

S. D. CASTLE.
Finishing Pelts.

No. 213,737.

Patented April 1, 1879.

Fig. 1.

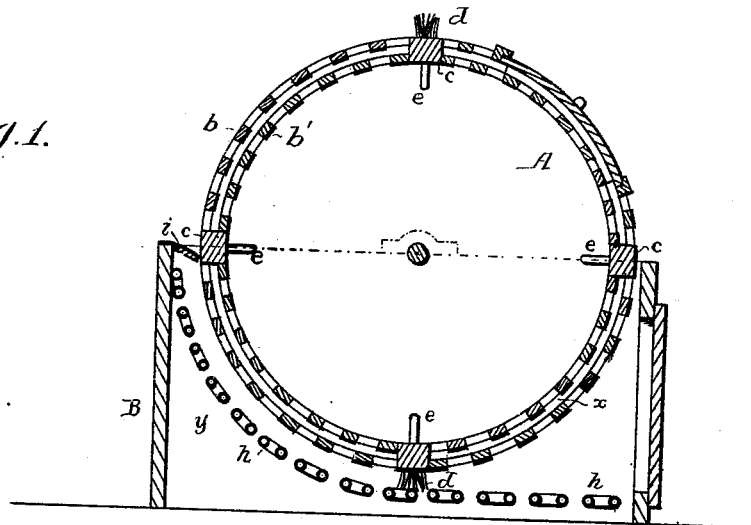
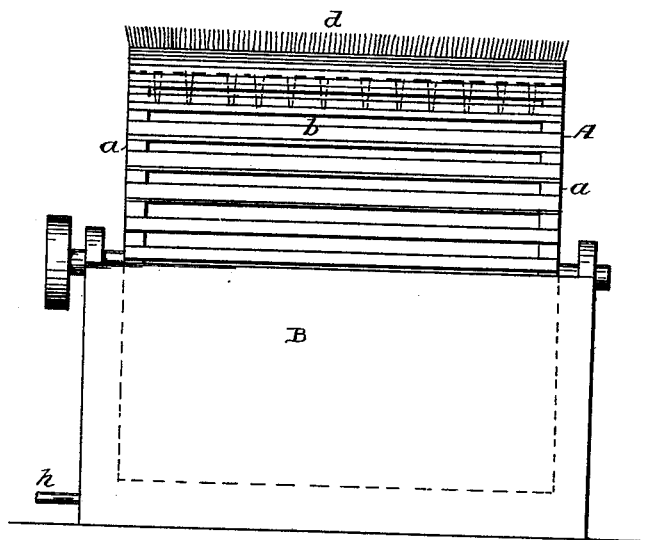


Fig. 2.



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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN FINISHING PELTS.

Specification forming part of Letters Patent No. **213,737**, dated April 1, 1879; application filed February 24, 1879.

To all whom it may concern:

Be it known that I, SAMUEL D. CASTLE, of Bridgeport, Fairfield county, Connecticut, have invented Improvements in Finishing-Pelts, of which the following is a specification:

My invention consists in an improved mode of finishing pelts or hides having the hair, whereby a glossy and finished appearance is imparted to the hair, while the expense and injury to the articles resulting from ordinary modes of treatment are avoided.

In the drawings, forming a part of this specification, Figure 1 is a sectional elevation of apparatus used in carrying out my improved process, and Fig. 2 an end view.

The ordinary mode of treating pelts, after the hides have been scraped and dampened, is to place them in a close tumbling-box with bran, and rotate the box until the bran has absorbed the moisture. This treatment is objectionable, as the bran is expensive, costing in large establishments several thousand dollars yearly, the pelts are dried but slowly, the bran is difficult to remove from the hair, and the gloss of the latter is impaired.

My improved process consists in opening and agitating the pelts, while subjected to heat and a constant change of atmosphere.

While various apparatus may be employed for this purpose, I have found that illustrated in the drawings to be most effective.

A is a cylindrical tumbling-box or cylinder consisting of circular sides *a* and two series of slats, *b b'*, arranged to leave an intervening annular chamber, *x*. From cross-bars *c*, connecting the end disks *a*, extend blunt pins *e*, and from the outer faces of one or more of said bars extends a brush, *d*, for a purpose described hereinafter.

The cylinder revolves with its lower half extending into the chamber *y*, inclosed by a rectangular casing, B, and within the latter is arranged a series of pipes, *h*, through which is maintained a constant current of steam or hot air, or the chamber is otherwise heated.

A loose flap, *i*, closes the space between the side of the case B and the adjacent face of the cylinder A, but will yield when struck by the brush *d*, as the cylinder revolves in the direction of its arrow. The damp pelts are folded and introduced into the cylinder through an opening in the periphery, to which is fitted a door, G, and the cylinder is then rotated.

As the pins *e* catch beneath and upon the pelts, the latter are raised at one side of the cylinder, opened, thrown toward the opposite side, and rubbed together, while heated directly by radiation from the pipes *h*, and by the heated air which passes into the channel *x* penetrates among the hides, and passes outward from the same through the upper portion of the cylinder. The constant current of warm air raises and separates the hairs upon the pelts and carries off the moisture therefrom. The motion of the cylinder subjects every portion to the action of the air or heat, while the attrition of one pelt upon the other polishes the hair and imparts to it a gloss and finish which it would not otherwise have.

The dirt which is disengaged by the above operations escapes from the pelts between the slats of the cylinder, and is prevented from covering the heating-pipes by the brush or brushes *d*, which sweep and maintain the pipes in a clean condition.

I have found that while the pelts are thus quickly dried and thoroughly cleaned and finished, the hair is in nowise torn or broken by the operation, but is, on the contrary, softened and polished.

I claim—

1. The improvement described in finishing pelts, the same consisting in agitating the damp pelts, and simultaneously subjecting them to the action of currents of heated air, substantially as set forth.

2. The combination of the cylinder A, its double row of slats *bb'*, and intervening chamber *x*, and pins *e*, and the case B, surrounding the lower portion of the cylinder and heated, substantially as specified.

3. The combination of the slatted cylinder A, revolving in the case B, and appliances for heating the air within said case, for the purpose set forth.

4. The combination, with the case B and pipes *h*, of the revolving cylinder A, provided with one or more brushes, for the purpose described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SAMUEL D. CASTLE.

Witnesses:

H. E. BOWSER,
AMOS FULLER.