No. 713,882. Patented Nov. 18, 1902.

J. HIRSCH.

ELASTIC HORSESHOE.

(Application filed Dec. 26, 1901.)

(No Model.)

Fig. 1.

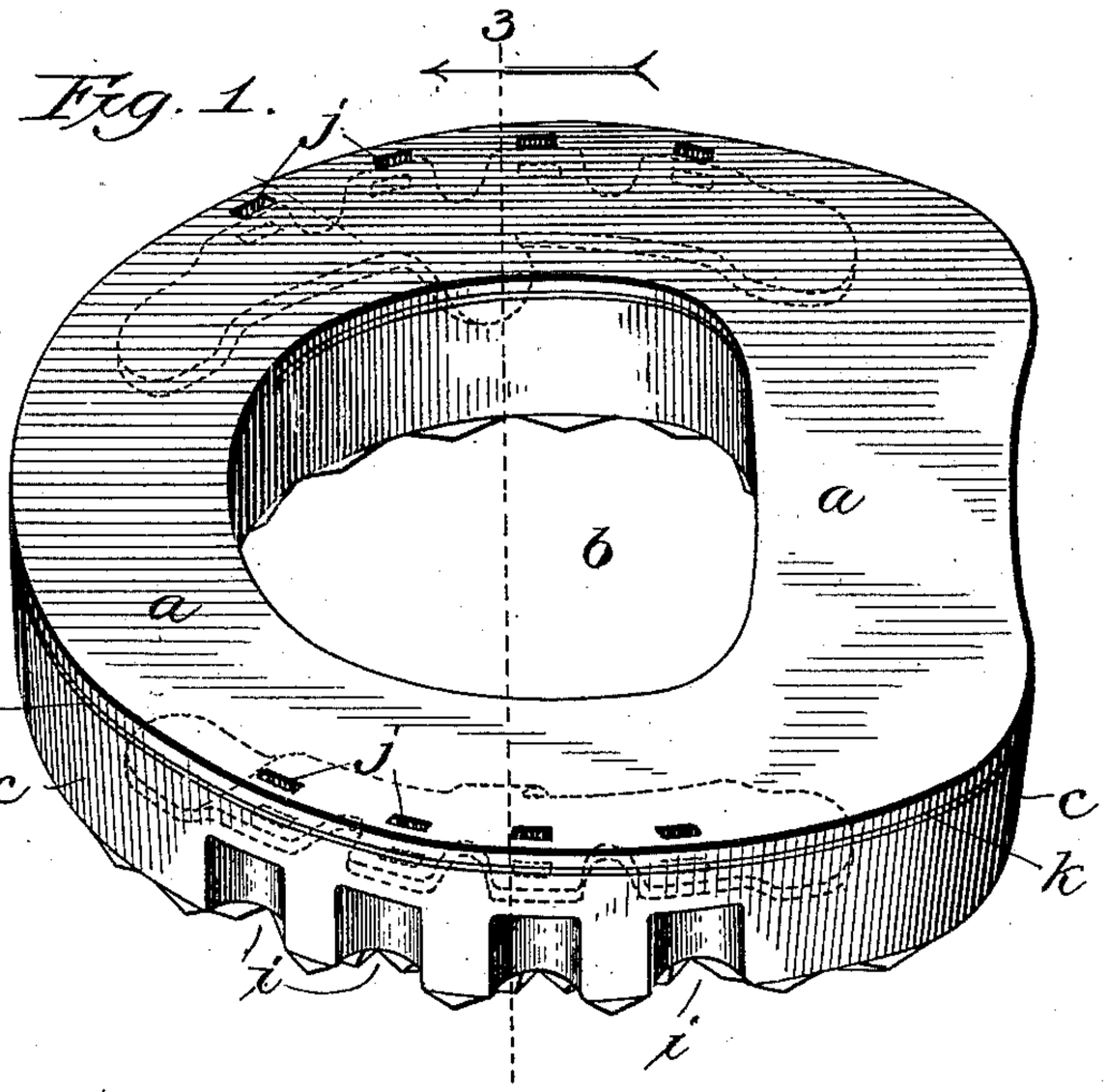


Fig. 2.

