June 4, 1929. C. FALEK 1,715,747

MEANS FOR TREATING FUR

Filed July 22, 1927 2 Sheets-Sheet 1

Fig. 1.

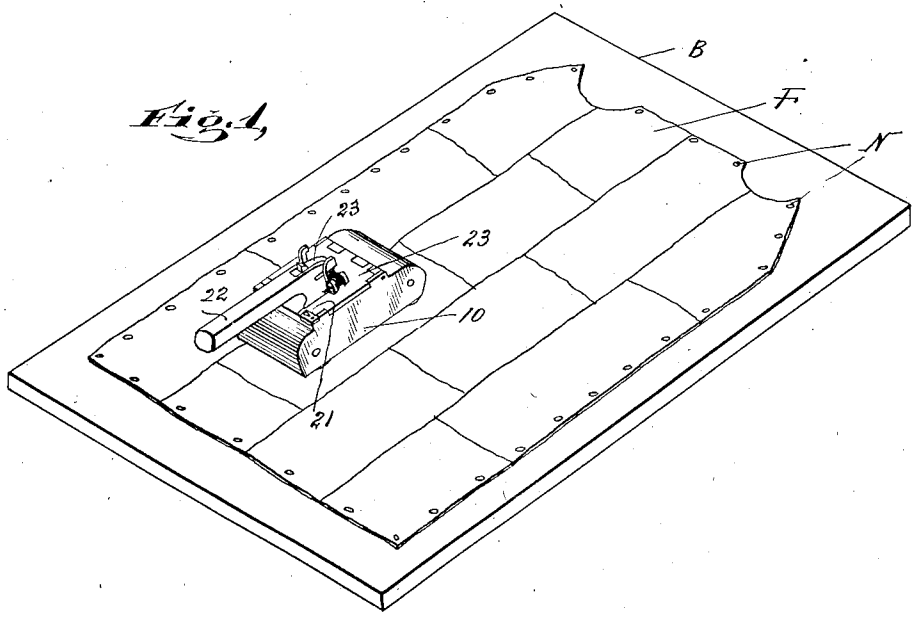
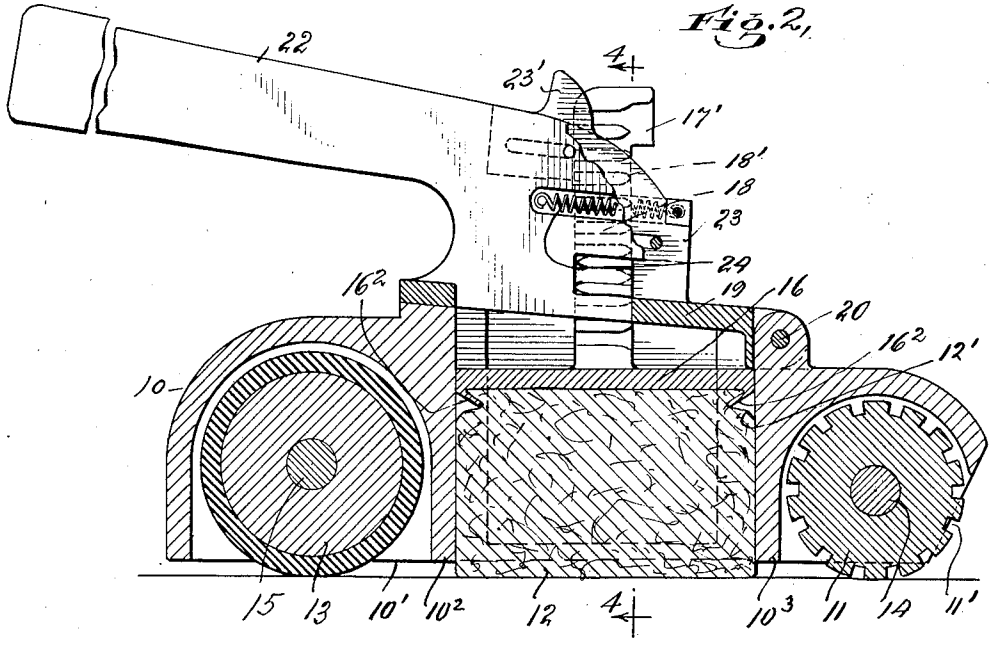


Fig. 2.



