I. Matsin,

Monden Shank for Shaes.

No. 112754.

Patented Mar. 14. 1871.

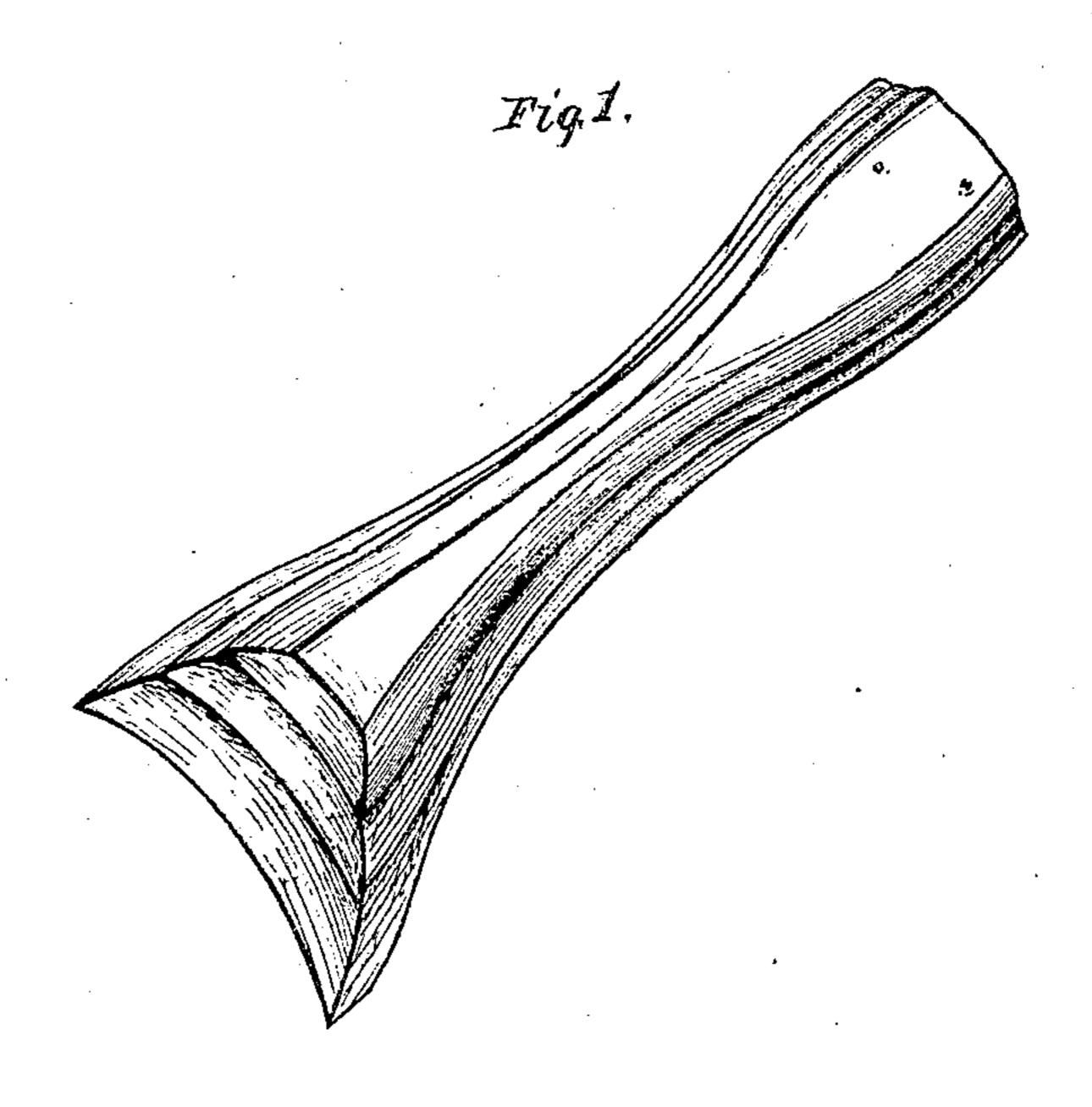


Fig. 2.



Witnesses. Geo. A. Loving Guffelt Jeremiah Mears Watson.

By. his Attorney.

Frederick Outto.

## UNITED STATES PATENT OFFICE.

JEREMIAH MEARS WATSON, OF SHARON, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND HORACE A LOTHROP

## IMPROVEMENT IN WOODEN SHANKS FOR SHOES AND BOOTS.

Specification forming part of Letters Patent No. 112,754, dated March 14, 1871.

To all to whom these presents shall come:

Be it known that I, Jeremiah Mears Watson, of Sharon, in the county of Norfolk and State of Massachusetts, have originated a new and useful Improvement in Wooden Shank-Stiffeners for Boots and Shoes; and do hereby declare the following to be a full, clear, and exact description thereof, due reference being had to the accompanying drawing, making part of this specification, and in which—

Figure 1 is a perspective representation, and Fig. 2 a longitudinal section, of said invention.

I am aware that it has been heretofore customary to produce shank-stiffeners of several flat plates or "leaves" of steel, united together at one end; and I am also aware that a shank-stiffener has, previous to the origin of my present invention, been formed of one solid piece of wood. I am also aware that a shank has been made of a single piece of wood, steamed and pressed into form. Neither of these constructions is the equivalent of mine.

The steel plates, being of necessity flat, in order to possess any elasticity, do not conform to the irregular shape of the tread of the last, while the wooden shank, made by either of the processes heretofore used, if of sufficient thickness to possess the requisite strength, has no elasticity.

My present invention is intended to secure, in a wooden shank, stiffness, elasticity, strength, cheapness, and a form to correspond to the bottom of the last upon which the boot is made.

It has the further advantage that the shank can be made of any desired height, and yet be so flexible that the boot can be bent and set to any desired shape after being taken

from the last. This is not true of a steel shank, nor of any shank that is molded to a special form previous to its insertion in the boot. This advantage is of great importance, as is well known to boot-manufacturers.

In carrying out my invention suitable strips of wood are laid upon one another, and a series of shank-stiffeners, such as are represented in the accompanying drawing, are, by means of dies similar to those employed in cutting soles, cut from said strips.

The layers thus produced, and which constitute in aggregate the shank-stiffener, are confined together at one end by a rivet or its equivalent, in order to maintain a proper union of the same, and yet secure the requisite degree of elasticity by permitting one leaf to slide upon another.

The natural grain of the wood permits of a curved transverse outline of the leaves without interfering, to any injurious extent, with its longitudinal elasticity, which the nature of steel will not permit of.

I thus secure in a shank-stiffener a curved transverse form and elasticity, which has never before, to my knowledge, been attained, and which has been found in practice to be a matter of great value.

Claim.

I claim-

A wooden shank-stiffener made from several separate strips or layers of wood, substantially as herein described.

JEREMIAH MEARS WATSON.

Witnesses:

FRED. CURTIS, EDWARD GRIFFITH.