(No Model.) 2 Sheets—Sheet 1.

J. HODSKINSON.

LEATHER SCRAPING MACHINE.

No. 382,262. Patented May 1, 1888.

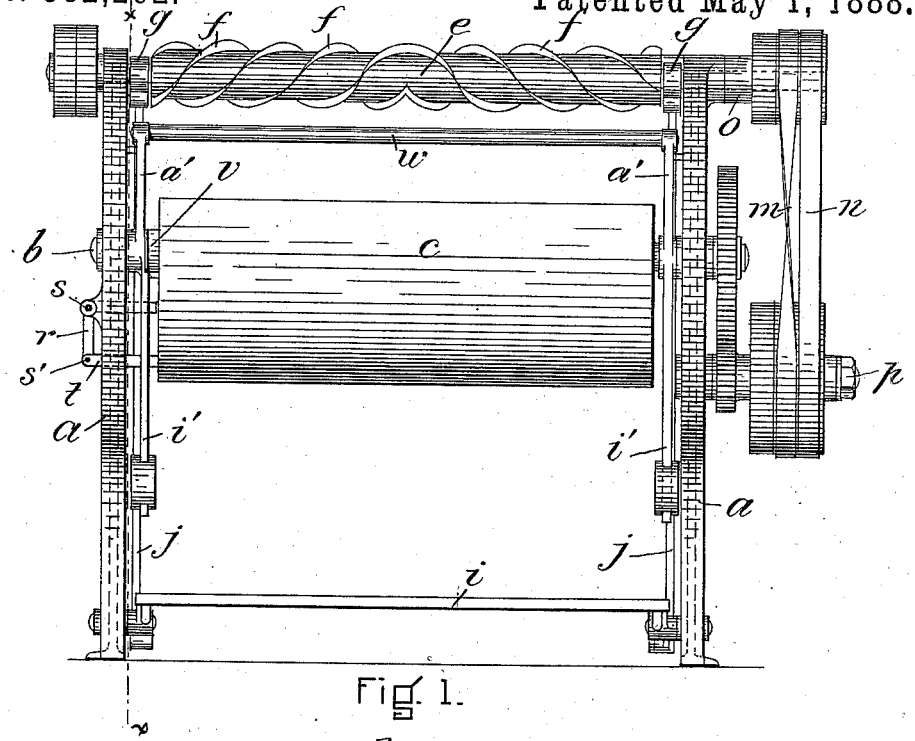

Fig. 1.

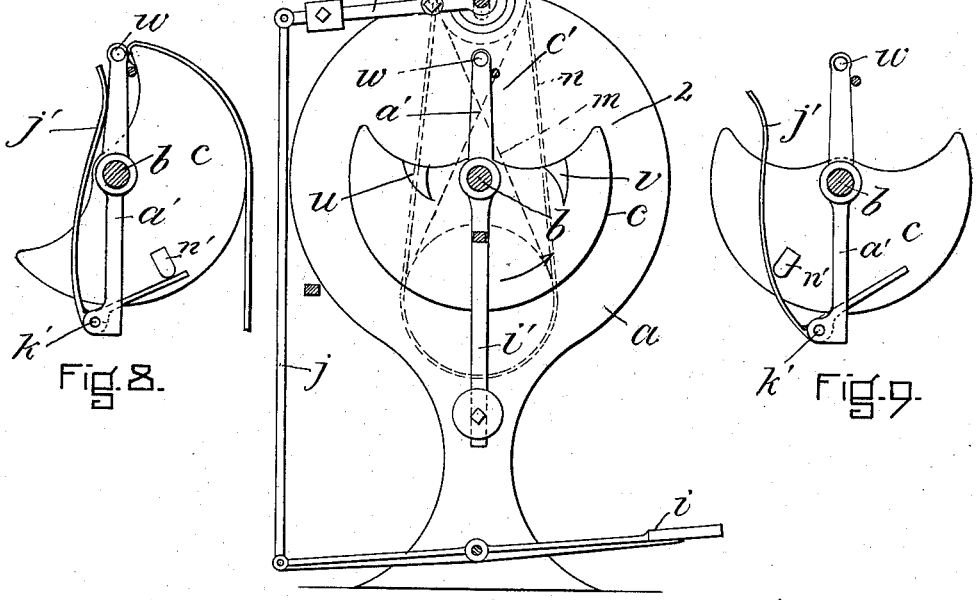

Fig. 8. Fig. 2. Fig. 9.