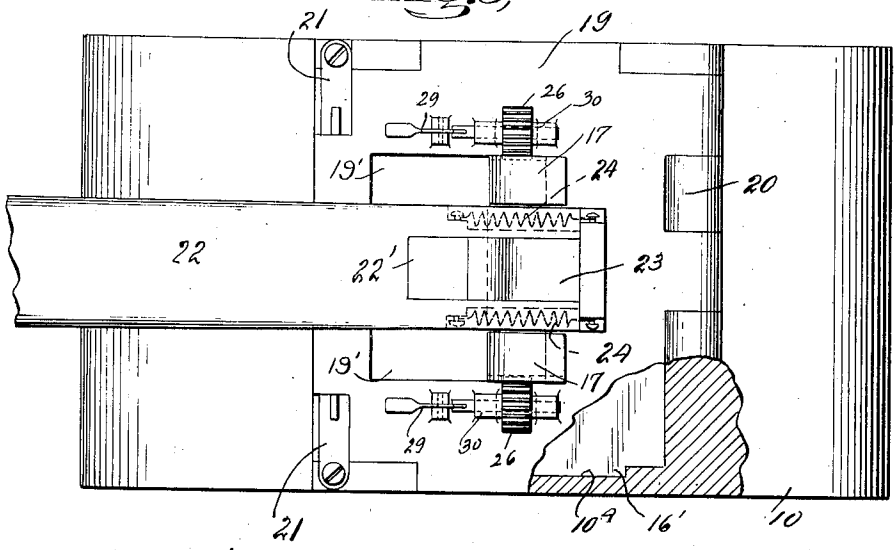
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Fig. 3,



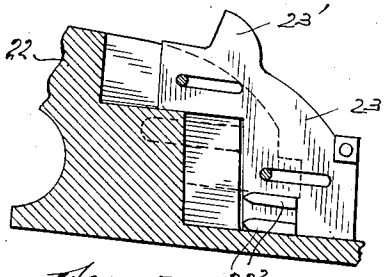
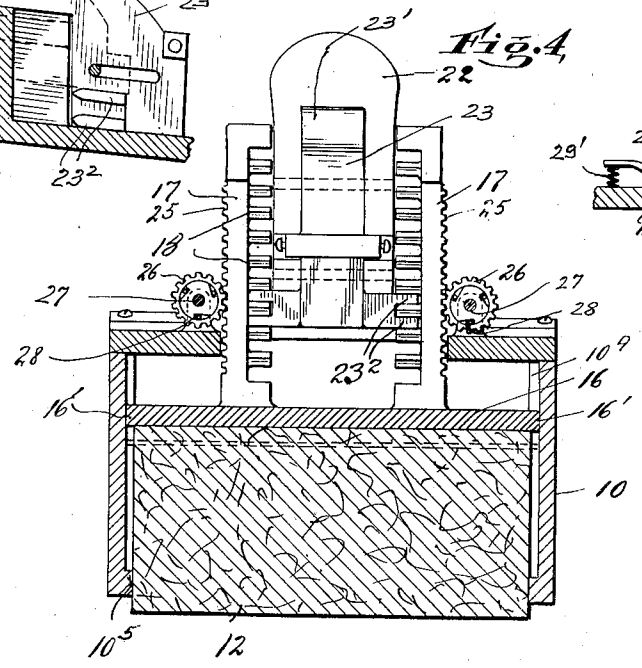


Fig. 5,

Fig. 4,



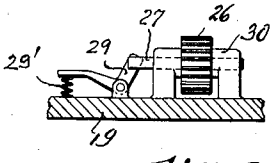


Fig. 6,

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Patented June 4, 1929. 1,715,747

UNITED STATES PATENT OFFICE.

