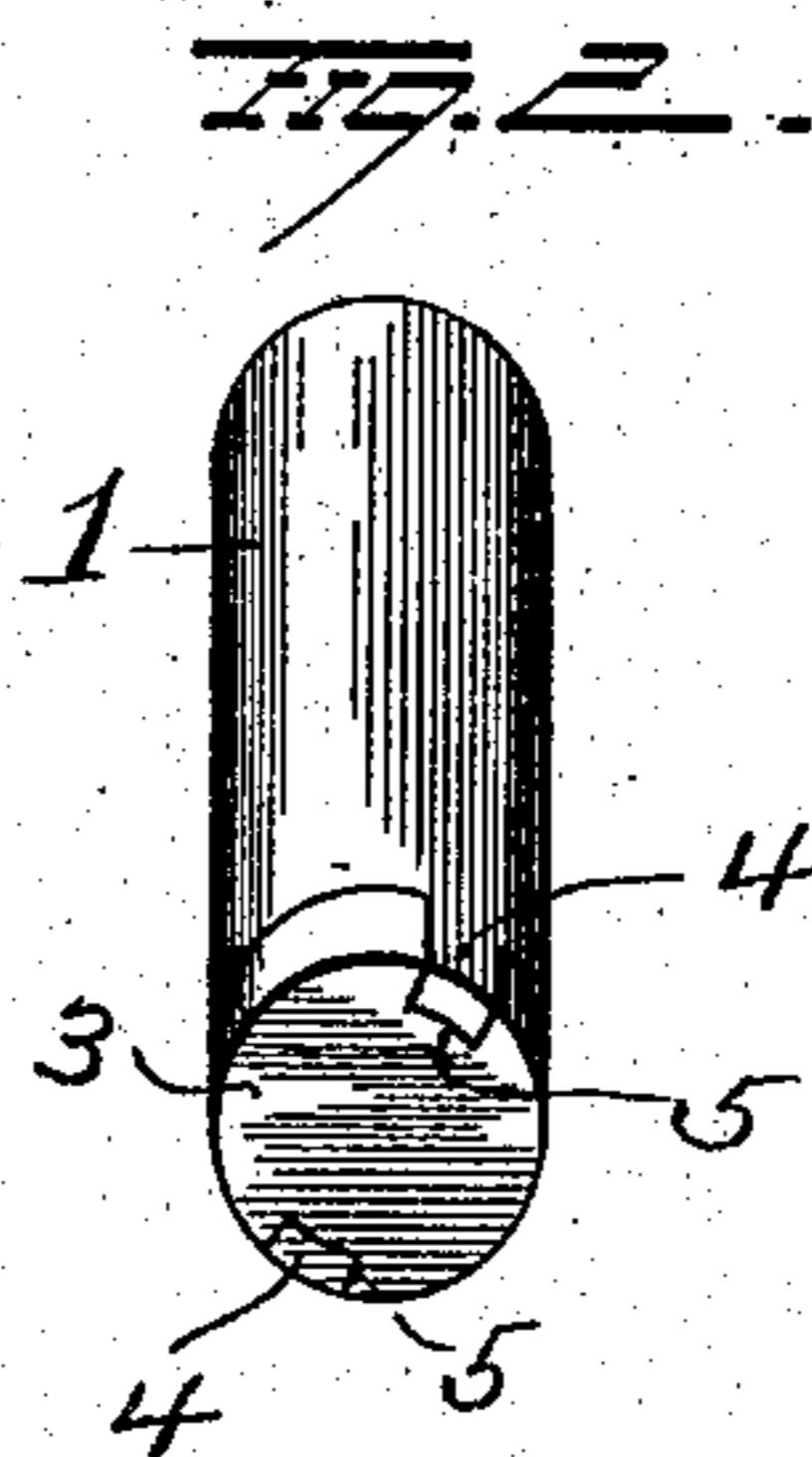
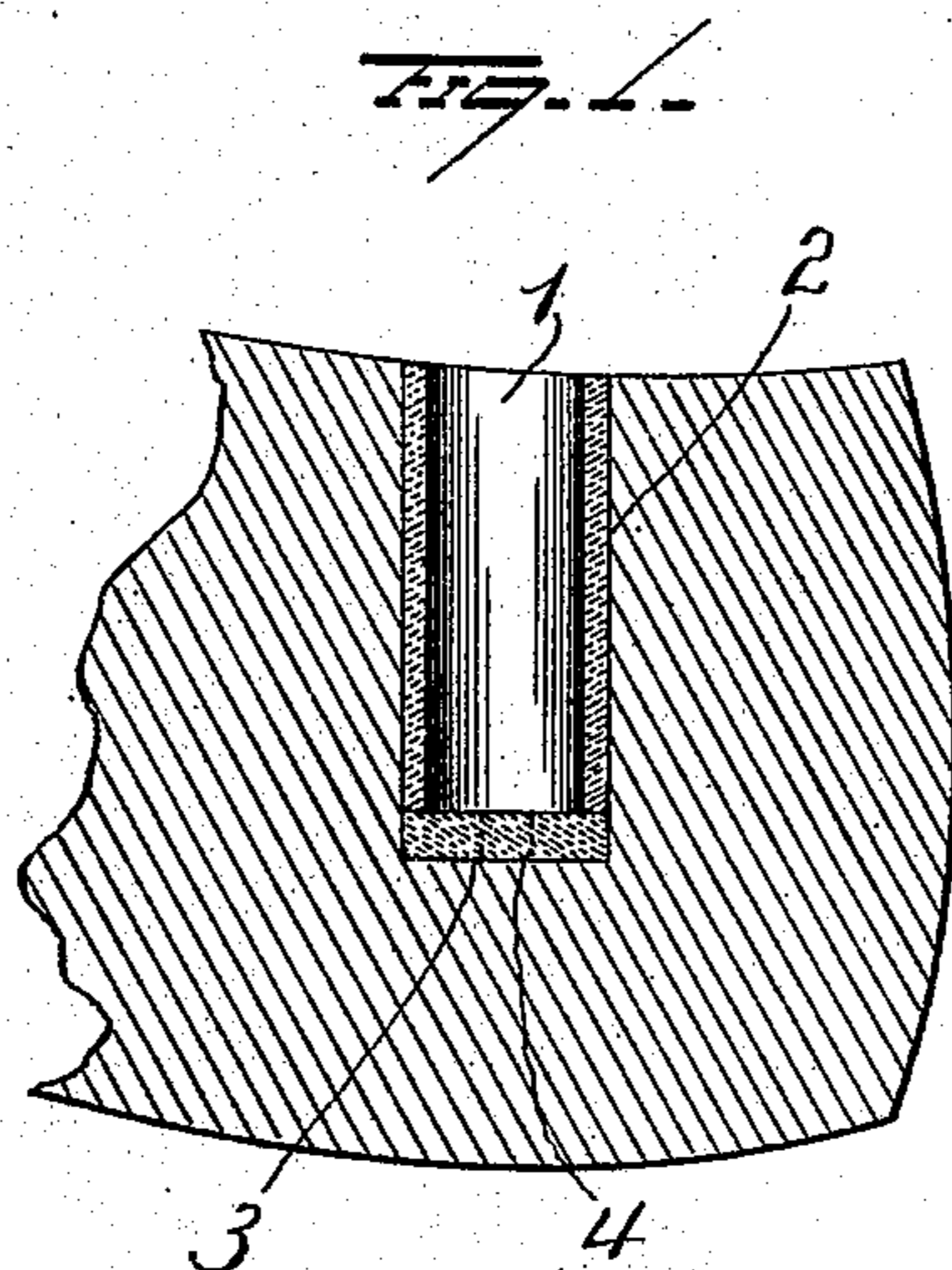


