No. 676,947. Patented June 25, 1901.

H. W. GOULD.

HEEL BEADING TOOL.

(Application filed Sept. 21, 1900.)

(No Model.)

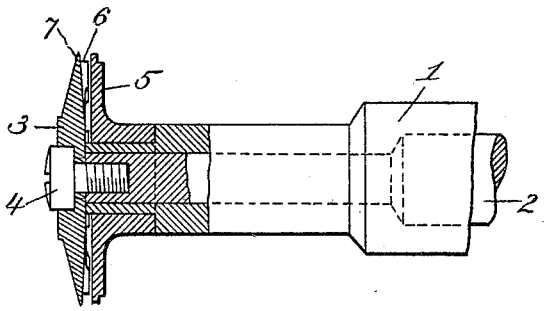

Fig. 1

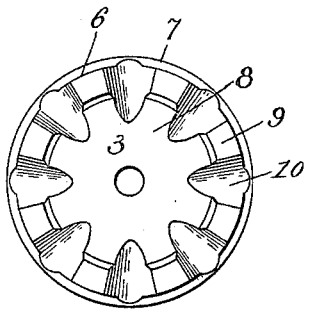

Fig. 2.

WITNESSES

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HEEL-BEADING TOOL.

SPECIFICATION forming part of Letters Patent No. 676,947, dated June 25, 1901.

Application filed September 21, 1900. Serial No. 30,655. (No model.)

To all whom it may concern:

Be it known that I, HOWARD W. GOULD, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Heel-Beading Tools; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to beading-tools for heel-beading machines which are used in the manufacture of boots and shoes for imparting a finished appearance to the edge of the heel next to the upper. Such machines are usually provided with two tools, one of which, termed the "beading-tool," is adapted to hammer or iron the edge of the heel, and the other of which, termed the "indenting-tool," is adapted to form a line of indentations below the edge acted on by the beading-tool. These tools are rotatably mounted side by side on a common axis, the beading-tool being positively driven and the indenting-tool being rotated by contact with the heel. The tools being necessarily placed in close proximity, with their contiguous faces nearly or quite in contact, trouble is often occasioned by the tools becoming wedged together by dirt and by the dressing and particles of leather removed from the heel by the tools, so that the indenting-tool is rotated by the beading-tool and acts to mar the surface of the heel instead of ornamenting it with a line of indentations.

The object of my invention is to provide a beading-tool whereby this result is avoided; and with this object in view my invention consists in the beading-tool hereinafter described and claimed.

A preferred form of my invention is illustrated in the accompanying drawings, in which—

Figure 1 is a detail view of a portion of a heel-beading machine provided with a beading-tool embodying my invention, the beading-tool and the indenting-tool being shown in section; and Fig. 2 is a face view of the beading-tool detached.

Referring to the drawings, in which like characters of reference indicate like parts, 1 indicates a bushing, which is secured in any suitable frame or support, and 2 a shaft journaled therein and given a rapid movement of rotation by any suitable means.

3 indicates the beading-tool, secured to the end of the shaft 2 by means of a screw 4, so as to rotate therewith, and 5 the indenting-tool, loosely journaled concentrically with the shaft 2 on the reduced outer end of the bushing 1. The periphery of the indenting-tool is provided with projecting teeth adapted to form a line of indentations on the surface of a heel presented to the tools, and the periphery of the beading-tool is provided with a surface 6, adapted to bear against the outer surface of the heel at its upper edge and hammer or iron down such surface. The beading-tool is also provided with a guiding-flange 7, projecting beyond the surface 6 and adapted to enter the crease between the heel and the upper.

The construction above described is that which has heretofore been used in heel-beading machines, and its operation is as follows: The shaft 2 and tool 3 being rapidly rotated by any suitable means, the heel of a shoe is presented to the beading and indenting tools, the flange 7 entering the crease between the upper and the heel. As the heel is fed past the tools the indenting-tool is rotated by the engagement of its teeth with the heel and a line of indentations is formed on the surface of the heel. The surface 6 of the beading-tool is customarily formed with a series of elevations or cams, and these cams during the rotation of the tool strike against the outer surface of the heel at its upper edge and hammer and iron down such surface.

As will be evident from an inspection of Fig. 1, the contiguous faces of the beading and indenting tools are in close proximity. As heretofore constructed these faces have been plane, and as a result dirt and the dressing and particles of leather removed from the heel by the tools, lodging between the tools, often serve to lock them together and to cause the indenting-tool to rotate with the beading-tool, in which case the teeth of the indent-

ing-tool cut a groove in the surface of the heel instead of making a line of indentations therein. To avoid this result, I provide the face of the beading-tool next to the indenting-tool, which face I shall hereinafter refer to as the "inner" face, with grooves or recesses, thereby lessening the area of the surface in close proximity to the face of the indenting-tool and affording space for the dirt, dressing, and particles of leather to collect without interfering with the operation of the tools.

My improved beading-tool is preferably constructed as shown in the drawings, in which it will be seen that the central portion of the inner face of the tool is cut away, as at 8, leaving a circular flange 9 at the periphery, and that grooves 10 extend radially from the central recess 8 through the flange 9. These grooves interrupt the peripheral surface 6 of the tool, so that the flange 9 is formed into a series of projections, which will act to hammer and iron down the surface of the heel in the same manner as the cams of prior constructions. Preferably the grooves 10 extend into the flange 7, so that the inner surface of the flange 7 is interrupted and thus caused to act on the upper surface of the heel in the same manner that the surface 6 acts on the outer surface of the heel, the edges of the notches delivering a series of blows upon the upper surface of the heel and acting to hammer and iron down such surface. By extending the grooves 10 to the periphery of the tool they serve to interrupt the surface 6, thereby obviating the necessity of forming such surface with cams or projections, and by extending them into the flange 7 they also serve to interrupt the inner surface of the flange.

During the operation of the tool the dressing collects in the grooves 10 and is forced into the outer ends of the grooves on the flange 7 by centrifugal action in sufficient quantity to be applied to the upper surface of the heel and give such surface a finished appearance.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A heel-beading tool having its inner face provided with grooves extending to the periphery of the tool and interrupting the peripheral surface of the tool, substantially as described.

2. A heel-beading tool provided with a flange to enter the crease between the upper and heel of a shoe, and having its inner face provided with grooves extending to the periphery of the tool and onto said flange, said grooves interrupting the peripheral surface of the tool and the inner surface of said flange, substantially as described.

3. A heel-beading tool having its inner face provided with a central recess, a peripheral flange and radial grooves extending through said flange to the periphery of the tool and interrupting the peripheral surface of the tool, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

HOWARD W. GOULD.

Witnesses:
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