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MEANS FOR TREATING FUR.

Application filed July 22, 1927. Serial No. 207,700.

This invention relates to treating fur in the manufacture of fur garments. The fur from which garments are manufactured is generally composed of individual pieces previously cut to shape and sewn together according to a certain pattern. This composite piece of fur after it is wetted is then stretched by nailing or otherwise fastening it to a board with the flesh side up. When the fur is removed from the board the same is found to be stiff and has to be softened before the garment can be completed, which according to the known methods is done after the fur is removed from the board. These methods have been found to be objectionable principally because the fur is permitted to shrink.

The object of my invention is to provide a new method of and means for softening the fur while it is still nailed to the board, whereby shrinkage is prevented, the work greatly simplified and the expense of the labor considerably reduced.

This object I accomplished by my new method which consists in that by a single operation while the fur is still nailed to the board with the flesh side up, the latter is first agitated to open the pores or produce impressions therein, then a layer of a suitable chemical substance is caused to be deposited on the pelt and subsequently said layer is pressed into the pores or the impressions in said flesh side.

Various chemicals in solid or liquid state having the property of softening the fur may be used. I prefer, however, to use a compond in a solid state which is composed of 6% lanolin, 3% ichthyol, 60% camphor, 12½% olive oil, 12½% cocoanut oil and 8% lye. The proportions may be varied to produce the desired effect of softening the fur and preventing shrinkage thereof.

For carrying out this new method I provide a device consisting substantially of a housing having an open bottom and in which are supported an agitating roller in front, a press roller at the rear and intermediate these rollers a holder for the solid or semi-solid cake or block made of a suitable chemical compound. The cake and the two rollers project outwardly through the open bottom of the housing so that as the device is being rolled over the pelt, the latter is first agitated by the front roller, then by abrasion a layer of the cake will be deposited on the agitated surface, and subsequently the rear roller will squeeze or press said layer into the pores or impressions opened or formed by agitation.

The chemical compound is so supported in the housing that it will be fed downwardly automatically and intermittently, suitable means being provided to lock the same in position while the device is rolled over the pelt.

My invention will be more fully understood by reference to the accompanying drawing in which Fig. 1 is a perspective top plan view showing my device in use on a piece of fur stretched on the board; Fig. 2 is a vertical section of the device; Fig. 3 is a top plan view thereof; Fig. 4 is a cross section on line 4—4 of Fig. 2 and Fig. 5 is a longitudinal section of a part of the handle portion of the lid showing certain details of construction.

Figure 6 shows the pawl controlling latch.

In the drawing B denotes the stretching board and F the composite piece of fur whose pieces have been previously cut and sewn together according to a certain pattern and nailed flesh side up in stretched condition to the board as at N after it has been previously wetted.

The device comprises a housing or carriage 10 having an open bottom 10′ and which by cross partitions 10^2, 10^3 is divided into three separate chambers. The front chamber is adapted to contain an agitating roller 11, the intermediate chamber the chamical compound 12 and the rear chamber the press roller 13. Suitably borne in the side walls of the front and rear chambers are horizontal shafts 14, 15 on which are rotatively mounted the rollers 11 and 13 respectively so as to project outwardly through the bottom of the housing.

Mounted to be freely movable and suitably guided in the intermediate chamber of the housing is a platform 16 from which the chemical compound is suspended. In the present example the platform 16 is in form

of a square plate which is formed with lateral extensions 16′ (Fig. 4) adapted to slidably engage recesses 10^4 formed in the side walls of the housing and whereby said platform will be rectilinearly guided in vertical direction. The bottom face of the platform is provided with outwardly and oppositely bent flanges 16^2 adapted to engage corresponding grooves 12′ provided in the upper part of the chemical compound and to thereby support the latter. The bottom edges 10^5 of the recesses 10^4 serve as stops preventing the platform from falling through the bottom. The platform is made sufficiently heavy to have the tendency to sink by its own gravity and thereby feed the compound 12 as the latter is being used up. In order to lock the platform in position while the device is not in operation or when temporarily lifted from the surface treated I provide the following means.