WITNESSES.

Chas. Spaulding.

Charles E. Moss.

INVENTOR.

J. Hodskinson.

by Wright Brown Quinby & Attys.

N. PETERS, Photo-Lithographer, Washington, D. C.

(No Model.) 2 Sheets—Sheet 2.

J. HODSKINSON.

LEATHER SCRAPING MACHINE.

No. 382,262. Patented May 1, 1888.

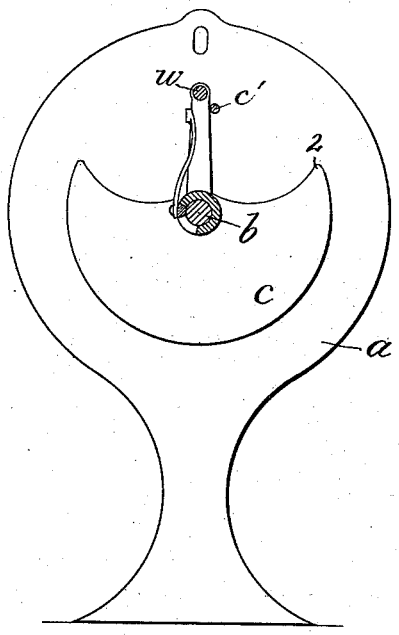

Fig. 3.

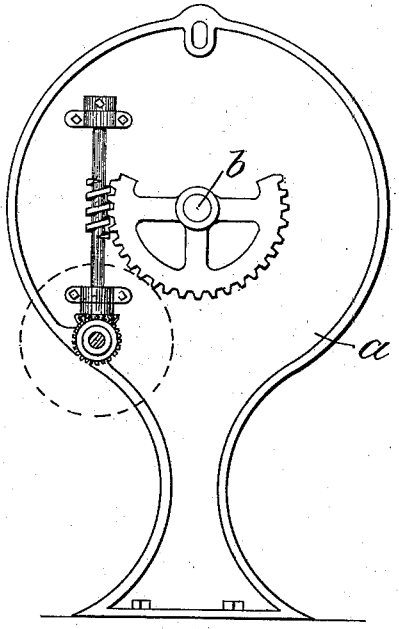

Fig. 4.

