

May 14, 1940.

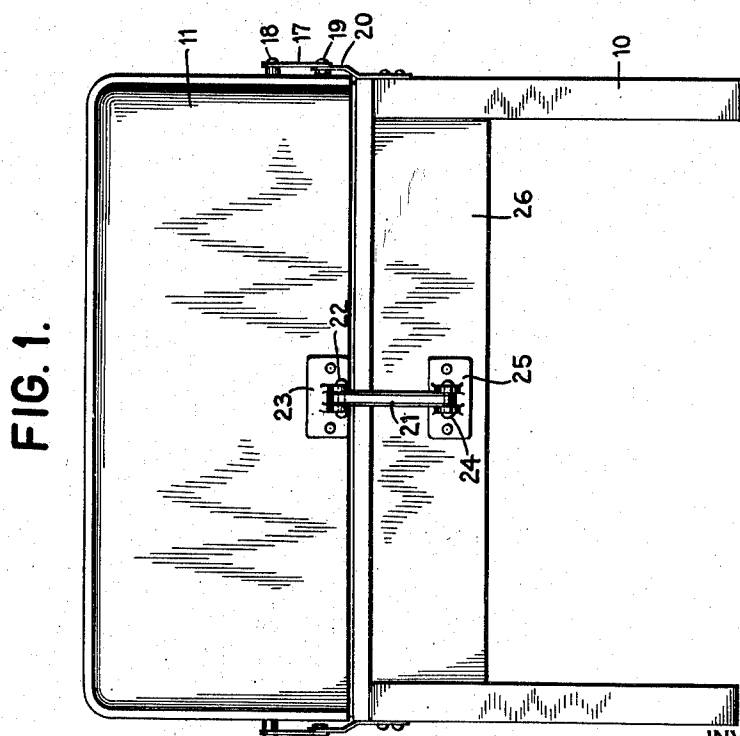
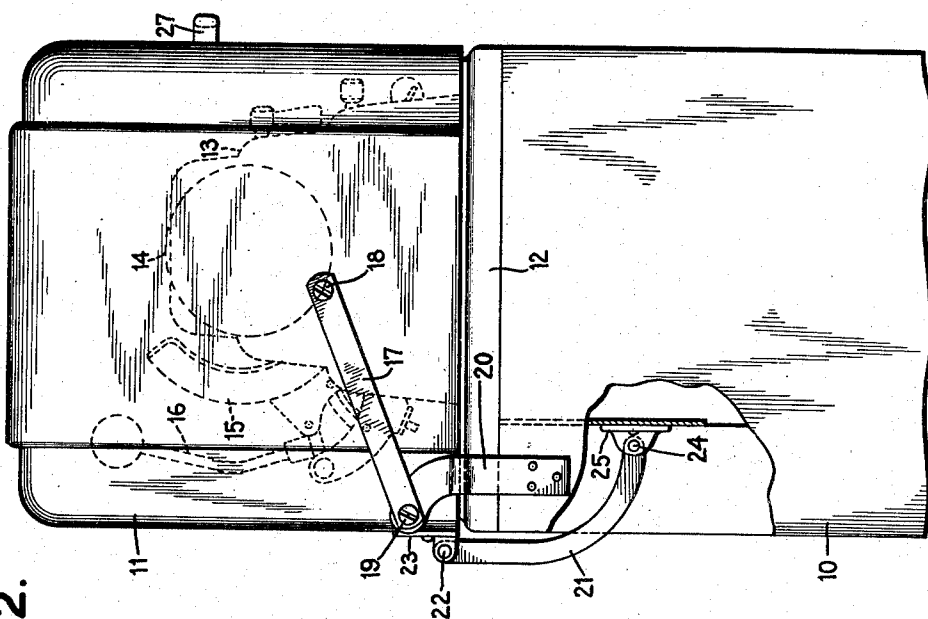
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2,200,748

IRONING MACHINE

Filed March 29, 1937

2 Sheets-Sheet 1



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FIG. 3.

