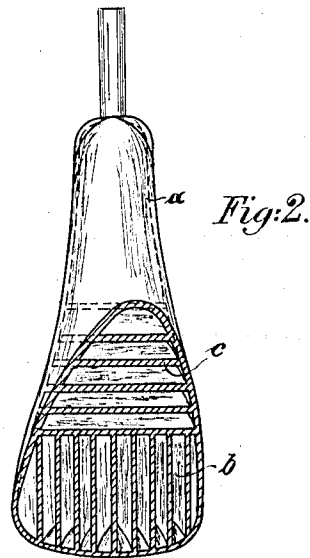
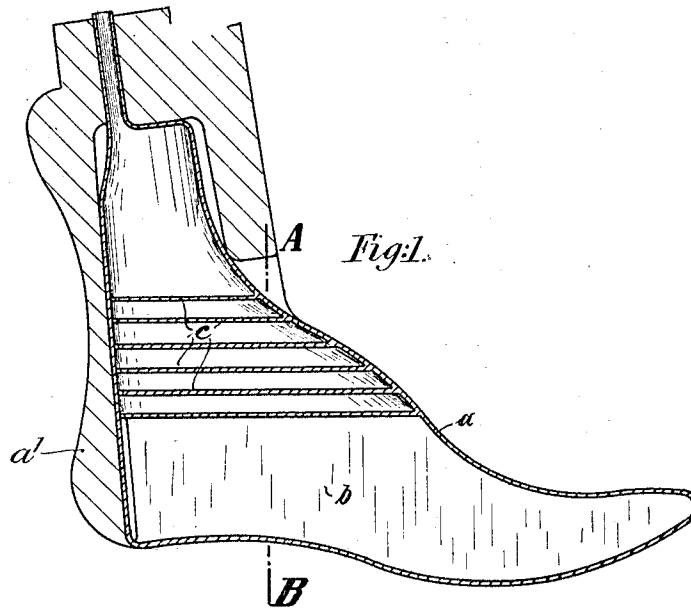


A. H. M. GRUNE.
PNEUMATIC BOOT TREE.
APPLICATION FILED SEPT. 20, 1911.

1,048,826.

Patented Dec. 31, 1912.



Witnesses.
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UNITED STATES PATENT OFFICE.

AUGUST HERMANN MAX GRUNE, OF PIRMASENS, GERMANY.

PNEUMATIC BOOT-TREE.

1,048,826.

Specification of Letters Patent.

Patented Dec. 31, 1912.

Application filed September 20, 1911. Serial No. 650,337.

To all whom it may concern:

Be it known that I, AUGUST HERMANN MAX GRUNE, a subject of the German Emperor, residing at Pirmasens, in Germany, have invented a certain new and useful Improvement in Pneumatic Boot-Trees, of which the following is a specification.

The object of the present invention is an improvement in boot and shoe trees wherein a rigid heel part is combined with an inflatable foot part. It has been found that there is a certain tendency of the inflatable part to assume a bulbous shape, whereby the pattern of the upper is more or less contorted.

The present invention consists in providing the inflatable part with interior partition walls which conform in outline to the shape of the pattern and serve to preserve the shape of the tree.

The invention is illustrated in the accompanying drawing, in which:—

Figure 1, is a vertical longitudinal section of the tree, Fig. 2, is a section on the line A—B of Fig. 1.

In the drawing, *a* represents the inflatable part of the tree, and *a'* the rigid heel part, the part *a* being a bag of india-rubber, which may be inclosed in a sheath of leather or the like and is provided with partition walls *b* and *c*, arranged to maintain the shape of the tree. The horizontal partition walls *c* are spaced at suitable intervals from the lower end of the leg to the height of the instep and their edges are integral with the inner face of the bag *a* at the front and at the sides. The vertical partition walls *b* are spaced apart and extend parallel to the longitudinal

axis of the foot; in vertical height they extend from the sole of the bag to the lowermost of the horizontal partition walls to which they connect. These partition walls are joined to the interior of the bag at all parts except at the rear, adjacent to the rigid heel part of the tree; at this rear part, passages are left for the air.

The bag is designed and cut according to the smallest size of the pattern in question (with proper allowance for inflation) and the suitably distributed partition walls insure that the shape of this pattern is maintained when the tree is inflated for larger sizes.

What I claim as my invention and desire to secure by Letters Patent of the United States is:—

In a boot or shoe tree, the combination of a rigid heel part, and an inflatable foot part forming a unitary structure, of a plurality of horizontal partition walls within said foot part spaced apart in the space between the lower end of the leg and the instep and connecting the opposite side walls of the foot part, and a plurality of vertical partition walls within said foot part connected at intervals to the sole thereof and extending to the lower horizontal partition, and connected thereto, said partition walls having spaces for the passage of air therethrough.

In witness whereof I have signed this specification in the presence of two witnesses.

AUGUST HERMANN MAX GRUNE.

Witnesses:

MAX ZUTTER,
N. FRANBY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."