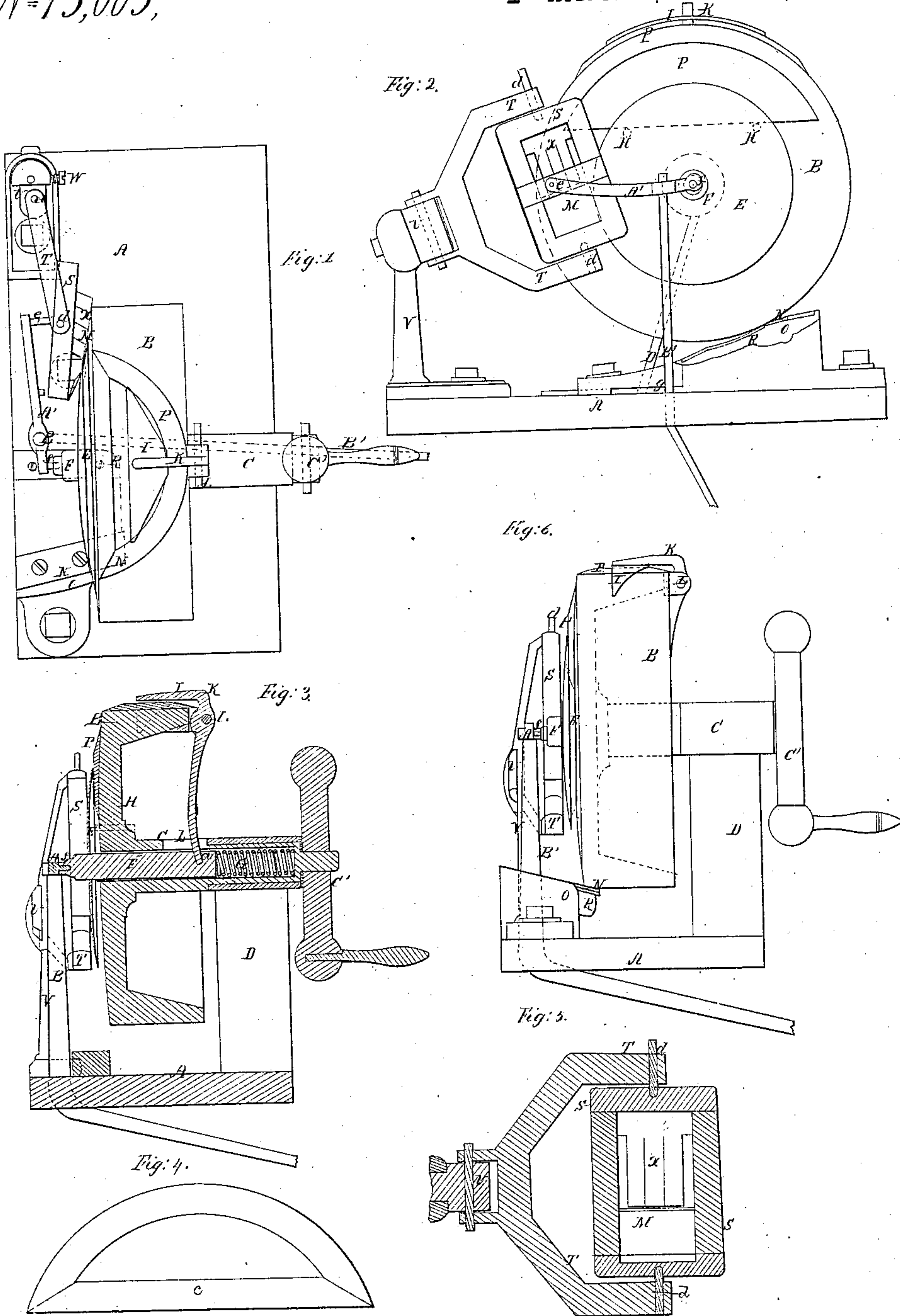


L. Hill,

Shaving Leather,

No 13,003,

Patented June 5, 1855.



UNITED STATES PATENT OFFICE.

LUTHER HILL, OF STONEHAM, MASSACHUSETTS.

MACHINE FOR SKIVING BOOT AND SHOE COUNTERS.

Specification of Letters Patent No. 13,003, dated June 5, 1855.

To all whom it may concern:

Be it known that I, LUTHER HILL, of Stoneham, in the county of Middlesex and State of Massachusetts, have invented an
5 Improved Machine for Skiving Boot or Shoe Counters or Stiffenings; and I do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings, letters, figures, and references thereof.
10

Of the said drawings, Figure 1, denotes a top view of my invention, or machine: Fig. 2, is a front elevation of the same: Fig. 3, is a vertical and transverse section of it,
15 taken through the axis of the cylindrical bed or carrier.

In these drawings, A, is the main frame or bed plate of the machine.

B, is a rotary cylinder, bed or carrier fixed
20 upon a hollow shaft, C, which is supported so as to rotate in a bearing formed in the top of the standard or post, D, that extends upward from the bed plate.

