

No. 869,603.

PATENTED OCT. 29, 1907.

J. H. VINTON.
SHOE SOLE OR HEEL.
APPLICATION FILED OCT. 26, 1906.

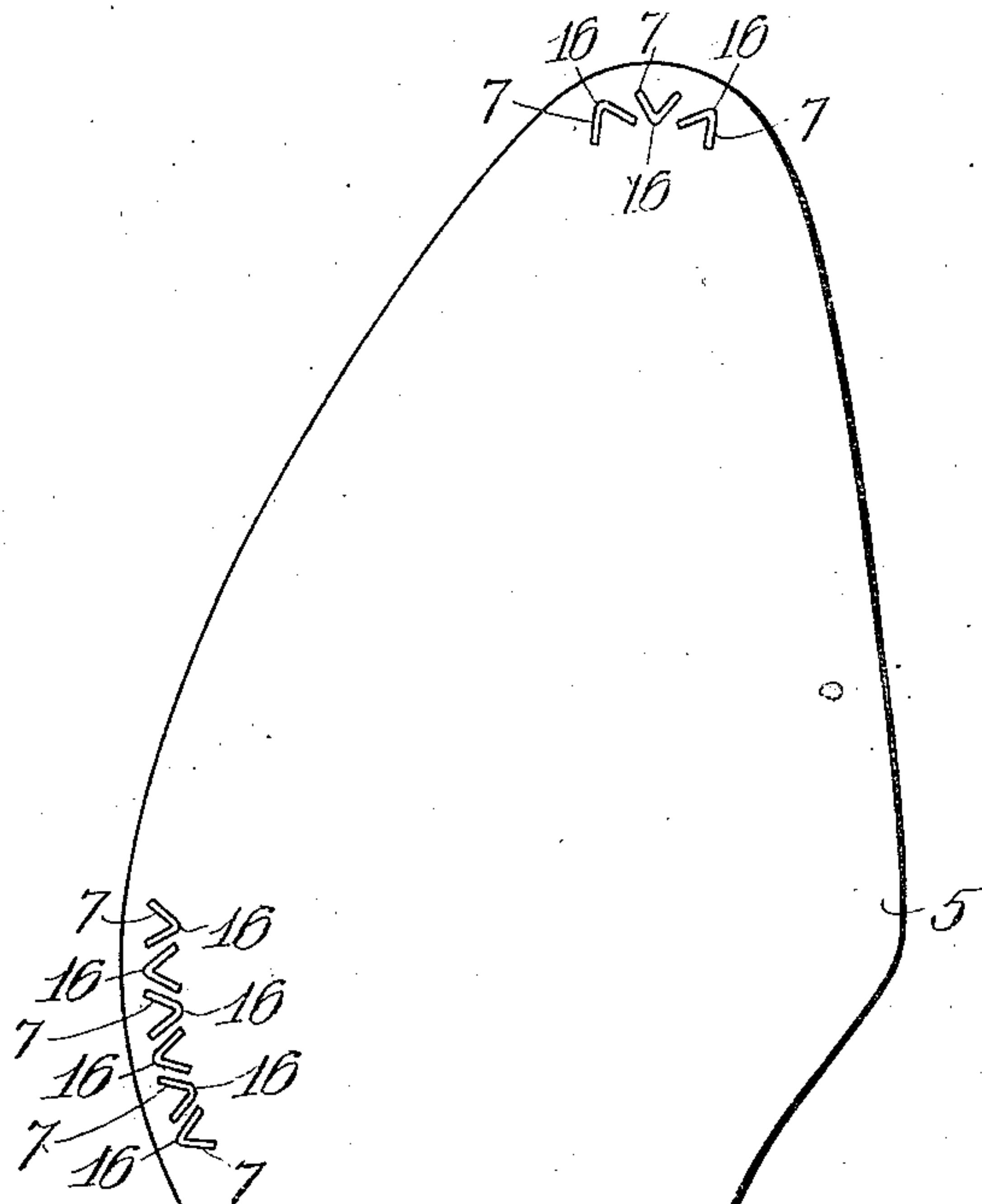


Fig. 1

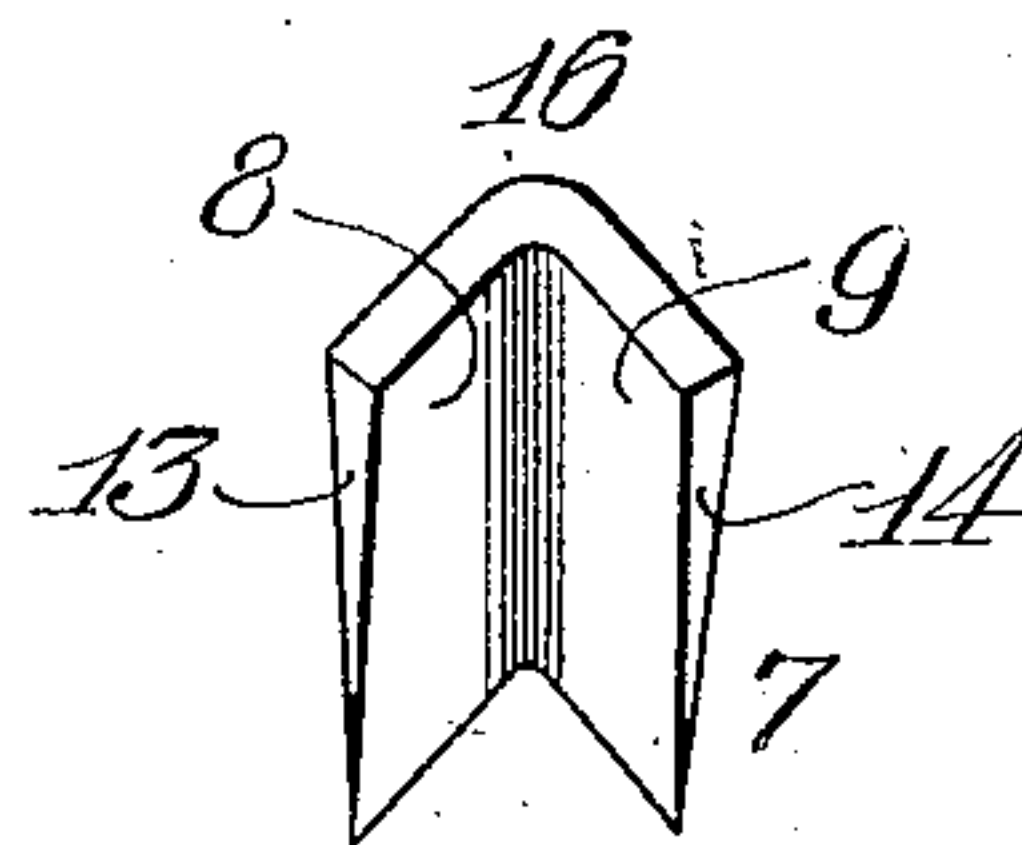


Fig. 2.

