

(No Model.)

W. ROBERTS & M. BEVAN.
ARTIFICIAL FOOT.

No. 598,230.

Patented Feb. 1, 1898.

Fig. 1.

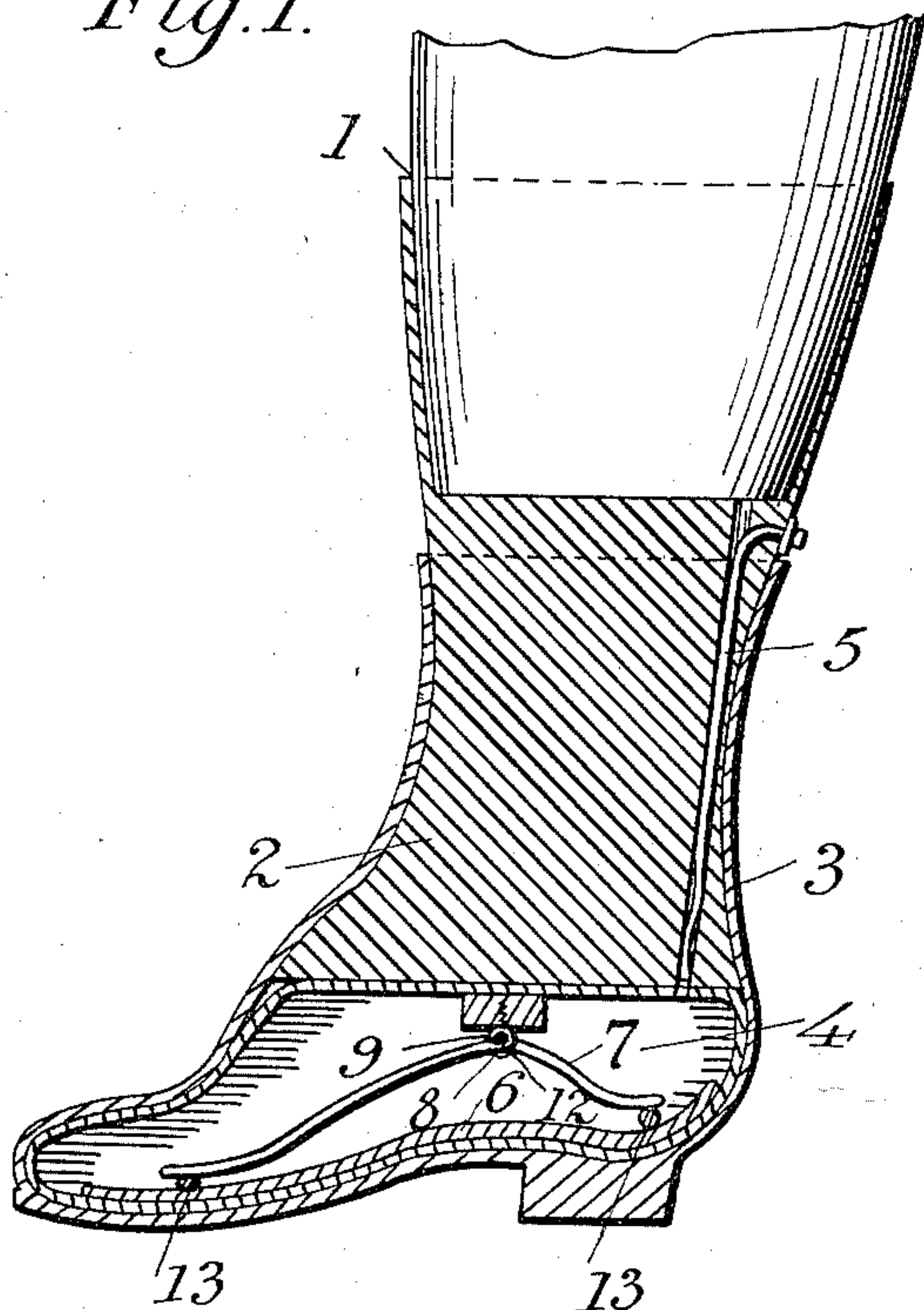


Fig. 2.

