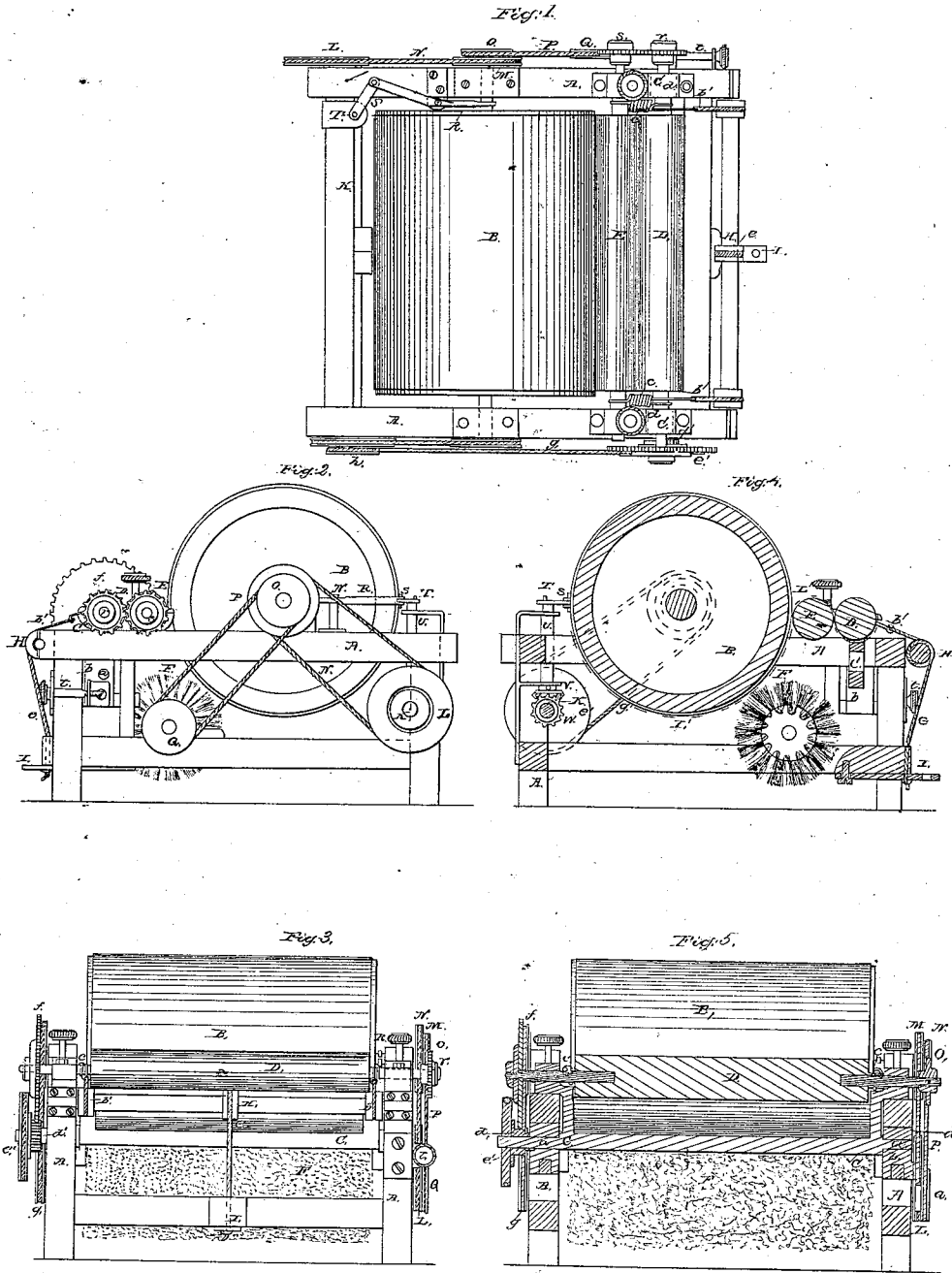


J. Turner,

Dressing Leather,

No 28,641,

Patented June 5, 1860.



Witnesses:

*Chas. Curtis
S. P. Hale*

*Inventor
Joshua Turner*

UNITED STATES PATENT OFFICE.

J. TURNER, OF CAMBRIDGEPORT, MASSACHUSETTS, ASSIGNOR TO HIMSELF, F. GUILD,
E. C. DANIELL, AND WARREN COVELL, OF DEDHAM, MASSACHUSETTS.

MACHINE FOR BUFFING AND REDUCING LEATHER.

Specification of Letters Patent No. 28,641, dated June 5, 1860.