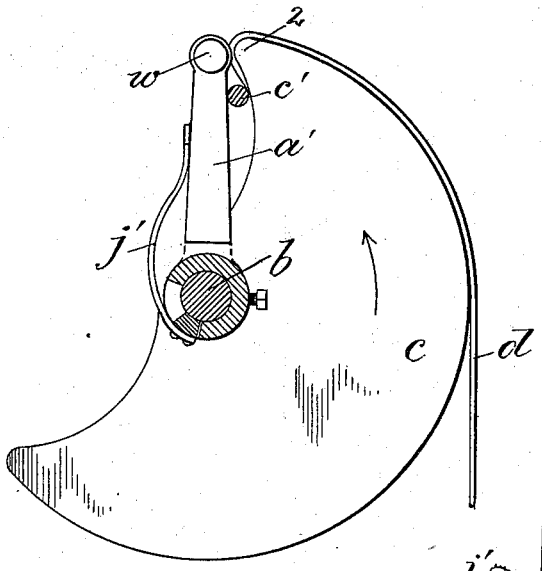

Fig. 5

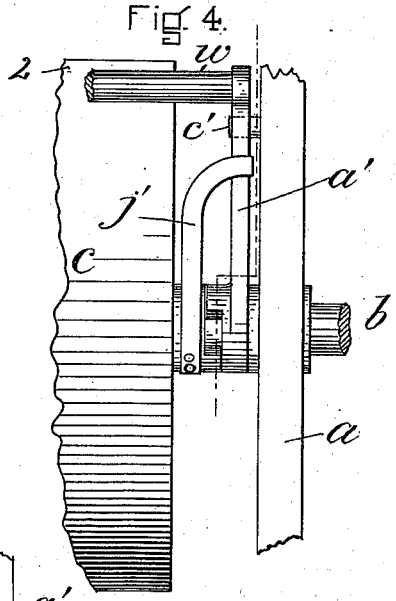

Fig. 6.

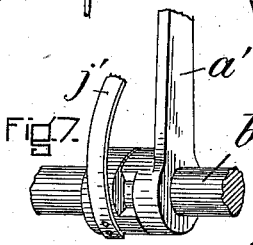

Fig. 7.

WITNESSES.

Chas. Spaulding.

Charles E. Moss.

INVENTOR.

J. Hodskinson

by Wright Brown Quinby & Otley.

Attys.

UNITED STATES PATENT OFFICE.

JABEZ HODSKINSON, OF SALEM, ASSIGNOR OF ONE-HALF TO CHARLES F. BROWN, OF READING, MASSACHUSETTS.

LEATHER-SCRAPING MACHINE.

SPECIFICATION forming part of Letters Patent No. 382,262, dated May 1, 1888.

Application filed March 2, 1888. Serial No. 265,964. (No model.)

To all whom it may concern:

Be it known that I, JABEZ HODSKINSON, of Salem, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Leather-Scraping Machines, of which the following is a specification.

This invention has for its object to provide improved means for removing hair from skins preparatory to tanning the latter; and it consists, as a whole, in the combination of an oscillating segmental cylinder adapted to support a skin, a clamp adapted to bear against one edge of said cylinder to hold one edge or end of a skin laid thereon, and provided with a yielding movement whereby said clamp is enabled to oscillate with the cylinder, and a rotary scraper adapted to be lowered to and raised from the cylinder and to act on the skin while the latter is being moved by the cylinder.

The invention also consists in certain details of construction, all of which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a front elevation of a machine embodying my invention. Fig. 2 represents a section on line *x x*, Fig. 1, looking toward the right. Figs. 3, 4, 5, 6, 7, 8, and 9 represent detail views, hereinafter referred to.

The same letters of reference indicate the same parts in all the figures.

In the drawings, *a* represents the supporting-frame, having bearings in which is journaled a shaft, *b*.

c represents a bed which is a segment of a cylinder rigidly attached to said shaft, the segmental surface of said bed being formed to support a skin, *d*, to be scraped. The bed is oscillated by any suitable means to carry the skin forward and back under a scraping-roll, *e*, which is provided with spiral scraping-blades *f*, and is normally supported above the bed by weighted levers *g*, pivoted at *h* to the frame *a*, said levers supporting the scraping-roll and permitting it to be depressed to bear on a skin on the segmental bed. A treadle, *i*, and connecting-rods *j j* are provided, whereby the operator may depress the scraping-roll and cause it to bear on the skin, the weighted levers raising the roll above the bed when the treadle is released, so that the operator can press the roll down upon the skin while the bed is moving in one direction, and release said roll, so that it will not touch the skin, when the latter is moving in the opposite direction. The bed is oscillated by means of two belts, *m n*, one straight and the other crossed, running from fast and loose pulleys on a driving-shaft, *o*, to fast and loose pulleys on the shaft *p*, which is geared to the shaft *b* of the bed. A suitable belt-shipper operated by the oscillating movements of the bed changes the relation of the belts after the bed has rotated in one direction to a given point and reverses the direction of its rotation.