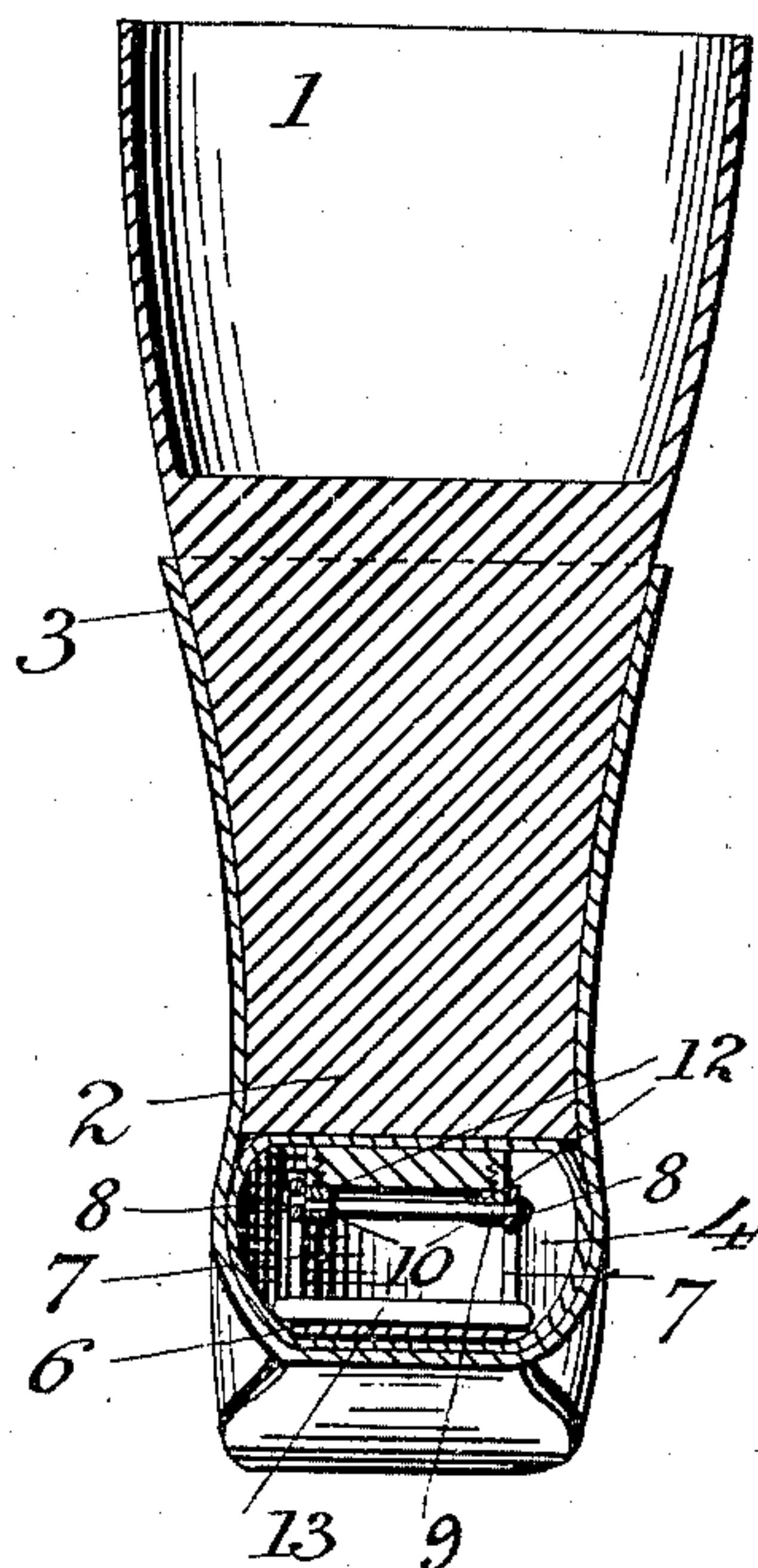


Fig. 3.

