

(No Model.)

2 Sheets—Sheet 1.

A. HEDBAVNY & A. H. FIALA.

MACHINE FOR REMOVING THE WATER HAIRS FROM PELTS.

No. 505,104.

Patented Sept. 19, 1893.

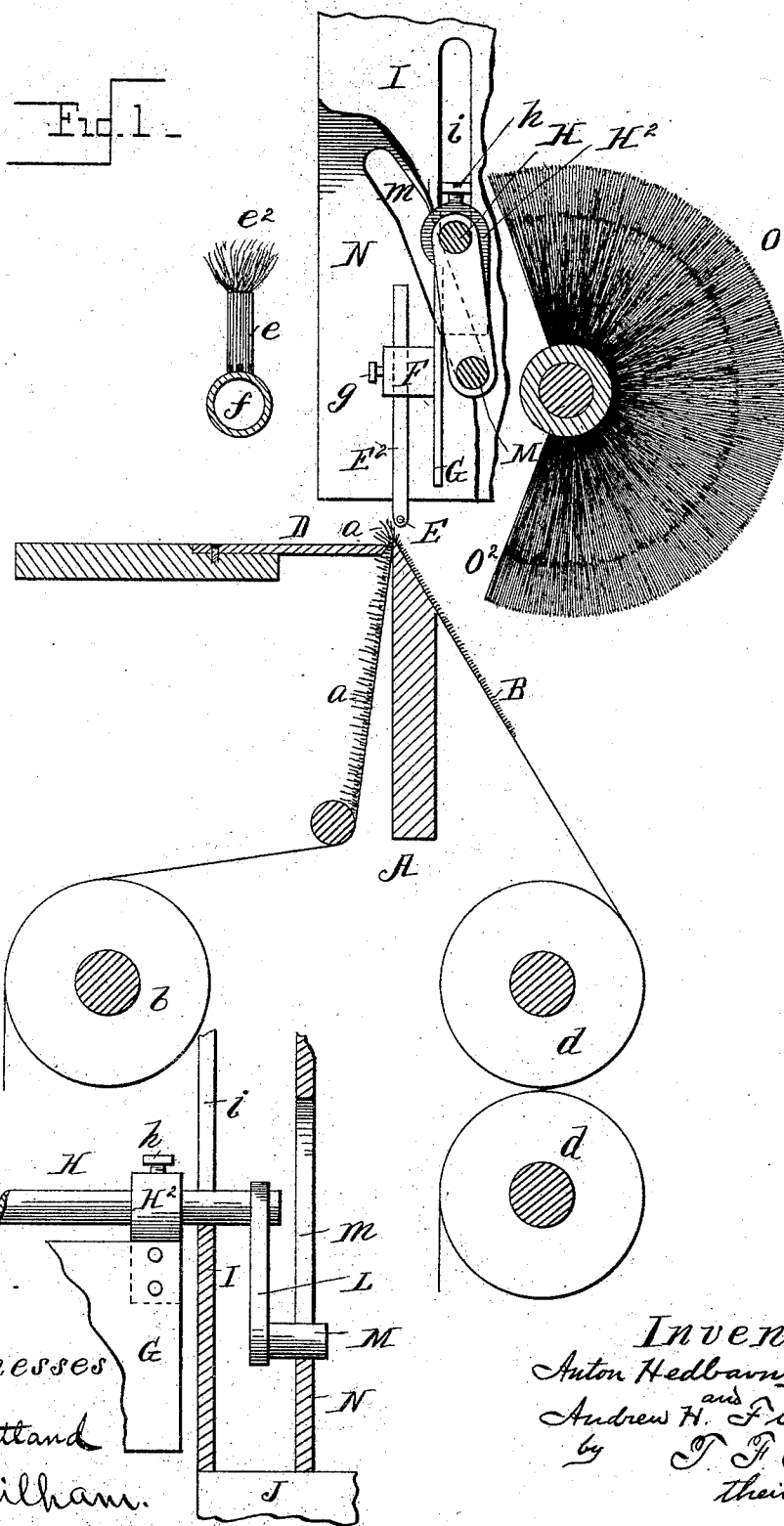


Fig. 2.

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(No Model.)

