Sept. 16, 1930. S. FRIEDMAN 1,776,114

FUR TREATING METHOD AND APPARATUS

Filed Feb. 18, 1929 3 Sheets-Sheet 1

Fig. 1.

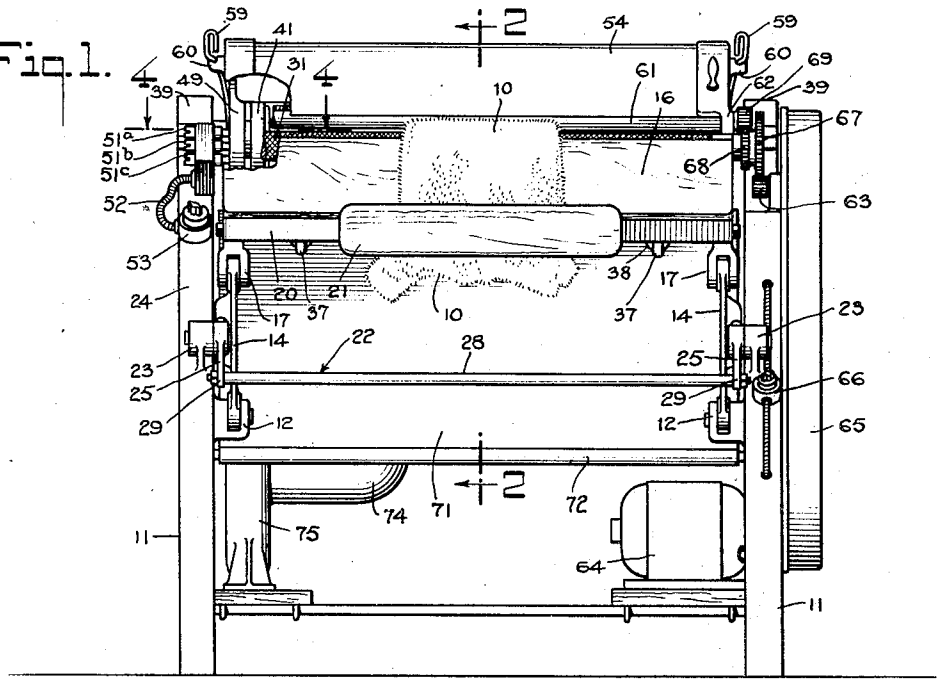
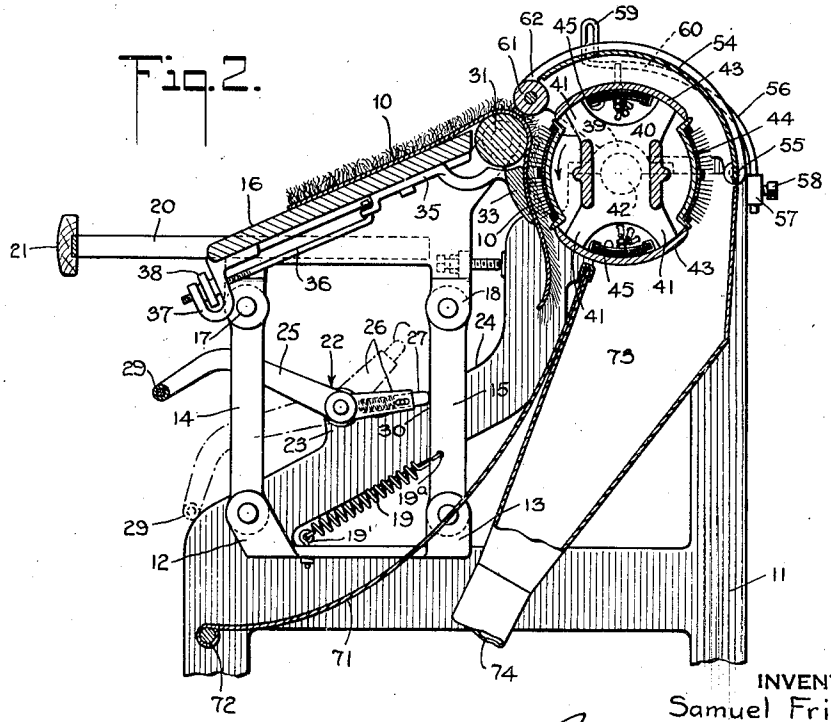


Fig. 2.



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Fig. 3.

