



Witnesses Hu He Shumman

Solward F Bradley
Inventor

By his Attorney

Michael

## Anited States Patent Pffice.

## EDWARD F. BRADLEY, OF BIRMINGHAM, CONNECTICUT, ASSIGNOR TO HOWE MANUFACTURING COMPANY, OF SAME PLACE.

Letters Patent No. 72,718, dated December 31, 1867.

## IMPROVEMENT IN HEAD-ROLLS FOR PIN-MACHINES.

The Schedule referred to in these Petters Patent and making part of the same.

## TO ALL WHOM IT MAY CONCERN:

Be it known that I, EDWARD F. BRADLEY, of Birmingham, in the county of New Haven, and State of Connecticut, have invented a new Improvement in Head-Rolls for Pin-Machine; and I do hereby declare the following, when taken in connection with the accompanying drawings, and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view, and in

Figure 2 a top view.

This invention is designed to be placed in connection with pin-machinery, the object being to roll the head, to remove the burr, and smooth and finish the edge; and consists in the arrangement of two grooved rolls, of different diameters, revolving in the same direction, and in such relative position to the carrier that the pin, when passing from the machine, will enter the groove in the said rolls, and pass down between the same, in which operation the head is rolled and the edge finished.

To enable others skilled in the art to construct and use my improvement, I will proceed to describe the

same as illustrated in the accompanying drawings.

A represents the carrier of a pin-machine, into which the pins are inserted in any convenient manner in their passage from the machine, and after the head has been formed. B C are two rolls, caused to revolve in the same direction, as denoted in fig. 1, the one, B, being of larger diameter than the other, C, and both grooved into the form in which it is desired to finish the edge of the head, and the said rolls located in such relative position to the carrier A, that the carrier in its movement will present the headed pins to the rolls, and guide the pin into the groove, so that the pin will pass down between the two rolls B C.

The revolution of the two rolls being equal, but of different diameters, the periphery of the larger must consequently move faster than the periphery of the smaller, therefore, as the head passes through between the two, the slower-moving surface holds upon one side of the head, while the quicker-moving surface of the other

will cause the pin to revolve, and thus be rolled entirely around its surface.

This object may also be attained by making the two rolls of equal diameter, and varying their revolution so that the one will move quicker than the other, but, in either case, the movement of the carrier must be adjusted so that the carrier will not force the pin through between the rolls, but simply moving as fast as the revolution of the rolls carry the pin through between them. Either of the two rolls, or both, may be arranged so as to be self-adjusted by means of a spring. This would allow a slight yielding of the roll, to accommodate the variation in the size of the head, and may be adjusted to different-sized heads, as compressing-rolls in other machines.

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

The combination of the two wheels B C, having a groove formed in each of their peripheries, and revolving at different surface velocities, when arranged in relative position to the carrying-device, substantially in the manner herein set forth.

EDWARD F. BRADLEY.

Witnesses:

HENRY T. BLAKE, John H. Shumway.