T. ROBERTS.

MACHINERY FOR DEHAIRING AND WORKING OUT HIDES.

No. 184,175. Patented Nov. 7, 1876.

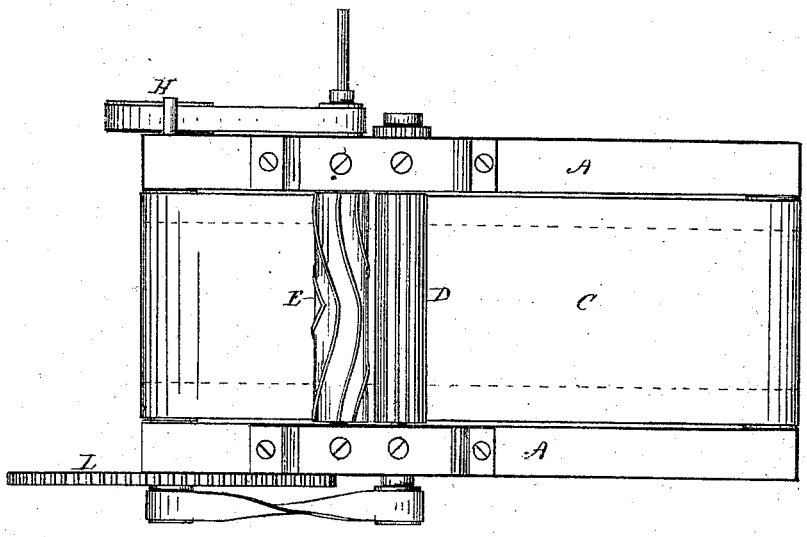

Fig. 1.

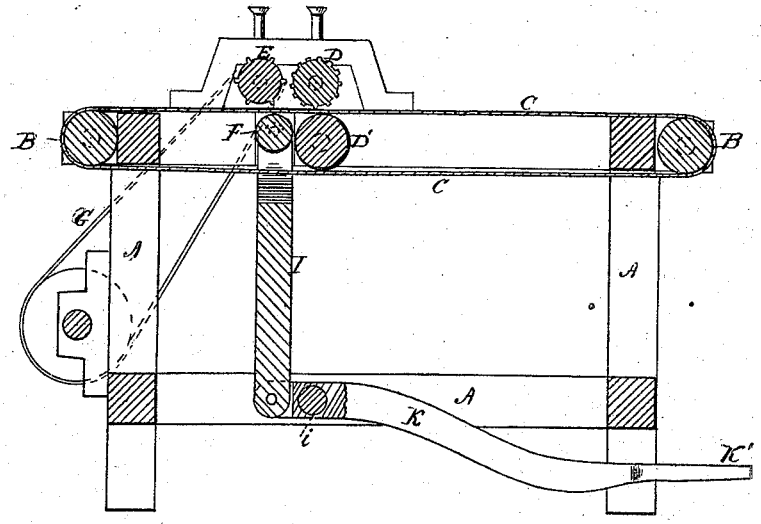

Fig. 2.

WITNESSES

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THOMAS ROBERTS, OF LYNN, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND EDWARD M. ROBERTS, OF SAME PLACE.

IMPROVEMENT IN MACHINERY FOR DEHAIRING AND WORKING OUT HIDES.

Specification forming part of Letters Patent No. **184,175**, dated November 7, 1876; application filed September 4, 1876.

To all whom it may concern:

Be it known that I, THOMAS ROBERTS, of Lynn, in the county of Essex and State of Massachusetts, have invented an Improvement in Machines for Unhairing and Working out Hides or Skins, of which the following is a specification:

The object of my invention is to produce a machine of simple construction for effectually and expeditiously removing the hair from and working out hides and skins; and the invention consists in the combination, in a suitable frame, of a roller provided with a series of ridges or projections arranged in a double spiral form, an adjustable pressure-roller, a feed and a supporting roller, and an endless belt or apron, all arranged for joint operation, as hereinafter set forth.

Referring to the drawings, Figure 1 represents a plan view of a machine embodying my invention. Fig. 2 is a transverse longitudinal section of the same.

A A represent a frame, which may be of any suitable size and construction. At each end of the upper part of the frame are arranged, in proper bearings, the rollers B B, over which passes an endless apron or band, C, as shown. This apron may be made of canvas or of india-rubber, the latter being preferable in some circumstances. Above the main frame, and over the endless apron C, is journaled a roller, E, provided on its surface with a series of ridges or projections, arranged in the manner shown in Fig. 1, or as a right-and-left-hand screw, the ridges or projections meeting at a point in the center of the length of the roller. Near the roller E is a feed-roller, D, provided with longitudinal grooves and projections for the purpose of feeding the hide or skin to the roller E. Underneath the feed-roller E, and passing beneath the upper fold of the endless apron C, is a supporting-roller, D′, properly journaled in the sides of the frame. This roller is designed as a support for the hide or skin as it is carried by the endless apron under the feed-roller D. Below the roller E is a roller, F, having a rubber surface. The roller F is journaled in the ends of a forked arm, I, the two upper or forked ends extending upward on each side of the endless apron C, at its lower fold, so as to allow the roller F to bear against the under surface of the upper fold of the endless apron, as shown in Fig. 2. The arm I is pivoted to the end of a lever, K, which is fulcrumed at *i* in the lower part of the frame, as shown in Fig. 2. The lever K extends forward and projects beyond the front of the machine in a convenient position to admit of the operator pressing his foot upon it at K′, so as to force the roller up against the under part of the endless apron, in order to subject the hide or skin to the action of the unhairing-roller E as it passes beneath the said roller. A large gear-wheel, L, on the end of the shaft of one of the endless-apron rollers B engages with a pinion on a shaft in the lower portion of the frame, the opposite end of which bears a pulley, carrying a band that connects with the shaft of the roller E, and the gearing is so arranged as to cause the roller E to move at much greater speed than the feed-rollers and the endless apron.

Operation: The hide or skin, after being soaked in an alkaline solution, is placed upon the endless apron, at the front of the machine, and carried to the feed-roller, whence it passes to the roller E, where it is subjected to the action of the ridges or projections on the said roller, by which the hair is effectually removed from the hide or skin, the operator at the same time pressing the lever K, so as to force the roller F upward, and thus maintain a proper pressure of the hide against the roller E. The elastic character of the roller F admits of the reception of any inequalities in the hide into its surface, while the peculiar arrangement of the ridges or projections tends to spread out the hide or skin on the smooth surface of the apron. The work produced is so thorough that no subsequent hand-finishing is necessary.

What I claim as my invention is—

1. The combination, in a machine for removing the hair from hides and skins, of the roller E, provided with the double spiral projections or ridges, as shown, the endless belt C, the feed-roller D, and supporting-roller D′, as and for the purpose set forth.

2. In combination with the roller E, provided with the double spiral ridges, the elastic pressure-roller F, operated by means of the lever K, as specified.

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

THOMAS ROBERTS.

Witnesses:
J. H. ADAMS,
E. A. STOCK.