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2,501,775

IRONING MACHINE HEAD CONSTRUCTION

Filed Nov. 22, 1944

2 Sheets-Sheet 1

Fig. 1.

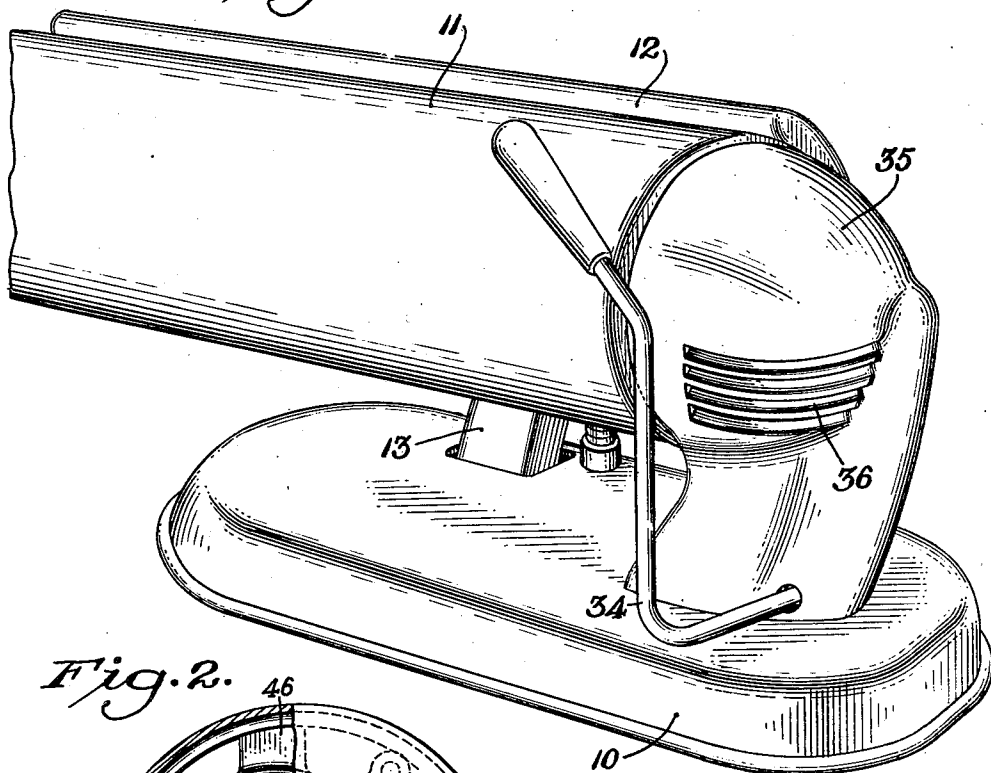
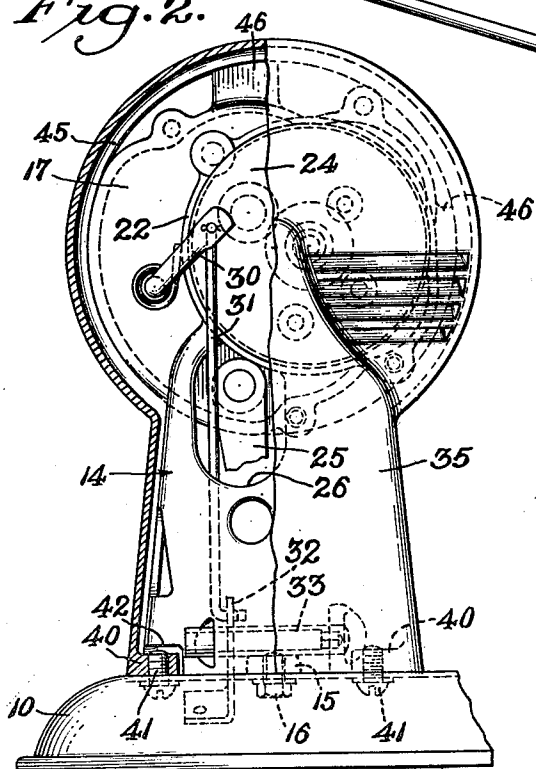


Fig. 2.



