D. S. McMULLAN.

SHOE RETAINER.

APPLICATION FILED MAY 11, 1911.

1,028,586. Patented June 4, 1912.

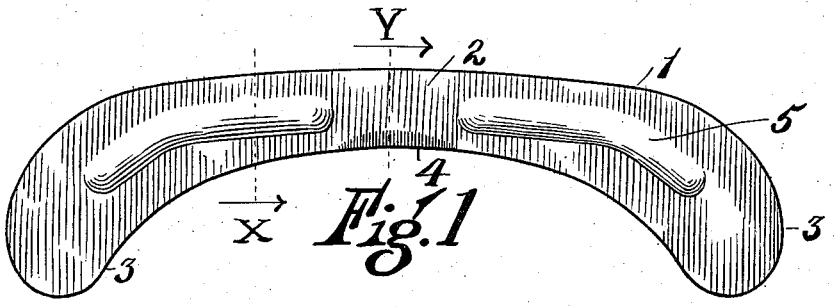

Fig. 1

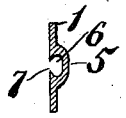

Fig. 2

Fig. 3

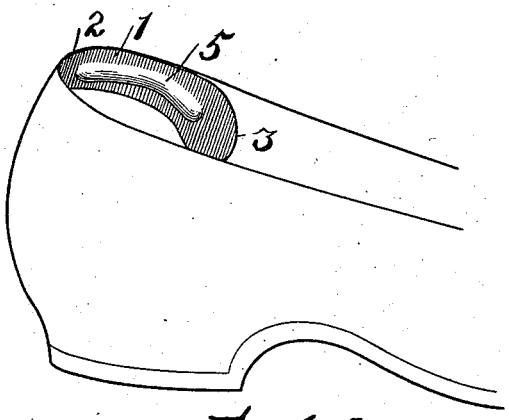

Fig. 4

Witnesses:

Austin B. Hauscom

A. L. McClintock

INVENTOR-

David S. McMullan,

BY C. E. Humphrey,

ATTORNEY.

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

DAVID S. McMULLAN, OF CLEVELAND, OHIO, ASSIGNOR OF ONE-HALF TO ROBERT J. COLEMAN, OF AKRON, OHIO.

SHOE-RETAINER.

1,028,586. Specification of Letters Patent. Patented June 4, 1912.

Application filed May 11, 1911. Serial No. 626,625.

To all whom it may concern:

Be it known that I, DAVID S. McMULLAN, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented new and useful Improvements in Shoe-Retainers, of which the following is a specification.

This invention relates to devices for assisting in retaining slippers, low shoes, pumps, or light overshoes, on the foot, and the object is to provide a novel device to be placed in the heel-portion near the top of a slipper, pump or overshoe which will serve to prevent its becoming unintentionally displaced, yet permitting its ready removal when necessary.

The invention contemplates providing a strip of suitable material such as vulcanized rubber which can be cemented or sewn into the rear portion of the heel of a shoe or similar article, and which is provided with one or more inwardly projecting hollow blister-shaped ridges forming air cushions which bear against the stocking of the wearer with sufficient firmness to assist in the retention of the shoe or slipper, and being composed preferably of resilient material no appreciable wear on the stocking is caused nor will any soreness of the foot follow its protracted use.

With the foregoing and other objects in view, the invention consists in the novel construction, combination and arrangement of parts constituting the invention to be hereinafter specifically described and illustrated in the accompanying drawings which form a part hereof wherein is shown the preferred embodiment of the invention, but it is to be understood that changes, variations and modifications can be resorted to which come within the scope of the claim hereunto appended.

In the drawings in which similar reference numerals indicate like parts in the different figures, Figure 1, is a plan view of my improved shoe retainer; Fig. 2, is a transverse sectional view on line X of Fig. 1; Fig. 3, is a view similar to Fig. 2 on line Y of Fig. 1; and Fig. 4, is a perspective of a shoe with my improved retainer in position therein.

Referring specifically to the drawings, the reference numeral 1 denotes a strip of soft, resilient and preferably water-proof material such as vulcanized rubber. This strip of material is preferably narrower at its median portion to constitute a neck 2 and with ends 3 preferably downwardly turned and enlarged as shown in the drawings, with the entire outline so shaped that when fitted onto the inner face of the rear portion of the heel of a slipper or similar article it will, to a reasonable extent, conform in general shape to the outline thereof. A portion of the neck 2 of the strip designated by reference numeral 4, is beveled, or tapered to remove as far as possible any joint or abrupt shoulder being formed between the lower edge of the strip and the inner rear surface of the heel of the slipper.

On the opposite ends of the strip 1 there are formed elongated hollow blister-shaped ridges 5 which are preferably formed upon curvilinear lines to constitute inwardly-extending projections bearing against the ankle of the user immediately above the heel, to grasp the same sufficiently firmly to assist in retaining the shoe from working up and down and becoming unintentionally removed. These ridges 5 are customarily formed by looping up a portion of the material of the strip 1 during its manufacture in suitable molds or otherwise so as to provide elongated hollow ridges 5, the cavities or recesses 6 therein forming air-cells with elastic walls constituting pneumatic cushions, and which are in the form of a flattened bulb in cross section with the contracted neck of which providing slots 7 establishing communication with said recesses. The side edges of the walls contiguous to said slots being inclined or beveled for a purpose to be later described. These strips are preferably coated on their rear faces with rubber cement and are thus secured to the inner rear wall of the heel of the slipper near the top, with the reduced or beveled portion 4 arranged centrally over the well known tendon of Achilles. When this beveled portion has been accurately placed the extended ends of the strips are secured to the lateral portions of the interior of the slipper with the ridges 5 extending inwardly toward each other to engage the ankle of the wearer of the shoe.

It will be noted that as the ridges 5 are hollow and the strip is composed of elastic material, the walls of the ridges 5 will normally maintain themselves in an expanded

condition while the main rear surface of the strip is adherent to the inner face of the shoe.

Of course, it will be obvious that the strips may be secured to the shoe by sewing or otherwise, but experience has demonstrated that cement is the best medium for attaching them.

It may be pointed out that as the strips are composed of water-proof material and are customarily secured to the shoe by means which is not affected by the moisture of the foot substantially all danger of their working loose is eliminated and as they each contain one or more air-cushions any tendency to wear the stockings or to inflict injury to the ankle of the user is removed.

It will be particularly noted that the edges of the slots communicating with the recesses which form the hollow portions of the ridges 5 are beveled in opposite directions and the slots are slightly narrower in transverse diameter than the recesses, so that when presssure is imposed on the ridges the tendency of the air-confined in the recesses will be to cause the beveled edges forming the boundaries of the slots to more firmly press against or contact with the inner wall of the shoe on which the device is placed, to insure a more air-tight union with the shoe.

I claim:

A shoe-retainer comprising a strip of material adapted to be secured to the upper inner face of the heel of a shoe with its central portion located at the rear of the heel of the wearer, said central portion having its lower edge beveled, said strip having an inwardly-projecting, hollow, elastic rib, forming a pneumatic cushion adapted to frictionally assist in retaining the shoe in place.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

DAVID S. McMULLAN.

Witnesses:

ROBERT J. COLEMAN,

C. E. HUMPHREY.