

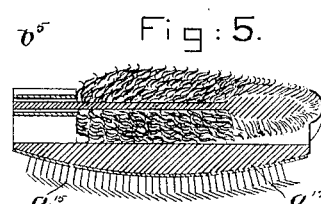
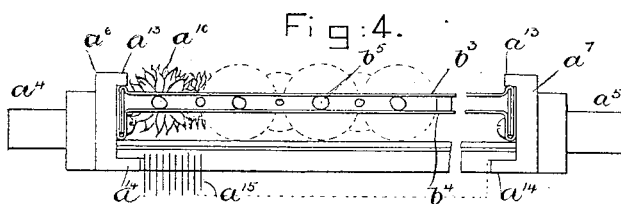
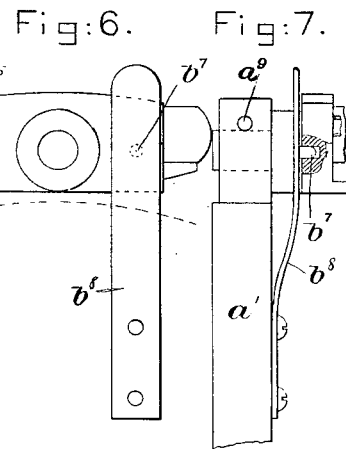
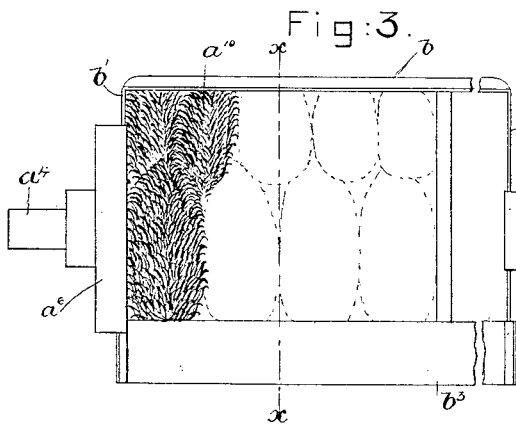
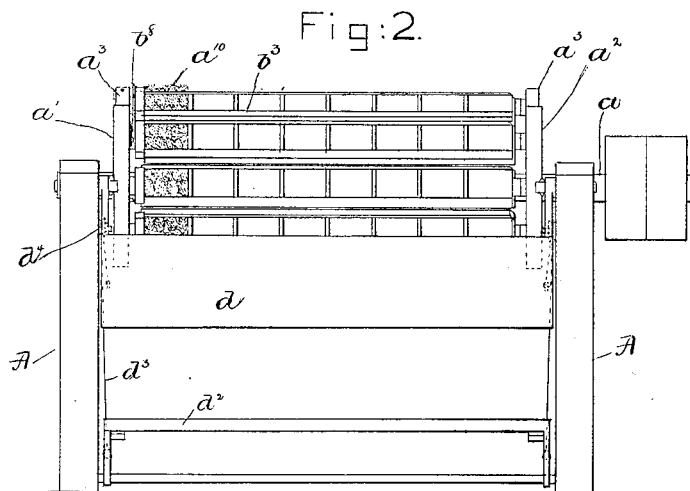
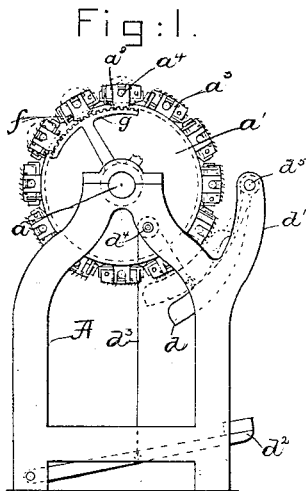
(No Model.)

H. THURLOW.

MACHINE FOR THE TREATMENT OF LEATHER.

No. 386,667.

Patented July 24, 1888.



Witnesses:

Fred. S. Greenleaf.  
Fred. L. Emery.

Inventor.

Henry Thurtow.  
by Lewis & Gregory. Attys.

# UNITED STATES PATENT OFFICE.

HENRY THURLOW, OF SKANEATELES, NEW YORK.

## MACHINE FOR THE TREATMENT OF LEATHER.

SPECIFICATION forming part of Letters Patent No. 386,667, dated July 24, 1888.

Application filed January 17, 1888. Serial No. 261,025. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY THURLOW, of Skaneateles, in the county of Onondaga and State of New York, have invented an Improvement in Machines for the Treatment of Leather, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object to provide a novel machine for treating leather of various qualities, so as to give to its surface a proper and desirable finish.

My improved leather-finishing machine consists, essentially, as herein shown, of a rotating cylinder provided with a series of dresser bars or slats, which, preferably, will be pivoted, with relation to the heads of the cylinder, so as to be reversed and present either of the two faces of the bars or slats outermost, one side or face of the said bars or slats being provided with teasels and the other side or face of the said bars or slats with a wire-card surface or equivalent abrading material.

My invention consists, essentially, in the combination, with a frame and in a machine for the treatment of leather, of a reversible series of dresser bars or slats provided with teasels, a locking device for said bars or slats, and with a support for the leather to be acted upon.

Other features of my invention will be pointed out in the claims at the end of this specification.

