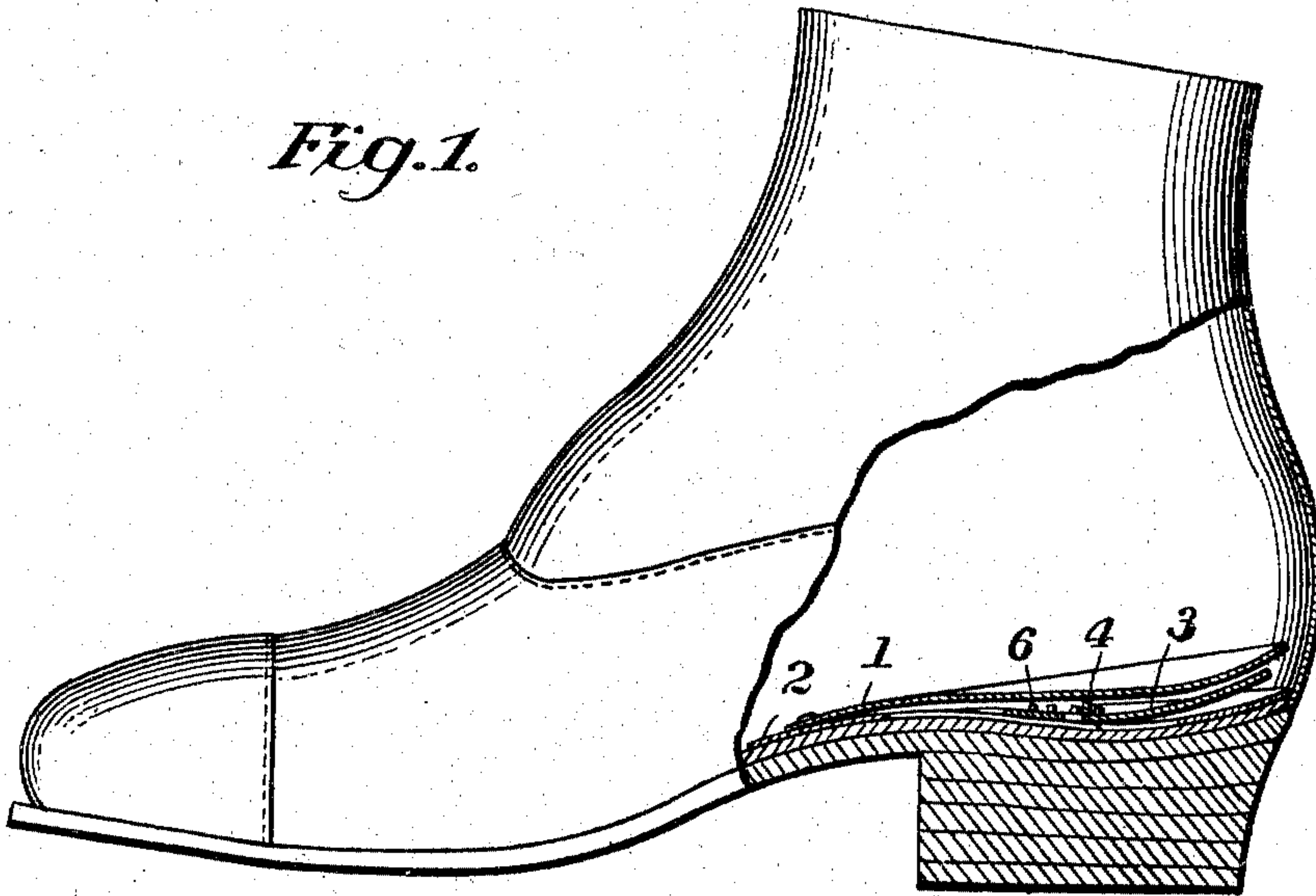


R. W. MORGAN.  
 SPRING INSOLE.  
 APPLICATION