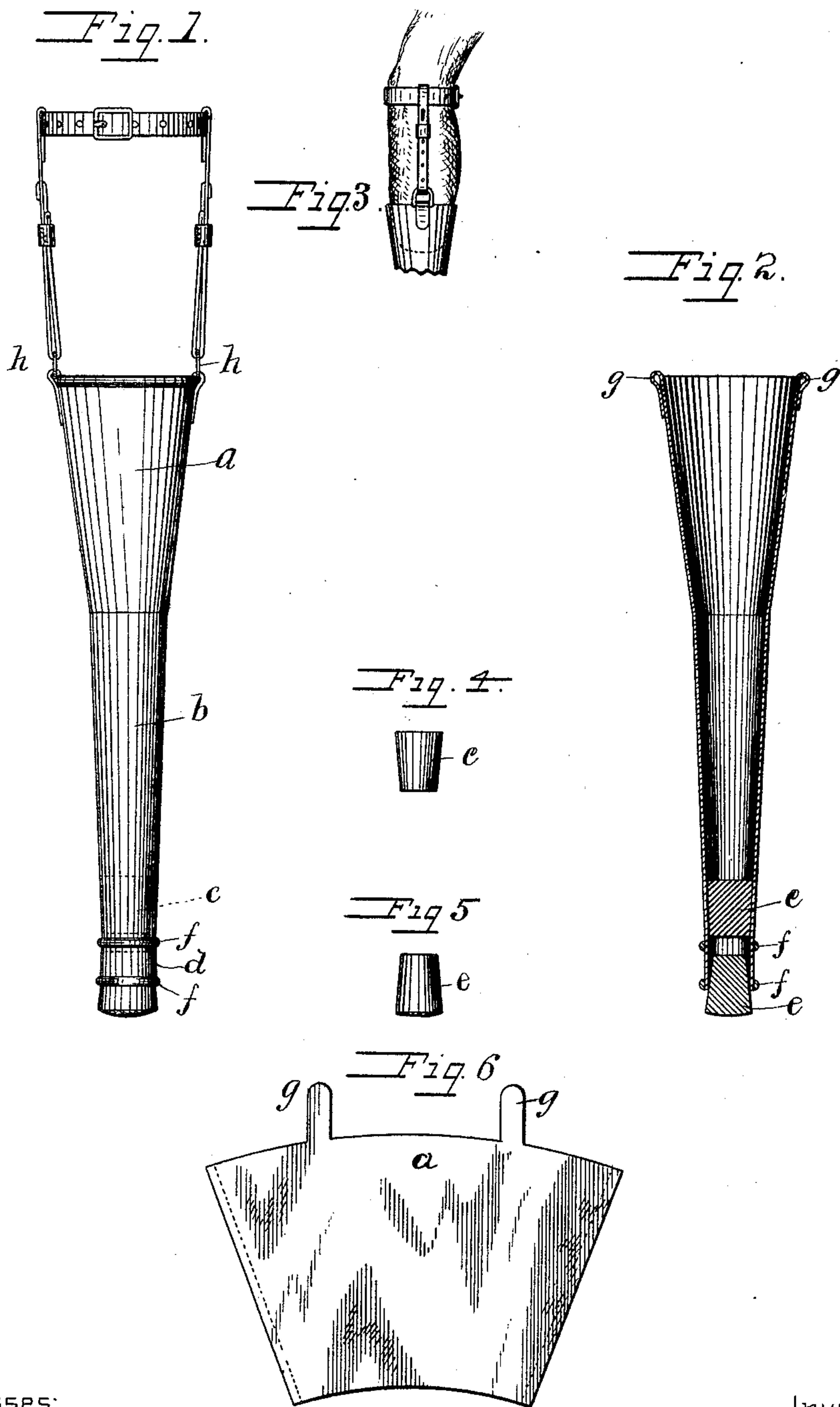


(No Model.)

J. T. SYKES.
ARTIFICIAL LEG.

No. 406,861.

Patented July 9, 1889.



Witnesses:

R. A. Balderson,
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JOHN THOMAS SYKES, OF LAMAR, ASSIGNOR TO WILLIE LAWSON DELONY,
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ARTIFICIAL LEG.

SPECIFICATION forming part of Letters Patent No. 406,861, dated July 9, 1889.

Application filed May 6, 1889. Serial No. 309,758. (No model.)

To all whom it may concern:

Be it known that I, JOHN THOMAS SYKES, a citizen of the United States, residing at Lamar, in the county of Johnson and State of Arkansas, have invented certain new and useful Improvements in Artificial Legs; and I 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention has relation to artificial legs; and it consists in the novel construction and arrangement of its parts.

In the accompanying drawings, Figure 1 is an elevation of my invention. Fig. 2 is a longitudinal sectional view of Fig. 1. Figs. 3, 4, 5, and 6 are detail views.

My invention consists of an air-tight cone-shaped hollow socket *a*, to receive the stump of the leg; the air-tight hollow extension *b*, to support the same; the tapering cork *c*, fitting into the lower end of the hollow extension *b*; the flange *d*, secured to the lower end of said extension, and the tapering rubber tip *e*, fitting into the lower end of said flange; rims or bands *f f*, to strengthen the lower part of said extension and said flange; ears *g*, extending from the upper edge of said socket; rings *h*, working in said ears, to which rings are attached suitable straps and bands to secure the said socket to the leg and to the body by whatever arrangement and construction that may be necessary to adapt it to the comfort and convenience of the particular person intended to wear it.

The cone-shaped socket *a* and ears *g* may be made of one piece, the ears *g* bent back on the outside, thus leaving the inner face of said socket perfectly smooth. The extension *b* tapers inwardly, and consequently grows smaller at its lower end, and the cork *c* also is smaller at its lower end and fits in the lower end of said extension, so that the greater

the pressure that is put on the cork the tighter it is forced in place. The lower end of the said flange *d* is larger than at its upper end, and the rubber tip is smaller at its upper end and made to fit into said flange, and becomes tighter according to the amount of pressure borne.

My artificial leg may be made of any suitable material, and may be designed to fit the particular stump that is to wear it, and may be covered and ornamented at pleasure, and may be provided with a foot and knee.

The stump is entirely supported by the compressed air on the inside of the socket, and the air is sufficiently compressed by pulling the socket on and off two or three times, and the air, being thus compressed, will support the weight of a man weighing as much as five hundred pounds, and as there is nothing on the inside of the socket to bruise the sides of the stump and nothing to abut against the end of it but the compressed air the stump is kept in good healthy condition.

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

1. The artificial leg, as described, having the air-tight cone-shaped socket *a*, provided with the integral ears *g* and proper extension to support said socket, substantially as shown and described.

2. In an artificial leg, as described, the air-tight cone-shaped socket *a*, having the integral ears *g*, hollow air-tight extension *b*, cork *c*, fitting in the lower end of said extension, flange *d*, secured to the lower end of said extension, rings or bands *f*, to strengthen said extension, flange *d*, and tapering rubber tip *e*, fitting into the end of said flange, all substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN THOMAS SYKES.

Witnesses:

ZACHARIAH ABNER HUGHES,
THOMAS BENTON BLAKELY.