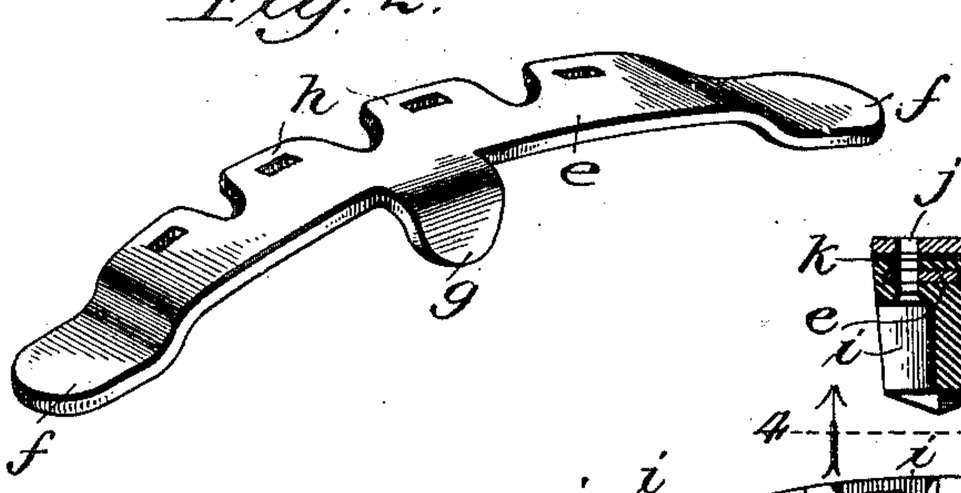


Fig. 3.