On the front end of the cylinder, B, there
25 is a circular plate, E, which I term the face clamp, it being fixed to a shaft or axle, F, which slides axially within the shaft, C, and is forced outward by means of a spring, G, arranged within said shaft as seen in Fig. 3. This face clamp has two pins or studs H
30 H, extended from it and made to enter corresponding holes formed in the end of the cylinder, the same being not only to cause said clamp plate to rotate with the cylinder,
35 but to enable said pins to serve as a rest for a boot counter when placed between the clamp plate and the end of the cylinder as represented by red lines in Figs. 2, and, 3. There is also another clamp, I, arranged
40 above the cylinder B, as seen in the drawings, the said clamp being applied to one arm of a bent lever K, which turns upon a fulcrum at L, and has its lower arm extended into a recess or hole *a*, made in the
45 shaft F, and after it has passed through a long slot, *b*, formed longitudinally through the shaft, C. The object of the clamp, I, which I term the peripheral clamp is to clamp a segment of leather to the periphery
50 of the cylinder.

In connection with the above mentioned rotary cylinder, two cutters or knives M, N, are used. One of them, viz N, is arranged underneath the cylinder or fixed upon a bed
55 O, and with its edge inclined or making such an angle with the periphery of the cyl-

inder as will enable it to chamfer off, or skive down a segment of leather clamped therein and to perform such skiving of it along its straight edge or chord as represented at, *c*, in Fig. 4, which exhibits a top
60 view of a boot counter as it appears when skived by my machine, a transverse section of such boot counter being seen at P, in Fig. 3. In Fig. 1, said boot counter is represented at, P, by blue lines.
65

In rear of the knife N, is a spring, R, which is affixed to the bed, O, and forces the counter up against the periphery of the rotary bed just previous to said counter being carried into contact with the stationary
70 knife N*. The other knife, M operates to chamfer or skive the counter along its arc or curved edge. This knife is fixed in a rocker frame, S, which is supported in a
75 bifurcated frame, T, by means of journals, *d*, *d*, the whole being arranged as seen in Figs. 1, and 2. The frame, T, is jointed to a rotary journal, U, which winds transversely in the top of a post, V, and is clamped in
80 any position therein by means of a set screw, W.

The joint of the frame, T, and the rotary journal, U, is of such character as to enable the frame to be either moved toward or
85 away from the end of the cylinder B, and so as to throw the knife M, against both of the edges of the face clamp, E, and its cylinder B.

In Fig. 5, is exhibited a longitudinal section of the knife, M, and its supporting frame the same representing a spring, X, disposed
90 above the knife and applied to the frame. The object of this spring is to keep the leather close up to the bed just previous to
95 and while such leather is being cut by the knife.

In connection with the face clamp and the rocker frame, S, I employ a lever A', which turns horizontally and has its ful-
100 crum upon the upper end of an angular or bent lever, B', disposed as seen in the drawings, and particularly in Fig. 6, which is an end view of the machine. Studs *e*, *f*, project from the inner side of said lever, A',
105 and near each end of it and rest respectively against the middle of the rocker frame, S, and the outer end of the shaft, F. The bent lever, B', turns upon a fulcrum at *g*, and has its horizontal arm extending below the
110 base plate and beyond the same such arm, when in use being connected with a foot

treadle. By means of these levers B', and A', the clamp plate and the rocker frame, S, are simultaneously moved toward the rotary bed, the clamp plate being carried into contact with the leather to be skived while the knife is borne against the thin edge of the clamp plate and against the edge of the rotary cylinder and so that whatever may be the thickness of the piece of leather, the knife will be made by the peculiar action of the mechanism just described to adapt itself to that thickness. At the same time that the face clamp is moved toward the cylindrical bed, the peripheral clamp will also be borne down upon a counter placed on the periphery of the cylinder and between the same and the said clamp.

The cylinder B, may be put in rotation by means of power applied to a crank, C', or any other suitable contrivance fixed on the shaft of the cylinder, and when such cylinder is supplied with two segmental counters, arranged upon its end and periphery respectively as hereinbefore described, and it is put in rotation, they will be carried in contact with their respective knives and be skived, the one being chamfered along its curved edge and the other on its straight edge or chord.

In using this machine it is customary, to first place a counter on the end of the cylinder and after chamfering it along its arc, it is removed from the end and fixed on the periphery of the cylinder, another counter at the same time being fixed against the end of the cylinder. Consequently during the subsequent rotation of the cylinder, two counters will be skived. Each counter pre-

vious to being introduced into the machine should be made in the form of a segment of a circle.

Having thus described my machine I would remark that I claim—

1. Combining with the rotary cylinder bed or carrier B, its face clamp E, and arc cutter M, the peripheral clamp I, and its cutter N, the whole being arranged and made to operate so as to perform the function of beveling along the arc of one counter and the chord of another during one revolution of the said cylinder bed as specified.

2. I also claim combining the arc knife or cutter, M, the cylindrical bed or carrier and the clamp thereof, by means of mechanism substantially as described in order that such arc knife or cutter may adopt itself to a leather counter of any ordinary thickness held between the clamp and the plane surface of the cylindrical bed, such means or mechanism being the rocker frame S, and the adjusting lever, A, supported and made to operate substantially as specified.

3. I also claim supporting the bifurcated frame T, of the rock frame S, by means of a rotary journal and clamp or the equivalent thereof, so that the angular position of the knife M, with respect to the plane surface of the rotary carrier, B, may be changed as circumstances may require.

In testimony whereof, I have hereunto set my signature this twenty eighth day of February A D. 1855.

LUTHER HILL.

Witnesses:

SAMUEL CLOON,
JOHN ALLEN.