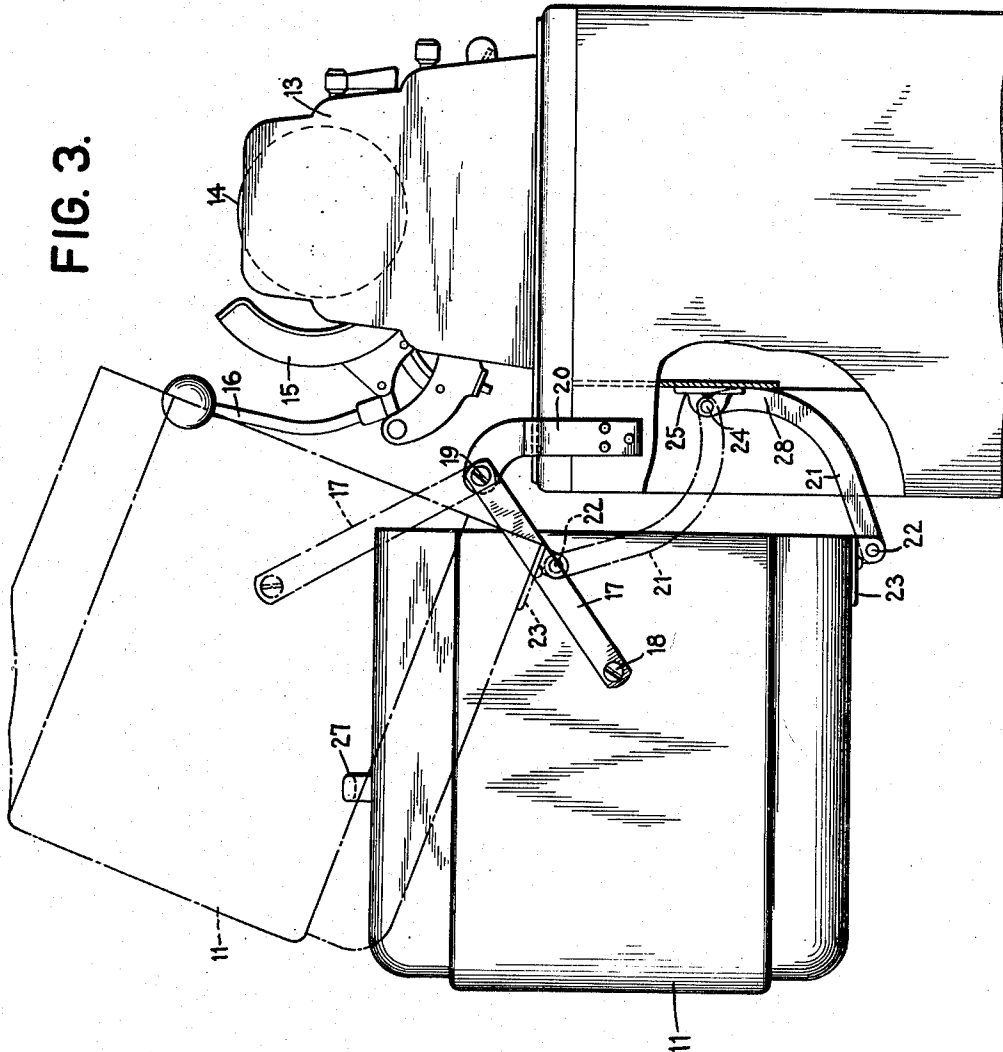
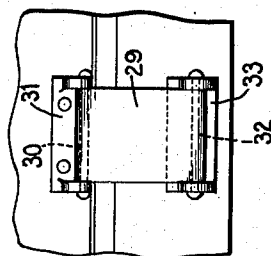


FIG. 4.



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IRONING MACHINE

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4 Claims. (Cl. 45—68)

This invention relates to ironing machines for home use and particularly to cabinet type machines having a cover for concealing the ironing elements when the machine is not in use.