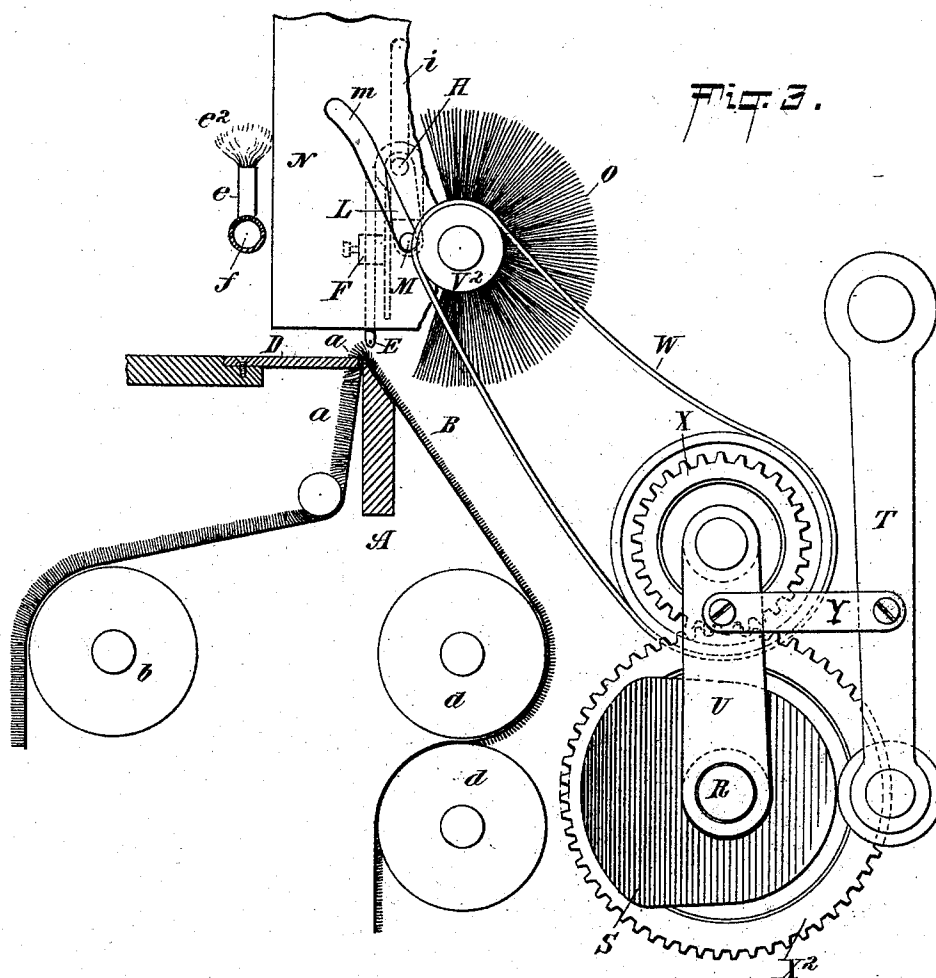
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UNITED STATES PATENT OFFICE.

ANTON HEDBAVNY AND ANDREW H. FIALA, OF NEW YORK, N. Y.

MACHINE FOR REMOVING THE WATER-HAIRS FROM PELTS.

SPECIFICATION forming part of Letters Patent No. 505,104, dated September 19, 1893.

Application filed October 10, 1891. Renewed February 15, 1893. Serial No. 462,502. (No model.)

To all whom it may concern:

Be it known that we, ANTON HEDBAVNY and ANDREW H. FIALA, citizens of the United States, and residents of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Machines for Removing the Water-Hairs from Pelts, of which the following is a specification.

The object of our invention is to provide improved means for removing the water hairs from pelts, &c., without injuring the fur.

The invention consists in the novel details of improvement and the combination of parts that will be more fully hereinafter set forth and then pointed out in the claims.

Reference is to be had to the accompanying drawings, wherein—

Figure 1 is a partly sectional side elevation of a portion of a pelt unhairing machine embodying our improvements. Fig. 2 is a sectional detail front view of a portion thereof, and Fig. 3 is a partly sectional side elevation showing means to give intermittent rotary motion to the brush O.

In the accompanying drawings the letter A, indicates a knife-edged bar to be carried in a suitable framework (not shown) over which bar A, the pelts B are drawn at a sharp angle, to cause the waterhairs to project outwardly into position to be removed. The pelts B may be basted upon a suitable belt or the like so that they may be drawn from a roller *b*, over the bar B and between intermittently moving feed rollers *d*, *d'* that may be suitably supported in the machine and suitably driven.

D is a comb or the like, suitably held in the machine and arranged close to the knife-edged bar B, so as to hold back the fur or wool, but permit certain of the hairs *a* to project outwardly above the angle of the bar B as shown, as the hairs reach said bar.