Projecting upwardly from the platform 16 are two parallel toothed members 17 having at their upper ends hooked portions 17′ and whose teeth 18 are arranged on the inner or oppositely directed faces thereof and are wedge shaped or sharpened at their forward ends, as at 18′. The top of the intermediate chamber is open and adapted to be closed by a lid 19 hinged to the upper face of the housing as at 20 and adapted to be locked in closed position by latches 21 or the like. This lid is provided with a handle or grip 22 and at each side of said handle the lid is provided with an aperture 19′ through which the toothed members 17 are adapted to project outwardly. The front end of the handle is bifurcated as at 22′ and slidably mounted in the bifurcated portion is a pawl or member 23. This member is formed on each side with a pair of laterally projecting teeth 23^2 which are capable of engaging the teeth 18 of the members 17 when in retracted position and thereby firmly support said platform and lock it against downward movement. The member 23 is formed with a finger piece 23′ which when the handle is grasped can be easily reached by the finger and pressed outwardly, whereby the pawl 23 is removed from engagement with the teeth 18 releasing the platform 16 and permitting it to feed downwardly under its own weight. The member 23 is actuated by springs 24 which tend to bring it into meshing connection with the teeth 18 of the members 17.

The members 17 are also toothed on their outer faces, the teeth 25 thereof being adapted to be constantly in mesh with pinions 26. The latter are supported on spindles 27 so as to be capable of rotating thereon freely only in one direction, suitable clutch mechanism 28 being provided between the pinions and their spindles to prevent their rotation in opposite direction. Thus when the platform is released from the pawl 23 it will by its own weight have the tendency to continually feed downwardly in the measure as the cake 12 is being worn off. During the feeding movement the pinions 26 will freely revolve on their spindles 27 as the racks or members 17 move downwardly with the platform 16. The yielding of the platform upwardly under pressure of the hand of the operator during the operation will be prevented by the clutches 28.

The spindles 27 are supported in bearings 30 mounted on the lid 19 and suitable means, such as manually operated spring actuated fingers or catches 29 may be provided to normally hold said spindles against rotation, said fingers according to the present example being adapted to engage notches in the ends of the spindles 27. When it is desired to remove the platform 16 from its chamber for the attachment of a new cake, the catches 29 are depressed against the tension of their springs 29′, thereby disengaging them from the notches of the spindles 27, as a result of which the platform when also disengaged from the pawl 23 is free to be raised and removed from within the chamber on opening the lid 19.

The agitating roller 11 in the present example is shown as one formed on its circumference with furrows or ridges 11′ and the friction or press roller 13 as one covered with rubber or the like.

The mode of operation is as follows:—

After attaching the cake or block 12 to the platform and adjusting the latter to its uppermost position, so that the lower face of the cake will sufficiently extend through the bottom of the housing the device is rolled over the surface of the pelt F stretched on the board, in a certain direction, say from the lower edge of the pelt toward the upper edge thereof. During this movement and by pressing the device against the surface treated, the furrowed or roughened roller 11 agitates the pelt thereby opening its pores or producing therein impressions. As the device advances, the lower face of the cake being in frictional contact with the pelt is rubbed off, and a thin layer thereof becomes deposited on the agitated surface of the pelt. At the further advance of the device the press roller 13 rolling over the layer presses the substance into the pores or impressions thereby impregnating the pelt with it, and replacing the natural fat which was removed from the pelt as a result of the stretching and drying process.

During this operation the pawl 23 is held in an outwardly projecting position by the finger of the operator, thereof permitting the platform and the cake 12 suspended therefrom to continually feed downwardly by gravity as the cake is being worn off.

When the platform 16 reaches the flanges

10⁵ the hooked ends 17′ of the racks or members 17 abut against the upper face of the lid 19. This indicates to the operator that the cake has been used up and a new cake must be placed in its position.