Figure 1 is a left-hand end elevation, partially broken out, of a finishing machine embodying my invention. Fig. 2 is a front elevation of my improved machine, the same showing at the left one row of teasels, the gearing for automatically rotating the dresser bars or slats, partially shown in Fig. 1, being entirely omitted. Fig. 3 is a side elevation of one of the dresser bars or slats removed, it being broken out in the direction of its length to save space upon the drawings; Fig. 4, an edge elevation of Fig. 3. Fig. 5 is a section of Fig. 3 in the line  $x x$ , and Figs. 6 and 7 are details to be referred to.

A represents the standards of a frame of suitable shape to support the working parts, together with the shaft  $a$ , having mounted upon it near its opposite ends the disks  $a'$   $a''$ ,

which latter are provided, as herein shown, at suitable intervals upon their peripheries with bearing-blocks, as  $a^3$ , for the reception of the short journals or arbors  $a^4$   $a^5$  of the faces  $a^6$   $a^7$  of the dresser bars or slats to be described. Each dresser bar or slat is composed of a side piece,  $b$ , bent at its ends to form end pieces,  $b'$   $b''$ , and secured to the heads  $a^6$   $a^7$ , and the bottom bars,  $b^3$   $b^4$ , secured to the end pieces,  $b'$   $b''$ , there being left between the said bottom bars or slats an opening of sufficient size and suitable shape to receive the stems  $b^5$  of the teasels  $a^{10}$ . Each dresser bar or slat also, preferably, has, as a part of it, a back piece,  $a^{12}$ , which is covered with card-cloth, as at  $a^{13}$ . The dresser bars or slats, as described, have, it will be seen, two working-faces, one covered with teasels and the other with wire-cloth, and in practice the wire-cloth may be used to abrade or roughen the flesh side of the hide to raise the fiber, and thereafter the teasel's surface may be made to act upon the surface of the flesh side of the leather to give to it a finer finish than can be given to it by the wire-cloth, fine finish being especially desirable in connection with calf, sheep, goat, morocco, and kid leather; or the teasels may be used to roughen and finish, and the cards act simply as a comb. The teasels are firmly clamped between the side pieces,  $b$ , and bars  $b^3$   $b^4$ .

To confine the card to the back part,  $a^{12}$ , I prefer to provide the heads  $a^6$   $a^7$  with loops or flanges, as shown at  $a^{14}$ , Fig. 4. Each head  $a^6$  is herein shown as made longer than the head  $a^7$ , and is provided near its opposite ends with holes, as  $b^5$ , (see Fig. 6,) for the reception of a stud or pin, as  $b^7$ , attached to a spring, as  $b^8$ , properly secured to the inner side of one of the heads, as  $a^7$ , of the cylinder, the said stud or pin when used constituting a locking device by which to retain the dresser bar or slat in position with either of its two faces outwardly in operative position. These dresser bars or slats may be reversed whenever desired, so as to present their teasel-faces or their card-cloth faces, as desired, or so as to present the teasel-faces and the card-cloth faces alternately.

In practice I prefer to provide each of the journals  $a^4$ , as shown partially in Fig. 1, with a small pinion,  $f$ , and the said pinions will be engaged by a large gear,  $g$ , (partially shown

100

in Fig. 1,) but mounted loosely upon the shaft *a*, the partial rotation of the gear *g* automatically effecting at the same time the reversal of the dresser bars or slats.

5 The leather to be acted upon by the finishing-machine herein described will be supported upon a suitable bed or apron, *d*, herein shown under the control of a foot-treadle, *d'*, and a cord, *d''*, extended over a pulley, *d'''*.

10 In practice I do not desire to limit my invention to the exact form of bed or apron, as, instead, I may use any other usual or suitable support commonly employed in connection with leather finishing machines.

15 The shaft *a* is shown as provided with usual fast and loose pulleys, by which, through a belt, the cylinder carrying the dresser bars or slats may be revolved at any desired speed.

20 In practice the locking device composed of the spring-actuated stud will be omitted when the dresser bars or slats are to be revolved or turned simultaneously through the pinions *f* and gear *g*.

25 I prefer to secure the dresser bars or slats to disks mounted on a shaft, so as to form a cylinder, as shown; but I do not desire to limit myself to this particular form of frame, as the said dresser bars or slats may be attached to and be supported by a vertical or horizontal reciprocating frame.

30 I claim—

1. In a machine for finishing leather, a revolving cylinder having a series of reversible dresser bars or slats to hold teasels, and a locking device for said bars or slats, combined with

a bed or apron to support the leather to be acted upon by the said teasels, substantially as described.

2. In a machine for finishing leather, a rotating cylinder provided with a series of pivoted dresser bars or slats, having one face provided with teasels and one with wire-cloth, the said dresser bars or slats being mounted in the said cylinder, in order that they may be reversed, as desired, to operate substantially as described.

3. In a machine for finishing leather, a rotating cylinder, its series of pivoted dresser bars or slats containing teasels, combined with a locking device to secure the dresser bars or slats in position, substantially as described.

4. In a machine for finishing leather, the combination, with a supporting-frame, of a reversible dresser bar or slat containing teasels, and a locking device to secure the said dresser bars or slats, substantially as described.

5. In a machine for finishing leather, a supporting-frame and a series of reversible dresser bars or slats containing teasels and wire cards and pivoted to said frame, combined with a locking device to secure the dresser bars or slats, substantially as described.

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

HENRY THURLOW.

Witnesses:

JAS. H. CHURCHILL,  
J. C. SEARS.