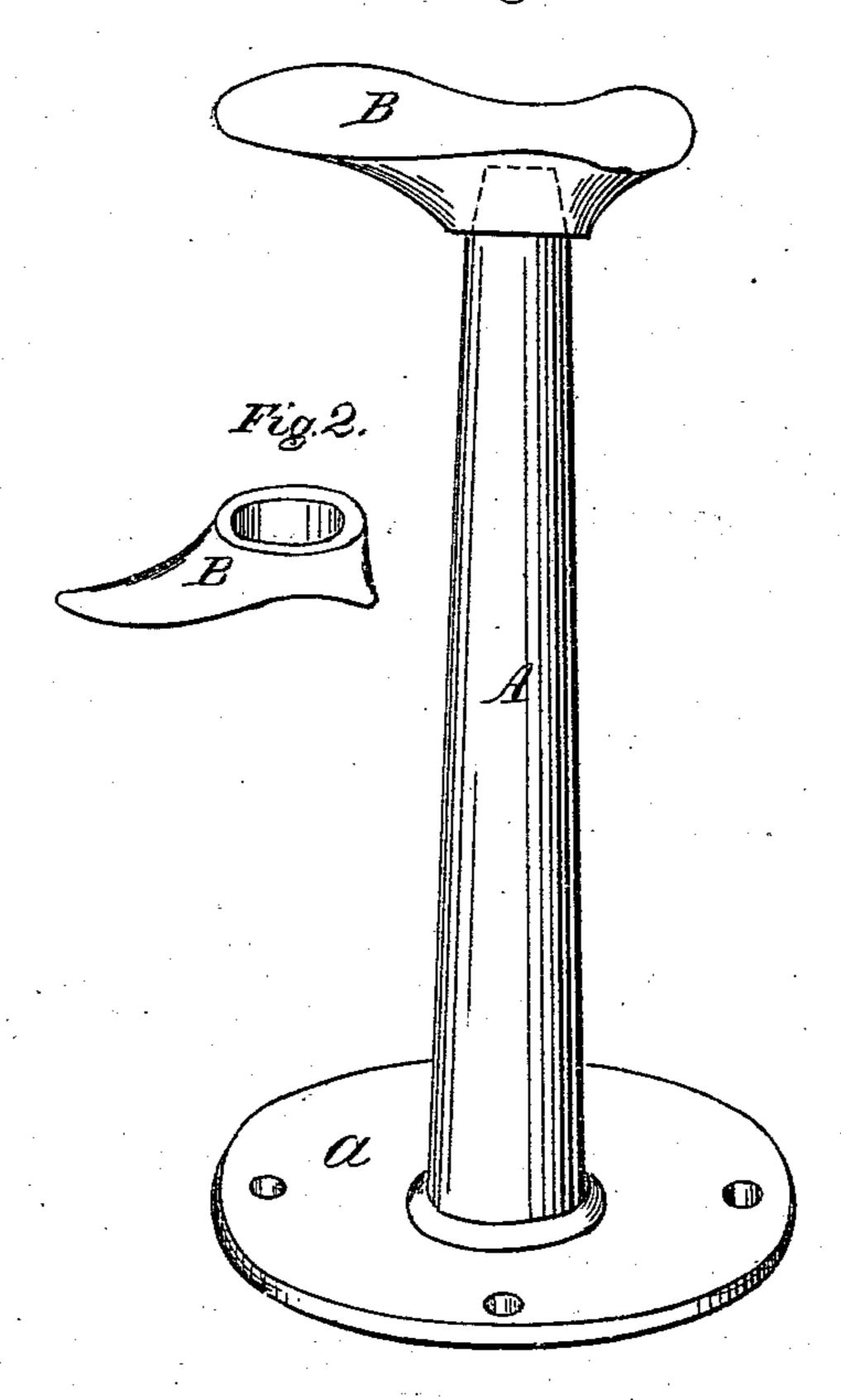
A.C. Townsend,

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Fatented Dec. 8. 1868,





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## G. G. TOWNSEND, OF ROCHESTER, NEW YORK.

Letters Patent No. 84,720, dated December 8, 1868.

## IMPROVED METAL LAST.

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

To all whom it may concern:

Be it known that I, G. G. Townsend, of Rochester, in the county of Monroe, and State of New York, have invented a new and useful Metal Last, and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, making part of this specification, in which—

Figure 1.is a perspective view of the standard and large-sized last; also showing the top of the standard in dotted lines.

Figure 2 is a perspective view of a small-sized last. The nature of my invention will be understood from the drawings and specifications.

To enable others skilled in the art to make and use my invention, I will describe its construction and operation.

I provide a standard, A, fig. 1, on the bottom of which there is a flange, a, through which holes may be put for screws, to fasten it to the table. The top of the standard is made conical, as shown in dotted lines, fig. 1.

I then make several-sized metal forms B, (figs. 1 and 2,) in the shape of shoe-lasts, which have conical holes in them, to receive the upper end of the standard.

In the large size, the heel of the form or last projects, as shown in fig. 1, so that when a large boot or shoe is put on, it presses on both ends of the last, and relieves the pressure on the toe while the nail is being driven in or clenched. The projection of the heel is lessened in proportion to the size of the last, as shown in fig. 2.

The standard A, being made round at the top, and

the hole in the last that receives it, allows the last to turn in all directions, as the operator may desire. Otherwise, the operator has to take the boot off the last and turn it, which is inconvenient.

The object of this invention is to make a metal last that can be inserted in a boot or shoe when the nail is driven in, and, coming in contact with it, rivet it at the same time, which does away with the use of a float to remove the ends of the nail, which will not accomplish the purpose effectually; also, to make it operate in such a manner that the inconvenience of taking the boot off the form is remedied when it is desired to put the boot in any position longitudinally, as desired by the operator, thereby saving time in nailing the soles of boots and shoes.

I do not claim a revolving last, as shown by S. Thurston, (rejected April 5, 1855,) which was a wooden last; nor do I claim a metallic last, per se, as George Marshall's patent, of October 3, 1865, shows a skeleton or metal-soled last, which, however, does not revolve; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

The revolving metallic last B, when made as shown, so as to withstand a blow from the hammer on any portion or point of the face or sole, in combination with the conical-pointed standard A, for the purposes set forth.

G. G. TOWNSEND.

Witnesses:

JAS. LORENZO GAGE, GEO. A. GAGE.