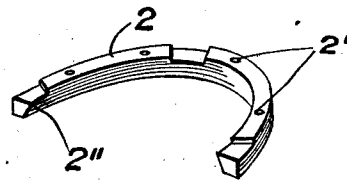
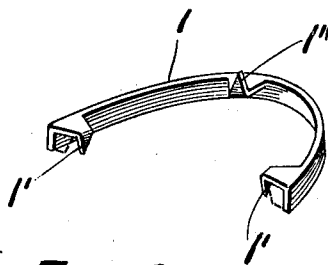
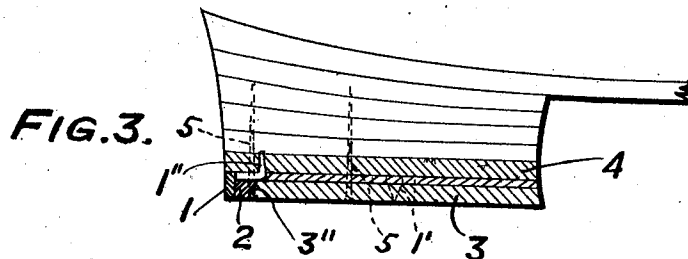
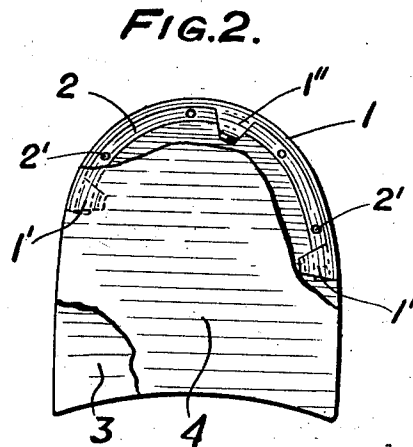
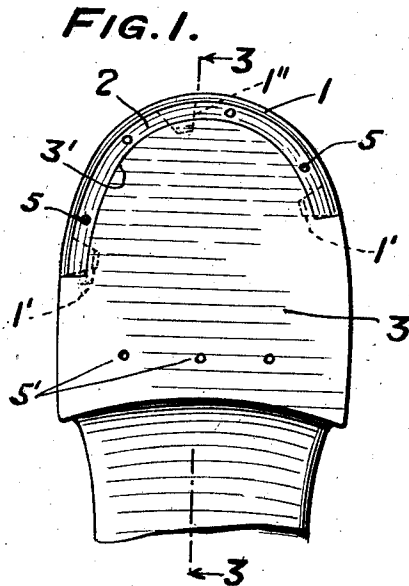


H. W. REIDNER.
HEEL GUARD.
APPLICATION FILED NOV. 3, 1910.

1,003,372.

Patented Sept. 12, 1911.



WITNESSES:
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UNITED STATES PATENT OFFICE.

HOWARD W. REIDNER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-THIRD
TO OLIVE FRIDY EGLI AND TWO-THIRDS TO FRIEDA KERN.

HEEL-GUARD.

1,003,372.

Specification of Letters Patent.

Patented Sept. 12, 1911.

Application filed November 3, 1910. Serial No. 590,550.

To all whom it may concern:

Be it known that I, HOWARD W. REIDNER, a citizen of the United States, residing in the city of Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented certain Improvements in Heel-Guards, of which the following is a specification.

My invention is a heel guard combined with a plate or plates to form a tap that can readily be applied to boots and shoes and will prevent wear and slipping.

The preferred construction comprises an outer rim of steel having tines thereon and an inner rim of aluminum, in combination with a leather plate or plates recessed to receive the composite rim and engaged by the tines. It will be understood, however, that different metals, such as copper and lead, may be used, one of which will not wear too rapidly and the other of which will not slip.

In the accompanying drawings, Figure 1 is a bottom plan view of a shoe heel having my improvements applied thereto; Fig. 2 is a plan view of a detached tap embodying my improvements; Fig. 3 is a sectional view taken on the line 3—3 of Fig. 1; Fig. 4 is a perspective view of the outer rim, and Fig. 5 is a perspective view of the inner rim.

As shown in the drawings, the guard comprises the outer metal rim 1 having the oppositely disposed tines 1' and 1'' thereon extending over the inner metal rim 2 having the holes 2' therein, the outer rim being preferably a comparatively narrow strip of steel which can be pressed to shape from sheet metal and the inner rim being preferably a wider strip of aluminum.

The bottom plate 3 of the heel is provided with the under cut recess 3' in which the guard is set; the inner rim 2 having the inclined surface 2'' engaging the inwardly inclined surface 3'' of the recess, and the tines 1' of the outer rim being driven into the plate. A top plate 4 is engaged, by driving the tine 1'' thereinto, to the plate 3. The tap thus formed can be fixed to the heel by nails 5 driven through the holes 2' and nails 5' driven through the plates.

Having described my invention, I claim:

1. A heel guard comprising a bearing member of comparatively soft metal and a second bearing member of harder metal having tines thereon overlapping said first named member, and a plate in which said tines are engaged.

2. A heel guard comprising a plate, a bearing member having tines thereon adapted to be engaged in said plate, and a second bearing member disposed between said first named bearing member and said plate.

3. A heel guard comprising a bearing member having an inclined surface, a plate having an inclined surface engaging said first named surface, a second bearing member engaging said first named bearing member, and tines on said second named bearing member engaging said plate.

In witness whereof I have hereunto set my name this 2nd day of November, 1910, in the presence of the subscribing witnesses.

HOWARD W. REIDNER.

Witnesses:

Jos. G. DENNY, Jr.,

C. N. BUTLER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."