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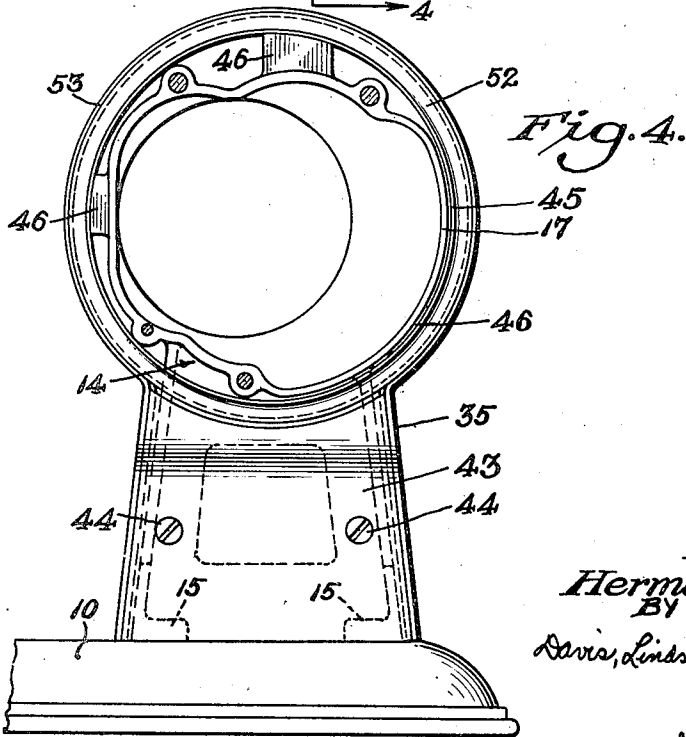
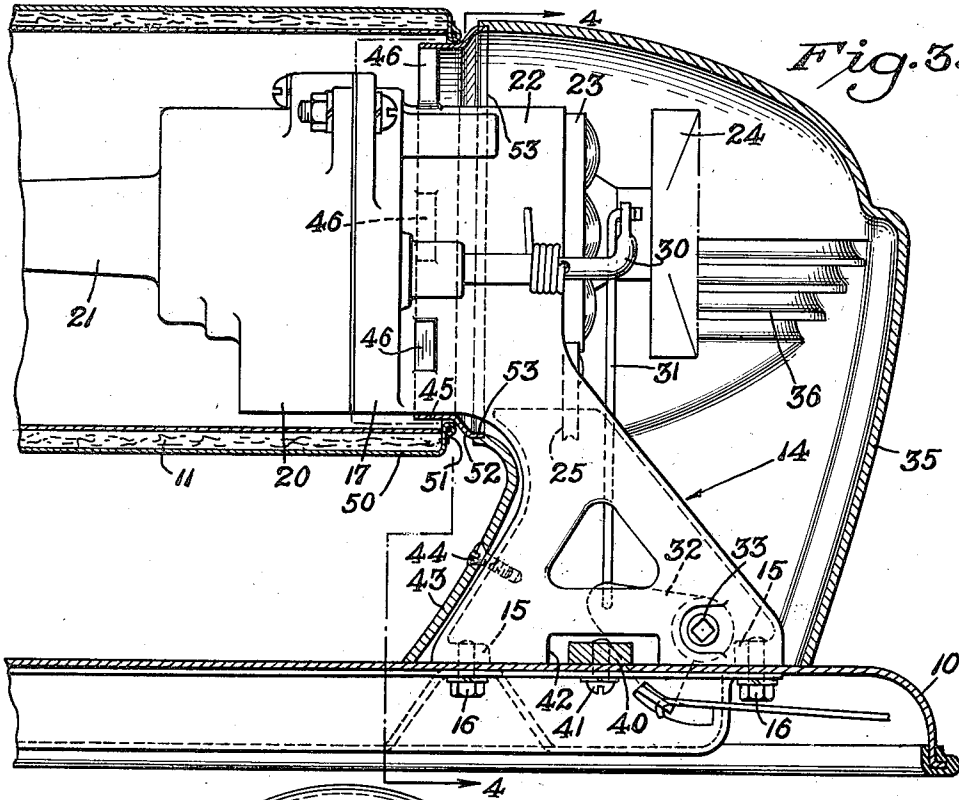
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UNITED STATES PATENT OFFICE

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IRONING MACHINE HEAD CONSTRUCTION.

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2 Claims. (Cl. 38—60)

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The invention relates generally to ironing machines and more particularly to an ironing machine comprising a pair of relatively shiftable ironing elements, one of which is a roll.

The general object of the invention is to provide an ironing machine of the foregoing character in which the roll is carried by a support at one end of the machine, on which the operating mechanism of the machine is mounted, and which is adapted to be enclosed by a shroud providing a decorative and pleasing appearance for the machine, the shroud being variable in design so that machines structurally the same may differ in external appearance.

