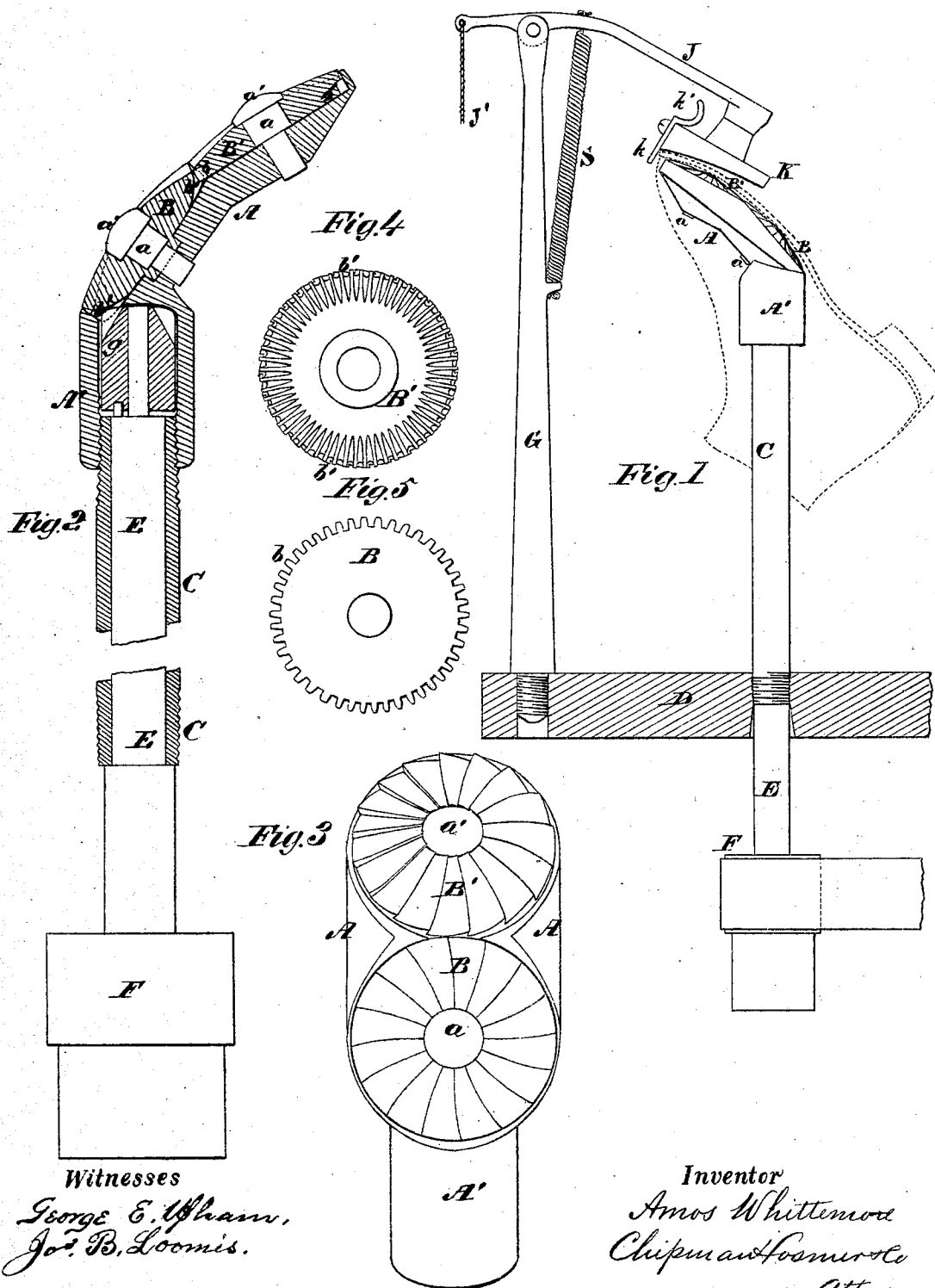


A. WHITTEMORE.
Peg-Cutters.

No. 145,469.

Patented Dec. 9, 1873.



Witnesses

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UNITED STATES PATENT OFFICE.

AMOS WHITTEMORE, OF CAMBRIDGEPORT, MASSACHUSETTS.

IMPROVEMENT IN PEG-CUTTERS.

Specification forming part of Letters Patent No. **145,469**, dated December 9, 1873; application filed October 16, 1873.

To all whom it may concern:

Be it known that I, AMOS WHITTEMORE, of Cambridgeport, in the county of Middlesex and State of Massachusetts, have invented a new and valuable Improvement in Peg-Cutters; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of my peg-cutter in position for operation. Fig. 2 is a sectional view of the same. Figs. 3 and 4 are detail views of the same.