E is a wire or rod adapted to be heated to a sufficient degree to burn or singe off the water-hairs *a*. The wire or rod E is heated to the desired degree by a gas flame or flames shown rising from a burner *e* (of the Bunsen class) on a gas pipe *f*. There will be a sufficient number of burners *e*, to extend the length of the wire E. The wire or rod E is supported by uprights E², one at each end,

(which uprights may be part of the wire or rod E.) These uprights are preferably carried in brackets F, on a plate G, set screws *g*, permitting vertical adjustment of the wire or rod E, so that its nearness to the pelt B can be regulated. The wire or rod E is to be raised into the flame *e*² to be heated and then lowered to burn the hairs *a*, and for this purpose we have provided the following arrangement. The plate G is supported on a bar H, preferably by hangers H², that are hung on the bar H and secured to the plate G, (see Fig. 2.)

h are set screws in the hangers H² to hold the latter rigidly on the bar H, while also permitting lateral adjustment of the plate G and wire E, so that the latter can be brought into proper position to engage the hairs *a*. The bar H, is to have vertical (or lateral) movement to raise or lower the wire E, and for this purpose it is guided near its ends in slots *i* in plates or bars I carried by the frame J (see Fig. 2). The bar H may be moved laterally by any suitable means. To give the plate G, lateral motion so as to carry the wire E into the flame *e*² the bar H carries arms L having side projections M, that enter inclined slots *m* on plates or bars N carried at the sides of the frame J, parallel to the plates I (see Fig. 2). The slots *m* incline inwardly or toward the frame *e*² so that as the bar H is raised the projections M in passing through the slots *m* will cause the bar H to turn, thereby moving the plate G, and wire or rod E, laterally, until the latter enters the flame *e*². As the rod H, is lowered the wire E will be drawn away from the flame and lowered to burn the hairs *a*.

O, is a brush adapted to rotate to brush the fur down to permit the water hairs to project up. The brush O is circular in general outline, but is cut away on one side, so as to allow of the up and down movement of the wire E, plate G, and connected parts. By this means the brush can be brought close enough to the pelt to properly brush it, without danger of being burned by the heated wire E. The brush O, has an intermittent rotary motion, that is to say, while the wire E is being heated in the flames *e*², the brush is rotated several times to brush the pelt, &c.; it then comes to rest with the cut away part or opening O² opposite the gas burner as shown; the

wire E and plate G are then lowered to burn off the hairs and after they again rise to again heat the wire E, the brush rotates, and so on each time the wire E is lowered to burn the hairs and rises to be heated. The brush O may be driven, with its desired stoppages, by any desired and suitable means. One such means is shown in Fig. 3, in which R is a shaft to be rotated by suitable means.

S is a cam on said shaft and adapted to actuate or rock a lever T suitably pivoted in the frame of the machine. The shaft R also carries a rocker arm U, that carries a pulley V, from which a belt passes to a pulley V², connected with the brush O, for turning the latter. The pulley V is or may be driven by a toothed wheel X connected with it and meshing with a corresponding wheel X², carried by the shaft R.

Y is a link connecting the lever T with the rocker arm U. With this arrangement the cam S will press the lever T outward to cause the latter to draw on the arm U and move the pulley V outward to tighten the belt W, and thus impart motion to the pulley V² and brush O. When the cam S presents its narrow side to the lever T the latter will return and thus carry back the pulley V to loosen the belt W to stop the brush O. The movement of the parts will be so timed that the belt W will be slackened to stop the brush when the cut-away part O² is opposite the part D. As the pulley V rotates continuously the proper starting of the brush is insured although its rotary motion is intermittent.

It will be understood that the length of the brush O, corresponds to the length of the wire E so as to brush the pelt through its width.

Our improvements will be found very effective in use, perfect in operation and not liable to get out of order. The hairs can be quickly, evenly, and properly removed from the pelts and danger of burning the fur is prevented.

Having now described our invention, what we claim is—

1. The combination with a gas burner to produce flame and means substantially as described to guide pelts, of a hair burning wire,

and means substantially as described for moving said wire into the flame rising from said burner, and for applying the wire to the hairs to be burned, substantially as described.

2. A hair burning wire, a gas burner for heating it by the flame rising from the burner, and means substantially as described to guide pelts, combined with an intermittent rotary brush having an opening or cavity on one side, substantially as described.

3. A gas burner for producing a flame and means substantially as described to guide pelts, combined with a hair burning wire, means substantially as described to move the latter vertically into and from the hairs and means to move the wire laterally into and from the flame, substantially as described.

4. A gas burner to produce flame and means substantially as described to guide pelts combined with a hair burning wire E its support G, laterally movable bar H carrying the same and means substantially as described for turning said bar to move the wire E laterally into and from the flame, substantially as described.

5. A gas burner to produce flame and means substantially as described to guide pelts combined with a hair burning wire, its support G, laterally movable bar H carrying it, arm L on said bar, projections M and plate or bar N having slot *m* to guide the projection M, to move the wire E laterally, substantially as described.

6. The combination of a gas burner to produce flame and means substantially as described to guide pelts, hair burning wire E, its support G, hangers H², laterally movable bar H carrying them, set screws *h*, slotted guide I, arm L, projection M and slotted guide N receiving the latter substantially as described.

Signed at New York, in the county of New York and State of New York, this 7th day of October, A. D. 1891.

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Witnesses:

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