

(No Model.)

2 Sheets—Sheet 1.

R. N. DUNN.
MACHINE FOR TREATING SKINS.

No. 579,141.

Patented Mar. 23, 1897.

fig. 1.

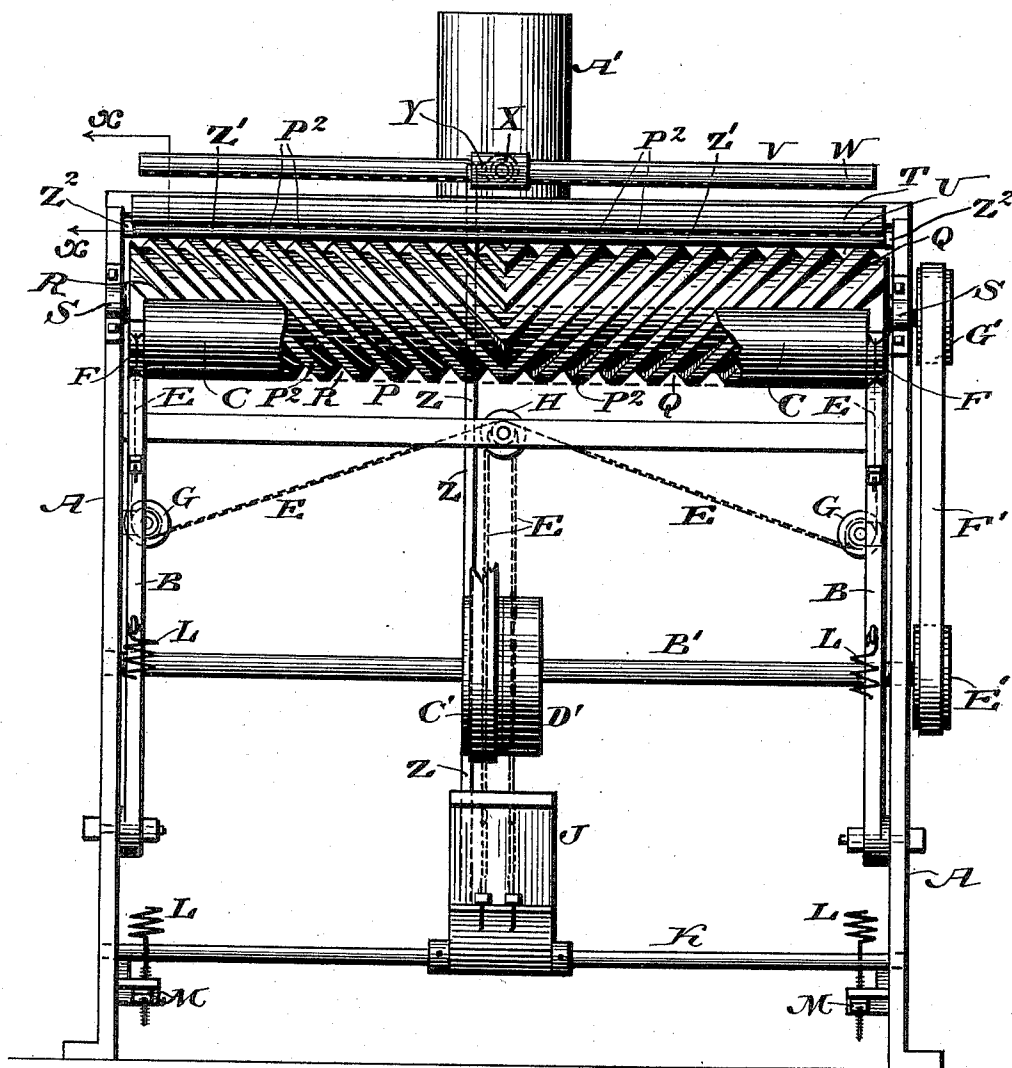
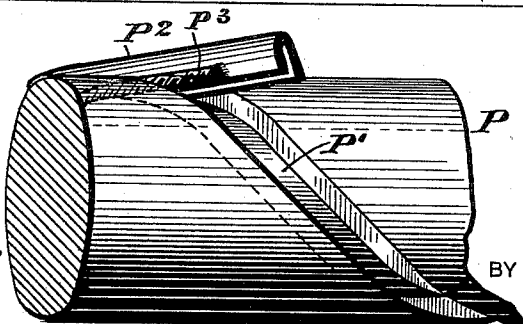


Fig. 4.

