S. M. BALL.

Machines for Separating Fur from Pelts and Hides.

No. 198,558. Patented Dec. 25, 1877.

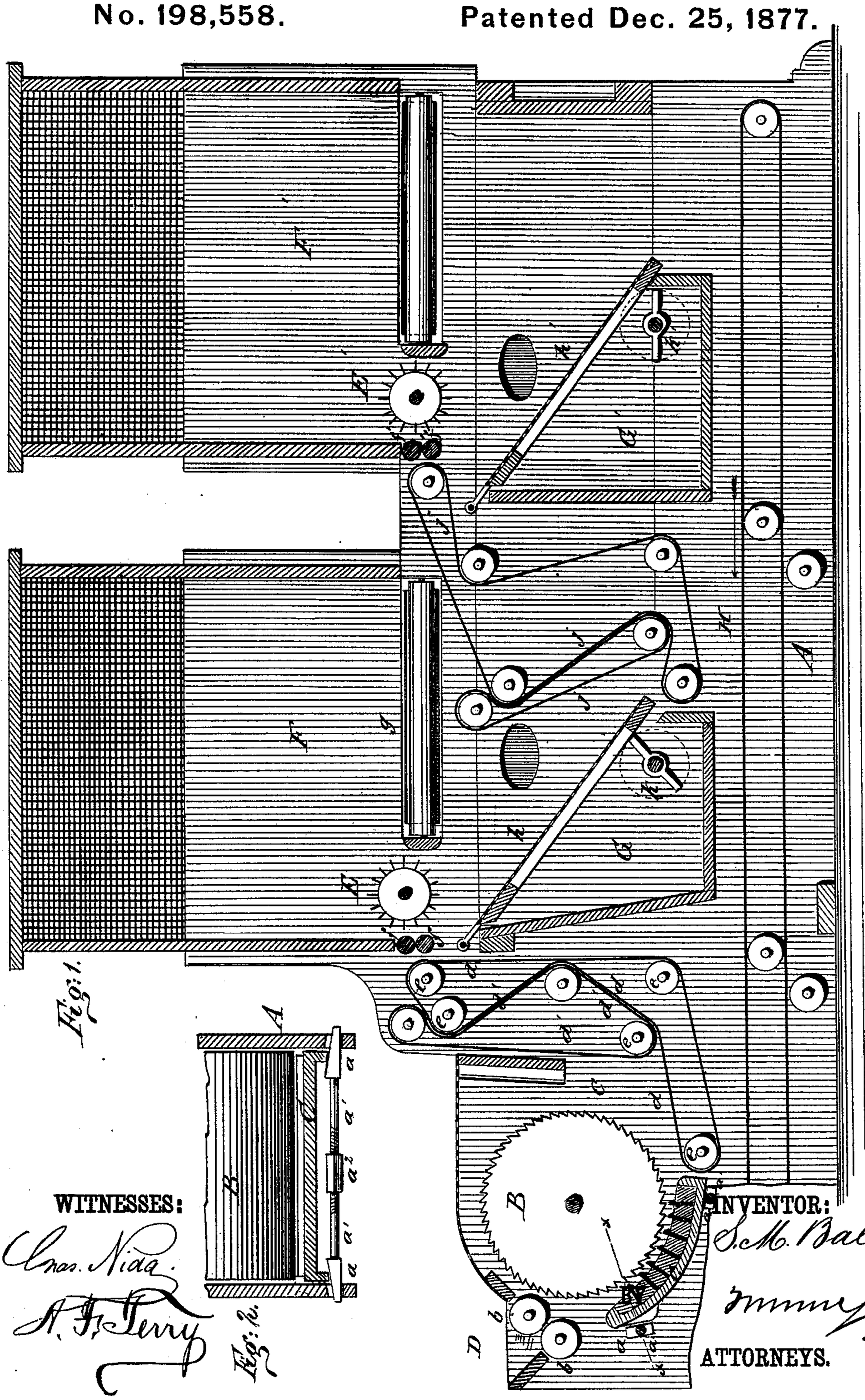

Fig: 1.

Fig: 2.

WITNESSES:

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SAMUEL M. BALL, OF FANWOOD, NEW JERSEY.

