Sept. 12, 1939. G. FROMMER 2,172,869

MACHINE FOR IRONING FURS

Filed Dec. 18, 1937

Fig.1

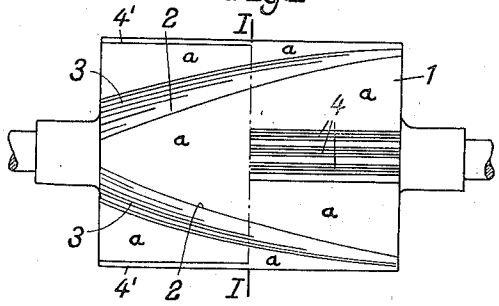


Fig.2

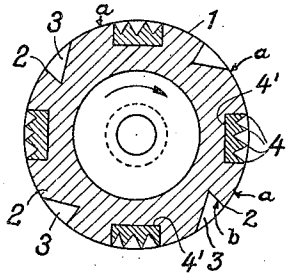
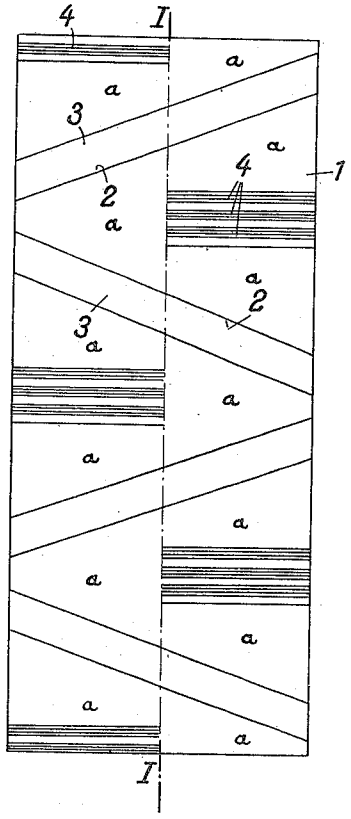


Fig.3



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MACHINE FOR IRONING FURS

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1 Claim. (Cl. 149—24)

There are already known, on the one hand a type of machines for ironing furs which is fitted with an ironing cylinder on which ribs extending along generatrices of the cylinder are provided, and, on the other hand a type of machine for ironing furs which is fitted with an ironing cylinder reciprocating in the axial direction during operation, on which cylinder ribs arranged in directions sloping alternately to the right and to the left relative to the direction of the generatrix, and combs arranged between such ribs are provided.

The first-named type of machines for ironing furs indeed satisfactorily straightens out and stretches the hairs of the fur, but at the same time lays the said hairs down and compresses them. This latter circumstance, however, represents a great drawback, because the fur hairs laid down and compressed substantially impair the quality and therewith also the value of the fur.

As regards the type of machine named in the second place, it does not indeed compress the hairs, i. e. it does indeed stir up or raise up the hairs, but it does not stretch the said hairs sufficiently, which circumstance likewise results in goods of impaired quality. In addition hereto the comb employed in this type of machine also impairs the quality of the goods, as it not only discomposes the hairs but also tears out a substantial portion thereof and in general places a very severe strain on the fur.

In addition to the drawbacks enumerated above, the types of machines named also have the further drawback, that in order to obtain goods fit for use it is necessary that the fur to be treated should be passed through the machine a very great number of times, which fact not only means loss of time and extra expense, but also influences the quality of the fur in a disadvantageous sense.

The type of machine for ironing furs which forms the object of the present invention eliminates all these drawbacks and renders possible the production of fur goods of the kind which is the only one valuable from a commercial point of view, i. e. of such fur goods as have their hairs properly stretched and standing-up, whilst at the same time preserving the fur from any undue strain, and reducing the time of treatment and the cost of production in the highest possible degree.

This result is achieved according to the invention by employing, in a fur-ironing machine fitted with a rotating or rotating and reciprocating ironing cylinder, an ironing cylinder of such a kind in which there is provided a rib or ribs for raising and stretching the hairs of the fur (called in what follows, for the sake of brevity, simply: "raising ribs") and a member or members effecting only the stretching of the hairs, the two kinds of devices being preferably arranged in mutual succession, the raising ribs being preferably sloping alternately to the right and to the left relative to the direction of the generatrix, whereas the stretching members consist of a single rib or of a plurality of preferably parallel ribs, which is or are preferably ledge-or wedge-shaped and possess a chamfered working edge or chamfered working edges on a level with the cylindriacl surface of the cylinder. It is to be understood that the term "generatrix" wherever used herein refers to the generatrix of the cylinder.