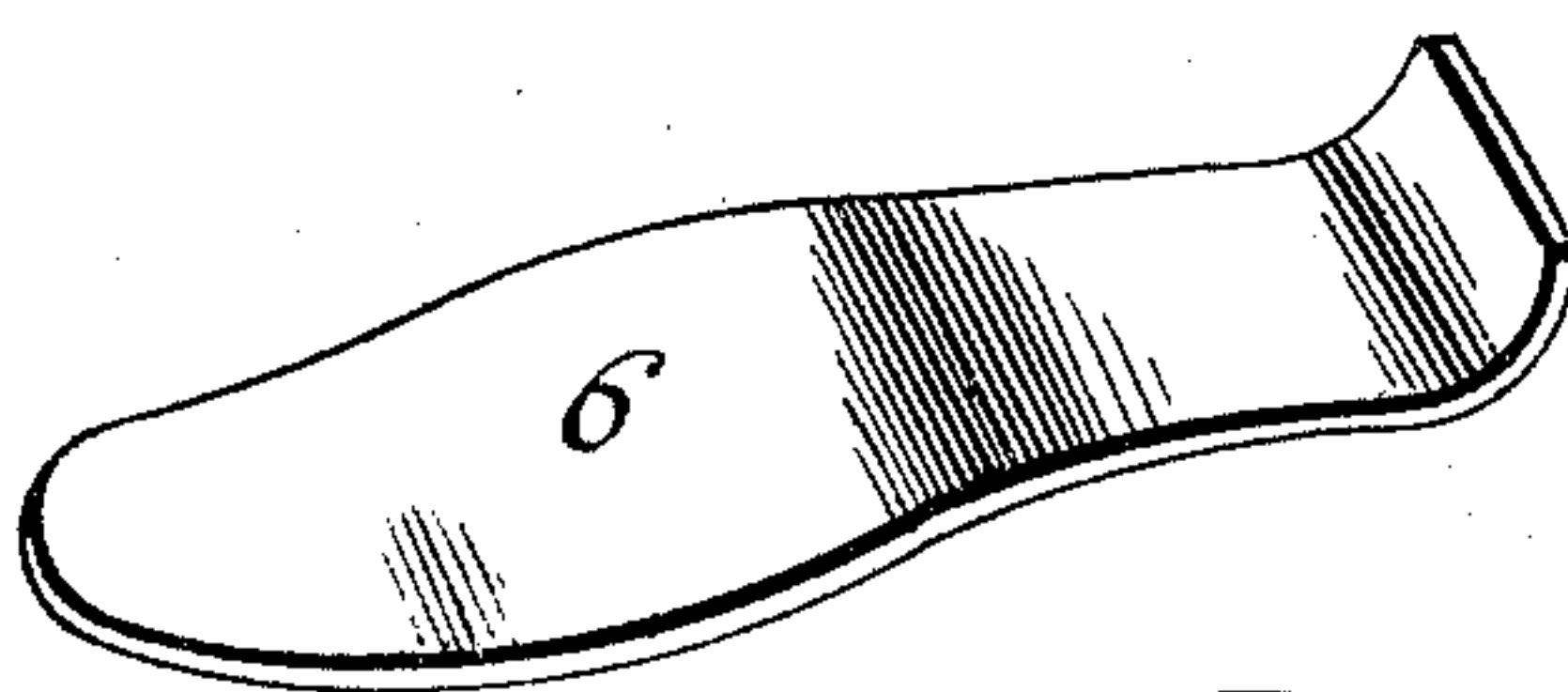
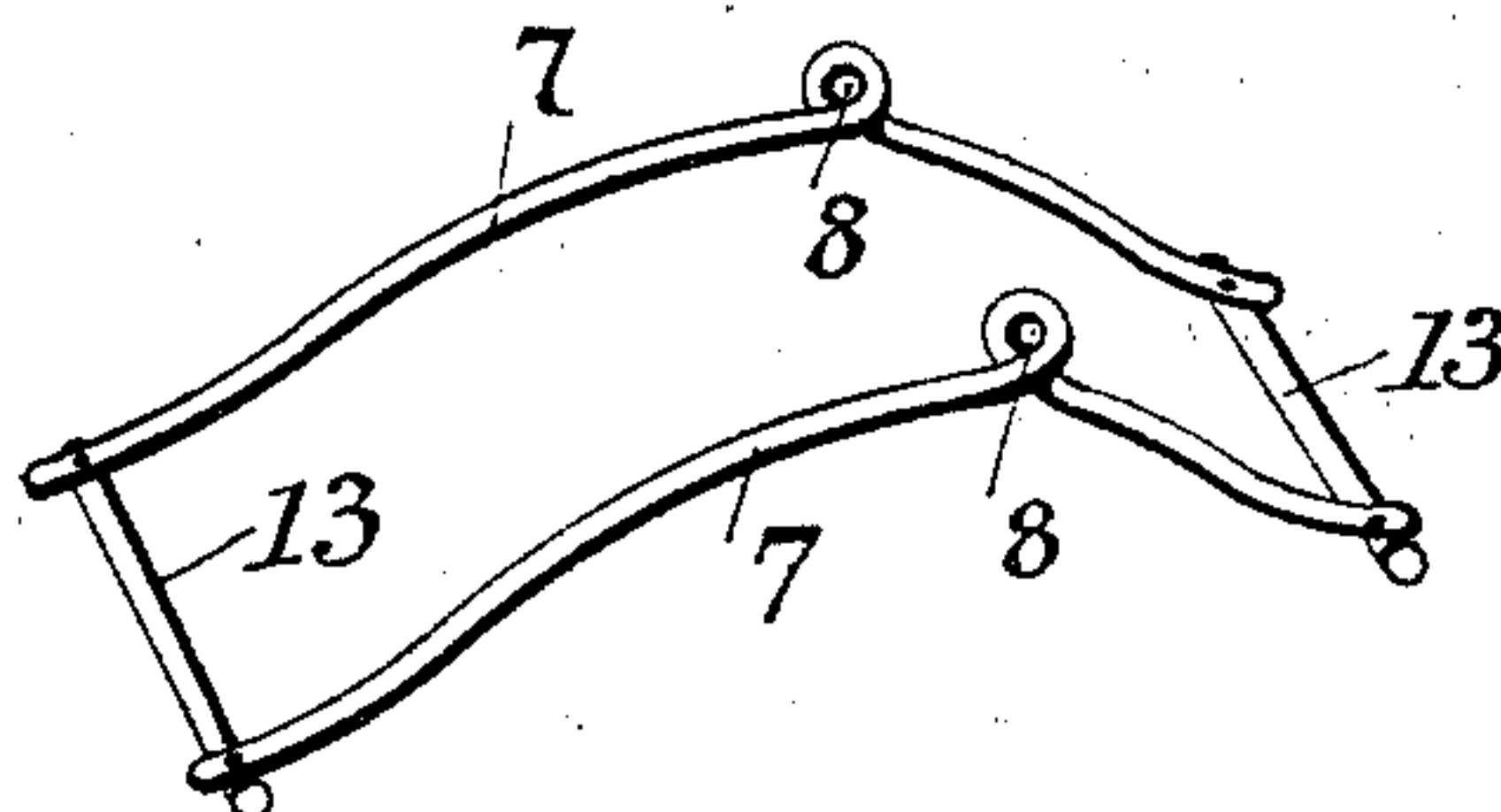