To all whom it may concern:

Be it known that I, JOSHUA TURNER, of Cambridgeport, in the county of Middlesex and State of Massachusetts, have invented a new and useful Machine for Buffing or Reducing Leather, and do hereby declare the same to be fully described and represented in the following specification and the accompanying drawings, of which—

Figure 1 is a top view; Fig. 2 a side elevation; Fig. 3 a rear elevation, and Fig. 4 a transverse and central section of it. Fig. 5 is a longitudinal and vertical section taken through the rocker frame or carrier of the feed and draft rollers.

In the said drawings, A, exhibits the frame of the machine, the same serving to support a grinding cylinder or emery grinder, B, and a rocker frame C, which supports the journals of two rollers D, E, arranged relatively to the buffing cylinder and connected by gears *r, s*, as shown in Figs. 1 and 4. The frame C, has journals *a, a*, either of which may be supported by an adjustable box *b*, provided with an adjusting screw, *t*, the whole being disposed so as to enable the bed and feed rollers to be swung or carried either toward or away from the cylinder, B. A cylindrical bush F, is arranged below the cylinder B, and the bed roller E and so that while in rotation, such brush may act both against the sheet of leather and the grinding surface of the cylinder, B. The brush serves to smooth the leather and divest it of wrinkles, such sheet of leather while the machine is at work being arranged therein as shown by the red lines at L', Fig. 4. It lays between the cylinder B, and the bed roller, rests on the latter and passes over it and between it and the feed roller in rear of it. The feed roller acting in concert with the bed roller, serves to draw the piece of leather rearward while the cylinder B, may be in revolution against it.

In the operation of the cylinder, B, on the leather the latter will be reduced by it to an even thickness and have its ground side buffed as the cylindrical or round surface of the cylinder is to be covered with emery or some other proper grinding or buffing material. Besides performing the function of smoothing the skin or piece of leather, the rotary brush operates to cleanse the grinding surface of the cylinder, B, of the dust or

ground matter which it may receive from the leather.

The grinding cylinder besides having a rotary motion should have a reciprocating endwise movement in order to prevent it from forming grooves or ridges on the leather. Furthermore, the frame C, should have a mechanism applied to it, by which it may be easily retracted or drawn away from the cylinder B, and this for the purpose of enabling a sheet of leather to be readily inserted between the bed roller and the grinder.

In order to accomplish the retraction of the frame C, as well as to draw the feed roller back from the bed roller so that the skin or piece of leather may be placed between the two rollers, I make use of mechanism as follows, that is to say, I employ a windlass H, arranged as shown in Figs. 3, and 4. By means of two straps or bands *b', b'*, attached to and wound upon the windlass, it is connected with the shaft of the feed roller. Another band *e*, from the windlass wound upon it in the opposite direction connects it with a treadle I. Furthermore, springs, *c, c*, connect the journals of the feed and bed rollers so as to draw the feed roller toward the bed roller, each of the journals of the feed roller being arranged in a slot, (as shown by dotted lines at *d*, Fig. 1) in order that the roller may be moved bodily away from the bed roller. A downward pressure of a person's foot while resting on the treadle will move it and cause a rotary motion of the windlass, the same serving not only to produce the retraction of the frame, C, with respect to the cylinder B, but that of the feed roller relatively to the bed roller.

The driving shaft of the machine is seen at K. It carries a pulley, L, around which and a pulley M, fixed on the shaft of the cylinder B, an endless belt, N, works and communicates motion to the grinder, B. From another pulley, O, fixed on the grinder shaft, an endless band P, extends to a pulley, Q, on the shaft of the brush and thus serves to put the brush in rotation. The endwise movement of the grinder is obtained by means of a forked lever R, a connection bar S, and a crank, T, the latter being extended from a vertical shaft U, which receives rotary motion from the driving shaft by means of bevel gears V, W. A pinion *d'*, fixed to the side of a pulley, *e'*, which

runs freely on the shaft of the frame, C, engages with a gear, *f*, affixed to the shaft of the feed roller. An endless band, *g*, proceeds from the pulley *e'*, to a pulley *h*, on the driving shaft. By means of such and the gears *r*, *s*, the feed and bed rollers will be put in revolution when the driving shaft is put in rotation.

I claim—

- 10 1. The combination of the rotary grinder B, the bed roller E, the draft roller D, and the brush, F, arranged and made to operate together substantially as described and for the purpose as specified.
- 15 2. The application of the feed and bed rollers to a rocker frame C, or its equivalent and combining therewith, devices substan-

tially as described whereby the two rollers may not only be simultaneously moved away from and toward the buffing cylinder B, but the feed roller be moved away from and toward the bed roller, such devices being the springs, *c*, *c*, the rotary windlass, H, and its connections, *b*, *b*, *e*, and the band and treadle, I, or other equivalent means.

3. Supporting one of the rocker frame bearings in a slider and providing such with adjusting screws, the same being for the purpose as specified.

JOSHUA TURNER.

Witnesses:

R. H. EDDY,
F. P. HALE, Jr.