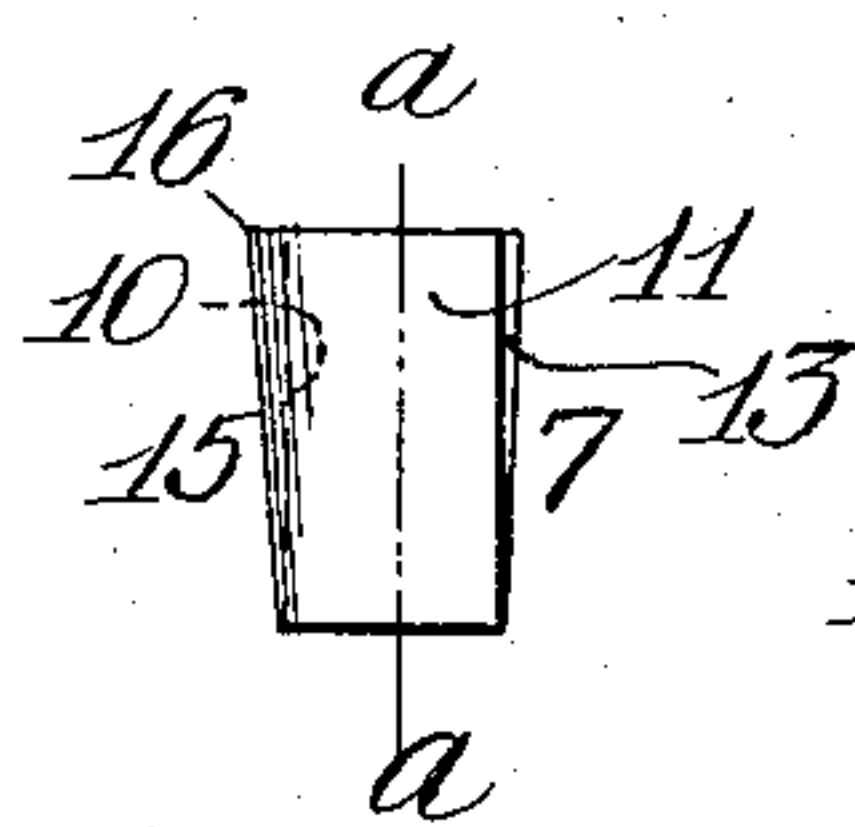


Fig. 4

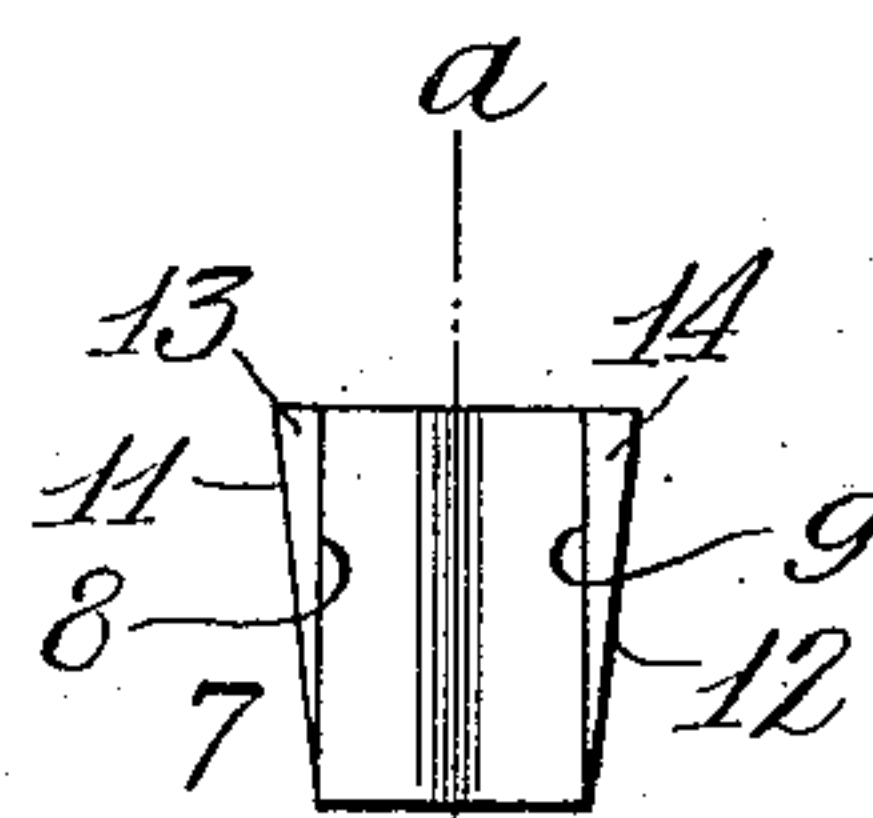


Fig. 3

Witnesses:

Ernest A. Gelfer
Walter L. Price

Inventor:

John H. Vinton
Charles S. Gooding

UNITED STATES PATENT OFFICE.

JOHN H. VINTON, OF BOSTON, MASSACHUSETTS, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF ONE-THIRD TO SIDNEY S. BOWES, OF JAMAICA PLAIN, MASSACHUSETTS, AND ONE-THIRD TO JOHN W. GODDARD, OF BOSTON, MASSACHUSETTS.

SHOE SOLE OR HEEL.

No. 869,603.

Specification of Letters Patent.

Patented Oct. 29, 1907.

Application filed October 26, 1906. Serial No. 340,623.

To all whom it may concern:

Be it known that JOHN H. VINTON, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Shoe Soles or Heels, of which the following is a specification.

This invention relates to improvements in shoe soles and heels, and the object is to provide a shoe sole or heel having a series of wear-resisting metallic protectors embedded therein so formed and so arranged with relation to one another that they are prevented by said form and arrangement from becoming loose and coming out and so arranged that the heel or sole will not be distorted by driving them therein, and it is further the object to present to the action of wear the greatest area of metal possible compared with the number of protectors embedded therein in a given space.