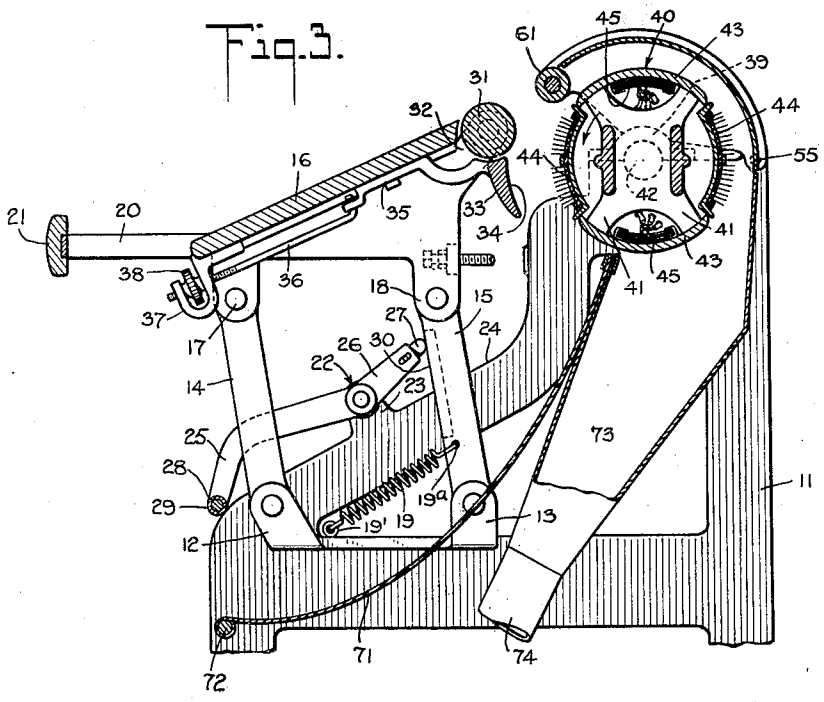
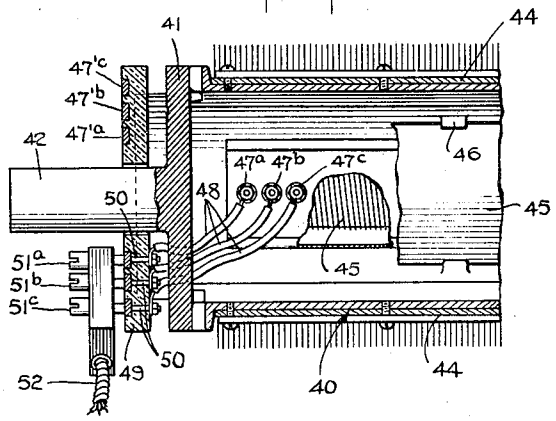


Fig. 4.



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FUR TREATING METHOD AND APPARATUS

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Fig. 5.

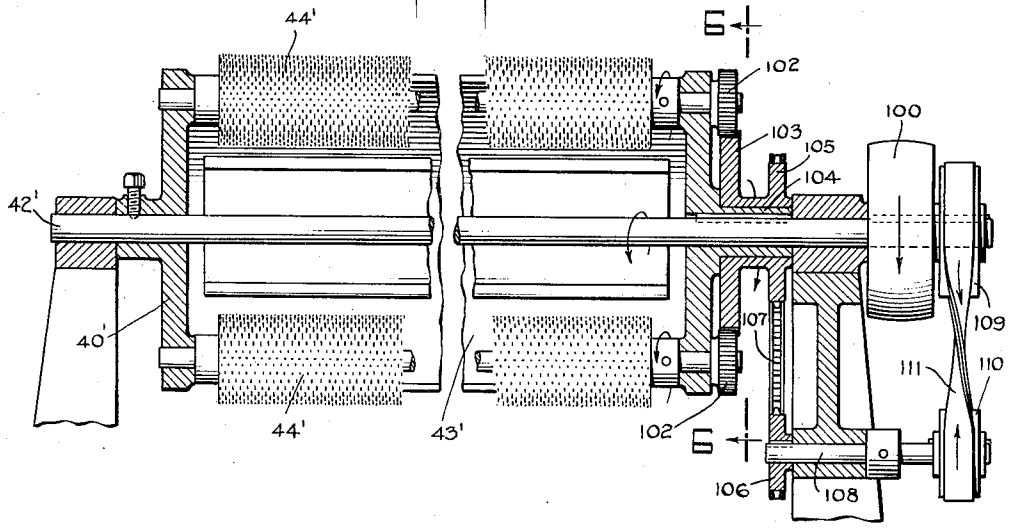
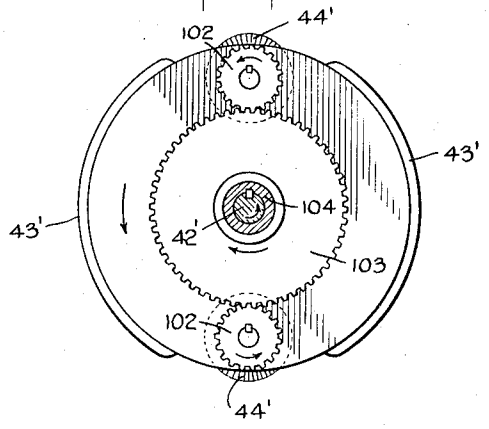


Fig. 6.



