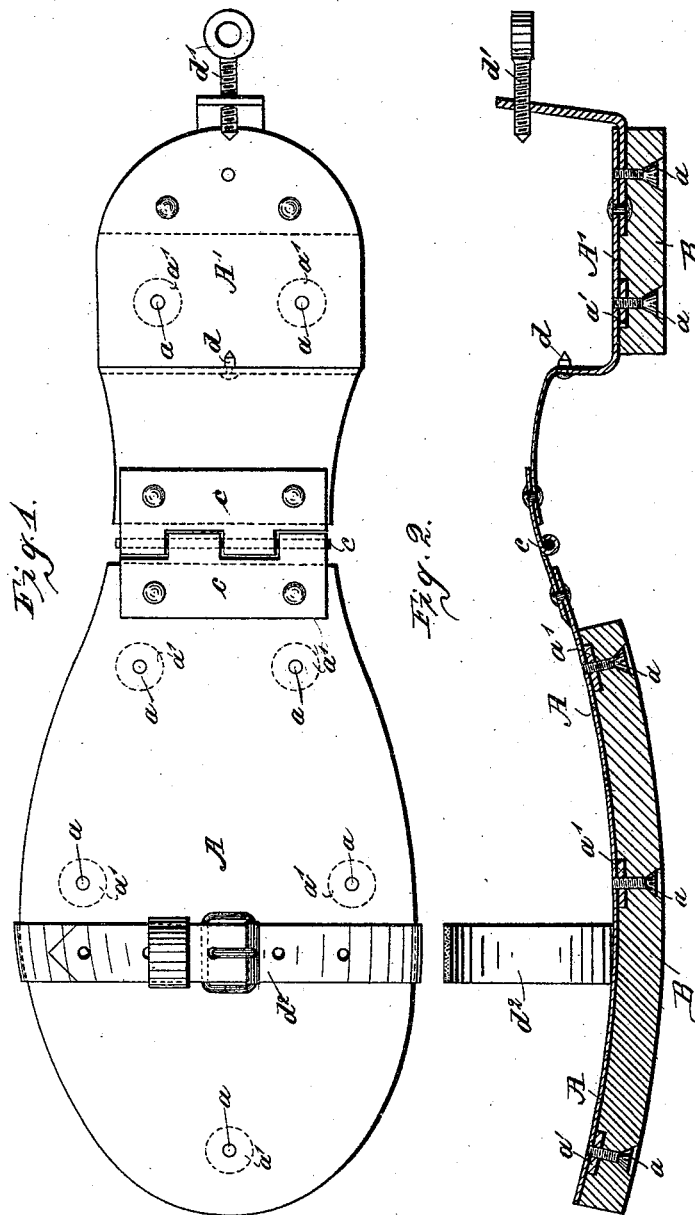


(No Model.)

C. H. & H. FRIEDE.
SAFETY SOLE FOR BOOTS OR SHOES.

No. 457,423.

Patented Aug. 11, 1891.



Witnesses:
Alvan Macaulay
C. B. Smith

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UNITED STATES PATENT OFFICE.

CARL HEINRICH FRIEDE AND HUGO FRIEDE, OF NIEDERPLANITZ, NEAR
ZWICKAU, GERMANY.

SAFETY-SOLE FOR BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 457,423, dated August 11, 1891.

Application filed March 26, 1891. Serial No. 386,536. (No model.)

To all whom it may concern:

Be it known that we, CARL HEINRICH FRIEDE and HUGO FRIEDE, subjects of the Emperor of Germany, residing at Niederplanitz, near Zwickau, Saxony, Germany, have invented certain new and useful Improvements in Safety-Soles for Boots or Shoes, (for which we have made application for Letters Patent of Germany, February 11, 1891,) of which the following is a specification.

This invention relates to a protective sole for boots or shoes, consisting of a metal plate or sheet cut to the desired shape and lined with elastic material, such as felt, the whole being adapted to be suitably attached to the boot or shoe by means of screws, buckles, spring-clamps, or the like. Owing to its elasticity this protective sole will fit the configurations of the sole of a boot or shoe to which it is applied without interfering in the least with the free motion of the foot. Should, however, the metal sheet be formed insufficiently yielding, a hinge or joint may be provided near its center, say between the heel and sole portions. The sole so arranged may be employed in a variety of ways. Its main object is to prevent accidents upon slippery roads, ice, and the like.

The protective sole, which may be readily and conveniently attached to a boot or shoe and as readily removed therefrom when done with will most effectually prevent slipping and the evils consequent thereon, whenever, for example, the thawing of snow renders the roads muddy and slippery. In diverse departments of industry, too, these soles will prove a valuable safety appliance to the operatives, such as plumbers, chimney-sweeps, &c., whom it will protect from falling down from the roof. Again, by applying soles of this description to his riding-boots a rider will insure a better hold on the stirrups. Besides, these soles will prove useful in protecting boots or shoes from damage resulting from dampness, rain, or snow, and they may also be employed instead of the protective slippers or galoshes, which visitors to certain castles or monuments are at present asked to put on to prevent mosaic or other valuable flooring being damaged by their boots or shoes.

To enable the invention to be more readily understood, reference should be made to the accompanying drawings, in which—

Figure 1 is a plan, and Fig. 2 a longitudinal section, of the improved safety-sole.

A A' is a metal plate or sheet shaped to the contour of a sole and heel and forming the support of the sheet of felt B B'. Both these sheets are connected by screws *a a*, the nuts *a' a'* of which form shoulders for holding in position the plate A A'. Thus it is sufficient to loosen the screws whenever it is desired to remove and replace worn-out sheets of felt.

The sole proper A B is connected with the heel portion A' B' by a hinge *c*. The plate A' is bent so as to fit the shape of the heel to which it is fixed by means of the pin *d* and pointed screw *d'*.

For the attachment of the sole a strap *d²* with a buckle is employed, although other well-known attaching devices might be used.

We claim—

In a safety or protecting sole, the combination, with the spring-metal base-plate formed in two parts A and A', the former shaped to the contour of the sole of a shoe and the latter bent to cover a portion of the shank and front and bottom of the heel, of the hinge-joint uniting these parts together, the metal plate secured to the part A' by rivets and bent up at substantially right angles to embrace the back of the heel, the elastic material, such as felt, united to the heel and sole portions by screws, the nuts interposed between the felt and base-plate, through which the screws pass before entering the base-plate, the fastening devices, such as a strap and buckle, for securing the sole portion to the sole of the shoe, and the screw *d'* and pin *d* for securing the heel portion to the heel, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

CARL HEINRICH FRIEDE.
HUGO FRIEDE.

Witnesses:

CARL BORNGRAEBER,
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