FILED DEC. 6, 1909.

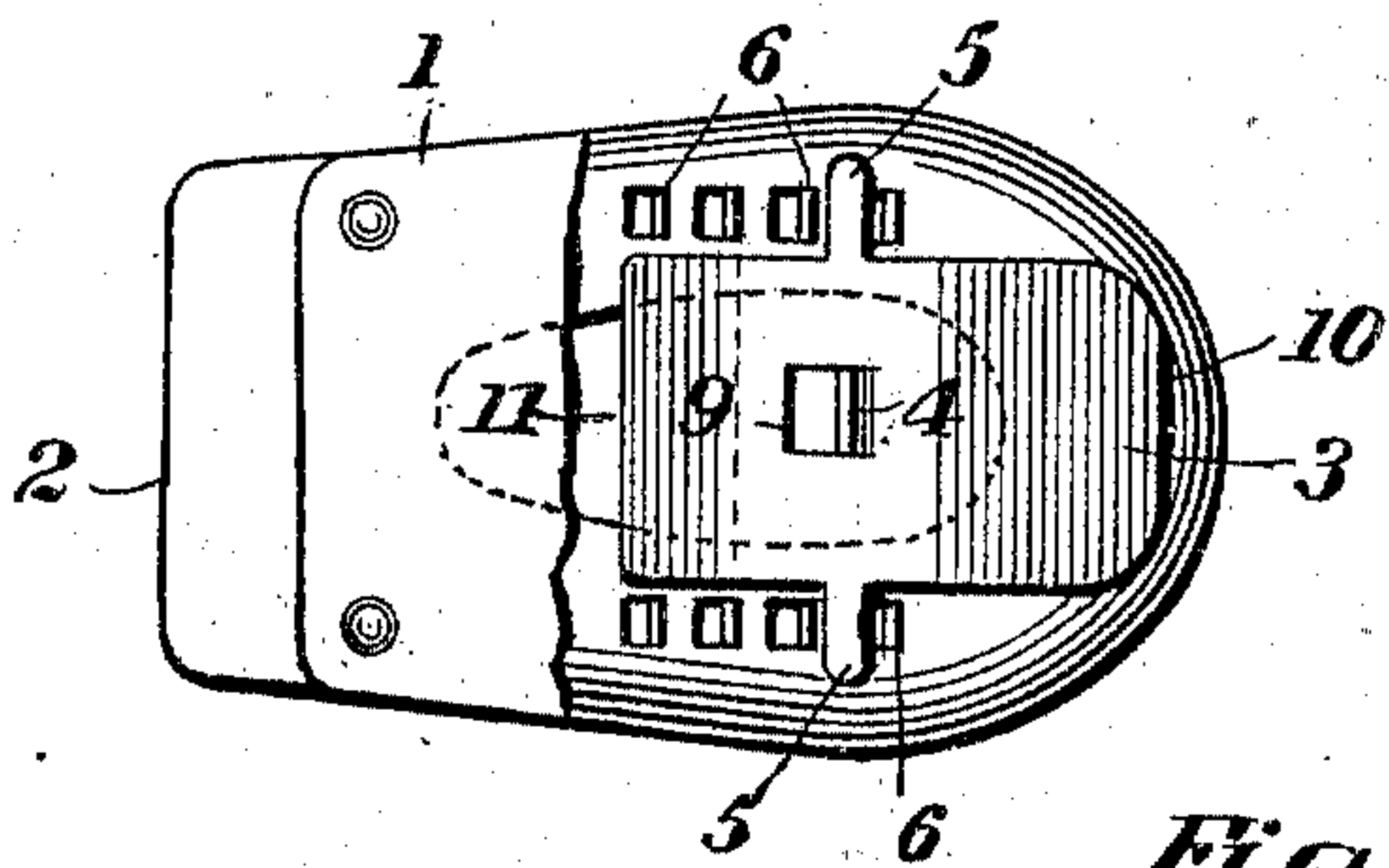
966,759.

Patented Aug. 9, 1910.

