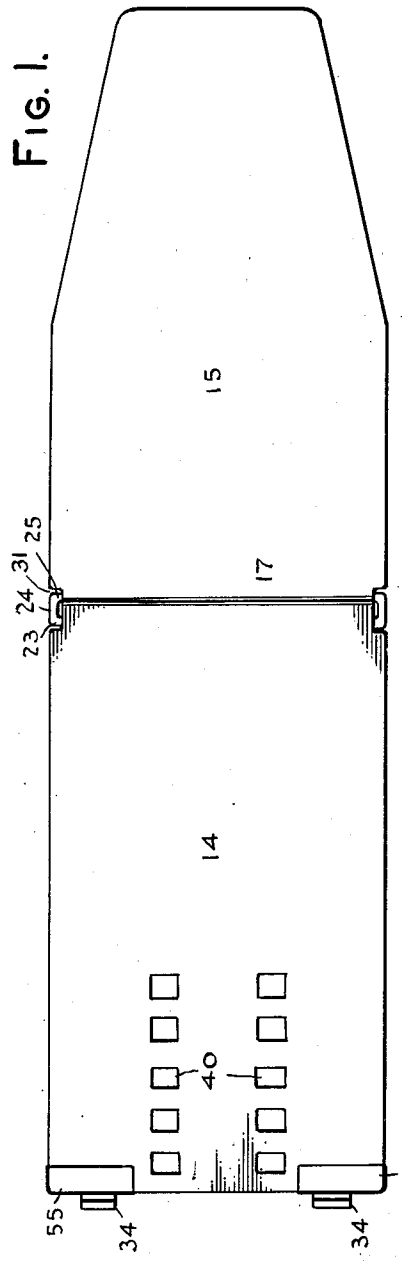


FIG. 2.

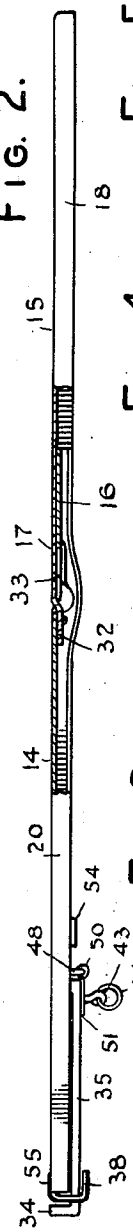


FIG. 3.

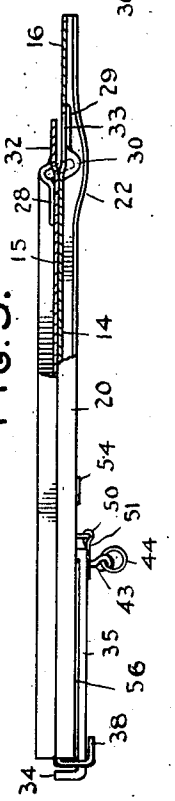


FIG. 4.

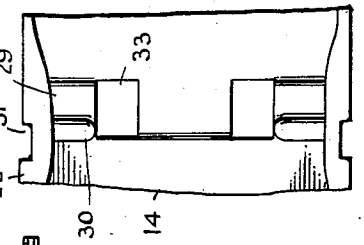
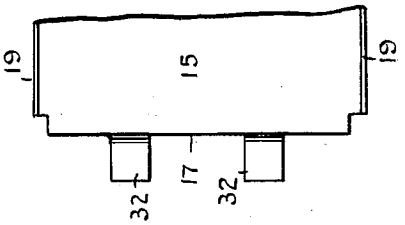


FIG. 5.



Inventor
ALPHA PERRY LANTZ.

