(No Model.)

# H. R. CHURCHILL.

## MACHINE FOR SOFTENING SHEEP SKINS.

No. 327,138. Patented Sept. 29, 1885.

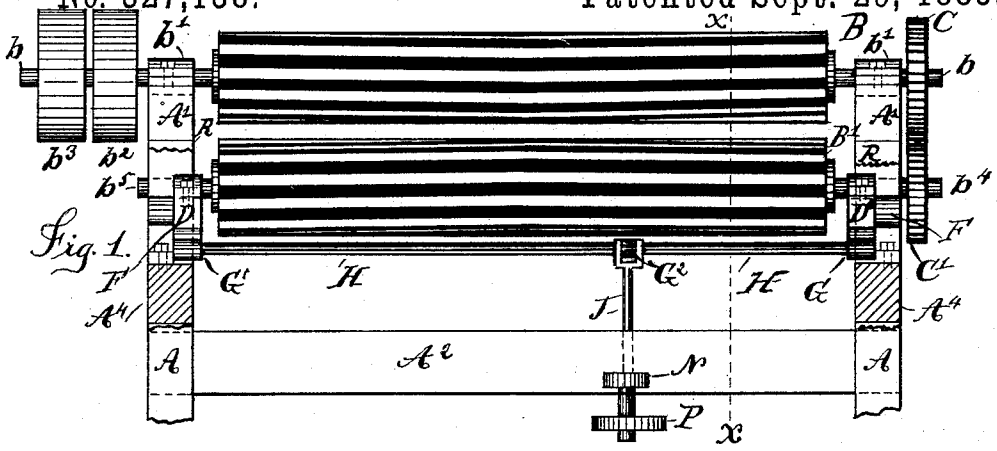



Fig. 1.

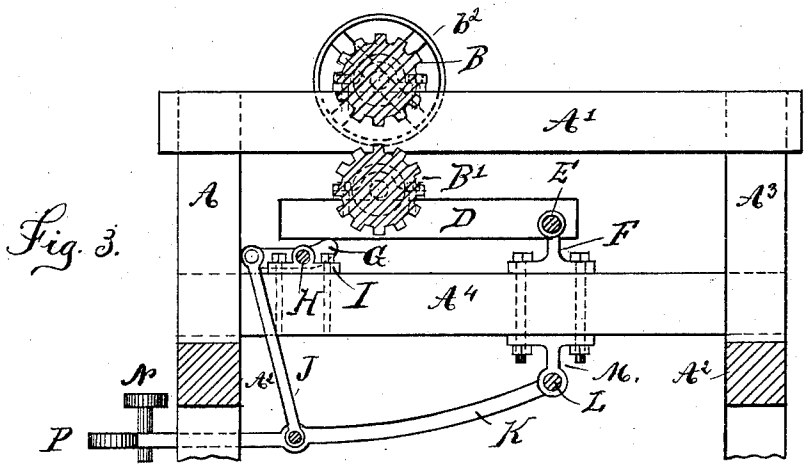



Fig. 3.

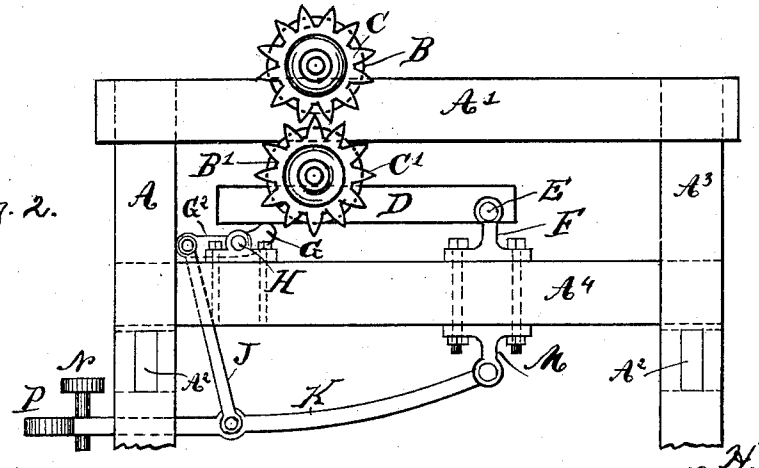



Fig. 2.