WITNESSES:

L. Douville,
P. F. Hagler.



INVENTOR

Robert N. Dunn
BY *Edward J. Schenck*

ATTORNEY.

(No Model.)

2 Sheets—Sheet 2.

R. N. DUNN.
MACHINE FOR TREATING SKINS.

No. 579,141.

Patented Mar. 23, 1897.

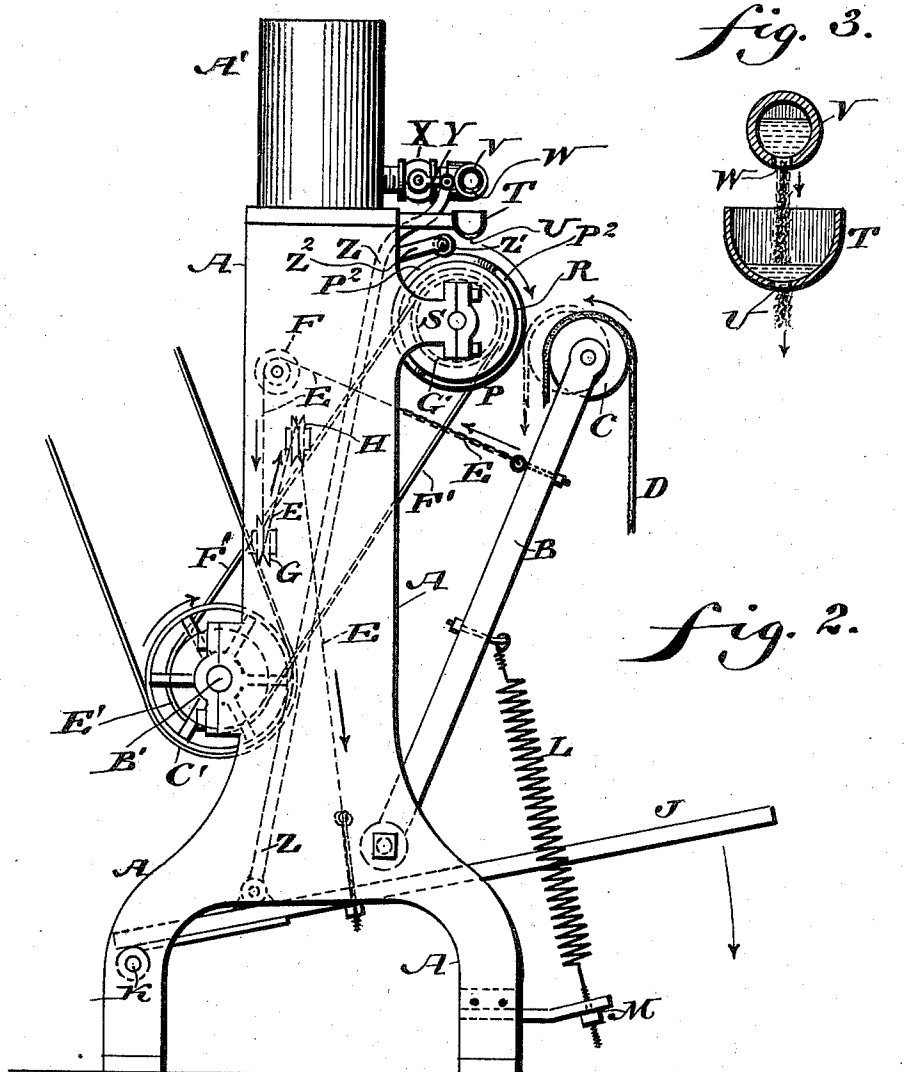


Fig. 3.

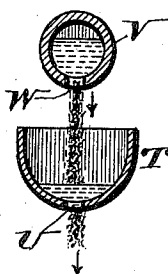
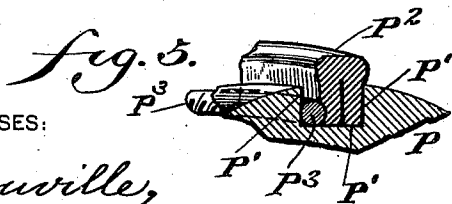


Fig. 2.