The invention consists in a shoe sole or heel provided with a series of metallic protectors V-shaped in cross section and wedge-shaped in longitudinal section, said protectors so formed and so arranged with relation to one another that the material into which said protectors are driven is by the process of driving compressed in every direction from each individual protector and is compressed between the opposed or adjacent faces of said protectors in such a manner that said material presses powerfully against every embedded face of every individual protector, thus causing a friction which resists and prevents said protectors from becoming dislodged.

The invention finally consists in the combination and arrangement of parts set forth in the following specification and particularly pointed out in the claims thereof.

Referring to the drawings: Figure 1 is an underneath plan view of a shoe sole and heel embodying my invention. Fig. 2 is a perspective view enlarged of one of the metallic protectors. Fig. 3 is a front elevation of one of the metallic protectors. Fig. 4 is a side elevation of one of the metallic protectors.

Like numerals refer to like parts throughout the several views of the drawings.

In the drawings, 5 is a shoe sole and 6 is a heel attached thereto. The shoe sole 5 and the heel 6 are provided with a plurality of metallic protectors 7 V-shaped in cross section and wedge-shaped in longitudinal section. By reference to Figs. 3 and 4, it will be noted that the interior faces 8 and 9 and the intersecting line 10 of said faces converge upwardly toward the median line *a-a*, and that the exterior faces 11 and 12, diverge upwardly with relation to said median line, and also that the faces 13 and 14 diverge upwardly with relation to the rounded corner 15.

I have shown three different series of the protector 7, one series at the toe of the sole 5, a second series at the left hand edge of said shoe sole, and a third series in the heel 6. It will be evident, however, that said protectors may be arranged in any desired location on the shoe sole or heel. It will be noted that the protectors 7 are arranged in series with their apices 16 extending alternately toward and away from the adjacent edge of the sole and heel 5 and 6, respectively. Each of the protectors 7, as it is driven into the shoe sole or heel, by reason of the convergence of its interior faces and the divergence of its exterior faces as hereinbefore described, compresses the leather or other material in every direction from each individual protector and that where two protectors are driven into the shoe sole or heel in the arrangement hereinbefore described, said material is compressed between the opposed or adjacent faces of said protectors in such a manner that said material presses powerfully against every embedded face of every individual protector, thus causing a friction which prevents said protectors from becoming dislodged.

It will be noted that the opposed or adjacent faces of the protectors 7, when said protectors are driven into the shoe sole or heel, are straight and very nearly parallel to each other, this fact contributing very largely to the great compression of the material between said faces and permitting said protectors to be arranged very close to each other. It will be seen that the form and arrangement of the protectors 7 is such that there is presented to the action of wear the greatest area of metal possible compared with the number of protectors embedded in the shoe sole or heel within a given space.

Referring to Fig. 3, it will be noted that the divergence of the interior faces upwardly with relation to the exterior faces is so slight as to form long, thin wedges with very sharp knife-like edges which easily cut the leather or other material as the protector 7 is driven in, and by reason of this shape the leather is prevented from breaking as is the case in the driving of blunt protectors of similar nature.

While I have described the protector 7 as being adapted to be driven into the material of which the shoe sole or heel is formed, it will be evident that a shoe sole or heel may be molded of material such, for instance, as rubber, with said protectors embedded therein in the arrangement hereinbefore described.

Having thus described my invention what I claim and desire by Letters Patent to secure is:

1. A shoe sole or heel provided with a plurality of V-shaped metallic protectors embedded therein, said protectors arranged in series with their apices extending alternately toward and away from the adjacent edge of said sole or heel.

2. A shoe sole or heel provided with a plurality of metallic protectors V-shaped in cross section and wedge-shaped in longitudinal section, said protectors arranged in series with their apices extending alternately toward and away
5 from the adjacent edge of said sole or heel.

3. A shoe sole or heel provided with a plurality of metallic protectors V-shaped in cross section and wedge-shaped in longitudinal section, the thick ends of said protectors being exposed to wear, said protectors arranged in series

with their apices extending alternately toward and away 10 from the adjacent edge of said sole or heel.

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

JOHN H. VINTON.

Witnesses:

LOUIS A. JONES,
SIDNEY S. BOWES.