Witnesses
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# UNITED STATES PATENT OFFICE.

HENRY ROLLS CHURCHILL, OF BUFFALO, NEW YORK.

## MACHINE FOR SOFTENING SHEEP-SKINS.

SPECIFICATION forming part of Letters Patent No. 327,138, dated September 29, 1885.

Application filed March 16, 1885. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY ROLLS CHURCHILL, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Machines for Softening Sheep-Skins; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

The object of this improvement is a machine of simple economical construction for rapidly and uniformly softening sheep-skins. These results are attained by the mechanism illustrated in the drawings herewith filed as part hereof, in which the same letters of reference denote the same parts in the different views.

Figure 1 is a front elevation, partly in section, of a machine embodying the features of my improvement. Fig. 2 is a side elevation of the same. Fig. 3 is a vertical section taken on the line *x x* of Fig. 1.

A A′ $A^2$ $A^3$ $A^4$ represent beams of wood connected by any suitable means into a frame for supporting the parts of the machine.

B is a roller, made of hard wood or other suitable material, and provided with diagonal recesses or grooves, as more fully shown in Fig. 3, for the purpose hereinafter set forth, and also provided, substantially in the manner shown, with metal journals *b*, having metal bearings *b′*, secured to the frame-piece A′ in the usual manner. These journals *b* are extended through their bearings *b′*.

C is a gear-wheel secured to one journal of the roller B, the opposite journal of which is provided with a pulley, $b^2$, and a loose pulley, $b^3$.

B′ is a roller, made of hard wood or other suitable material, and provided with diagonal recesses or grooves corresponding to those in roller B, and provided also with similarly constructed and connected journals $b^4$ $b^5$, which have their bearings in iron arms D D′, pivotally secured near their rear ends to a transverse rod, E, supported by pillow-blocks F, fixed to the frame-pieces $A^4$.

C′ is a gear-wheel secured to the journal $b^4$ of the roller B′.

H is a transverse rod supported by pillow-blocks I, fixed to the frame-pieces $A^4$.

G G′ are short levers secured to the rod H in position to engage with the arms D D′.

$G^2$ is a lever fixed to the rod H in any suitable position, and connected by means of a rod, J, with a treadle, K, pivotally fixed to a transverse rod, L, supported by hangers M, secured in the usual manner to the lower part of the frame-pieces $A^4$.

P is a foot-board secured to the treadle K for operating the same, and is provided with a set-screw, N, for the purpose of regulating the downward movement of the treadle K.

R is a shelf secured to the frame-pieces A for the convenience of the operator while handling the skins. The teeth of the gear-wheels C C′ are made longer than usual, in order that the roller B′ may be lowered about an inch away from the roller B for the introduction of the sheep-skins without disengaging the gear-wheels, which would change the relative positions of the rollers B B′ and prevent their diagonal recesses and elevations from promptly intermeshing.

In the operation of the machine the skin is placed between the rollers B B′. The treadle is then moved down in order to force the skin more or less into the diagonal recesses of the rollers, when it is allowed to move halfway through the same, after which the pressure is taken from the treadle, when the skin is disengaged and the other half treated in the same manner. The relative position of the skin to the diagonal blades may be changed as often as may be necessary to repeat the process, and thus overcome the hard ringy condition characteristic of the skins in a raw state. The crimping effect which the rollers will have on the skin will not require more than a half-minute to give a uniform softness to those in the worst condition.

Having explained the construction and operation of my improvement, what I claim as new, and desire to secure by Letters Patent, is—

In a machine for softening sheep-skins, the combination of the diagonally-grooved rollers B B′, provided with gearing C C′, the arms D D′, levers G G′ G², rod H, link J, and treadle K, all constructed substantially as specified, and arranged to operate as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY ROLLS CHURCHILL.

Witnesses:
H. E. SAFFORD,
C. E. SHEPHERD.