By Milans Milans

Attorneys

March 20, 1951 A. P. LANTZ 2,545,475

PORTABLE COLLAPSIBLE IRONING BOARD

Filed Jan. 15, 1947 2 Sheets-Sheet 2

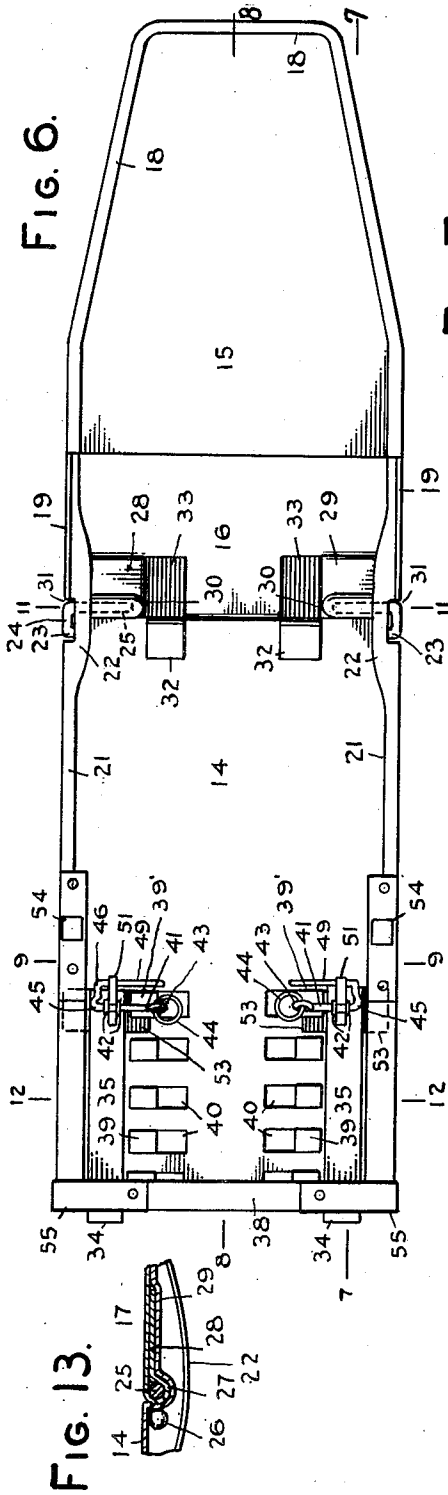


FIG. 6.

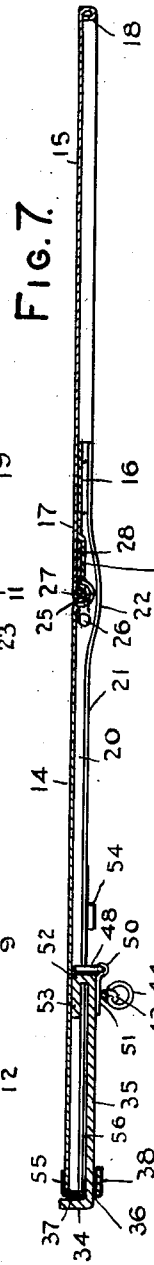


FIG. 7.

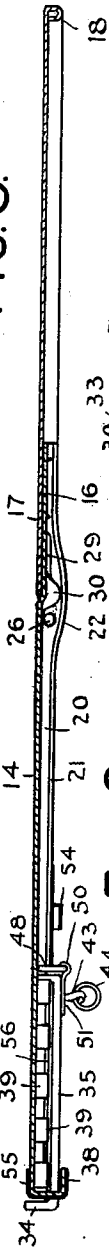


FIG. 8.

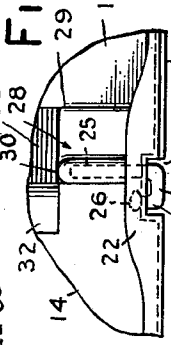


FIG. 10.

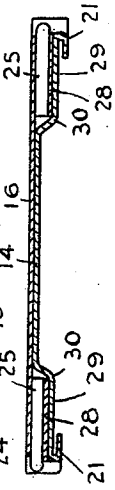


FIG. 11.

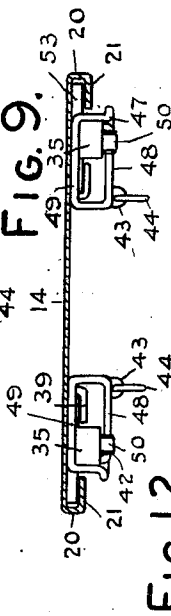


FIG. 9.

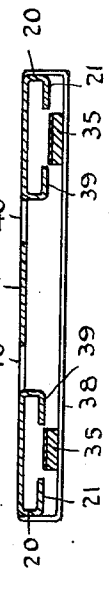


FIG. 12.

FIG. 13.

Inventor
ALPHA PERRY LANTZ.

By Mason & Mason

Attorneys

Patented Mar. 20, 1951

2,545,475

UNITED STATES PATENT OFFICE

2,545,475

PORTABLE COLLAPSIBLE IRONING BOARD

Alpha Perry Lantz, Washington, D. C.

Application January 15, 1947, Serial No. 722,262

4 Claims. (Cl. 38—104)

1

This invention relates to a collapsible ironing board and has for its primary object the provision of a board of that character possessing simple and strong characteristics enabling the folding of the sections of the board upon each other and to comparatively thin flat state for storage or transportation when not in use, and to be unfolded into firm ironing relationship when desired for ironing operation, rendering employment of legs or props quite unnecessary.