WITNESSES:

L. Douville,
P. H. Chagler.

INVENTOR

Robert N. Dunn
BY *John A. Siedentopf*
ATTORNEY.

UNITED STATES PATENT OFFICE.

ROBERT N. DUNN, OF PHILADELPHIA, PENNSYLVANIA.

MACHINE FOR TREATING SKINS.

SPECIFICATION forming part of Letters Patent No. 579,141, dated March 23, 1897.

Application filed March 10, 1896. Serial No. 582,562. (No model.)

To all whom it may concern:

Be it known that I, ROBERT N. DUNN, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Machines for Treating Skins, which improvement is fully set forth in the following specification and accompanying drawings.

My invention relates to machines for treating hides, skins, &c.; and it consists of a novel construction of "seasoning-roll" and its adjuncts whereby the seasoning, oil, chemical, or other material employed is more effectively applied to the skin than heretofore.

It further consists of novel means for cutting off the flow of the fluid to the seasoning-roll when the machine is not in use.

It further consists of novel details of construction, all as will be hereinafter set forth, and specifically pointed out in the claims.

Figure 1 represents a front elevation of a machine for treating skins embodying my invention, a portion of the supporting-roll being broken away in order to more clearly show the construction. Fig. 2 represents a side elevation of Fig. 1. Fig. 3 represents, on an enlarged scale, a section on line *x x*, Fig. 1. Fig. 4 represents, on an enlarged scale, a side elevation of a portion of the seasoning-roll and the manner of constructing the same. Fig. 5 represents a sectional view of the roll seen in Fig. 4 after the steps shown in said figure have been completed.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates the framework or housing of the machine, the same having pivotally attached thereto the lower extremities of the arms B, in the upper ends of which arms is rotatably mounted a supporting-roll C, over which the skin D is adapted to pass, said roll serving to hold the skin against the seasoning-roll to be hereinafter referred to.

Secured to each of the arms B is a chain or other suitable connection E, which passes over the pulleys F and G, journaled at the side of the frame, and over a pulley H, journaled midway of the said frame, the end of each of said connections being suitably fastened to a treadle J, which is fulcrumed upon

the cross-rod K, suitably mounted in the housing A.

L designates a spring which has one end attached to a suitable fixed point M, while its other end is attached to the arm B, it being noted that the arms and springs are two in number, as are also the chains or connections E, as will be evident from Fig. 1.

P designates the seasoning-roll employed, which constitutes the special feature of my invention, the same consisting of a cylindrical body portion, which is initially of uniform diameter, but which has cut therein in any suitable manner the grooves P', it being noted that said grooves are oppositely inclined to each other, beginning at either end of the cylinder P, as at Q and R, and extending helically around the roll until they meet at substantially the central portion of the same, as will be apparent from Fig. 1, it being understood that said seasoning-roll P is suitably journaled in the boxes S.

T designates a trough which is located above said seasoning-roll P and which has its lower portion provided at intervals with perforations U, the said trough serving as a receptacle for the seasoning material, oil, or other chemical which may fall therein from the tube or chamber V, which latter is provided at its under side with the perforations W, the fluid being conducted into said tube V through the medium of the conduit X, which communicates with the receptacle A', the said conduit X having a valve therein which is provided with a valve-stem Y, to which is attached one end of a link Z, while the other end thereof is attached to the treadle J at any suitable point, whereby it will be seen that through the medium of the spring L the treadle J and the valve X will always be caused to assume the proper positions relative to each other, the valve X being closed when the foot is removed from the treadle and the latter assumes the position seen in Fig. 2.

The seasoning-roll P may be actuated in any suitable manner, as by a pulley G', mounted on a journal thereof, around which pulley passes the belt F', which latter also passes around the pulley E', located on the shaft B', which revolves in suitable bearings, the power being initially applied to a pulley C', mounted on said shaft, from any convenient source.