This invention has relation to rotary cutters for cutting off the ends of pegs in boots and shoes. My object is to improve the peg-cutter for which Letters Patent were granted to me bearing date July 15, 1873, first, by combining, in a rigid inclined cutter-stock, one or more rotary cutters, which present convex cutting-surfaces, and are geared closely together, so that the chips cannot get between and clog the gears; second, by the employment, in a peg-cutter, of an external guide for the edge of a boot or shoe sole, which guide will indicate with certainty the position of the cutters while at work on the inside of the sole; third, by the employment of a pressure-plate in combination with peg-cutters, for holding the sole down upon these cutters.

The following description of my improvements will enable others skilled in the art to understand them.

In the annexed drawings, A represents the cutter-stock, which is constructed with two circular recesses adapted to receive snugly into them two circular cutters, B B', which revolve around central shouldered studs *a a*, having convex or conical heads *a' a'*. The upper edges of the flanges which surround the said circular recesses are in different planes, both of which are inclined with respect to a vertical standard, G, to which the shank A' of the stock A is rigidly secured. The shank A' is formed on the lowest end of the stock A, at an obtuse angle thereto, so that the highest portion of the stock may be conveniently introduced well up to the toe of a boot or shoe. The standard C, which is tubular, is secured in a vertical position to

a bed-plate, D, and receives through it a driving-shaft, E, on the lower end of which a belt-drum, F, is keyed. On the upper end of the shaft E a bevel spur-wheel, *g*, is keyed, which engages with double gear-teeth *b'*, formed on the periphery and bottom surface of the lowest cutter, B, as shown in Fig. 4. The teeth *b'* of the cutter B engage with the teeth *b*, which are formed on the periphery of the cutter B', below the cutting-teeth thereon. The cutters B B' are both alike, but revolve in opposite directions, so that the portions of the ends of pegs which are left by one cutter will be cut off clean by the other cutter. Each cutter presents a convex surface, which is composed of radial cutting-edges, which shear or trim off the exposed ends of the pegs close down to the sole without cutting into the leather. I prevent the cutters from injuring the leather by raising the heads *a'* of the studs *a*, so that they afford a good bearing on the leather.

It will be seen, by reference to Figs. 2 and 3, that the peripheries of the two inclined cutters B B' are brought so close together that pieces of pegs (cuttings) will not be liable to get between or clog the teeth *b b'*. This I accomplished in the peg-cutter for which Letters Patent, numbered 140,803, were granted to me, by means of a guard or flange surrounding one of the cutters and fitted into a groove in the other cutter. I now dispense with said guard, and bring the teeth *b b'* into gear by the angular form of the cutter-head and the double spurs *b'*, which allow the teeth to engage something like miter-gears.

If desirable, the teeth *b b'* may be formed on plates separate from the cutters and then riveted thereto, although I prefer to construct them on the cutters, as shown in the sectional view, Fig. 2.

I have represented two rotary cutters in the drawings; but I may use but one cutter, in which case the cutter B will be omitted and the recess covered by a fixed plate, on which rasping-teeth may be formed.

K represents a circular plate, the bottom of which is beveled and concave, as shown. This plate has a guide, *k*, secured to its periphery, and constructed with a curved finger-extension, *k'*. J is a lever, which is pivoted to the upper end of a post, G, that is fixed into the

plate D, and to which the plate K is rigidly secured. S represents a spring which will hold the plate K down firmly upon the sole of a boot or shoe, and J' is a rod or chain which will be secured to a treadle beneath the bench on which the plate D is secured. The plate K is arranged so as to press on a boot or shoe sole directly over the cutter B, and the guide *k* is arranged so as to reach over the edge of the sole, thus indicating externally the position of the cutter B inside of the sole. By pressing upon the treadle attached to lever J, the plate K can be raised and a boot or shoe adjusted upon or removed from the cutter-stock.

It will be seen that by arranging the cutters in a double-inclined stock, A, as described, they will conform to the concave shape of a boot or shoe sole, and thus allow the cutting-edges to closely clean out the pegs on every part of the sole. This could not be done if the cutters were in the same plane.

What I claim as new, and desire to secure by Letters Patent, is—

1. The rotary cutter B', arranged at the upper end of a double-inclined rigid stock, A, and operated by means of spurred teeth *b*, and double spurs *b'*, and a pinion, *g*, as and for the purposes described.

2. The guide *k* on a pressure-plate, K, in combination with the rotary cutter B', substantially as and for the purposes described.

3. In a machine for cutting pegs from boots and shoes, a plate or device, K, arranged and operated to press upon the outer surface of the sole of a boot or shoe and hold the same down upon peg-cutters, substantially as described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

Witnesses: AMOS WHITEMORE.

J. B. LOOMIS,

GEORGE E. UPHAM.