Jan. 19, 1932. C. SILVERSTINE ET AL 1,842,297

IRONING MACHINE

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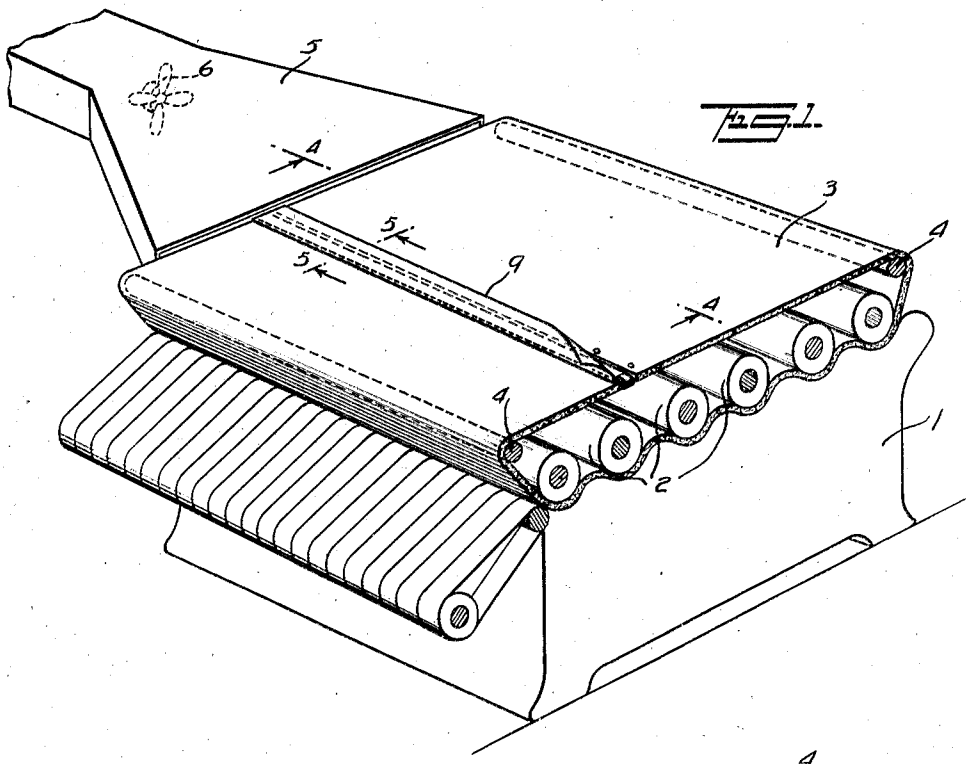
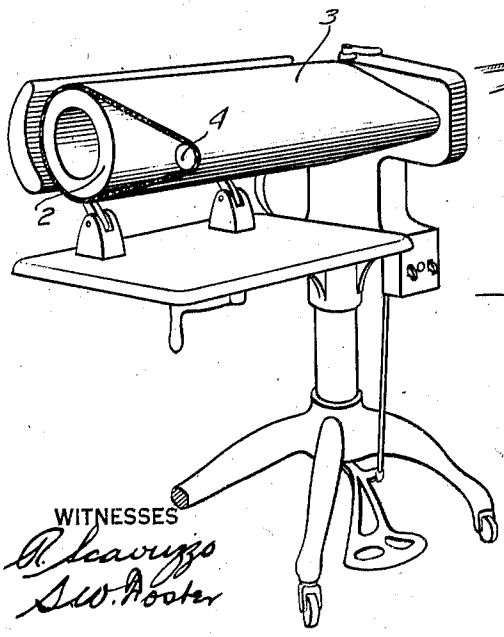


FIG. 1.

FIG. 2.



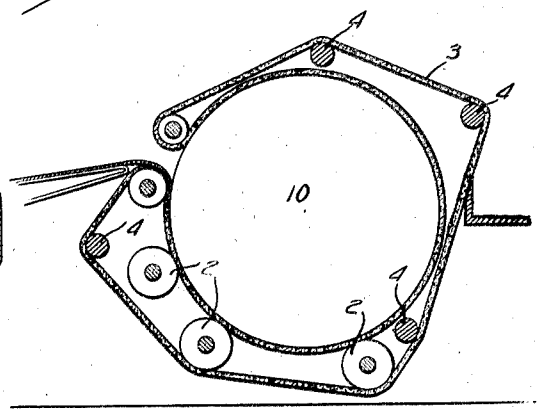


FIG. 3.

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FIG. 4.