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UNITED STATES PATENT OFFICE

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FUR-TREATING METHOD AND APPARATUS

Application filed February 18, 1929. Serial No. 340,844.

This invention relates to a fur treating method and apparatus, and more particularly to a method of and apparatus for brushing and ironing furs and similar pile fabrics; and has special reference to the provision of improvements to the fur brushing and ironing machine, disclosed and claimed in the patent to Jacob Zabel, No. 1,724,542 of August 13, 1929.

In finishing furs or like pile fabrics, the operations of brushing and ironing have been carried out independently and separately by hand guided instrumentalities or by separate machine elements. Hand methods for practicing these operations are objectionable because of the non-uniform results produced due to the fallibility of the human factor. With hand methods even with highly skilled help it is difficult to work with uniform heating speeds so that the heat is concentrated locally on various sections of the furs, leading to overheating and to singeing in local spots, which singeing is not only detrimental in itself, but produces varying discoloration effects in the finished fur. When carried out by hand, the brushing and ironing steps are, moreover, of a superficial character, since the hairs or nap of the fur are not treated to the roots; and while repetition of hand brushing and ironing partially rectifies this objection, this is done at the risk or danger of discoloring the fur due to local overheating or singeing. While the use of machine elements as heretofore practiced overcomes some of the objections incident to hand methods, the use of separated brushing and ironing elements for separately carrying out the brushing and ironing steps at different sections of the fur suffers the disadvantage of producing a comparatively poor and incompletely finished product.

A prime object of my present invention, therefore, centers about the provision of an improved method of and apparatus for finishing furs in which the brushing and ironing steps are carried out with uniformity and efficiency to an extent which yields a superior finished product. By the method of the invention the uniformity of the ironing and brushing steps obtained produces a better and homogeneous luster and a more uniform color when compared with the products of prior known methods. In accordance with the method of the present invention the hair or nap of the furs or similar pile fabrics are subjected to rapidly alternating brushing and ironing steps in a continuous operation, the brushing producing the combing, cleaning, uncurling and electrifying of the fur and the ironing producing the ironed or glazing effect, the rapid alternations of these operations effecting the desired uniform and superior results. Due to the continuity of the motion and uniformity of the speeds and the corresponding uniformity of the brushing and heating steps, the brushes acting first as a straightening medium for the hair prior to heating and then as a cooling medium for the hair after heating, singeing or overheating in local spots is prevented and a homogeneous luster is obtained.

It is a further prime object of the invention to provide a method of and apparatus for treating furs capable of functioning for straightening out the hairs or nap of the furs or similar pile fabrics to the full length of the hairs down to the roots thereof, the brushing and ironing steps being so coordinated with the feeding of the fur as to effect the exposure of the fibres of the hairs or filaments of the fur to the roots thereof with the brushing and ironing being made effective in continuous rapid alternations on substantially all of the individual hairs.

Other objects of my invention reside in the provision of a fur treating apparatus which includes means for uniformly brushing the hairs or nap of pile fabrics, such as furs and uniformly ironing or glazing the same, by rapidly moving brushing and ironing elements relatively to the hair or nap of furs or similar pile fabrics continuously, uniformly and in rapid succession of alternate operations, the brushing and ironing elements being contiguous and within the limits of the length of the hairs or nap of the fabric, the rapidity of the successive operations being such as to overcome the natural tendency of the hairs or nap to reassume any predetermined curled condition so that each

operation may be carried out with maximum effectiveness characterized by brushing when the fur has been heated and ironing or glazing while the filaments, hairs or nap are stretched and "setting" the hairs so ironed or glazed by cooler alternations of the brushing after ironing or glazing.

Still further objects of my invention reside in a finishing operation for the hairs or nap of furs or similar pile fabrics, preparatory to dyeing whereby uniformity of shade and completeness of the dyeing operation are effected beyond detection normally caused by irregular graining and curled condition of the hairs and uneven and non-uniform ironing or singeing of the hairs or nap of the pile fabric.

Still further objects of my invention reside in the provision of a fur treating apparatus which will quickly, completely and in one operation effect the combing, cleaning, curling and electrifying and the ironing and glazing continuously and at a speed of operation within the ability of an operator to feed the fabric, such as a pelt or similar pile fabric, within the zone affected by the rapidly moving brushing and ironing elements, whereby the finishing operation may be carried out continuously, without loss of time for mounting and unmounting fabrics, such as pelts or furs.