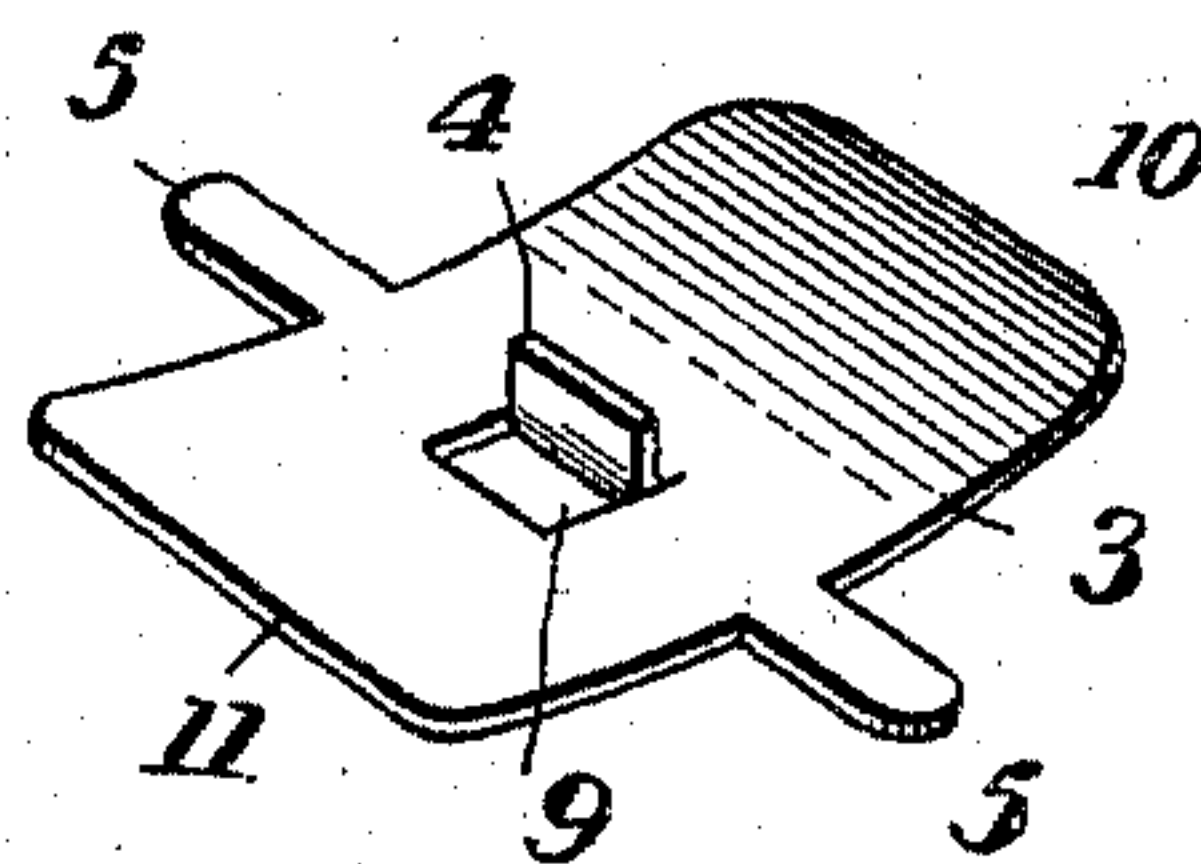
*Fig. 1.*



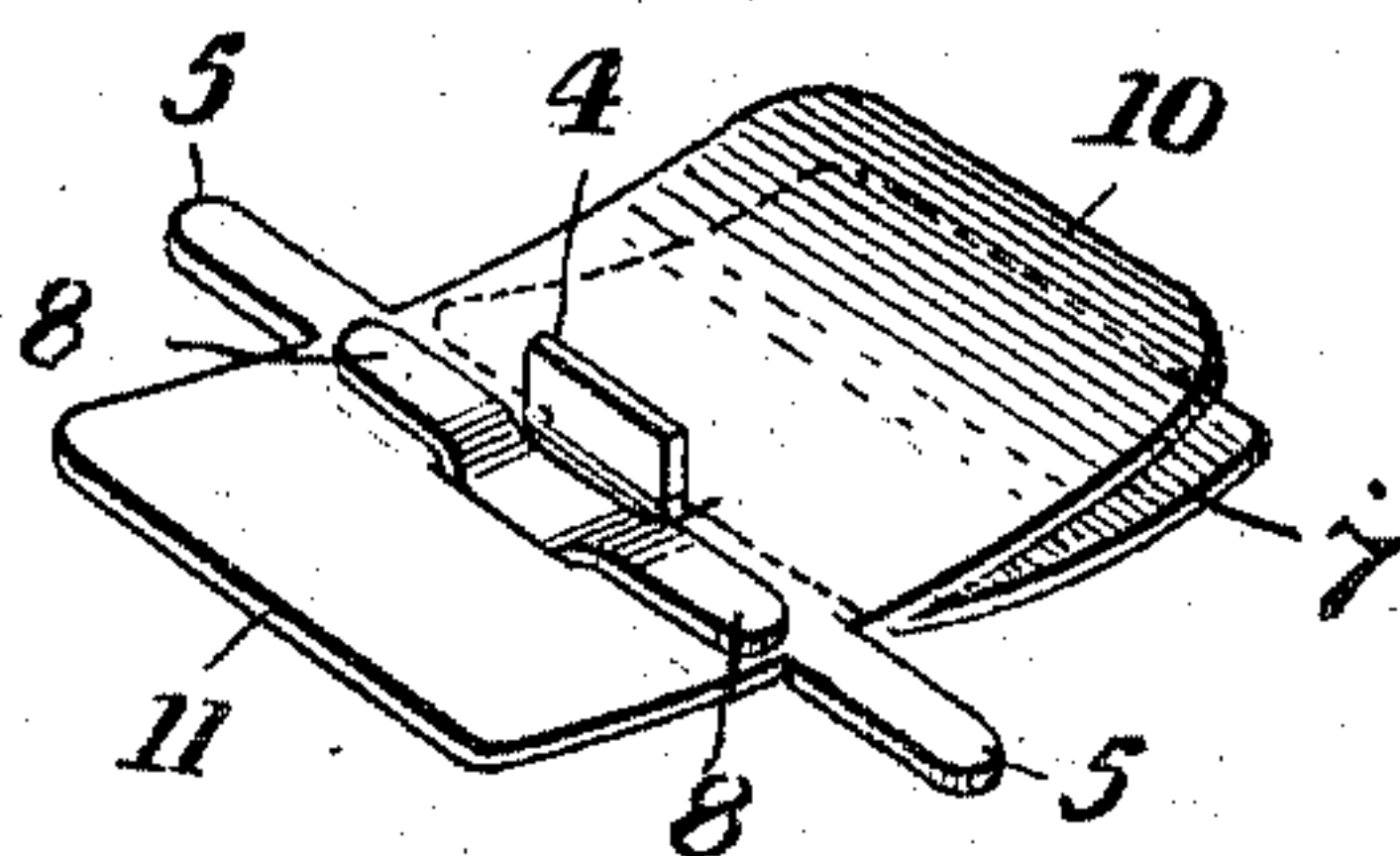
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses  
*J. J. Stink*  
*A. O. Reed*

