J. M. WATSON.
Shoe-Shank Stiffener.

No. 209,530. Patented Oct. 29, 1878.

Fig. 1.

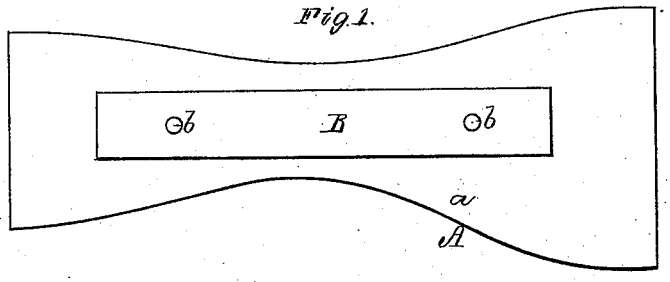


Fig. 2.

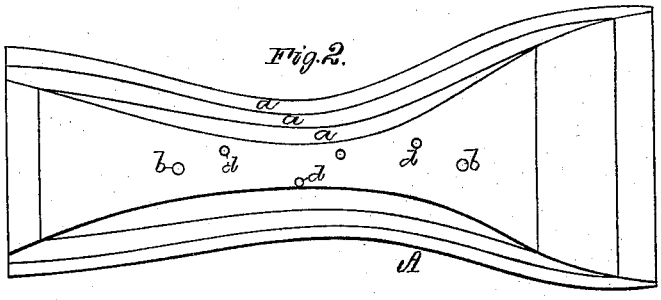


Fig. 3.

Fig. 4.

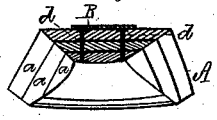
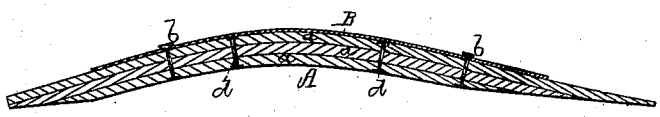


Fig. 5.



Witnesses.
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UNITED STATES PATENT OFFICE.

JEREMIAH M. WATSON, OF SHARON, MASSACHUSETTS.

IMPROVEMENT IN SHOE-SHANK STIFFENERS.

Specification forming part of Letters Patent No. **209,530,** dated October 29, 1878; application filed March 14, 1878.

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 Shoe-Shank Stiffenings; and do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view, Fig. 2 a bottom view, Fig. 3 an edge elevation, Fig. 4 a transverse section, and Fig. 5 a longitudinal section, of a shoe-shank stiffening made in accordance with my invention, which consists in a shank spring or stiffener composed of two or more arched layers of wood, a series of connecting-rivets going into or through them, and a metallic plate-spring disposed against the convex side of the wooden spring, and connected thereto by rivets going through such plate-spring at or near its ends and into or through the wooden spring, all being substantially as represented.

In the drawings, A denotes the wooden spring, composed of a series of two or more layers or strata, *a a*. B is the metallic spring, which is laid on the convex side of the wooden spring, and is secured thereto by two nails or rivets, *b b*, going through the said metallic spring near its ends and into or through the wooden spring. Furthermore, after having bent or arched the wooden spring, (composed of two or more layers, *a*, or of a single piece of wood split, cut, or sawed lengthwise and flatwise partially through it from or near one toward the other end of it,) I generally drive it into nails or insert in it transversely and through it rivets *d d*, so as to hold or aid in holding the layers together and in their curved state, after which I apply and fix, as set forth, to the convex side of the wooden spring the metallic spring B.

I am aware that it is not new to make a composite shank spring or stiffener of a wood spring and a metallic spring united at their middles only by a single rivet, such being as shown in the United States Patent No. 71,003. Nor is it new to make one as represented in the United States Patent No. 112,754, granted to me, in which the spring is composed of several strips or layers of wood. Nor is it new to combine a wooden spring, as last mentioned, with a metallic spring arranged between the layers of the wooden spring, such being shown in the United States Patent No. 159,485, granted to me. Nor is it new to compose a shank-stiffener of a single piece of leather and a metallic spring fastened to the convex side thereof by two rivets going through the spring near its ends. Therefore I do not herein claim such.

My present shank-stiffener differs therefrom in having the wooden spring composed of two or more layers or of a single piece split lengthwise, as described, such affording a degree of elasticity greater than can be obtained by a solid spring in one piece and of the same size, because the leaves or layers of the spring can slide on one another while the spring is being bent, even though they may be connected by tacks or rivets.

What, therefore, I claim as my present invention is as follows—that is to say:

As a new or improved manufacture, a shank-stiffener composed of two or more arched layers of wood, a series of connecting nails or rivets, going into or through them, and a metallic plate-spring arranged against the convex side of the wooden spring, and connected thereto by rivets arranged at or near both ends of the metallic spring, all being substantially as specified and represented.

JEREMIAH M. WATSON.

Witnesses:
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