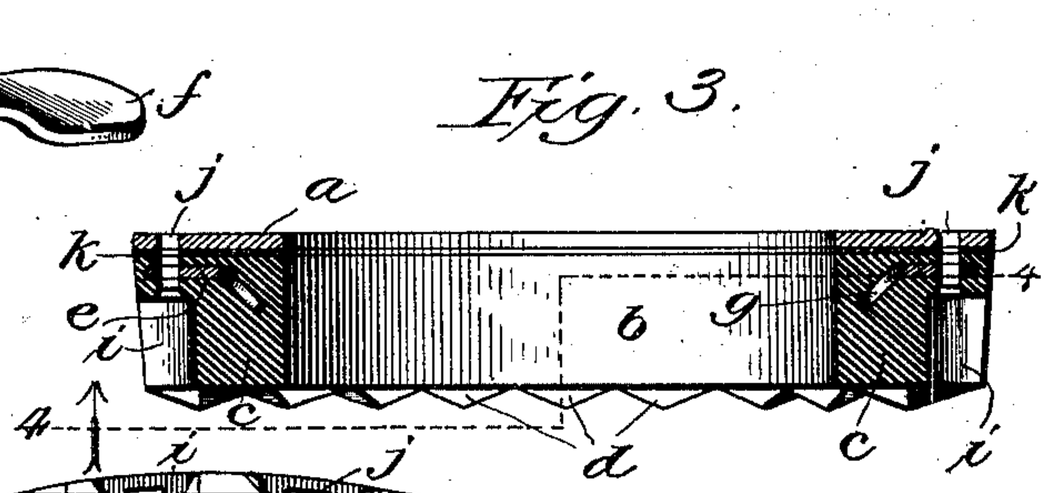
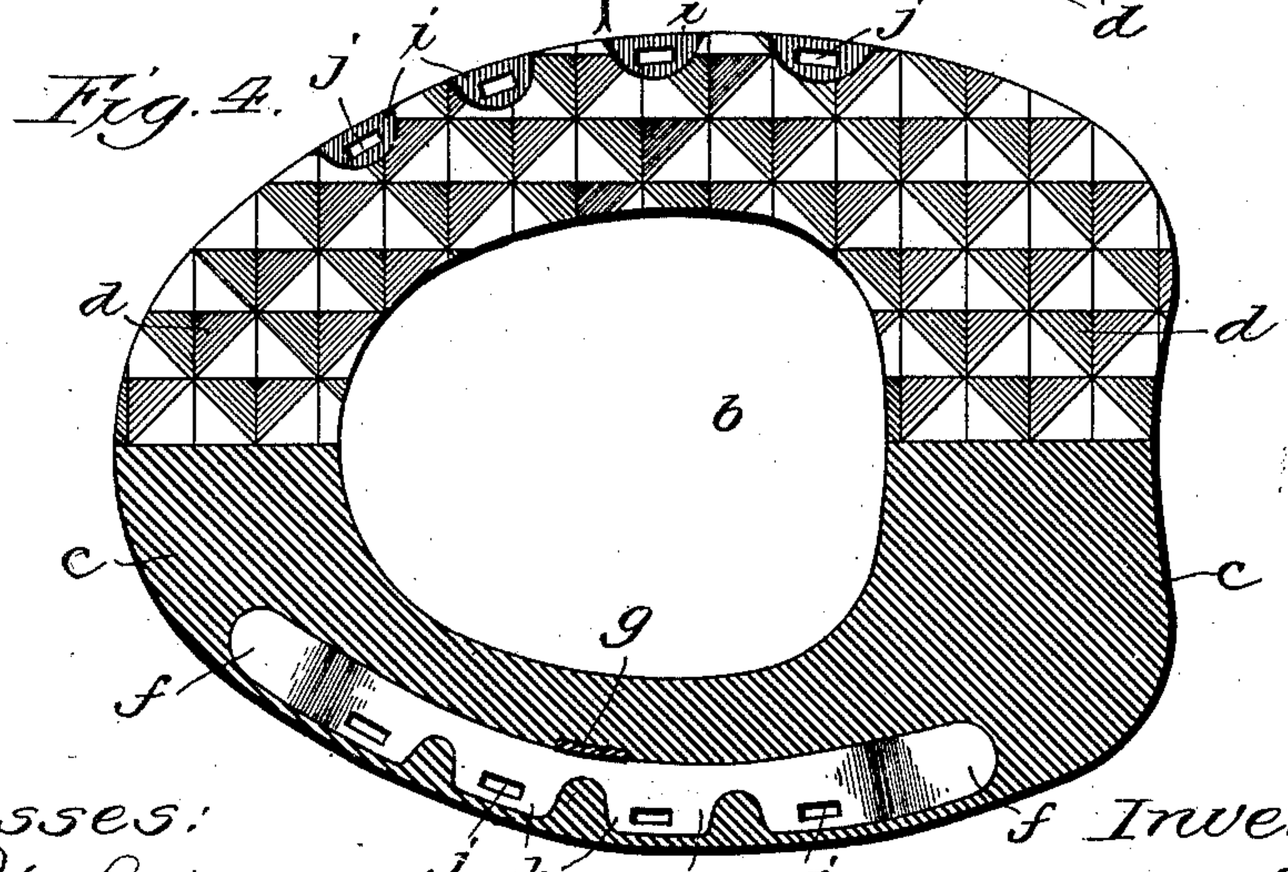


Fig. 4.



Witnesses:
Chas. L. Gaylord.
John Enders Jr.

Inventor:
Joseph Hirsch.
By Thomas F. Sheridan.
Att'y.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOSEPH HIRSCH, OF KANSAS CITY, MISSOURI.

ELASTIC HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 713,882, dated November 18, 1902.

Application filed December 26, 1901. Serial No. 87,218. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH HIRSCH, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Elastic Horseshoes, of which the following is a specification.

This invention relates to that class of horseshoes which may be termed "elastic-cushion" horseshoes, and particularly to the construction of the same, so as to provide a new article of manufacture.

The principal object of the invention is to provide a simple, economical, and efficient elastic horseshoe.

The invention consists in a new article of manufacture—viz., an elastic horseshoe composed of a base portion formed of leather or similar material having superimposed thereon or attached thereto a cushion portion, such as rubber.

The invention consists, further, in the features, combinations, and details of construction hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a horseshoe constructed in accordance with these improvements; Fig. 2, a perspective view of the metallic nailing-strip which is molded and embedded in the rubber portion of the shoe; Fig. 3, a cross-sectional view taken on line 3 of Fig. 1; and Fig. 4, a plan view, partly in section, taken on line 4 of Fig. 3, looking in the direction of the arrow.