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM ROBERTS AND MORGAN BEVAN, OF PLYMOUTH, PENNSYLVANIA.

ARTIFICIAL FOOT.

SPECIFICATION forming part of Letters Patent No. 598,230, dated February 1, 1898.

Application filed June 3, 1897. Serial No. 639,323. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM ROBERTS and MORGAN BEVAN, citizens of the United States, residing at Plymouth, in the county of Luzerne and State of Pennsylvania, have invented certain new and useful Improvements in Artificial Feet; and we do 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.

Our invention relates to an improved artificial foot, which shall be simple of construction, durable in use, and comparatively inexpensive of production.

To this end the novelty consists in the construction, combination, and arrangement of the same, as will be hereinafter more fully described, and particularly pointed out in the claim.

In the accompanying drawings the same reference characters indicate the same parts of the invention.

Figure 1 is a longitudinal section of an artificial pneumatic foot embodying our invention. Fig. 2 is a transverse section of the same. Fig. 3 is a perspective view of the pressure-plate removed from the foot. Fig. 4 is a similar view of the spring-frame connecting the pressure-plate with the foot-socket.

1 represents the socket, which receives the stump, and the lower end of said socket terminates in a block 2, approximating in shape to the upper portion of the human foot, and it is neatly encompassed by the shoe 3, leaving a chamber between the bottom of the block and the insole of the shoe.

4 represents a pneumatic sole which completely fills this chamber, and said sole is provided with an inflating-tube 5; which passes up through the block 2, its upper end terminating at a suitable point above the upper edge of the shoe, where it is provided with the usual socket connection and check-valve, through the medium of which the pneumatic sole is inflated, similar to the pneumatic tire of the ordinary bicycle.

6 represents a metallic insole located in the bottom of the pneumatic sole 4, and it is provided with a protecting fabric or shield, of any suitable material, to prevent it oxidizing.

In practice the insole 6 may be firmly cemented to the pneumatic sole in the process of vulcanizing the rubber.

7 7 represent two parallel semi-elliptical springs, which are provided with integral alined eyes 8 8, which receive a rod 9, fulcrumed in the eyes 10 10 of the studs 12 12, rigidly fixed in the lower end of the block 2.

The springs 7 7 are connected at their inner and outer ends with transverse cylindrical braces 13 13, which form a bearing on the spring-metal insole 6. This construction enables the wearer to bend the foot in a natural manner when in the act of walking, and the springs 7 7 restore it to its normal position when the foot is raised from the ground.

Should the pneumatic sole become deflated from any cause, the springs form a suitable bearing for the foot temporarily until the damage is repaired.

Although we have specifically described the construction and relative arrangement of the several elements of our invention, we do not desire to be confined to the same, as such changes or modifications may be made as clearly fall within the scope of our invention without departing from the spirit thereof.

Having thus fully described our invention, what we claim as new and useful, and desire to secure by Letters Patent of the United States, is—

An artificial foot comprising the socket 1, the block 2, secured in the lower end thereof, in combination with the pneumatic sole 4, provided with an inflating-tube 5 extending vertically upward through said block, a spring-metal insole 6 located within said pneumatic sole, the semi-elliptical springs 7 7 provided with transverse braces 13 13, and integral eyes 8 8, the rod 9 engaging said eyes and mounted in eyes 10 10 of the vertical studs 12 12 rigidly fixed in the lower face of the block 2, substantially as shown and described.

In testimony whereof we hereunto affix our signatures in presence of two witnesses.

WILLIAM ROBERTS.
MORGAN BEVAN.

Witnesses:

A. W. JONES.
JOHN JAHNE.