Feb. 18, 1930. H. WAAG 1,747,406

ART AND MACHINE FOR CUTTING PATTERNS INTO FUR SKINS

Filed Oct. 5, 1927

Fig. 1.

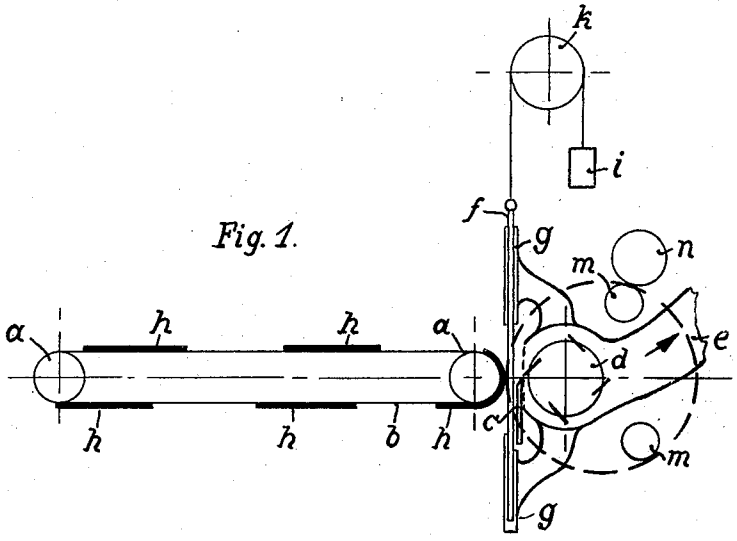
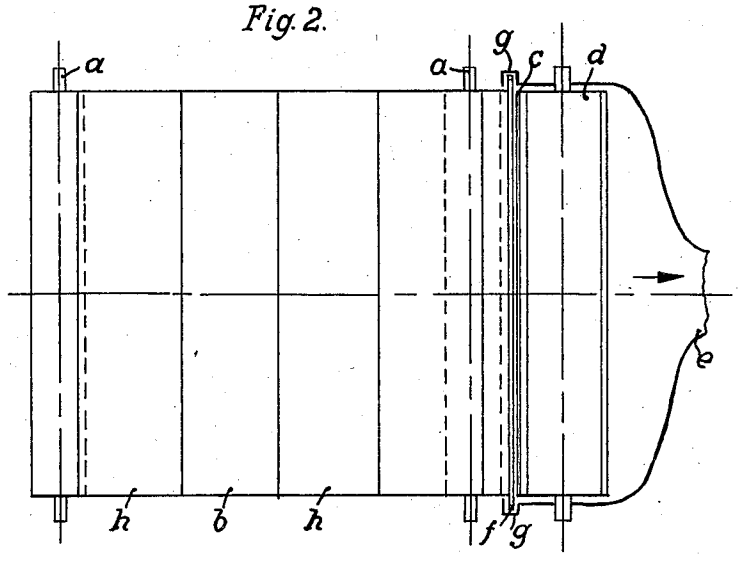


Fig. 2.



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REISSUED

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ART AND MACHINE FOR CUTTING PATTERNS INTO FUR SKINS

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Producing patterns in fur-skins has hitherto been done by dyeing. The known processes, as in case of plush, viz, cutting the hair according to a template, as well as producing patterns without any differences in colour, can not forthwith be applied to fur-skins, as, during cutting of the same, special conditions arise, being based upon the considerable length of the hair, the soft falling-over of the hair and a natural falling-direction of the hair distinguishing the one from others. Only such productions of patterns have consequently hitherto been known, in which the pattern appeared in quite a simple form, as for instance stripes, running out in the direction of the fall of the hair.

The present invention has the object to cut any desired kind of pattern into fur-skins, being all around bordered, viz, also crosswise to the falling-direction of the hair and obtain thereby fashion-effects surpassing the hitherto known considerably in beauty and rich variety. As the manufacture of furs represents a trade having great demand for changes in fashion a correspondingly great industrial importance is due to this process.

The process consists mainly therein, that a template of sufficiently stiff material is, simultaneously with the fur-skin to be cut, passed along in front of the cutting-device in suitable manner. The device according to the present invention consists on the one hand of the mentioned template, containing the parts of the surface supposed to be cut out of the fur-skin in shape of recessed holes and on the other hand of arrangements for practical operation of the said template.

An embodiment of the invention is below described as an example, whereby it has been presumed, that one of the usually employed, known fur-cutting-machines is used. It is however easily visible, that the invention may be applied in any other desired manner for cutting fur.

Fig. 1 is a longitudinal section through the parts of a fur-cutting-machine coming into question.

Fig. 2 is a view of the conveying-belt and the cutter of the machine from above, while the casing of the latter is shown in cross-section.

a, *a*, are transport-rollers being driven in usual manner either by hand or motive power, moving the conveying-belt *b* along on the front of the cutter.

c is the stationary knife, *d* the revolving circular cutter, *e* the suction-pipe-line to the air-propeller removing the air in the direction of the arrow and raising thereby the hair of the fur to be cut-out in front of the cutter and drawing the same in as far as the same is not covered by the template. *f* is the template having for instance the shape of a rectangular plate. The material of the template is flexible, but still so stiff, that no part, not even corners projecting into the pattern-apertures, are bent in the direction of the cutter and could be caught by the same. Metal or iron is suitable for this purpose, also cardboard, celluloid or the like. That bending of such projections of the template in the direction of the cutter is impossible and is furthermore ensured by suitable guidance of the template. Hereby is gained, that the template rests firmly upon the surface of the fur-skin in its passage, covering thereby exactly the desired pattern. The template is for instance guided by lateral guide-rails *g*, *g* thus, that it passes close in front of the fur-skin, viz, between the latter and the cutter, while the fur-skin itself is passed around the guide-roller *a*. Moving the template can be effected by friction with the fur-skin, or with side-parts of the guide-roller or the conveying-belt, by gear-transmission, or other known means and this either with exactly the same speed with which the fur-skin is moved, or in any other suitable velocity.

The templates are generally made so large, that their length suffices for the passage of a fur-skin *h*. Before the next fur-skin *h* is fed forward, the template is returned to its upper starting-position by either withdrawing the same entirely from the guide and inserting it again from above, or drawing the same back into the guide by reversing its former moving-direction. In order to prevent, that the template will drop too quickly consequent to its weight, a compensating-weight *i* is fastened to

it and suspended over a roller *k*. If the weight is made sufficiently large, an upward pulling force is produced, whereby the template is automatically moved back as soon as the motive force ceases whereby it has been moved down during the cutting-process. Instead of a pull by weight, a tension-spring or any other suitable device may be used.

It is of no consequence, in what manner transport of the fur-skin is effected in itself. It may either lie permanently upon the side of the template away from the cutter, or only in the moment of passing the cutter be in contact with the template.

I claim:

In a device for cutting-out patterns in fur-skins the combination of a flat apertured template of stiff material, the apertures of which represent all around bordered patterns or designs, a cutting-tool driving and guiding means, whereby the said template is, during cutting operation, moved in approximately straight line, along in front of the said cutting-tool.

In testimony whereof I affixed my signature.

HERMAN WAAG.