Inventor  
*Richard W. Morgan*  
 By *C. W. Clement*  
 Attorney



# UNITED STATES PATENT OFFICE.

RICHARD W. MORGAN, OF SUNBURY, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO  
BENJAMIN F. BASTIAN, OF SUNBURY, PENNSYLVANIA.

SPRING-INSOLE.

966,759.

Specification of Letters Patent.

Patented Aug. 9, 1910.

Application filed December 6, 1909. Serial No. 531,639.

*To all whom it may concern:*

Be it known that I, RICHARD W. MORGAN, a citizen of the United States, residing at Sunbury, in the county of Northumberland and State of Pennsylvania, have invented certain new and useful Improvements in Spring-Insoles, of which the following is a specification.

As there is a growing demand for devices to relieve pedestrians and runners from the concussion incident to hard heels in boots and shoes, this improvement in insoles or cushions is to be inserted in shoes, is designed for the purpose of relieving any concussion or shock to the wearer, and is so constructed that its application to any shoe can be accomplished in a very short time.

The various features of the invention will be hereinafter more fully described in connection with the accompanying drawing in which,

Figure 1 is a longitudinal sectional view of a shoe with the improved insole inserted. Fig. 2 is a top plan view of the lower leaf of the insole with the upper leaf partly cut away. Fig. 3 is a perspective view of one form of spring of insole. Fig. 4 is a perspective view of another form of spring of insole.

Referring to the drawing, 1 and 2 indicate upper and lower leaves of the insole which may be made of a single piece of metal doubled upon itself or of two separate pieces of metal united at one end in any suitable manner. The leaves may be of different lengths or of the same length.

3 indicates an adjustable spring which is interposed between the two leaves 1 and 2 having a fulcrum 4 struck up from the bottom of the same.

5 indicates arms of the interposed spring which may be inserted between the teeth 6 struck up from the lower leaf 2.

The fulcrum 4 may be of any length desired.

Fig. 4 shows a second form of spring which is the same as spring 3 with the addition of the auxiliary spring 7, detachably attached to said spring 3 by means of arms 8 inserted through opening 9 in spring 3 and bent over on top of said spring as shown. The auxiliary spring 7 may be permanently attached if desired, but in either case it is flared outwardly from spring 8 as the legs of the letter Y.

The advantages of this improved insole can be readily seen, as the interposed spring is adjustable longitudinally for persons of different weights and as the upper leaf bears upon the ends 10 and 11 of the interposed spring a springing motion is given to the user, all jar or shock prevented. As can be seen, the position of the fulcrum regulates the tension on the upper leaf and spring, and after a certain weight is placed on said spring the upper leaf bears on the fulcrum and the said leaf in conjunction with the interposed spring gives the movement and relief described.

Having described my invention what I claim is:—

1. A spring insole comprising upper and lower leaves united at one end, a spring interposed between said leaves having a transverse fulcrum attached.

2. An insole comprising upper and lower leaves united at one end, a spring interposed between said leaves having a fulcrum on one side, said spring being adjustable longitudinally.

3. A spring insole comprising upper and lower leaves united at one end, a spring having a fulcrum interposed between said leaves, said spring being adjustable longitudinally, means in one of said leaves for retaining said spring in place.

4. A spring insole comprising upper and lower leaves united at one end, a longitudinal spring having a fulcrum struck therefrom interposed between said leaves, means for retaining said spring in place.

5. A spring insole comprising upper and lower leaves, a spring interposed between said leaves, said spring having a fulcrum, the lower leaf having teeth struck up to receive arms of said spring for the purpose of retaining said spring in place.

6. A spring insole comprising upper and lower leaves united at one end, an adjustable spring having a fulcrum attached interposed between said leaves, an auxiliary spring permanently or detachably attached to said spring, means for retaining said spring in place.

In testimony whereof I affix my signature, in presence of two witnesses.

RICHARD W. MORGAN.

Witnesses:

C. W. CLEMENT,  
C. F. SHIPMAN.