To attain these objects and such further objects as may appear herein or be hereinafter pointed out, I make reference to the accompanying drawing forming a part hereof, in which:

Fig. 1 is a front elevation illustrating my device with the work in position and parts broken away;

Fig. 2 is a section taken on the line 2—2 of Figure 1;

Fig. 3 is a view similar to Figure 2 with the machine in the open position, ready for loading the work;

Fig. 4 is a section taken on the line 4—4 of Fig. 1;

Fig. 5 is an elevational view of a modification taken partly in section; and

Fig. 6 is a view taken in cross section in the plane of the line 6—6 of Fig. 5.

My invention comprises generally the brushing and ironing of the hairs or nap of pile fabric, such as furs, and particularly in connection with furs to effect the combing, cleaning, uncurling, electrifying, ironing and glazing thereof; and for this purpose the fabric, such as the pelt, disposed upon a work holding bench with the hairs or nap disposed upwardly, is submitted to uniform brushing and ironing operations, the brushing and ironing being effected in rapid alternations of each other. Preferably, the brushing and ironing operations follow each other so closely in rapid alternations that the hairs or fibres are completely straightened or stretched and do not reassume their original position within the fraction of time which elapses between the brushing and ironing steps. Thus, the ironing or glazing is effected while the hairs or nap are completely brushed and when so ironed or glazed are "set" by the application of the cooler brush which follows immediately after the ironing operation. The effect produced is ironing while the hairs are completely brushed or straightened and brushed and "set" again while the hairs are still under the effect of the ironing operation, this being carried out in successive rapid alternations. The method is further characterized by rapidly, successively and alternately brushing and heating the hair or nap of furs or similar pile fabrics to the full length of the hair or nap by progressively feeding the pelt or fabric for the brushing and ironing operation, while folding or bending the fabric to expose the hairs or nap to the very roots. The process is still further preferably carried out while uniformly moving the pelt or fabric relatively to uniform treatments of the brushing and ironing apparatus.

For purposes of illustrating apparatus suitable for carrying out this method, I will now refer to the drawings and views heretofore mentioned in which there is shown a finishing machine comprising side frames 11 between which are pivotally disposed upwardly upon the front brackets 12 and the rear brackets 13, pairs of legs 14 and 15, respectively, which support the work holder in the form of a work holding table 16 journalled pivotally on the legs 14 and 15 by the knuckles 17 and 18, the work table 16, legs 14 and 15 and supporting brackets 12 and 13 forming a parallelogram structure, thereby permitting bodily to and fro movement of the work holding table 16.

The bodily movement of the work table 16 is effected rearwardly by the coiled spring 19, anchored at one end in the bracket 12 by the eye bolt 19′ and at the other end in a leg 15 through the aperture 19ª against which spring action movement may be effected by the bar 20, having a wide rest 21 adapted to be engaged by the body of the operator. To prevent rearward tilting action of the work holding table, I provide a locking means or frame 22, pivotally mounted in the bearings 23 on the angularly disposed branch 24 of the frame. This locking frame comprises the lever members 25, whose front ends 26 are hollow and in which hollow portions are mounted spring pressed plungers 27. These levers, two in number, provided adjacent each side of the frame 11, are caused to be operated in unison by the cross bar 28, connected to the free ends 29 of the levers 25. It will be observed that rearward movement of the work table 16 is prevented by the plungers 27 on the levers 25, engaging the

legs 15 at the front flat bearing surface 30 thereof, as more clearly shown in Figure 3. To forwardly lock the table, the cross bar 28 is pulled upwardly in a clockwise direction from a position shown in dotted line in Figure 2; and when moved past the dead center, as shown in full lines in Figure 2, the work holding table will be locked against movement rearwardly. The spring pressed plunger 27 also serves to resiliently hold the work table in its locked position with the work yieldingly held in position.

Frontally of the work holding table 16, there is disposed a feed roller 31, mounted between the bearings 32 adjacent the front end of the table 16 and substantially in line therewith. Below the roller, I provide a pressure plate 33, having an arcuate face 34 at the frontal portion thereof, and this is arranged to be guided forwardly and rearwardly by the slide mounting 35, adjustment being had by the feed rod 36, disposed on the adjuster knob 37 of general U-shaped construction, between whose arms the milled knob 38 is mounted for screw threaded engagement upon the rod 36. Thus, rotation of the knob 38 will serve to forwardly and rearwardly feed the pressure plate 33, for purposes which will become clearer as the description proceeds.

