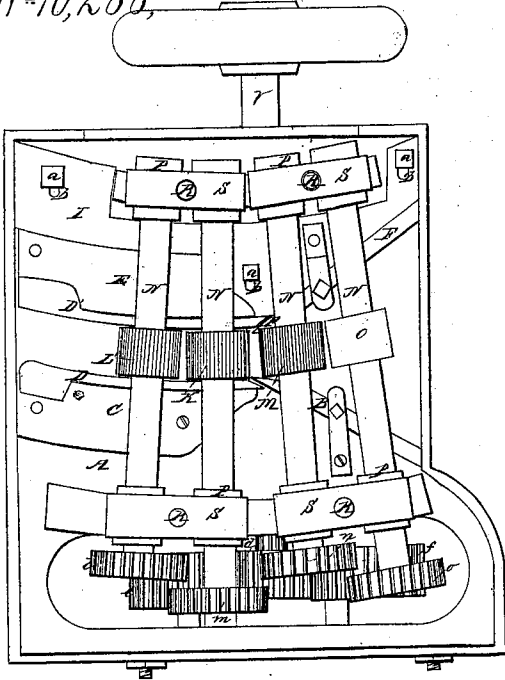


S. J. & C. H. Trofalter,

Shaving Leather.

No. 10,288,

Fig. 1.



Patented Nov. 29, 1853.

Fig. 4.

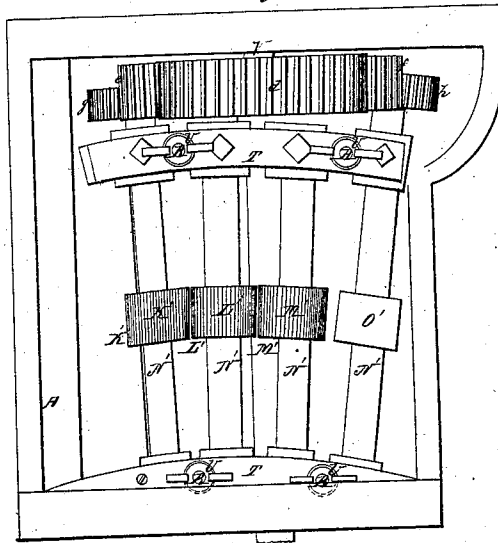


Fig. 2.

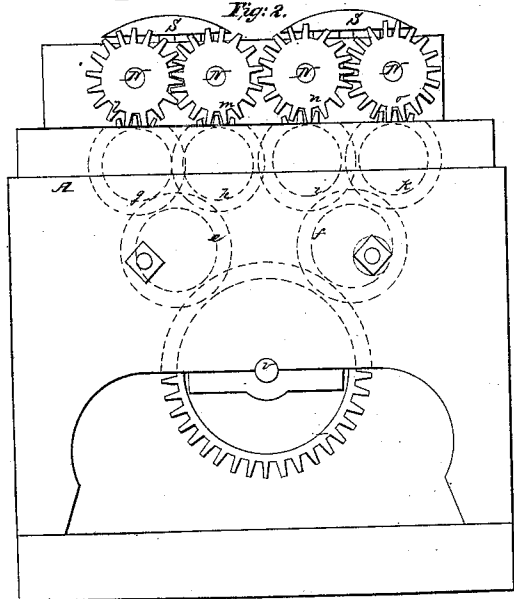
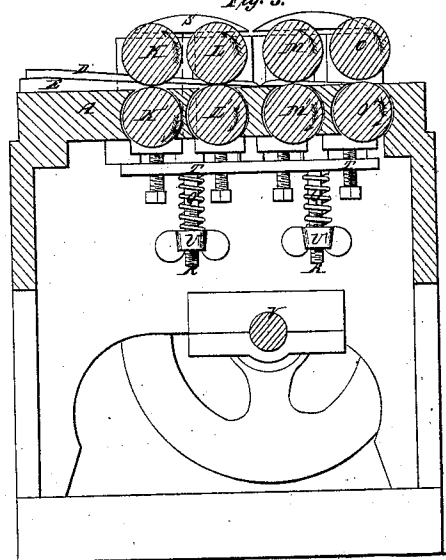


Fig. 3.



UNITED STATES PATENT OFFICE.

SAML. J. TROFATTER AND CHAS. H. TROFATTER, OF SALEM, MASSACHUSETTS.

MACHINE FOR SKIVING BOOT-COUNTERS.

Specification of Letters Patent No. 10,288, dated November 29, 1853.

To all whom it may concern:

Be it known that we, SAMUEL J. TROFATTER and CHARLES H. TROFATTER, of Salem, in the county of Essex and State of Massachusetts, have invented an Improved Machine for Skiving Boot-Counters; and we do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings, letters, figures, and references thereof.