Subordinate objects of the invention are the provision of a novel hinging means between the sections of the collapsible board, said hinging means being of a shiftable nature in addition to a normal function of rotating, adapted to swing one section of the board relative to the other to permit said section to elevate above the pivotal axis when the one section is being folded onto the other, to prevent any catching or interference at the line of juncture between the adjoining sections, so that the outer section of the board may be swung onto the top of the inner section, or vice versa, when the board is collapsed.

Another object is to provide a supporting means, as hooks with adjustable shanks for appropriate adjustment when the board is to be supported upon a partially opened drawer or the like and the hooks engaged behind an ordinary bridge piece above the drawer opening found in the usual pieces of furniture, and means for fastening the hooks and shanks in the desired position with respect to the board and bridge piece, the fastening device comprising stop members on the hook shanks and complemental stops mounted on the board, formed of a strong wire configuration and arrangement to lie close to the bottom surface of the board and avoid projecting parts beyond the bottom of the board that may catch on clothing or the like encountered in a suitcase or equivalent when the closed board is carried therein when traveling from place-to-place.

The specific details in the construction and arrangement of the parts of the construction will be clear from the particular description hereinafter contained when read in connection with the accompanying drawings, forming part hereof, and wherein the preferred embodiment of the invention is illustrated.

In the drawings:

Figure 1 is a top view of the board with its sections open or extended as for use in an ironing operation.

Figure 2 is in the main an edge view, the meeting ends of the sections being in longitudinal section.

2

Figure 3 is a similar view with the sections folded, the outer section upon the inner section.

Figure 4 is a bottom view of the meeting end of the inner or attaching section.

Figure 5 is a similar view of the meeting end of the outer section.

Figure 6 is a bottom view of Figure 1 showing the complete ironing board.

Figure 7 is a longitudinal section of Figure 6—approximately on the line 7 of the latter—through one of the attaching hooks and shanks thereof.

Figure 8 is a central longitudinal section on the line 8—8 of Figure 6.

Figure 9 is a transverse section on the line 9—9 of Figure 6 looking to the left.

Figure 10 is a detail bottom view to more clearly illustrate one of the hinge members at the meeting ends of the sections.

Figure 11 is a transverse sectional view on the line 11—11 of Figure 6.

Figure 12 is a transverse sectional view on the line 12—12 of Figure 6 looking to the left or inner end of the board.

Figure 13 is an enlarged fragmentary detail section through one of the hinge connections.

Referring more specifically to the drawings wherein like reference letters designate the same parts in the several views 14 designates the inner or attaching section of the ironing board and 15 the outer section thereof, the section 14 being depressed and extended transversely thereacross to provide a corresponding seating portion 16 to receive the meeting end portion 17 of the outer section 15 so that when the sections are unfolded or extended, as in Figure 2, that is in ironing state, the upper or operating faces of the sections 14 and 15 are flush or in a common horizontal plane.

The section 15 is provided with a reinforcing beaded marginal edge 18 substantially for the full extent of such margin, by said edge terminating in depending flanges 19 to overlie the marginal edges of the depressed or seating portion 16 at the end of the section 14, thus reinforcing the sections against lateral play when unfolded or in operative position.

The section 14 around its margin has a reinforcing depending flange 20 of varying depth with inwardly offset horizontal terminal portions 21 to strengthen the section 14 and otherwise function as will be pointed out. Intermediate their ends the flanged edges 20 and 21 are in-

creased in depth and enlarged as at 22 to accommodate the shorter end 23 of an L-shaped pivot pin or pintle 24, the longer end 25 is carried by the outer section 15, said shorter end 23 of the pintle is passed through the adjacent vertical flange 26 of the section 14 from the outer side thereof and headed to retain the same in place as at 26 on the inner face of said flange; and said longer end 25 of the pintle being rotatively received in a bearing 27 formed of an extended integral part of the material of the top section 15 bent to underlie the top of the outer section as at 28 and adapted to be accommodated by additionally depressed areas 29 at the inner corners of the depressed portion 16 of the section 14 opening to short rounded portions 30 of the latter in which the bearings 27 seat when the section is open to ironing position.