For accomplishing the rapidly alternating brushing and ironing operations heretofore set forth, I provide a drum 40 positioned at the upper part of the frame, within the bearings 39, which drum is provided with spiders 41 having end shafts 42 arranged to be disposed within the bearings 39 for rotation as shown best in Figure 4 of the drawings. The peripheral surface of the drum is provided with alternately spaced ironing plates 43 and brushes 44 arranged in contiguous relationship. Interiorly of the drum and adjacent the ironing plates 43, there are provided heating units 45, held in position by the lugs 46, the heating units preferably comprising thermal resistance wire of different lengths, each ending in terminals 47^a, 47^b, 47^c (see Figure 4). Conductors 48 connect these terminals to a commutator insulator plate 49, having commutator rings $47'^a$, $47'^b$, $47'^c$, mounted on the sides thereof, contact being made with these rings by the terminals 50 projecting to the interior face of the insulator plate 49. Brushes 51^a, 51^b and 51^c contact with the commutator rings $47'^a$, $47'^b$ and $47'^c$, respectively, and these brushes are fed by the lines within the conduit 52, controlled by a three way switch 53. The switch 53 is operable to produce high, intermediate or low degrees of heat by selectively energizing the different heating units 45.

Disposed upwardly of the drum 40, there is provided the arcuately formed hood 54, arranged for pivotal movement upon the hinge 55. The hood is maintained in the closed position by a pair of spring pressure rods 56 mounted within bosses 57 held in position by the set screws 58, the free end of the rods 56 being each provided with a convenient hand holding portion 59 made by reflexively bending the rod. Adjacent the hand holding portions, the rods engage the latches 60, disposed to each side of the hood 54. In this manner the spring pressure of the rod 56 against the latches 60 maintains the hood in position, the hood being capable of being raised to the open position for purposes which will appear herein by grasping hold of the rod ends 59 and disengaging the rods from the latches 60.

Frontally of the hood 54, there is disposed a pressure roll 61, mounted for rotation within the bearings 62 in the extreme end of the hood. The pressure roll 61 as thus provided is arranged in the operation of the machine to be in contacting relation with the feed roller 31, mounted upon the work holding table previously described. The apparatus is provided with a stub shaft pinion or gear 63 driven by the electric motor 64 through the medium of a gear train contained within the cover 65, a suitable switch being provided at 66 for controlling this motor. Meshing with the pinion 63, there is provided a gear 67 to which is affixed a pinion 68 fixed to an end of the feed roller 31. The pinion 68 is adapted to mesh with a pinion 69 on the pressure roller 61 when the parts are in operative arrangement.

With this recited construction it will be seen that when the work table 16 is moved from the position shown in Figure 3 to the position shown in Figure 2, the gear 67 will move into meshing engagement with the pinion 63 and the gear 68 with the pinion 69 so that operation of the motor 64 will result in rotating in unison the feeding and pressure rollers 31 and 61 respectively. The drum 40 is also rotated by the gear train contained within the cover casing 65, the said drum 40 being rotated, as shown by the arrows, in the direction of feeding movement of the work fed by the feeding and pressure rollers. To accomplish the desired ends, the peripheral speed of the drum 40 is made substantially greater than the peripheral speeds of the feeding and pressure rollers 31 and 61.

Below the work table 16 there is provided a work guiding apron 71, disposed below the drum 40 and the pressure plate 33; and this is held in position upon the rod 72 and the upper edge of a dust hopper 73, which hopper is connected through a duct 74 to a suction fan 75, the hopper, duct and fan comprising a suction system.

For practicing my invention in connection with the apparatus just described, a fur piece or pelt, such as 10, is spread upon the work table 16 when the latter is in the position shown in Figure 3, the operator spreading

the same upon this table and then bearing against the rest 21 until the table has been moved forwardly to cause the gears and pinions 68, 69, 63 and 67 to be in mesh. The locking frame 22 is then brought to the locking position by lifting the bar 28 upwardly. With thick pelts, the locking frame 22 need not be used, operation being effected by pressure of the operator's body against the bar 21. With the apparatus in this position and the motor 64 placed in rotation, one end of the pelt will be picked up by the feed roller 31 until it is squeezed between the feed roller and the pressure roll 61. At this point, the edge of the pelt is engaged by the rapidly rotating drum 40, which is disposed in contacting relation with the feed roller 31. The pelt is then fed downwardly over the feed roller 31 and is bent downwardly by the drum 40 rotating in the arrowed direction so that the brushing and heating elements 44 and 43 tangentially strike the pelt at the fold thereof, as shown in Figures 2 and 3. By brushing the pelt at the fold all of the hairs are separated and brushed and the fibres are treated clear to the roots. The rotation of the drum is such that its peripheral speed is far greater than that of the linear movement of the pelt permitted by the feed roller 31 and the pressure roll 61, so that the hairs of the pelt are submitted continuously in rapid succession, to the brushing and ironing treatment or action of the brushes 44 and the smooth surfaced ironing plates 43. Continual movement of the pelt feeds the same between the pressure plate 33 and the drum 40. The curved surface 34 of the pressure plate is so disposed as to correspond substantially to that of the peripheral surface of the drum 40 to thereby offer a uniform pressure surface back of the pelt and support the same against the rapidly rotating finishing drum and the brushing and ironing elements thereof. During this action the hopper 73 is activated by suction through the conduit 74 and the suction fan 75 to draw in dirt or loosened hairs downwardly into a suitable collector with which the fan 75 is connected. The treatment is continued for the full length of the pelt 10 and this then drops upon the apron 71 and is gathered by the operator in completely treated condition.