Of the said drawings Figure 1 denotes a top view of the said machine. Fig. 2, is an end elevation, and Fig. 3, a longitudinal section of it. Fig. 4, is an underside view of it.

In the drawings, A, represents the main frame or table of the machine. On the top of this frame is a stationary cutter or knife, B, that is arranged with respect to a stationary curved guide, C, as seen in Fig. 1. The cutting edge of this knife is made to stand at such angle with the top surface of the table as shall not only enable it to reduce one edge of a boot counter to its proper level or chamfer but to do this with what is termed a drawing stroke. A spring bearer, D, is fastened to the top of the guide, C, and is made to rest on the leather near to the cutting edge of the knife, the same serving to press the leather firmly down upon the bench or table. Another spring, D', a curved guide, E, and a cutting knife, F, made like those hereinbefore described are arranged as seen in Fig. 1, and so as to operate on the other or opposite edge of the counter or strip of leather. The inner edge of the guide, E, is convex and parallel to the inner edge of the guide, C, which is concave. The said knife, F, spring, D', and guide, E, are connected to a movable metallic plate, I, which is placed on the table with its top surface on a level with that part of the top surface of the table which is between the two guides, and the said plate I, is confined to the table by screws, a, a, a, that pass through elongated slots, b, b, b, that admit of the plate being moved so as to carry the guide, E, spring, D', and knife, F, nearer to or farther from the other guide spring and knife as occasion may require in order to enable the mechanism to be applied to the reduction of counters of any width.

Three sets of feed and pressure rollers, K, K', L, L', M, M', are disposed between the guides, each set being composed of two rollers, one of which is arranged within the

table top and so that its upper edge shall be a little above it, while the other is disposed entirely above the table top. The leather counter during its passage through the machine rests on the lower rollers K', L', M', and is pressed down upon them by the rollers, K, L, M, the peripheries of each roller of each set being scored or fluted.

The several axles or shafts, N, N, N, of the upper rollers, and that (N,) of another or smoothing roller, O, are disposed in convergent or radial lines, all of which tend to the common center of the curves of the inner edges of the two guides. The same may be said in regard to those (N', N', N') of the lower rollers, and that of a smooth roller, O', placed underneath a roller, O. All the axles of the upper rollers are sustained on sliding boxes, P, P, which are each supported so as to have a free vertical or up or down movement and is pressed down by action of one or more springs, Q. Each of these springs is made to encircle a screw, R, which is formed with a cross head or bar, S, that is made to bear on the top of two of the boxes. This screw rod passes down through a rest bar, T, and the spring and receives a nut, U, upon its screw, as seen in Figs. 3, and 4.

The several feed, pressure, draft and smoothing rollers are made frusto conical, and derive their motions (in directions as denoted by arrows in Fig. 3) from the main driving, or fly wheel shaft, V, which is arranged underneath them, and carries a gear, d, which engages with two connecting gears, e, f. Each of these connecting gears is made wide enough to engage with two gears, g, h, or, i, k, placed respectively on two of the axles of the lower rollers. These several gears, g, h, i, k, engage respectively with other gear, l, m, n, o, fixed respectively on the four axles of the upper rollers as seen in the drawings.

It was hereinbefore stated, that the peripheries, or curved surfaces of the three sets of rollers, K, K', L, L', M, M', were fluted or scored, while those of the rollers O, O', were smooth or made without flutings.

One particular object of these rollers O, O', is to take out wholly or partially remove the creases made in the leather by the others, such other rollers being of necessity fluted rollers.

Two sets of the fluted rollers are placed in

rear of the cutting edges of the knives, while one set and the set of smoothing rollers are placed in advance of them. The last two sets of rollers operate as draft rollers, while the first two serve to keep the leather straight and to advance it toward the knives.

Our machine possesses many advantages over others in use for skiving boot counters. It skives a counter on both edges at one operation or passage through it.

We are aware that there is nothing new in combining feed and pressure rollers with guides and plane irons or cutters for the purpose of reducing strips of board or other material. We therefore do not claim such. But

What we do claim as our invention is—

The peculiar arrangement of the axles of the pressure and draft rollers in convergent lines in combination with the curved guides, as applied to the knives, the whole being made to advance a curved piece of leather between the guides with an equality of pressure against the guides, or without such undue pressure against either as would cause one edge of the leather to be bent up and injured or imperfectly cut by the knives while passing through the machine.

SAMUEL J. TROFATTER.

CHARLES H. TROFATTER.

Witnesses:

R. W. EDDY,

FRANCIS GOULD.