The sections 14 and 15 are of a contour indicated at 31 to permit the connected or outer end of the pintle 24 to occupy a position within the plane of the outer edges of the board. By reason of the construction of the hinges (it will be understood that a specific description of one will apply to both) in the fashion indicated, it will be observed that when the board sections are extended to occupy a common plane, as in Figure 6, the wide and broad overlapping edges 16 and 17 thereof, by reason of their interfitting relationship, will afford an ample support for the outer section 15 of the board, the pintles 24 tieing the sections together to prevent relative longitudinal separation of the sections. When, however, it is desired to fold the board the pintles 24 will not only function to permit ordinary pivotal movement of the sections, but the special shape and connection of the pintles with the sections will permit the outer section 15 to be raised and swung to a relatively elevated point with reference to the inner section 14 so that the outer section 15 may be laid over or upon the inner section 14 in parallelism therewith throughout the entire areas of the sections.

While, in ordinary work, the same may be unnecessary, for heavier work I have provided supplemental supporting means for the outer section, when extended, to afford additional strength in the meeting or hinged areas of the sections 14 and 15, the same comprising flat tail members or lugs 32 formed integral with the end portion 17 of the section 15 adapted to pass through openings 33 in the section 14 and slightly downwardly offset from the plane of the end portion 17 so as to underlie the top of the section 14 as clearly shown in Figure 2. The openings 33 are sufficiently elongated to permit these tail members or lugs 32 to pass upwardly therethrough when the outer section 15 is folded down on the section 14, as previously observed.

The above described features of the folding of the sections of the board will not be claimed herein because the same constitutes subject matter of a companion divisional application filed May 19, 1948, Serial No. 27,875, wherein such phase of the invention is specially claimed.

The ironing board when unfolded and mounted to be supported in operative position, as on an open drawer of a desk, dresser or, in fact, any similar article of furniture at hand, is to be attached thereto by means of the hook members 34 extended upwardly from their shank portions 35 passing through suitable guide openings 36 in the vertical portions 37 of the inner end flanges of the section 14, the lower inwardly turned or horizontal terminals 38 of the end flange abutting the bottoms of the shanks 35 and the apertures 36 being in the plane of the upper surface of the horizontal terminal portion 38 so that the shanks 35 having a substantial bearing and support in their back-and-forth movement through the flange 37, which movement, it will be noted, is in a plane whereby the upper surfaces of the hook shanks 35 is approximately coincident with the bottom edge of the side flanges 38 of the inner section 14, of the board intended to rest upon the upper edge of the front of the drawer, this arrangement being provided so that the hooks 35 when projected to fit behind the ordinary bridge piece above a drawer opening with the hook shanks passing beneath the bridge piece, there may be no longitudinal tipping or tilting of the board from an approximately true horizontal plane for ironing operation.

To maintain the hooks and their shanks in the desired adjusted position with reference to the inner end of the section 14, a series of stop members 39 are provided, the same being struck down and underlying portions from the material of the top of the section 14, as indicated at 40, these stop members being arranged in two series (Figure 6) and struck down or faced in opposite directions to be effective adjacent to the inner sides of the shank portions 35 of the hooks 34. Cooperating with the stop members are a pair of oppositely disposed spring latches, one mounted on the bottom surface of each shank portion 35, to be moved along with the longitudinal shifting of said shanks to engage the stop members according to the adjustment of the hooks and shanks. These spring latches are of the construction now to be defined:

They are formed of wire of appropriate size and stiffness for the purpose, having an operating end portion 41 secured transversely of the hook shank 35 by eyes or staples 42 (Figure 6) permanently fastened to the hook shanks 35, and through which the operating end portion 41 passes and is free to rotate. The outer end of this operating portion preferably is bent to form an eye 43 through which a finger ring 44 passes and occupies a position to be engaged by an operator to actuate the operating end portion 41. The outer end of the operating end portion 41, that is the end thereof opposite the ring 44, is bent upon itself as at 45 and extended outwardly as at 46, where it is bent or turned upwardly at 47 close to the under surface of the top of the board section 14 whence it runs transversely to form the upper horizontal portion of an oblong loop 48 of a length to abut the edges 39' of the stops 39, the base of the loop 48 being constituted by the end 49 of the wire around which the inner end 50 of a flat spring 51 is secured to constantly press the loop 48 upwardly, the free end of the spring being anchored between the under face of the hook shank and the portion of the operating end portion 41 and being held against lateral play by the staples 42.

