

(No Model.)

J. M. KING.
RUBBER FOOTWEAR.

No. 579,397.

Patented Mar. 23, 1897.

Fig. 1.

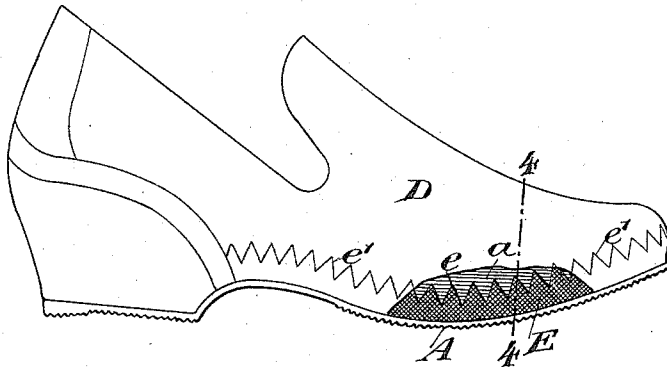


Fig. 3.

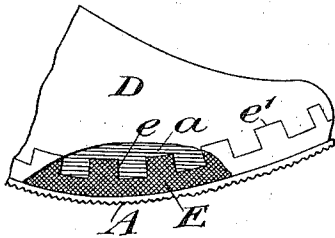


Fig. 2.

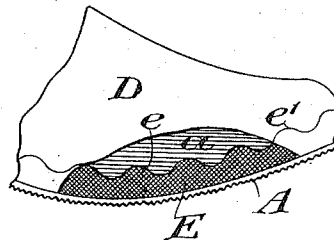
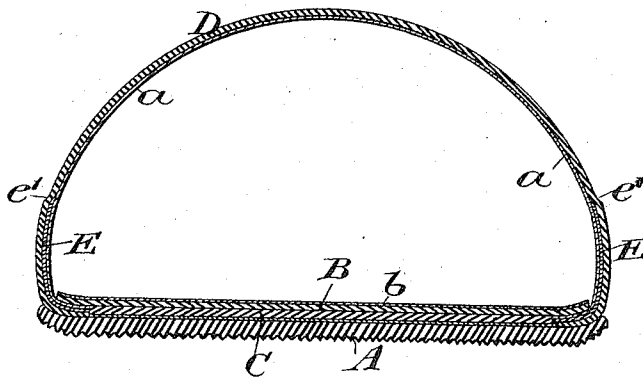


Fig. 4.



Witnesses:-
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UNITED STATES PATENT OFFICE.

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RUBBER FOOTWEAR.

SPECIFICATION forming part of Letters Patent No. 579,397, dated March 23, 1897.

Application filed October 4, 1895. Serial No. 564,800. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH M. KING, of the city of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Rubber Footwear, of which the following is a specification.

This invention relates to overshoes and all other kinds of rubber footwear. The weakest part of rubber footwear has generally been along the uppers at and near the soles. It has been customary to reinforce the boot or shoe in this part by means of a strip termed a "piping," the lower edge of said strip being inserted between the outsole and the insole and the upper portion of said strip being inserted between the lining and the outer portion of the upper. This strip or piping as heretofore applied, while it has given additional strength at the immediate connection between the upper and the sole, has by reason of its upper edge having been straight formed higher up in the upper along that edge a straight crease, which has been a source of weakness, and the liability to breakage of the upper along that crease has been greater than in the corresponding portion of the boot or shoe having no such reinforcement or piping.

The object of my invention is to further supplement the strengthening of the shoe or boot by the reinforcing strip or piping; and to this end it consists, briefly stated, in giving the upper edge of the said strip or piping a notched, scalloped, wavy, sinuous, or other irregular profile, whereby greater elasticity is given to the strip or piping in a longitudinal direction, and by avoiding the straight crease in the upper above the said edge the liability to breakage of the rubber immediately above said edge is obviated or very greatly reduced.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side view of an overshoe having a portion of the upper broken away to show the reinforcing strip or piping. Figs. 2 and 3 are corresponding views of portions of an overshoe illustrating different forms of the irregular upper edge of the reinforcing strip or piping. Fig. 4 represents, on a larger

scale than the other figures, a transverse section of the shoe about in the line 4 4 of Fig. 1.

Similar letters of reference designate corresponding parts in all the figures.

A designates the outsole; B, the insole; C, the stuffing between the two soles; D, the upper; *a*, the lining of the upper; *b*, the lining of the insole.

E is the reinforcing strip or piping which constitutes my invention and which runs along the sides of the boot or shoe and around the toe from one side of the counter to the other. In Fig. 1 the upper edge *e* of this reinforcing strip or piping is represented as having a profile consisting of a series of V-shaped notches and intervening points. In Fig. 2 the said edge is represented as having rounded scallops, and in Fig. 3 it is represented as having rectangular notches. It is obvious that these forms may be varied, and I consider any sinuous or irregular form to be within the scope of my invention. The upper part of this reinforcing strip or piping is inserted between the upper D and its lining *a*, and the lower marginal portion is inserted along with the upper D and its lining between the outsole and insole. The several parts are cemented together and vulcanized in the manner common to the manufacture of rubber footwear. The said strip or piping may be of any kind of woven fabric cut on the bias and of any suitable strength.

The sinuous or irregular upper edge of the reinforcing strip or piping produces a crease in the upper immediately above it, as shown at *e'*; but the crease having the same sinuous or irregular form as said edge does not form the same line for breakage as a straight upper edge, and, moreover, the irregular edge being longer than a straight edge gives greater elasticity to the upper in a longitudinal direction, as the said edge will be elongated by any stretch in that direction, whereas the straight edge is comparatively unyielding lengthwise. Furthermore, the greater length of the edge of sinuous or irregular form gives greater strength to resist the strain or stretch of the upper across the foot.

What I claim as my invention is—

In a rubber overshoe or boot, the combina-

tion with the outsole, the insole, the upper and the upper-lining, of a reinforcing-strip which runs continuously along the sides of the shoe or boot and around the toe thereof
5 from one side of the counter to the other between the outsole and the insole and between the upper and its lining, the said strip having a sinuous or irregular upper edge and being united from edge to edge by cementing and vulcanizing with the said parts between which it is interposed, substantially as herein described. 10

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