More specifically, it is an object to provide an ironing machine of the foregoing character having a roll support which is adapted to have assembled thereon any one of a plurality of shrouds of different design, thereby providing a machine which may vary in external appearance so that machines sold through different channels of trade may be readily distinguishable and yet the manufacture thereof is standardized.

Another object is to provide an ironing machine of the foregoing character having a roll support extending into one end of the roll and provided with a ring concentric with the roll and bridging the space between the roll and a shroud enclosing the support, the ring interfitting with the shroud to assist in positioning it in its enclosing relation with the support.

A further object is to provide an ironing machine of the foregoing character having a roll support extending into one end of the roll, a shroud enclosing the support, and a ring extending from the shroud into the roll concentrically therewith to provide a smooth surface on which the gathered, hemmed edge of the cloth roll covering may ride to prevent it from becoming tangled with or rubbing against the support during rotation of the roll.

Other objects and advantages will become apparent from the following description taken in connection with the accompanying drawings, in which:

Figure 1 is a perspective view of an ironing machine embodying the features of the invention.

Fig. 2 is an end view of the right-hand end of the machine shown in Fig. 1 with parts of the structure broken away.

Fig. 3 is a fragmentary longitudinal vertical sectional view of the machine.

Fig. 4 is a vertical sectional view taken on the

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line 4—4 of Fig. 3 with parts of the drive mechanism omitted.

It is desirable, from the standpoint of a manufacturer of ironing machines, to provide different external appearances for machines sold in different channels of trade, even though the machines all be of the same type. From the manufacturing standpoint, the machines may be made at a substantially lower cost if they are standardized as to their construction. The present invention provides an ironing machine which may have any number of external designs but which, in its major portion, is completely standardized. Thus, the manufacturing cost may be held as low as possible by quantity production and yet the machine may have an external appearance varying considerably to distinguish a machine sold through one channel of trade from that sold through a different channel. To this end, the machine shown herein comprises generally a base, and a support extending upwardly from the base and adapted to support a roll in spaced relation above the base. The machine is so constructed that these parts of the machine as well as all the other functional parts thereof may be completely assembled in operative relation. To this extent, all machines may be of standardized or of the same construction. To give different appearances to the machine, a shroud is provided which encloses the support, with the shrouds varying in design. Thus, the external appearance of machines having different shrouds will vary substantially and are well suited for sale in different channels of trade.

In connection with such shroud construction, the invention contemplates the provision of a sheet-metal ring extending from the shroud into the roll to bridge the gap therebetween and to provide a smooth surface on which the gathered and hemmed edge of the fabric roll covering may ride, to prevent it from rubbing against the supporting structure, thereby preventing it from becoming entangled with such structure or worn by rubbing against the rough surface thereof.

As shown in the drawings, a machine embodying the features of the invention is shown, for purposes of illustration, as of that type which is adapted to be placed on a table during operation. It comprises an enlarged base 10 and a pair of relatively shiftable elements mounted in spaced relation above the base to effect ironing. One of these elements is a roll 11 and, for purposes of illustration, the other element is shown as a shiftable shoe 12 supported on a movable upright 13 extending upwardly from the base in the rear

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of the roll 11. To carry the roll in such position, a support, indicated generally at 14, is mounted on the base 10 at one end thereof and extends upwardly into the adjacent end of the roll. The support 14 is in the form of a casting, preferably provided with inwardly turned lugs 15 at its lower end resting on the upper surface of the base and adapted to be rigidly secured thereto as by screws 16. The support 14 is preferably hollow and it is shaped at its upper end to provide a cover portion 17 adapted to be secured to and closing one end of a gear casing 20. The gear casing 20 contains drive mechanism (not shown) for rotating the roll and for effecting relative shifting movement between the roll and the shoe 12. Thus, the gear casing 20 is provided with an outwardly extending bearing 21 supporting a shaft (not shown) carrying the roll 11. The upper end of the support 14 also has a cylindrical hollow portion 22 to receive and support a motor 23 for operating the drive mechanism. The motor 23 carries a small fan 24 on the opposite side of the support from the portion 17, which fan is adapted to draw in air to cool the motor.

Extending from the drive mechanism within the gear casing 20 is a rock shaft carrying a lever 25 (fragmentarily shown in Figs. 2 and 3) which extends downwardly through an aperture 26 in the end wall of the support 14 for connection with means for swinging the shoe support 13. Also extending from the gear casing and cover portion 17 is a rock shaft 30 (see Figs. 2 and 3) for controlling operation of the drive mechanism. The rock shaft 30 is connected to a link 31 extending downwardly through the aperture 26 in the support and into the interior thereof to connect with a lever 32 mounted on a stub shaft 33 rotatably supported in the lower end of the support 14. The stub shaft 33 is hollow and is adapted to removably receive a manually operable lever 34 (see Fig. 1) by which the machine may be controlled.