5 An object of the invention has been to provide connections between a cover and the main frame of a machine of this character which will enable a free movement of the cover between its open and closed positions. These connections are
10 such as to provide a smooth, sweeping, continuous motion, in shifting the cover from one position to the other, through a path that allows adequate clearance between the cover and ironing elements at all times. The movement of the cover
15 is a combined pivotal and bodily motion in which certain parts travel through a longer path than others and the cover is turned through an angle of 90°. This places the front of the cover in a horizontal position when it is open and the arrangement is such that it then presents a table
20 top at a convenient level, somewhat above the top of the regular support but below the major portion of the ironing elements so as not to interfere with the free movement of the shoe and its controls.

25 Other objects and advantages of the invention will appear from the detailed description of an illustrative form of the same which will now be given in conjunction with the accompanying drawings in which:

30 Fig. 1 is a rear elevation of the machine with the cover closed.

35 Fig. 2 is an enlarged side view with the bottom portion of the machine omitted and a part of the wall of the support broken away, the cover being closed.

40 Fig. 3 is a view similar to Figure 2 but with the cover shown in its open position and also indicated in broken lines in an intermediate position, and

45 Fig. 4 is a detail showing a modified construction adjacent the center of the back of the cover.

Referring now to the drawings, the machine comprises a main support or standard 10, which
45 may be of any suitable construction, and a cover member 11 arranged to cooperate with the top of the main support and enclose the ironing devices. This cover may suitably be of box-like formation closed on five sides but open on its
50 sixth side, i. e. its bottom. The lower edge of the cover, when it is disposed in its closed position, shown in Fig. 2, rests upon the table top 12 forming part of the main support. Any suitable cushioning means may be employed between the
55 cover and table top to eliminate noise in the op-

eration of the cover and prevent scratching of the top 12. The ironing means carried by the main support and enclosed by the cover may be of any appropriate character. It may include, for example, a housing 13 arranged to enclose
5 the operating devices of any suitable form and adapted to support a roller 14 and shoe 15. Any of the devices known in the art may be employed for operating and controlling these ironing elements, including, preferably, a manual control
10 lever 16 which extends to a point above the shoe. The over-all height of the ironing means above the table top is substantially equal to the width of the latter. By virtue of this, certain difficulties are encountered in the operation of the
15 cover in a way to insure adequate clearance at all points and at all times in its movement.

Suitable connections have been provided by the present invention, between the cover and main support, which overcome these difficulties. These
20 connections enable the cover to be shifted from the closed position of Fig. 2 to the open position of Fig. 3, in which the ironing elements are completely exposed and conveniently accessible for use, without interference between the parts and
25 by an easy, smooth, sweeping motion. The connections include a pair of links 17, one disposed at each end of the cover, the two links being in parallel relation. Each link is pivotally attached to the cover by means of a stud 18, substantially
30 along the vertical center line of the end of the cover and some distance up from the table top 12. At its opposite end each link is pivotally connected by a stud 19 with a bracket 20 secured to the standard 10. Stud 19 is disposed
35 slightly above the table top 12 substantially in line with its rear edge. This arrangement is such that the link 17, when the cover is closed, is disposed at an angle of about 20° to the horizontal.

40 A further connection between the cover and main support is provided by link 21, which is preferably curved in the manner indicated and attached to the cover by means of a pin 22 carried by a bracket 23 secured to the rear wall of
45 the cover at its lower edge and substantially midway between the ends. A pin 24 carried by a bracket 25 secured to a partition 26, forming a part of the main support, pivotally receives the other end of the link 21. The partition 26 is disposed vertically in a plane some distance in from
50 the rear of the main support so that the pivot 24 is forward of the pivot 19. The effective length of the link 21, i. e., the straight-line distance between the pivots 22 and 24, is somewhat
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less than the length of the link 17 between pivots 18 and 19.