In the process of manufacturing the sea-

soning-roll P the same is first provided with the oppositely-inclined helical grooves in the manner described, after which felt or other suitable material P² is folded up and placed therein, as indicated in Fig. 4, a piece of rope or similar material P³ being placed adjacent thereto and serving to hold said felt in position, the completed roll appearing as seen in Fig. 5, in which the relative position of the parts is clearly indicated.

The operation is as follows: The skin to be treated is supported upon the roll C in the manner indicated in Fig. 2, from which it will be evident that if a downward movement is imparted to the treadle J the roll C and the skin D will be caused to assume the position seen in dotted lines and to be moved into proximity to the oppositely-inclined helical ridges of felt or other material P² carried on the roll P. The downward pressure upon the treadle simultaneously, through the medium of the connection Z, opens the valve X, and thus allows the seasoning material or other fluid contained within the receptacle A' to flow through the perforations W into the trough T and thence through the perforations U upon the seasoning-roll P, the seasoning or other chemical or liquid employed being received upon the projecting ridges of felt or similar material and being afterward thoroughly worked into the skin which is being treated, the skin being carried over the roll C and between the latter and the roll P in the manner indicated by the arrows in Fig. 2. When the pressure of the foot is removed from the treadle J, the parts are caused to assume their normal position, as seen in Fig. 2, once more through the medium of the spring L, the valve X closing simultaneously, so that there will be no danger of the seasoning or other material employed running to waste through the perforations W when the machine is idle.

The receptacle A' and its adjuncts can be lifted from the frame or housing A, as is evident, by making the proper disconnection between the valve and its adjuncts, and another receptacle containing oil or any other fluid which it may be desired to employ can be readily placed in position and the skins treated with oil in the manner already described.

It will thus be seen from the foregoing that by the employment of the roll C, having the oppositely-inclined helical convolutions, the seasoning or oil will be thoroughly worked into every portion of the skin to be treated, the same being absorbed or taken up to a slight extent by reason of the employment of the felt or similar material P² in the grooves P'.

If desired, I may employ an auxiliary feed-roller Z', which is journaled in the arms Z², which are attached to the housing A, the function of said roller being to assist in the distribution of the seasoning liquid, oil, or other material employed upon the roll P, it being evident that said roll may be located directly under the trough T, if desired.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a machine of the character described, a seasoning-roll having strips of absorbent material arranged spirally thereon, a trough above said roll having perforations in its base, a valved color-supply pipe discharging into said trough, means for holding a skin against said roll, and means for operating said holding means and said valve in unison, said parts being combined, substantially as described.

2. In a machine of the character described, a suitable housing, a roll journaled therein, said roll having oppositely-inclined helical grooves therein, a strip of felt or similar material inserted in said grooves, a rope adjacent to said felt for holding the same in position, a perforated trough located above said roll, a perforated discharge-pipe located above said trough, a receptacle and a valved connection intermediate the latter and said discharge-pipe, in combination with means for holding a skin against said roll operated in unison with the said valve, substantially as described.

3. In a machine of the character described, a suitable housing, a roll journaled therein, said roll being provided with oppositely-inclined helical ridges composed of felt or other similar material, a valved pipe extending longitudinally of said roll, a receptacle containing the material employed in seasoning or otherwise treating skins connected to said pipes, a treadle, connections intermediate said treadle and the valve in said pipe, means for holding said treadle normally in raised position, and said valve in closed position, arms pivotally mounted on said housing, a roll adapted to support a skin mounted on said arms, and connections from the latter leading to said treadle for bringing said roll in contact with the seasoning-roll, substantially as described.

4. In a machine of the character described, a seasoning-roll, the same consisting of a cylindrical body, having oppositely-inclined helical grooves therein, a piece of felt or similar material doubled upon itself and inserted in said grooves, and a rope located in the bottom of said grooves adjacent said felt and adapted to lock the latter in position, substantially as described.

5. In a machine of the character described, a suitable housing, an absorbent roll journaled therein, said roll being provided with oppositely-inclined helical ridges or convolutions, a perforated trough with a communicating supply-tank for applying a suitable fluid to said roll, and a roller intermediate said trough and said roll for causing said fluid to be evenly distributed upon the latter, substantially as described.

ROBERT N. DUNN.

Witnesses:

JOHN A. WIEDERSHEIM,
E. HAYWARD FAIRBANKS.