IMPROVEMENT IN MACHINES FOR SEPARATING FUR FROM PELTS AND HIDES.

Specification forming part of Letters Patent No. **198,558,** dated December 25, 1877; application filed May 26, 1877.

To all whom it may concern:

Be it known that I, SAMUEL M. BALL, of Fanwood, in the county of Union and State of New Jersey, have invented a new and Improved Machine for Separating Fur from Pelts and Hides, of which the following is a specification:

This invention relates to machines for separating fur from pelts and hides; and the nature of my invention consists, first, in the employment of wedges, adjustable as hereinafter explained, for the purpose of keeping the concave in proper position with relation to the cylinder, the shaft of which is applied in immovable boxes; second, in endless aprons arranged between the cylinder and picker, and adapted for compressing the material and delivering it to the picker without liability of bunching before the fluted feed-rollers thereof, as will be hereinafter explained; third, in the arrangement of a pelt-sieve directly beneath the picker-drum and fur-receiver, and an endless discharging-apron, as will be hereinafter explained.

In the annexed drawings, Figure 1 is a section taken in a vertical plane through the improved machine. Fig. 2 is a section showing the wedges for adjusting the concave.

Similar letters of reference indicate corresponding parts.

The letter A designates the frame of the machine, and B a chopping-cylinder, the shaft of which is mounted in fixed boxes. Beneath this cylinder is a concave, C, armed with cutting-blades, and supported by wedges *a a* at its four corners, which enter recesses made in the cheeks of the frame A, and are constructed with stems a^1, connected together by turnbuckles a^2. (Shown in Fig. 2.)

The wedges afford solid bearings to the concave, and allow me to adjust it and keep its surface exactly parallel to the periphery of the cylinder B.

Above the mouth of the concave C are two feed-rollers, *b b*, and a hopper, D, and above the cylinder B is a wire-gauze cloth, which prevents the escape of flying fur from a chamber, *c*. This chamber has for its bottom an endless apron, *d*, which is carried over rollers *e*, and used, in combination with another endless apron, *d′*, for carrying off the loose material, compressing it, and delivering it in a compressed sheet between two fluted feed-rollers, *f f*.

By compressing the material between the two aprons *d d′*, it is prevented from bunching in front of the feed-rollers; consequently there will be an even feed.

E designates a cylinder, which is armed with teeth and denominated the "picker." This picker receives rapid rotation, and separates much of the fur from the skin, which fur is thrown up in a cloud inside of a receptacle, F, covered with wire-gauze, and falls upon a transverse endless apron, *g*, which carries it out of the machine. The undepilated pieces of hide fall from the picker E upon an inclined screen, *h*, and the finest portions pass through, while the coarsest pieces are delivered between two endless aprons, *j j*.

The inclined separating-screen *h* forms the top of a chamber, G, and this screen is shaken by suitable knockers *k*. The pelts, after leaving the screen *h*, are carried up, compressed, and delivered between feed-rollers *f′ f′* by means of the endless aprons *j j*, which rollers feed the pelts to a picker, E′, arranged in a receptacle, F′, over a screen, *h′*.

The unhaired pelts which fall from screen *h′* are received upon a return-apron, H, which carries them back to the front of the machine to be re-treated.

I have shown only two pickers and screen-separators; but these may be repeated as often as desired, and the unhaired pieces carried back by the endless apron above described. Each fur-receptacle will be provided with a transversely-arranged apron for discharging the fur.

By my arrangement of sieves, in combination with carrying-aprons, the pieces of hide fall from the pickers directly upon the separating-screens, and those portions of the hide which do not pass through the first screen are carried to the next screen. I thus make a very compact machine, and at the same time a simple and cheap one.

Having thus described my invention, I claim

as new and desire to secure by Letters Patent—

1. Wedges *a a*, provided with adjusting devices, in combination with the concave C and chopping-cylinder B, arranged as and for the purposes specified.

2. The combination, with chopper B C, of the aprons *d d'*, picker E, sieve *h*, endless aprons *j j*, picker E', and sieve *h'*, all arranged substantially as shown and described.

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Witnesses:

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