The structure of the machine thus far described is the same for all machines, and it will be noted that all parts thereof may be assembled in completely operative relation. To provide varying external appearances or designs for the machine, a casing or shroud, herein shown at 35, may be provided to entirely enclose the exposed or exterior portion of the support 14 as well as the fan 24, the shoe actuating lever 25 and the control means including the rock shaft 30 and link 31. Preferably, the shroud 35 is a casting of light metal, such as aluminum, in the form of a hood adapted to be placed over and conceal the support 14. The shroud 35 thus may be given any desired external appearance so that a wide range of designs may be provided. Preferably, the shroud has a plurality of vents or louvres 36 to provide for passage of air to the fan 24 enclosed therein.

The shroud 35 is adapted to be held in place by being rigidly secured to some fixed part of the machine. In the present instance, the shroud is provided with a pair of interned lugs 40 at its lower end adapted to rest upon the base 10 and to be secured thereto as by screws 41. To provide sufficient space for the lugs 40 where the shroud 35 fits close to the adjacent portion of the support 14, the latter may be cut away as at 42 (see Figs. 2 and 3) to provide space for the lugs 40. The shroud 35 is adapted to be assembled with the rest of the machine after the other parts have been completely assembled in operative relation. For this purpose, the side of

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the shroud adjacent the roll is left open so that the shroud may be moved over the support 14 from the end of the machine. To close the open side of the shroud below the roll, a cover plate 43 may be provided which extends upwardly from the base and is rigidly secured to the support as by a pair of counter-sunk screws 44.

In order to bridge the space between the shroud 35 and the roll 11, a finishing ring 45 (see Figs. 3 and 4) is provided. In the present instance, such ring is made of sheet metal and is secured to the portion 17 of the support 14 in concentric relation with the roll. Preferably, the portion 17 is provided with a pair of lugs or bosses 46 which extend radially outward from the portion 17 to support the ring in fixed position. The ring 45 may be secured to the bosses 46 as by screws or by brazing. The ring 45 has a diameter approximating or only slightly less than the internal diameter of the roll 11.

The ring 45 serves the further function of protecting the end of the fabric covering of the roll. The fabric covering, shown at 50, is hemmed and gathered as at 51, to extend over the end of the roll, thereby holding the covering in place upon the roll. The gathered end 51, except for the interposition of the ring 45, would rub against the portion 17 of the support and would tend to become worn because of the rough character of the casting, or the gathering might even become entangled with the portion 17 and be torn during the rotation of the roll.

The ring 45, which preferably is made of some polished metal such as stainless steel, provides a smooth surface on which the gathering 51 may ride, thus preventing it from becoming unduly worn. The ring 45 preferably flares outwardly, as shown at 52, beyond the end of the roll and is adapted to seat edgewise in a rabbet 53 in the adjacent face or marginal portion of the shroud 35. The cover plate 43 also has a rabbeted upper edge to engage the edge of the ring. Thus, the shroud and ring have a close interfitting relation so that the latter completely bridges the space between the shroud and the roll.

With a machine of the foregoing construction, all parts except the shroud may be of standardized construction and may be completely assembled in operative relation. Manufacture of the machines is thereby simplified. The shroud 35, which may have different external forms, provides a means which may thereafter be assembled on the machine to impart varying external appearances or designs to the machine. Thus, the manufacturer, while attaining the advantages of standardized production, is enabled to produce machines of varying external appearance suitable for marketing through different channels of trade.

The ring 45 adds to the neat appearance of the machine by bridging any gap between the shroud and the end of the roll, and performs the further function of providing a smooth surface on which the gathered end of the cloth covering the roll may ride to prevent undue wear thereof.

I claim:

1. An ironing machine comprising a pair of relatively shiftable elements one of which is a hollow roll, a base, a support for said roll secured to said base and extending upwardly and into said roll, a ring secured to said support within the roll concentrically therewith and extending outwardly beyond the end of the roll, and a shroud enclosing the exterior portion of said

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support and interfitting with the outer end of said ring.

2. An ironing machine comprising a pair of relatively shiftable ironing elements one of which is a rotatable hollow roll, a fabric cover for said roll having its ends gathered over the ends of the roll, a support for said roll extending into one end of said roll, and a ring mounted on said support within said roll concentrically therewith and extending beyond the end of said roll and providing a smooth annular surface on which the gathered end of said cover may ride to hold it out of engagement with said support.

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