By the apparatus described, I may in one operation practice the method previously set forth wherein there is accomplished a combined combing, cleaning, uncurling and electrifying, and an ironing and glazing of the fur. The effect produced is far superior to mere brushing and ironing when the method is practiced by hand. The brushing and ironing in the method and apparatus of the invention is produced in rapid, successive alternations, preferably at speeds of operation greater than the time element of any tendency of the hairs to spring back to their normal position. Thus, the brushing and ironing operations are in alternate, rapid succcessions, the ironing being done while the hair is stretched by the brush and before the hair can spring back from the stretched condition. The following rapid brushing contact serves to set the hair in its uncurled condition, as well as electrify the same to the desired fluffiness by reason of the cooling action of the brush and also serves to prevent any singeing or burning of the hair, all to thereby ensure a high degree of permanency of the glazing and ironing effect, and a high efficiency and uniformity of result.

The operation as carried out serves to produce a uniform lustre and glazing effect, free from any tendency to produce uneven shades such as is due to the overheating or singeing incident to prior methods, and the operation is moreover effected to the very roots of the hairs by the tangential contact of the finishing drum with the fold of the fur. Not only is the operation suitable for purposes of obtaining a superior finished fur than that obtained by prior art methods, but the method and apparatus of the invention are suitable for procuring uniformity as well as completeness of dyeing of the furs when the fur is subjected to the operation prior to the dyeing step. When the hair of the fur is not uniformly straightened prior to dyeing, the relatively unstraightened spots will be differently affected by the dye, resulting in producing different shades and a spotted skin effect. With use of the present invention, however, the hair is straightened uniformly throughout and then when the fur is dyed a uniform shade is produced. The apparatus is therefore employable with skins both before and after the dyeing operation.

The rapidity with which the brushing and ironing steps follow each other in rapid alternations also produces an economy of operation, since the heating and brushing per unit of time is at a maximum. As will be understood, the lustre obtained depends largely upon the time of treatment, a given area gone over several times by successive heating operations producing a better lustre. If this is attempted to be accomplished by hand methods or by separated machine elements, too long a time of operation is used for the ironing step, giving rise to the undersirable possibility of singeing and overheating. With the use of the present invention, however, a given surface may be treated to a large number of heating steps with the cooling brushing steps arranged between successive heating steps, resulting, therefore, in a better finished product.

By means of the apparatus of the invention, the pelt is uniformly fed and the feeding readily controlled by pressure exerted against the pressure bar 21 or by ready operation of the locking frame 22. Pressure

against the pelt may be further and independently controlled by adjustment of the pressure plate 33. The table 16 forms a convenient work bench; and movement thereof may be effected not only to control the operating pressures (regulatable with the thicknesses of the pelts under treatment) but to govern the operation of the pelt feeding means. The machine is moreover so constructed as to permit a quick release of the table in order to prevent danger to the skins when parts become accidentally deranged. The machine may be employed with the hood open, particularly for long hair fur, and when so used the advancing movement of the work is retarded by the hands of the operator. The hood is preferably made of flexible material so as to be resilient and therefore adjustable to varying thicknesses of the fur.

In Figs. 5 and 6 of the drawings I show a modification of the invention, wherein the brushes are mounted for independent rotation on the rotating drum, and referring to these figures, the rotating durm 40′ fixed to the operated shaft 42′, which receives motion from a belt pulley 100, is provided with the alternating heating units 43′ and brushing elements 44′, the said brushing elements being, however, mounted for rotation on the rotatable cylinder 40′. Preferably, rotation to the brushes 44′ is imparted by the rotation of the pulley 100 and the operated shaft 42′, and this is accomplished by providing the shafts of the brushes 44′ with pinions 102, which mesh with a gear 103 rotatably journalled on a sleeve portion 104 of the drum 40′, and integral with said gear 103 there is provided a sprocket wheel 105 which is connected to a sprocket wheel 106 by means of a sprocket chain 107 trained over both of these sprocket wheels. The sprocket wheel 106, fixed to a shaft 108 journalled in the frame of the machine, as shown, receives motion from the shaft 42′ by means of the pulleys 109 and 110 fixed respectively on the shafts 42′ and 108 and by the belt 111 connecting these pulleys. The rotation of the various parts, due to these interconnections between the parts, is illustrated by the arrows in the figures, and by reference thereto it will be noted that the rotational motion of the brushes 44′ is in the same direction as the rotational motion of the drum 40′, and that the revolutionary speed of the brushes is greater than the revolutionary speed of the drum 43′. By this means a very intensive brushing action is produced, enhancing the results desired to be effected.