I have here shown as the mechanism to operate the belt-shipper a bell-crank lever, *r*, pivoted at *s* to the frame *a*, and having one of its arms pivoted at *s'* to a shipper-bar, *t*, which is engaged in the usual manner with the belts *m n*. The other arm of said lever is arranged to be acted on by two cams, *u v*, on one end of the cylinder. The cam *u* strikes said arm and turns the lever and moves the shipper-bar in one direction, and the cam *v* strikes said arm and moves the shipper-bar in the opposite direction. Any other suitable reversing mechanism may be employed without departing from the spirit of my invention.

w represents a clamping-bar attached to arms *a' a'*, which are adapted to oscillate on the shaft *b*. Said bar normally stands over the center of the bed *c*, and is arranged to bear against the edge 2 of said bed when the latter is rotated in the direction indicated by the arrow in Figs. 2 and 5, and thus clamp the end of a skin *d* against said edge, as shown in Fig. 5.

The clamp is enabled by its pivoted arms *a'* to yield and move with the bed in the direction indicated, and therefore holds the skin during the completion of said movement and until in the course of the opposite movement the clamp reaches its normal position, where it is arrested by a stop, *c'*, and is thus caused to release the skin, the bed continuing to rotate until it reaches its lowest position. (Shown in Figs. 1, 2, and 3.)

The operation of the machine is as follows: The bed being in the position shown in Fig. 2, the operator lays the end of a skin *d* over the

edge 2 of the bed *c* and sets the latter in motion in the direction indicated in Figs. 2 and 5. The edge of the bed reaches the yielding clamp just before the supporting-surface of the bed reaches the scraping-roll. After the skin is grasped between the clamp and the edge 2 of the bed the operator depresses the scraping-roll and holds it upon the skin. The roll is rotated in a direction opposite to the direction of rotation of the cylinder, (indicated in Figs. 2 and 5,) and its spiral blades remove the hair from the skin during said movement of the cylinder. The scraping-roll is released by the operator just before the rotation of the bed is reversed, so that during said backward rotation the scraping-roll is lifted above the skin. The clamp is arrested before the bed completes its backward movement. It will be seen, therefore, that the skin is automatically clamped and released, the operator having only to throw one end of it over the edge of the bed, as described, to effect its engagement, and having nothing to do to effect its release.

The clamp may be pressed against the edge of the bed by weighted arms *i' i'*, as shown in Figs. 1 and 2, or by springs *j'*, as shown in Figs. 3, 5, 6, 7, 8, and 9. In Figs. 3, 5, 6, and 7 the springs *j'* are shown as attached to the shaft *b*, while in Figs. 8 and 9 the springs are pivoted at *k'* to the arms *a'*, and are formed with short levers *m'*, which are acted on by cams *n'* on the ends of the bed *c*, said cams pressing the springs against the arms *a'* only when the clamp bears against the edge 2 of the bed.

This machine may be used either for unhairing skins or for scraping and "setting out" skins and leather. It is particularly useful in the operations of scraping grease and other foreign matter from leather, and for smoothing and stretching sheep and other skins.

I claim—

1. The combination herein described of the segmental bed, mechanism for oscillating it, the clamp adapted to oscillate and arranged to co-operate with one edge of the bed in holding a skin, means for holding the bar against the edge of the bed, and a scraper adapted to act on a skin supported by the bed, as set forth.

2. The combination herein described of the segmental bed, means for oscillating it, the rotary scraping-roll movable toward and from the bed, means for raising and depressing said roll, the clamp adapted to oscillate and arranged to co-operate with one edge of the bed in holding a skin, and means for imparting a yielding pressure to said clamp when it is in operation, as set forth.

3. The combination of the segmental bed, the clamp, the springs pivoted to the arms of the clamp and provided with levers *m'*, and the cams *n'* on the ends of the bed, whereby said springs are pressed against the clamp while the clamp and bed are holding a skin and released when the clamp is separated from the bed, as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 27th day of February, A. D. 1888.

JABEZ HODSKINSON.

Witnesses:

HENRY M. MEEK,

EDWIN W. SHANNON.