It is of course clear that the construction of the device and of the different parts thereof may be modified in various ways without departing from the principle of my invention. I, therefore, do not wish to restrict myself to the details described and shown.

What I claim is:

1. A device for treating furs comprising agitating means, means for depositing a chemical substance on the flesh side of the fur and pressure exerting means for pressing the chemical substance into the said flesh side, said means being so arranged that when said device is moved in a certain direction the three named means will act in succession of one another.

2. A device for treating furs comprising a carriage, agitating means in the front portion of and projecting outwardly from said carriage, means for depositing a chemical substance on the flesh side of the fur to be treated and pressure exerting means in the rear portion of and projecting outwardly from said carriage, said second named means being arranged intermediate said agitating means and pressure exerting means, so that when said carriage is advanced the said three named means will act in succession of one another.

3. A device for treating furs comprising a carriage in form of an open bottom housing, an agitating roller in the front portion of and projecting outwardly from the open bottom of said housing, a holder for a solid chemical compound, which has the tendency to move downwardly and which is adapted to project outwardly through the open bottom and when sliding over the flesh side of the fur to spread a layer thereon, and a pressure exerting roller in the rear portion of and projecting outwardly from said casing whereby the said layer will be pressed into said flesh side.

4. A device for treating furs comprising a holder, front and rear rollers carried by said holder and adapted to be rolled over the flesh side of the fur to be treated, the front roller having agitating elements on its circumference to act as an agitator and the rear roller being adapted to act as a press roller, a support in said holder intermediate said two rollers having the tendency to move downwardly and a substantially solid chemical mass suspended from said support, so that when sliding over the agitated said flesh side it will be caused by friction to deposit a layer thereof on said flesh side and means for preventing said support to yield under pressure during the operation.

5. A device for treating furs comprising a holder having an open bottom, front and rear rollers arranged transversely therein and projecting outwardly through the open bottom, the front roller being adapted to act as an agitator and the rear roller as press roller, a platform intermediate said rollers having the tendency to move downwardly, a substantially solid chemical body suspended from said platform and adapted to project outwardly through the open bottom and when the device is moved over the flesh side of the fur to be caused by friction to deposit a layer thereof on the treated said flesh side, means for holding said platform against yielding under pressure during operation and means for locking said platform in position.

6. A device for treating furs comprising a holder having an open bottom, a pair of rollers arranged transversely therein and projecting outwardly through said open bottom, a platform in said holder intermediate said rollers having the tendency to move downwardly, a substantially solid chemical body suspended from said platform and adapted to project outwardly through said open bottom, so that when said device is moved over the flesh side of the fur to be treated said chemical body by friction will be caused to deposit thereon a layer, means for preventing said platform to yield under pressure during operation and means for locking said platform in position when said device is lifted from the said flesh side.

7. A device for treating furs comprising a holder formed with a handle and having an open bottom, a pair of rollers arranged transversely therein and projecting outwardly through said open bottom, a platform borne in said holder intermediate said rollers having the tendency to move downwardly, a substantially solid chemical body suspended from said platform and adapted to project outwardly through said open bottom, so that when said holder is moved over the flesh side of the fur to be treated said body will be caused by friction to deposit a layer, means for preventing said platform to yield under pressure during operation and means for holding said platform in position when said device is lifted from said flesh side.

8. A device for treating furs comprising a holder open at its bottom and having a handle, a pair of horizontally disposed rollers supported in said holder, one in front and the other in the rear, a vertically guided platform in said holder intermediate said two rollers having the tendency to move downwardly, a substantially solid chemical body suspended from said platform and adapted to project outwardly through the open bottom so as to deposit by friction a layer thereof on the flesh side of the fur

treated, said front roller having agitating elements to act as an agitator and said rear roller being adapted to act as a press roller, toothed members projecting upwardly from said platform, a spring actuated manually controlled pawl adapted to cooperate with said toothed members to firmly support said platform when said device is lifted from the said flesh side and means for preventing said platform from yielding under pressure during operation.

In testimony whereof I affix my signature.

CHARLES FALEK.