The operation of the modification shown in Figs. 5 and 6 is otherwise substantially the same as that heretofore described in connection with the form of the invention shown in Figs. 1 to 4, and the other advantages and results are similar for this modification.

It will be apparent that while I have shown and described my invention in the preferred forms, many changes and modifications may be made in the structure disclosed without departing from the spirit of the invention, defined in the following claims.

I claim:

1. In the method of treating furs, the steps which include convexly bending the fur and ironing and brushing the bent portion of the fur in continuous, alternate repeats of each other.

2. In the method of treating furs, the steps which include continuously feeding and bending the fur and rapidly ironing and brushing the bent portion of the fur in continuous alternate repeats.

3. In the method of treating furs, the steps which include bending a portion of the fur and alternately brushing and heating the fibres in continuous and successive repeats, the fibres at the bent portion being ironed while heated, and the ironing and brushing operations rapidly following each other at speeds within limits overcoming the natural tendency of the fibres to spring back to a normal, curled condition.

4. In the method of treating furs, the steps which include feeding and bending the fur and alternately brushing and ironing the fibres of the fur in continuous and successive repeats, the said brushing and heating being applied to the portion of the fur beginning with the bend in the fur, and being in the direction of the feeding movement of the fur and at a speed exceeding the speed of the fur feeding movement.

5. In a device of the character described, means for mounting a pelt or the like, a brushing member and a pressing member, means for moving said brushing and pressing members into contact with said pelt alternately in successive repeats, and means for presenting said pelt to and feeding said pelt past said brushing and pressing members.

6. In a device of the character described, means for mounting a pelt or the like, a brushing member and a pressing member, means for moving said brushing and pressing members into contact with said pelt alternately in successive repeats, and means for feeding said pelt or the like relatively to said brushing and pressing members, said fur feeding means being arranged to move the pelt at a relatively slower rate than the movement of said brushing and pressing members.

7. In a device of the character described, means for mounting a pelt or the like, a brushing member and a pressing member, means for mounting the same contiguous to each other within the limits of length of the filamentary hairs of the pelt, means for moving said brushing and pressing members into contact with said pelt alternately in succes-

sive and uniform repeats, said mounting means for said pelt including feeding means for the same to guide the pelt to a position adjacent the brushing and pressing members.

8. In a device of the character described, means for mounting a pelt or the like, brushing and ironing members arranged in close contiguity, means for moving said brushing and ironing members into contact with said pelt alternately in successive repeats, and means associated with said mounting means for feeding said pelt or the like relatively to said brushing and ironing members.

9. In a device of the character described, means for mounting a pelt or the like, brushing and ironing members arranged in close contiguity, means for moving said brushing and ironing members into contact with said pelt alternately in successive repeats, and means associated with said mounting means for feeding said pelt or the like relatively to and in the direction of movement of said brushing and ironing members and at a speed lower than the speed of movement of said brushing and ironing members.

10. In a device of the character described, means for mounting a pelt or the like, a rotatable drum having brushing and ironing members thereon arranged in alternating contiguity, means for rotating said drum relatively to said pelt so as to move the brushing and ironing members alternately in successive repeats relatively to said pelt, and means associated with said mounting means for feeding said pelt or the like relatively to said drum.

11. In a device of the character described, means for mounting a pelt or the like, a rotatable drum having brushing and ironing members thereon arranged in alternating contiguity, means for rotating said drum relatively to said pelt so as to move the brushing and ironing members alternately in successive repeats relatively to said pelt, and means associated with said mounting means for feeding said pelt or the like relatively to said drum at a speed lower than the peripheral speed of said drum.

12. In a device of the character described, means for mounting a pelt or the like comprising a bodily movable table, a brushing member and an ironing member, means for moving said brushing and ironing members relatively to a single portion of said table alternately in successive repeats.

13. In a device of the character described, means for mounting a pelt or the like comprising a bodily tiltable table, a brushing member and an ironing member, means for moving said brushing and ironing members relatively to said pelt alternately in successive and uniform repeats, said mounting means for said pelt including feeding means for the same to guide the pelt to a position adjacent the brushing and ironing members.

14. In a device of the character described, means for mounting a pelt or the like, a brushing member and an ironing member arranged contiguously to each other, means for moving said brushing and ironing members relatively to a portion of said pelt alternately in successive repeats, and means for bending said pelt and for feeding said pelt to said brushing and ironing members beginning at a bend in said pelt.

15. In a fur treating device, a work holding portion for mounting the pelt or the like, a rotatable member, means for mounting said rotatable member relatively to said work holding portion, means on said rotatable member for brushing and pressing the fur and heating means for said pressing means, means for driving said rotatable member, work feeding means on said mounting means comprising a feed roller, and a pressure roller for said feed roller, said feed roller and pressure roller having driving connection with said rotatable member.