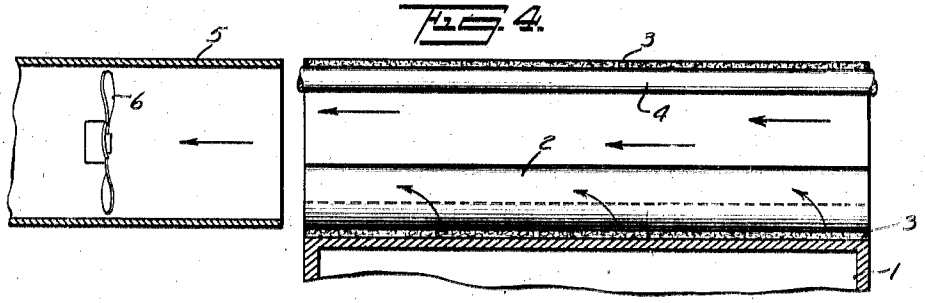


FIG. 5.

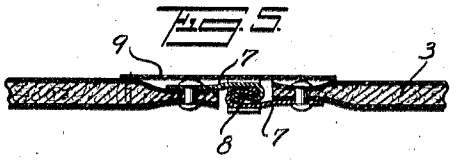


FIG. 6.

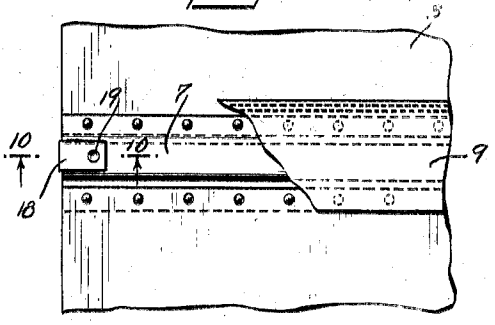
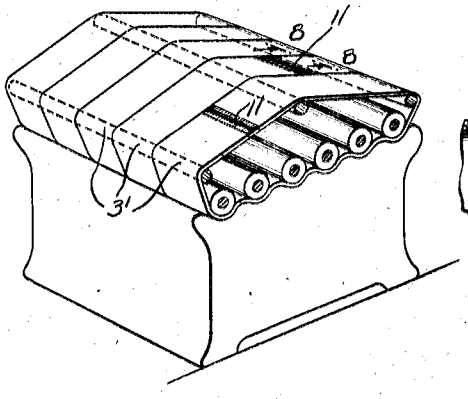


FIG. 7.



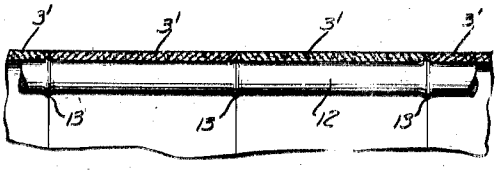


FIG. 8.

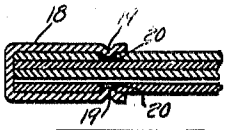


FIG. 10.

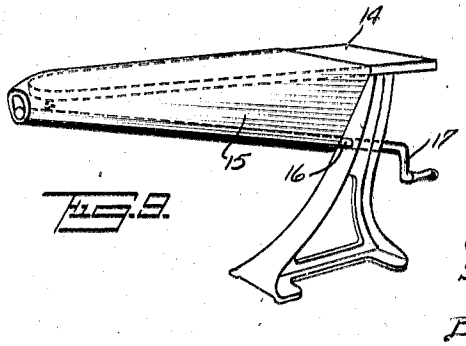


FIG. 9.

WITNESSES

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1,842,297

UNITED STATES PATENT OFFICE

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IRONING MACHINE

Application filed November 20, 1928. Serial No. 320,625.

This invention relates to a continuous ironing pad and more specifically to a continuous or endless pad adapted for use in connection with any type of ironing device or machine.

In employing this term "ironing pad" it is to be understood that we employ the same to define a device which functions as a pad as distinguished from a belt or conveyor, although the device in actual use does assist the passage of an article through the machine.

The material employed may of course be any which will function for the purpose. However, there are certain functions which must be borne in mind, namely, that the pad must be soft, absorbent and resilient and must permit moisture to pass through the same so that in a very real sense the material must be porous as well as resilient and cushioning in its operation.

An object is to provide a continuous or endless pad which forms a chamber in which vapor is trapped and from which the vapor is blown or sucked out of the room so that the discomfort to the operators and the injuries caused by the accumulation of moisture are entirely overcome. Furthermore, this type of pad facilitates the drying of the pad so that it does not become moisture soaked and soggy.

In carrying out our invention we may employ a single endless pad or a length of material separably coupled in any approved manner or a series of endless pad sections, the broad idea of the invention being a continuously movable pad movable between the roll or rolls of the machine and the chest or cylinder or other form of ironing or heating device over which the articles to be ironed are moved and receive pressure from the roll or rolls.

With these and other objects in view, the invention consists in certain novel features of construction and combinations and arrangements of parts, which will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings—

Figure 1 is a perspective view showing our improved pad in connection with one type of ironing machine;

Figure 2 is a perspective view illustrating our improved endless pad in connection with a single roll domestic type of ironing machine;

Figure 3 is a view in section showing our invention in connection with an endless feeding apron;

Figure 4 is a view in section on the line 4—4 of Figure 1;

Figure 5 is an enlarged fragmentary view in section on the line 5—5 of Figure 1;

Figure 6 is a fragmentary plan view of Figure 5 with a portion of the covering flap broken away;

Figure 7 is a perspective view illustrating another modification of our improved invention;

Figure 8 is a fragmentary view in section on the line 8—8 of Figure 7;

Figure 9 is a perspective view illustrating another modification of our invention;

Figure 10 is an enlarged fragmentary view in section on the line 10—10 of Figure 6.