When it is desired to shift the cover to its open or exposing position, the operator simply grasps a handle 27, provided at the center of the front of the cover, and imparts to the cover a combined lifting and tilting movement. If desired, a pair of handles 27 may be provided, one adjacent each end of the cover, or a single, long bar, capable of being grasped by both hands, may be employed. The movement of the cover from the closed position of Fig. 2 to the open position of Fig. 3 is smooth and continuous, although it is a compound motion combining a bodily movement of the cover with a tilting movement about its own axis. Initially, the movement is largely a pivoting about the studs 19, with only a slight movement of the pivot 22, while subsequently there is a greater movement of this pivot together with a continued tilting of the cover. When the movement is completed, the cover will have been tilted through an angle of 90° so that its forward face will form a table top or support, as indicated in Fig. 3. This surface will be disposed somewhat above the table top 12 but substantially below the center line of the roller 14 and the shoe 15 so that there is complete freedom of movement of the shoe and the release lever 16.

The cover may be held in its open position, as shown in Fig. 3, by the engagement of a curved portion 28 of the lever 21 with the partition 26. In this way the cover may be held spaced slightly from the standard so as to avoid scratching the latter and also avoid transmitting vibrations from the standard to the cover. However, if desired, the link 21 might be modified or a slot might be cut in the partition 26 to permit the cover to descend further either into engagement with the standard or until some other stop is engaged.

Referring to Fig. 4, a modification is shown in which the link 21 is replaced by a plate 29, which in side elevation may be of substantially the same configuration as the link 21. This plate is pivotally connected with the cover by means of a pin 30 carried by a bracket 31 secured to the cover adjacent the lower edge of its rear wall, preferably at the center of the latter, and it is pivotally connected with the main support by means of a pin 32 carried by a bracket 33 secured to the partition 26 forming part of the main support. It will be understood that in this construction, the links 17 will be provided at the ends of the cover, as in Figures 1 to 3. This broad link or plate construction is desirable where the cover is relatively heavy and long so that twisting moments are apt to be set up in its movement from closed to open position, and vice versa. In a lighter construction the narrow form of link 21 is quite adequate.

While an illustrated form of the invention has been disclosed in considerable detail, it will be understood that various changes in the construction and arrangement of the elements may be made without departing from the principles and scope of the invention. The terms and expressions employed herein are to be regarded as terms of description and not of limitation.

What I claim is:

1. In a machine of the class described a main support adapted to carry ironing means thereon, a cover arranged to conceal said ironing means, and connections between said cover and support comprising three links in different, widely spaced, vertical planes pivotally attached to said cover and support, the axis of the pivotal connection of one of said links with said cover and support being out of alignment with the axis of the pivotal connection of the other of said links with said cover and support, said links being arranged to enforce a predetermined combined pivotal and bodily movement of said cover, the intermediate one of said links being arranged to bear against said support to limit such movement.

2. In a machine of the class described a support adapted to carry ironing means thereon, a box-like cover adapted to rest on said support and conceal said ironing means, and connections between said support and cover comprising a link attached to said support and cover adjacent each end thereof and a link attached to said cover and support intermediate the ends thereof, said last-mentioned link being disposed wholly below said first-mentioned links when the cover is in the first-mentioned position, the construction and arrangement of said links being such as to constrain said cover for combined pivotal and bodily movement from a position over said support to a lower position in which the cover is rotated about 90 degrees with respect to the first-mentioned position.

3. In a machine of the class described a main support adapted to carry ironing means thereon, a box-like cover adapted to rest on said support and conceal said ironing means, and connections between said support and cover comprising a link attached to said support and cover adjacent each end thereof and a link attached to said cover and support intermediate the ends thereof, said last-mentioned link being attached to said cover rearwardly of said first-mentioned links and being attached to said support forwardly of the points of attachment of said first-mentioned links therewith when the cover is in the first-mentioned position, the construction and arrangement of said links being such as to constrain said cover for combined pivotal and bodily movement from a position over said support to a lower position in which the cover is rotated about 90 degrees with respect to the first-mentioned position.

4. In a machine of the class described a main support adapted to carry ironing means thereon, a box-like cover arranged to conceal said ironing means, connections between said cover and support comprising three links in different widely spaced vertical planes pivotally attached to said cover and said support, the intermediate one of said links being a broad plate-like member, the axis of the pivotal connection of said intermediate link with said cover and said support being out of alignment with the axis of the pivotal connection of the other of said links with said cover and support, said links being arranged to enforce a combined pivotal and bodily movement of said cover.

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