From the foregoing construction it will be seen that by engaging and turning the finger ring 41—which can normally lie flat against the under surface of the panel 14—the operating end portion 41 may be caused to rotate to the right and correspondingly lower the catch or loop 48 sufficiently to draw the same below the engaged edge of the stop 39 with which it may be engaged and downwardly away from the top of the section 14 so that the shanks 35 and the hooks 34 may be free for adjustment. When the appropriate ad-

justment has been effected the ring 44 will be freed and the spring 51 will again thrust the loop or catch 48 upwardly into position to engage an adjacent stop.

To steady and support the shanks 35 at their inner ends said inner ends are turned upwardly as at 52 and formed into overhangs 53 to enter the ways formed between the top of the member 14 and inwardly turned part of the flanges 21 underlying the edges of said top. Suitable pads of rubber or other material, designated 54 may be carried on the relatively wide portions of said flanges 21 to rest upon the top of the drawer behind the projecting facing strip that sometimes extends above the top edge of the drawer in protecting the same against scratching or marring the furniture, and similar rubber pads or coverings 55 may be used to cover the upper faces of the inner corners and end of the section 14 to similarly protect the furniture when the ironing board is carelessly being inserted in the drawer opening from over the top of the drawer. The upper faces of the hook shanks may be similarly protected by pads or coverings 56.

In a portable structure such as herein described, the board should be as light as possible, consistent with the requirements for strength and rigidity to perform its expected functions. To these ends the body of the board sections are preferably made of light and restless material such as aluminum, metal or plastic.

I claim:

1. A portable ironing board formed from sheet metal and means for temporarily attaching the board to an article of furniture, said board comprising a body portion, a reinforcing flange at the end of the body portion having spaced openings therein, and guides formed as a part of the board, each guide including a reinforcing flange along one side edge of the body portion and a guide part punched from the body portion, said attaching means comprising hooks having shanks passing through the openings of the end reinforcing flange, each shank having lateral extensions to form a head and a return bend to position the head parallel with the shank and within a guide, and latch means associated with the shanks and the guides to hold the hooks in adjusted position.

2. A portable ironing board formed from sheet metal and means for temporarily attaching the board to an article of furniture, said board comprising a body portion, a reinforcing flange at one end of the body portion having spaced openings therein, and guides formed as a part of the board, each guide including a reinforcing flange along one side edge of the body portion having a horizontal section extending inwardly of the board and guide tongues punched from the body portion extending downwardly and outwardly of the board, said attaching means comprising hooks having shanks passing through the openings of the end reinforcing flange, each shank having lateral extensions to form a head and a return bend to position the head parallel with the shank and within a guide, and latches associated with the shanks and guides to hold the hooks in adjusted position.

3. A portable ironing board formed from sheet metal and means for temporarily attaching the board to an article of furniture, said board comprising a body portion, a reinforcing flange at one end of the body portion having spaced openings therein, and guides formed as a part of the board, each guide including a reinforcing flange along one side edge of the body portion having a horizontal section extending inwardly of the board and guide tongues punched from the body portion extending downwardly and outwardly of the board, said attaching means comprising hooks having shanks passing through the openings of the end reinforcing flange, each shank having lateral extensions to form a head and a return bend to position the head parallel with the shank and within a guide, and latches associated with the shanks and guides to hold the hooks in adjusted position, each latch comprising a wire loop pivotally supported on a hook shank and a spring for swinging the loop vertically between and into engagement with one of the tongues.

4. A portable ironing board formed from sheet metal and means for temporarily attaching the board to an article of furniture, said board comprising a body portion, a reinforcing flange at one end of the body portion having spaced openings therein, and guides formed as a part of the board, each guide including a reinforcing flange along one side edge of the body portion having a horizontal section extending inwardly of the board and guide tongues punched from the body portion extending downwardly and outwardly of the board, said attaching means comprising hooks having shanks passing through the openings of the end reinforcing flange, each shank having lateral extensions to form a head and a return bend to position the head parallel with the shank and within a guide, and latches associated with the shanks and guides to hold the hooks in adjusted position, each latch comprising an open wire loop having the ends of the wire extending parallel to one another, one of said ends being pivotally connected to a hook shank and provided with an operating means and the other of said ends being engaged by a spring to swing the loop vertical between and into engagement with one of the tongues.

ALPHA PERRY LANTZ.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,042,826	Schongold	Oct. 29, 1912
1,091,233	Mitchell	Mar. 24, 1914
1,266,993	Romans	May 21, 1918
1,300,993	Miller	Apr. 15, 1919
1,775,769	King	Sept. 16, 1930
1,796,569	Madsen	Mar. 17, 1931
1,796,714	James	Mar. 17, 1931