In the art to which this invention relates and having particular regard to the macadam roads of the city and main highways of the country it is well known that a horse's feet when shod with metallic shoes are liable to become injured and that after traveling a few years on such hard roads the horse becomes unfit for fine driving purposes. It is further well known that the ordinary horseshoe of commerce is not entirely desirable, in that it is composed either entirely of rubber, which is injurious, or of rubber and metal, which is so expensive as to render its use objectionable.

The principal object of my invention, therefore, is to provide a composite shoe made of a leather base, a rubber cushion portion, and an interposed fabric which will remove most of the objections in the present art and attain the desired advantages, all of which will be more fully hereinafter set forth.

In constructing an elastic shoe in accordance with these improvements I take a base portion *a*, formed of leather or similar material, a material in a measure relatively less elastic or resilient than rubber and yet flexible enough to conform to the horse's feet and which will assist in retaining the shoe thereon without in any material way impairing the efficiency of the cushion portion. This base portion is preferably made substantially O-shaped, as shown in the drawings—that is, of a somewhat uniform shape—and having a substantially O-shaped recess *b* in the center, both for the purpose of providing lightness for the shoe and ventilation, as well as permitting an inspection of the tender part of the horse's hoof.

Attached to or what might be termed "superimposed" upon the leather base portion is a rubber cushion portion *c*, of substantially the same contour when looked at in plan view as the leather portion and of the desired thickness—in use about three-quarters of an inch thick—and corrugated at *d* on the bottom portion, so as to minimize the danger of slipping. This cushion portion has molded or embedded therein at or near each lateral edge a retaining or nailing strip *e*, of the desired size and shape, as shown in Figs. 2 and 4 of the drawings. This strip is provided with end lugs *f*, extending downwardly and outwardly from the main portion of the strip and a rear downwardly-extending lug *g*. The front portion is serrated and what might be termed the "projections" thereon perforated at *h*, so that the regular horseshoe-nails may be passed therethrough.

In order to render the nailing of the shoe in place easy, each lateral edge and the lower portion of the rubber cushion portion is recessed, as at *i*, and likewise provided with perforations *j*, that correspond and are arranged in alinement with the perforations in the metallic and leather portions. It will be seen from an inspection of the drawings that these recesses are of sufficient depth to permit of the ordinary horseshoe-nail to be driven therein, with its head out of the way of the flat surface of the cushion portion.

In order to provide for the easy manufac-

ture and longevity of the article, I prefer to provide a piece of fabric *k* and interpose it between the leather and cushion portions and cement it to both, so that it acts as a binding agent to effectively secure the parts together. The article may be manufactured in either of two ways—first, by cutting out the strips of leather and fabric, then taking the vulcanized-rubber cushion portion and cementing all of the articles together, or, second, the unvulcanized rubber may be first cemented to the fabric and then to the leather portion and vulcanized after such cementing together, the selection depending entirely upon the degree of vulcanizing required and the facilities for manufacture. The rubber portion should be vulcanized to about the same consistency as an ordinary hard erasing-rubber.

I claim—

1. As a new article of manufacture, an elastic horseshoe composed of a leather base portion substantially O-shaped in contour and having an opening through its central portion, a cushioning portion formed of rubber of similar contour of uniform thickness in cross-section throughout and having an opening through the central portion thereof corresponding with the opening in the leather base and a flat corrugated outer surface, and an interposed piece of fabric cemented to the above and acting as a binding agent for both, substantially as described.

2. As a new article of manufacture, a base portion formed of leather substantially O-shaped in contour, a cushioning portion of similar contour of uniform thickness in cross-section throughout and having an opening through the central portion thereof corresponding with the opening in the leather base and a flat corrugated outer surface formed of rubber and provided with a plurality of nailing-recesses at each lateral edge and having an opening through the central portion thereof, nailing-strips of metal molded in the rubber and at or near each lateral edge, a piece of fabric interposed between the rubber and the base portion and cemented to both the parts being provided with perforations extending through the rubber the metallic nailing-strip and the leather, substantially as described.

JOSEPH HIRSCH.

Witnesses:
THOMAS F. SHERIDAN,
HARRY IRWIN CROMER.