16. In a fur treating device, a work holding portion for mounting the pelt or the like, a rotatable member, means for mounting said rotatable member relatively to said work holding portion, means on said rotatable member for brushing and pressing the fur and heating means for said pressing means, means for driving said rotatable member, work feeding means on said mounting means comprising a feed roller, a pressure roller for said feed roller, and mounting means for said pressure roller including a cover member for said rotatable member serving to enclose the same.

17. In a fur treating device, a work holding portion for mounting the pelt or the like, a rotatable member, means for mounting said rotatable member relatively to said work holding portion, means on said rotatable member for brushing and pressing the fur and heating means for said pressing means, means for driving said rotatable member, work feeding means on said mounting means comprising a feed roller, a pressure roller for said feed roller, mounting means for said pressure roller including a cover member for said rotatable member serving to enclose the same, and a suction system cooperating with said cover member.

18. In a fur treating device, a work holder including work feeding means for mounting the pelt or the like, a rotatable member mounted adjacent the work holder, means on said rotatable member for brushing and pressing the fur and heating means for said pressing means, means for movably mounting said work holder to move the same bodily towards said rotatable member and a pressure bar for the body of the operator to urge the work holder in position towards said rotatable member.

19. In a fur treating device, a work holder

for mounting the pelt or the like, a rotatable member mounted adjacent the work holder, a pressure plate adjacent said work holder, means for adjusting the pressure plate relatively to said rotatable member, means on said rotatable member for brushing and pressing the fur and heating means for said pressing means, means for movably mounting said work holder to move the same bodily towards said rotatable member and a pressure bar for the body of the operator to urge the work holder in position towards said rotatable member.

20. In a fur treating device, a work holder including work feeding means for mounting the pelt or the like, a rotatable member mounted adjacent the work holder, means on said rotatable member for brushing and pressing the fur and heating means for said pressing means, and means movable by the body of the operator for moving the work holder bodily towards said rotatable member.

21. In a fur treating device, a work holder for mounting the pelt or the like, a rotatable member mounted adjacent the work holder, means on said rotatable member for brushing and pressing the fur and heating means for said pressing means, means movable by the body of the operator for moving the work holder bodily towards said rotatable member, and a locking means for said work holder.

22. In a fur treating device, a work holder for mounting the pelt or the like, a rotatable member, a pressure plate adjacent said work holder, and means for adjusting the pressure plate relatively to the rotatable member, means on said rotatable member for brushing and pressing the fur and heating means for said pressing means, means for movably mounting said work holder to move the same bodily towards said rotatable member, and locking and unlocking means for said movable work holder.

23. In a fur treating machine including work feeding means, a work holder, a rotatable drum including brushing and ironing members arranged in alternating contiguity, means for rotating said drum relatively to the work holder, and means for movably mounting the work holder and work feeding means to move the same bodily to and from the drum.

24. In a fur treating machine, a work holder, a rotatable drum including brushing and ironing members arranged in alternating contiguity, means for rotating said drum relatively to the work holder, means for movably mounting the work holder to move the same bodily to and from the drum, and a locking means for said movable work holder.

25. In a fur treating machine, a work holder, a rotatable drum including brushing and ironing members arranged in alternating contiguity, means for rotating said drum relatively to the work holder, means for feeding the fur from said work holder to said drum, and means for movably mounting the work holder to move the same bodily to and from the drum.

26. In a fur treating machine, a work holder, a rotatable drum including brushing and ironing members arranged in alternating contiguity, means for rotating said drum relatively to the work holder, means for movably mounting the work holder to move the same bodily to and from the drum, and means movable by the body of the operator for effecting the bodily movement of said work holder.

27. In the combination of claim 23, an adjustable pressure plate on said work holder adjustable relatively to said drum.

28. In the combination of claim 23, a movable cover for said drum and a suction system associated with said cover.

29. In the combination of claim 23, feeding means for the fur comprising a feed roller on said work holder, a presser roller associated therewith, and means to drive the feed roller.

30. In the combination of claim 23, a cover for said drum and feeding means for the fur comprising a feed roller on said work holder and a presser roller on said cover.

31. In a device of the character described, a rotatable drum including brushing and ironing members arranged in alternating contiguity, and means for rotatably mounting said brushes on said drum.

32. In a fur treating machine, a work holder, a rotatable drum including brushing and ironing members arranged in alternating contiguity, means for rotating said drum relatively to the work holder, the said brushes being rotatably mounted on said drum, and means for rotating said brushes on said drum.

33. In the fur treating machine of claim 32, mechanism for connecting the drum rotating means and the brush rotating means whereby the brushes are rotated by the rotation of the drum, and in the same rotational direction at a speed substantially larger than the speed of rotation of the drum.

Signed at New York, in the county of New York and State of New York, this 20th day of January, A. D. 1929.

SAMUEL FRIEDMAN.