Referring more particularly to Figure 1 of the drawings, 1 represents an ironing machine having a chest over which a series of ironing rolls 2 are positioned. 3 represents our improved continuous or endless pad, which may be of any material adapted for the purpose. The pad is preferably made of any cloth or felting materials alone or in combination and in either single or multiple thicknesses or plies. The material itself is of such softness as to require no additional elements to cushion articles being ironed.

This pad 3 passes between the rolls 2 and the chest 1, and we preferably employ tension rods or rollers 4 which hold the upper run of the endless apron spaced from the lower run and from the rolls 2, providing a chamber in which the vapor and moisture escaping through the lower run of the pad will collect and be retarded, and from the same will be drawn through a flue 5 at one side of the machine in register with the said space, and a suction fan or blower 6 may be

provided to cause a continuous draft through the flue to carry off the vapor and moisture. This mechanism not only prevents discomfort to the operators but prevents injury or damage to the plant itself; and, furthermore, such a draft or suction of air tends to take the moisture out of the pad so that it can not become wet or soggy.

The pad 3 may of course constitute a continuous endless fabric or material suitable for the purpose, but the chances are that in most cases the pad will be made up of a strip or sheet having some suitable coupling means to connect the ends of the sheet to form the endless pad.

With this idea in view, we illustrate in Figures 1, 5, and 6 one method of coupling the ends of the sheet together. This method includes the provision of metal strips 7, 7 on the respective ends of the sheet, which are bent into hook shape and secured together, as clearly indicated at 8 in Figure 5. A covering flap 9 is provided which normally covers the coupling so as to present a smooth surface to the articles being ironed.

Also we preferably employ metal clips 18 which are sprung over the ends of the coupled strips so as to prevent any possibility of accidental displacement. These clips may have lugs 19 thereon to spring into openings 20 in the metal strips 7 to prevent accidental displacement of the clips.

Figure 2 illustrates our improved pad 3 in use in connection with a single roll domestic ironing machine in which the pad functions as a feeding device in addition to its function as a pad.

Figure 3 shows a modified arrangement of our improved pad 3 in connection with a cylinder type of machine in which the pad functions as a conveyor or, in lieu of the ordinary endless belt commonly employed on the cylinder type of machine.

Figure 7 illustrates another modification of our invention showing how instead of providing a single endless or continuous pad we may employ a series of endless pads 3′ which are located side by side so that a pad of any width may be utilized. In these pad sections 3′ we have illustrated an ordinary form of a talon fastener 11 as a coupling means for the ends of the strips forming the pad sections. With such an arrangement we preferably employ a tension or spacing rod or roller 12 having annular webs 13 thereon positioned between the sections so as to prevent any lateral displacement of the sections.

In Figure 9 we illustrate our invention as applied to an ordinary ironing board 14, the endless pad 15 located over the board and around a shaft 16 having a crank arm 17 on one end for manually manipulating the same.

Throughout the different figures of the drawings we have employed like reference characters on the different modifications indicating like functioning parts, and while we have illustrated a number of different forms of our invention it is to be distinctly understood we do not wish to limit ourselves to specific details but desire to cover broadly an endless or continuous pad for ironing machines or devices of any character wherein the pad is movable to present changing portions or surfaces thereof to contact with the ironing devices, so that with our improved pad it is not necessary to pad the rolls nor to employ any form of padding or mechanism for the purpose which has heretofore been employed. Hence various changes and alterations might be made in the general form of the parts described without departing from our invention, and we do not limit ourselves to the precise details set forth but consider ourselves at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claims.

We claim:

1. The combination with an ironing machine having rolls, of an endless ironing pad, one run thereof interposed between the rolls and the ironing surface of the machine, devices holding the outer run of the pad spaced from the rolls, said pad forming a chamber for the temporary accumulation of vapor and moisture, and means for drawing said vapor and moisture from the space between the runs of the pad.

2. The combination with an ironing machine having rolls, of an endless ironing pad having one run thereof interposed between the rolls and the ironing surface of the machine, devices holding the outer run of the pad spaced from the rolls, said pad forming a chamber for the temporary accumulation of vapor and moisture, a flue having its inlet end located adjacent one side of the chamber formed by the runs of the pad, and a blower for forcing air through the flue to carry off the moisture and the vapor.

Signed at Brooklyn, N. Y., in the county of Kings and State of New York, this 16th day of November, A. D. 1928.

CHARLES SILVERSTINE.
SAMUEL SILVERSTEIN.