905,138.

F. E. BENTON.  
SHOE LAST.  
APPLICATION FILED FEB. 7, 1908.

Patented Dec. 1, 1908.



WITNESSES

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# UNITED STATES PATENT OFFICE.

FRANCIS E. BENTON, OF STOUGHTON, MASSACHUSETTS.

## SHOE-LAST.

No. 905,138.

Specification of Letters Patent.

Patented Dec. 1, 1908.

Application filed February 7, 1908. Serial No. 414,717.

*To all whom it may concern:*

Be it known that I, FRANCIS E. BENTON, of Stoughton, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Shoe-Lasts; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in shoe-last and more particularly to the construction and manner of applying a thimble thereto,—the object of the invention being to provide a shoe-last with a thimble, the expansive and contractive qualities of which shall be substantially the same in degree as are those possessed by the woodenlasts in which the thimble is secured.

A further object is to so construct and apply a thimble to a last that danger of rust and corrosion shall be avoided and so that no sharp edges will be presented which might mar or injure in any way the lining of a shoe.

A further object is to provide a thimble which can be secured in a last of light material without danger of splitting the last as would be liable to occur when a metallic thimble is driven into the socket in the last.

With these objects in view the invention consists in the novel features hereinafter set forth and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view of a shoe-last, partly in section, showing the application of my invention thereto, and Fig. 2 is a detail view showing an embodiment of my improved thimble.

Heretofore it has been the practice to provide shoe-last with metal thimbles secured in the sockets in the lasts in various ways, but in the manufacture of shoes the wooden lasts are subjected to the action of considerable moisture, both in the form of water and of steam, which cause the lasts to expand. Such expansion of the lasts causes the metal thimble to become loose in its socket and drop out. Furthermore the moisture to which the lasts are subjected will cause the metal thimbles to rust and therefore mar the lining of a shoe and sharp edges will be presented which are liable to injure said lining.

To overcome the defects heretofore encountered with the use of metallic thimbles, I propose to construct a thimble 1 of a material which will expand and contract in practically the same degree as will the wooden last into the socket of which said thimble is inserted. For this purpose I have found fiber to be efficient and therefore the thimble 1 is constructed of compressed fiber and inserted without the necessity of driving into the socket 2 of the last. Before inserting the thimble however, it may be found desirable to coat the same with glue.

A bottom 3 is provided for the thimble and may be inserted into the socket 2 before placing the thimble in position. It is desirable however, that the bottom 3 shall be made a permanent part of the thimble and to secure this result conveniently, the wall of the thimble is provided at its lower end with two or more lugs or projections 4 which enter notches 5 in the periphery of the bottom 3, and the latter may be secured in position by means of glue if desired.

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

1. The combination with a shoe-last having a socket, of a thimble located in said socket and made of a material different from that of which the last is made and having substantially the same qualities of expansion and contraction as those of the last.

2. The combination with a shoe-last having a socket therein, of a fiber thimble secured in said socket and having substantially the same qualities of expansion and contraction as those of the last.

3. The combination with a shoe last having a socket therein, of a fiber thimble located within said socket and retained thereby by an adhesive material.

4. The combination with a shoe last having a socket therein of a fiber thimble in said socket, and a bottom secured to one end of said fiber thimble.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

FRANCIS E. BENTON.

Witnesses:

MARY R. KNOWLTON,  
CHAS. H. LERCH.