G. P. CLARKE.

BOOT OR SHOE.

No. 47,521. Patented May 2, 1865.

Fig. 2.

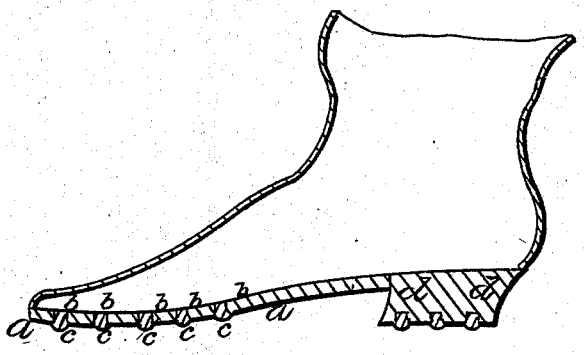
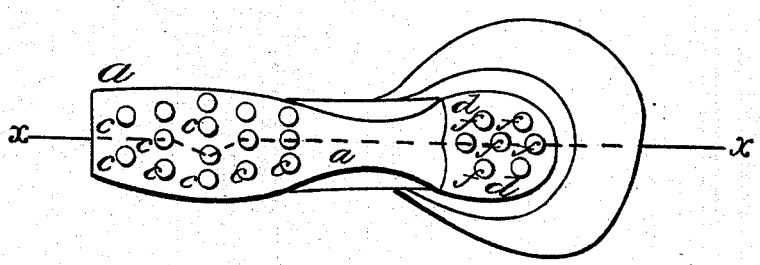


Fig. 1.



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE P. CLARKE, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN BOOTS AND SHOES.

Specification forming part of Letters Patent No. **47,521**, dated May 2, 1865.

To all whom it may concern:

Be it known that I, GEORGE P. CLARKE, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Boots and Shoes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

The present invention consists in inserting within the sole or ordinary treading-surface of a boot or shoe, and securely fastening the same therein by any proper means, a series of studs, of any desired number and size, and made of any suitable elastic and flexible material—such as india-rubber or gutta-percha, or their compounds—said studs projecting outward from said sole, and forming the treading-surface of the boot or shoe.

The advantages in fastening elastic studs to and in the soles of boots and shoes, as described, are, that a light, elastic, soft, and pleasant tread to the foot is secured, the sole is made more durable and elastic, and the feet can be kept warm and dry, and also many others which it is not necessary to mention, as they are plainly apparent to all.

In the accompanying drawings my improvements are represented, Figure 1 being a view of the under side of the sole of a boot; Fig. 2, a central longitudinal vertical section through plane of line *x x*, Fig. 1.

a a in the drawings represent the sole of a boot or shoe made in the ordinary form and attached to the upper-leather in any proper manner. In sole *a a*, and extending entirely through the same, are inserted in proper-shaped openings, *b b*, &c., therefor, and firmly held by means of cement or other proper mode, a series of elastic studs, *c c*, made either of india-rubber or gutta-percha, or of both together, or of either of their respective compounds, or of any other elastic and flexible material, and of any desired shape and size. These studs *c c* project a short distance from the exterior surface of the sole-piece *a a*, forming the treading-surface for the boot or shoe. In heel *d d* of the boot or shoe similar elastic studs, *f f*, &c., and of any number, may be inserted, if desired, or the studs may be only inserted within the sole, according as it may be deemed best.

From the above description it is evident that by inserting elastic studs within and projecting from the soles of boots and shoes, as above described, or in other proper manner, an elastic, easy, and light-treading sole is secured, and also its durability is much increased. These studs also will prevent slipping when walking upon slippery walks, and in ordinary moist weather will prevent moisture from penetrating the sole, and thereby keep the feet dry.

There are, of course, many sizes, shapes, and modes in and by which the elastic studs herein described can be formed and fastened to and in the soles of boots or shoes, and also various ways in which they can be arranged therein, either in parallel, straight, or curve lines; and therefore I do not intend to limit myself to any particular form, size, or mode of insertion for the studs, or to the form and mode herein described. These elastic studs may with great advantage be applied either to the inner surface of a machine belt or band or to the periphery of its pulleys, as they prevent thereby the slipping of the belts on the pulleys, for which I intend hereafter to make application for separate Letters Patent of the United States.

I claim as new and desire to secure by Letters Patent—

Inserting within or attaching to the sole and heel of a boot or shoe, or in and to any desired portion of the same, a series of elastic studs or projections, made of any suitable flexible and elastic material, and of any desired number, size, and shape, substantially as described, and for the purposes specified.

GEORGE P. CLARKE.

Witnesses:
GEORGE W. FRANCIS,
G. G. CARSLN.