Accordingly, in the machine according to the invention, the disadvantageous combs have been entirely dispensed with, which fact results in preserving the fur in a still greater degree from any undue strain placed on it.

The drawing represents an embodiment, shown by way of example, of the ironing cylinder and of the stretching ribs of the fur-ironing machine according to the invention. Notably

Fig. 1 is a side elevation of the ironing cylinder,

Fig. 2 is a cross-section of the same,

Fig. 3 is the cylindrical surface of the cylinder developed into a plane,

1 is the ironing cylinder, 2 are the ribs for stirring up or raising the hairs of the fur, the said ribs being developed from grooves 3 of triangular cross-section provided in the cylindrical surface of the cylinder. Each of the grooves 3 forms a wall *b* radially disposed with respect to the groove the edge of which wall at its intersection with the cylindrical surface constitutes what I have termed a rib 2. Because of this formation the said ribs 2 strike against the roots of the hair of the fur, so that said hair enters for a moment the grooves 3. This "striking" is called in the trade the "raising of the hair", and for this reason the edges 2 are termed "raising ribs." However, inasmuch as during the continued motion of the ribs 2 in contact with the fur, the hair is again pressed down and slightly stretched by the friction of the ribs, these ribs have been termed "raising and stretching ribs" in order to express this dual function. These ribs 2 are preferably sloping alternately towards the right and towards the left relative to the direction of the generatrix of the cylinder, but they may also be arranged along generatrices, or they

may be sloping towards the right only, or towards the left only, no matter whether only a single rib or a plurality of ribs is provided. 4 are the members effecting exclusively the stretching of the hairs of the fur, notably, a rib or ribs which are arranged in succession so as to alternate with the raising ribs 2, Fig. 3. It will of course be understood by those skilled in the art, that all smooth portions of the cylindrical surface operate as ironing surfaces, said smooth portions being indicated in the drawing by the reference character *a*. In case the stretching member is composed of a plurality of ribs, the latter should preferably be of straight-lined shape, parallel to to each other and to the direction of the generatrix; even if only a single rib is provided, it will be preferable for it to be straight-lined and parallel to the generatrix. The rib or ribs may be integral with the cylinder body, but preferably the rib or ribs 4 forming a stretching member are constructed as exchangeable inserts 4' which may be solid (Fig. 2) or stamped of sheet metal. Finally, the rib or ribs may be of one piece or composed of a plurality of pieces, The drawing represents a very advantageous and approved arrangement of the ribs 4, according to which the stretching ribs 4 are arranged between the divergent ends of the raising ribs 2, so as to extend from the centre plane I—I—perpendicular to the axis of the cylinder 1—up to the edge of the said cylinder (Figs. 1 and 3), so that the various inserts 4' are alternately situated on opposite sides of the center line I—I of the cylindrical surface of the cylinder. The experiments made as well as practical experience have shown that by means of this arrangement of the ribs 2 and 4 it is not only possible to produce high-quality goods the quality of which substantially exceeds that of the fur goods obtained with the aid of the type of fur ironing machines employed up to now, but that moreover a great saving in labor can also be achieved, whilst at the same time preserving the fur in a very high degree from any undue strain. The range of the invention naturally also covers the constructional form in which the stretching rib or ribs extend over the whole length of the cylinder or over a part of the same.

It should be added that it is also possible to arrange the rib or ribs i. e. the insert or inserts in such a manner as to enable them to be reciprocated in the axial direction or in a direction forming an angle with the axial direction during operation, in case it is desired to impart to the ironing cylinder performing a rotary motion only also the advantages of the ironing cylinder or combing member which in addition to rotation is also reciprocating in the axial direction.

What I claim is:

In a machine for ironing furs, a rotatable and axially reciprocable cylinder provided with hair-raising ribs extending across the cylinder in alternately diverging paths at opposite edges of the cylinder and hair-stretching members disposed between the divergent ends of the raising ribs and extending from opposite edges of the cylinder to approximately the central plane of said cylinder perpendicular to its axis.

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