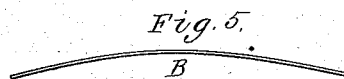
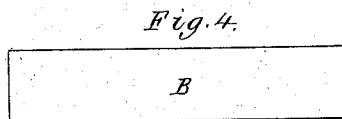
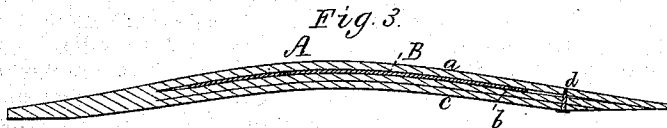
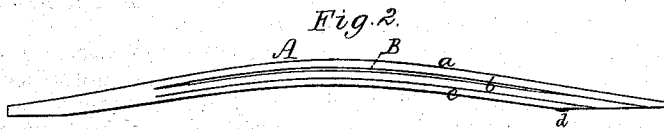
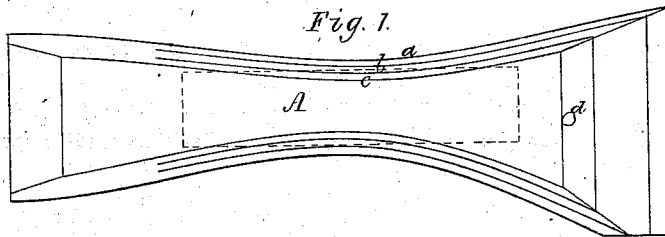


J. M. WATSON.

Shank-Stiffener for Boots, &c.

No. 159,485.

Patented Feb. 2, 1875.



Witnesses

S. N. Piper
L. N. Moller

Jeremiah M. Watson.

by his attorney.
R. H. Ledy

UNITED STATES PATENT OFFICE.

JEREMIAH M. WATSON, OF SHARON, MASSACHUSETTS.

IMPROVEMENT IN SHANK-STIFFENERS FOR BOOTS, &c.

Specification forming part of Letters Patent No. **159,485**, dated February 2, 1875; application filed December 30, 1874.

To all whom it may concern:

Be it known that I, JEREMIAH M. WATSON, of Sharon, of the county of Norfolk and State of Massachusetts, have invented a new and useful Improvement in Shank-Stiffeners for Boots or Shoes; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a bottom view, Fig. 2 an edge elevation, and Fig. 3 a longitudinal section, of a shank-stiffener in accordance with my invention. Fig. 4 is a top view, and Fig. 5 an edge view, of its metallic elastic re-enforce.

As heretofore made, boot or shoe shank-stiffeners have been composed of a single plate or strip of spring steel or metal, or of two metallic plates bowed and fastened together at their middles, as shown in the United States Patent No. 41,701, dated February 23, 1864, and reissued May 19, 1863; or they have been composed of a single strip or spring of wood and a tempered metallic spring laid thereon and united at their middles by a rivet, all as shown in the United States Patent No. 71,003, dated November 19, 1864; or they have been composed of a series of separate strips or layers of wood, united at and near one end of each, all as shown in the United States Patent No. 112,754, dated March 14, 1871, reissued March 4, 1873, and granted on an invention made by the undersigned.

In carrying out my present invention I have combined with a shank-stiffener of the last-mentioned kind an elastic arched plate or re-enforce of metal, arranged between two of the layers of wood, all being as shown in the accompanying drawings, of which A denotes the wooden shank-stiffener composed of a series of layers, *a b c*; and B the metallic arched spring or re-enforce laid between the two upper layers *a b*, and resting near its ends or

along its intrados or lower curved surface, against the upper surface of the lower layer *b*. In order to keep the re-enforce in place I sometimes connect the layers *a b c* at or near their free ends by a tack or nail, *d*, driven into them, and to be pulled out preparatory to the introduction of the stiffener into the shank of a shoe or boot.

With the re-enforce and my wooden shank-stiffener arranged as described, I am able to make the wooden portion or portions much lighter than I can without the re-enforce, and I obtain all the advantage of the metallic spring and single wooden spring arranged as shown in Patent No. 71,003, hereinbefore mentioned, with the additional one of completely protecting the shoe from wear by, or injury from, the re-enforce, which, if not covered on both of its opposite sides by wood, is liable, while the shoe may be in wear to soon cut into or through the next adjacent surface of leather.

I do not herein claim a shank-stiffener composed of a series of layers of wood, or in other respects, as claimed in the reissue of my aforesaid Patent No. 112,754; nor do I claim a shank-stiffener composed of one or more layers of spring steel; nor one composed of a single layer or spring of wood and a layer or spring of metal, fastened together at their middles, all as shown in aforesaid Patent No. 71,003.

I claim—

An improved shank-stiffener for boots or shoes, composed of two or more layers or springs of wood, combined with an intermediate integral layer or spring of metal, as shown, for the purpose specified.

JEREMIAH M. WATSON,

Witnesses:

R. H. EDDY,
J. R. SNOW.