

No. 639,972.

Patented Dec. 26, 1899.

W. HAMILTON.
SPRING HORSESHOE.

Application filed Sept. 22, 1899.

(No Model.)

Fig. 1.

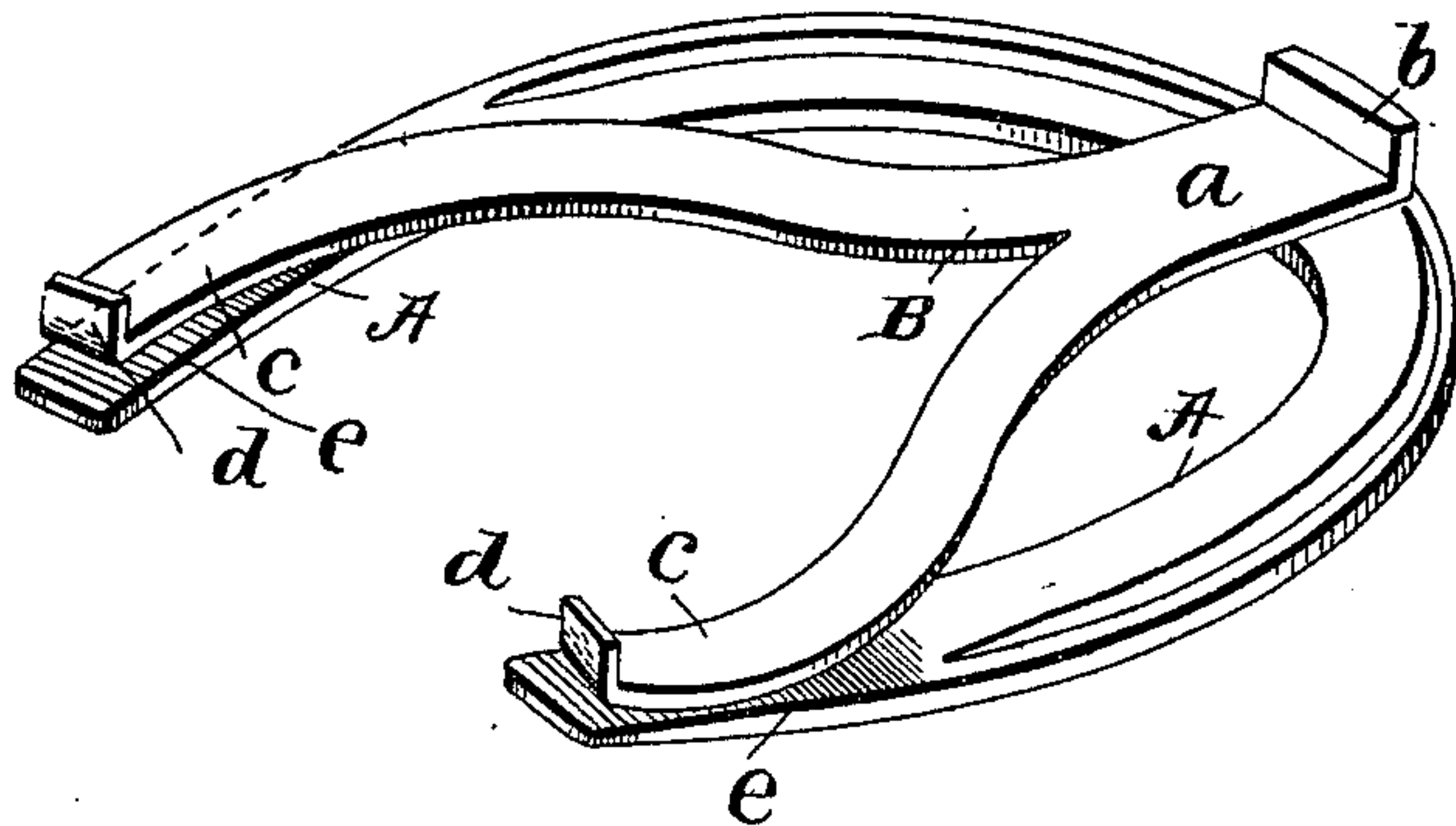


Fig. 2.

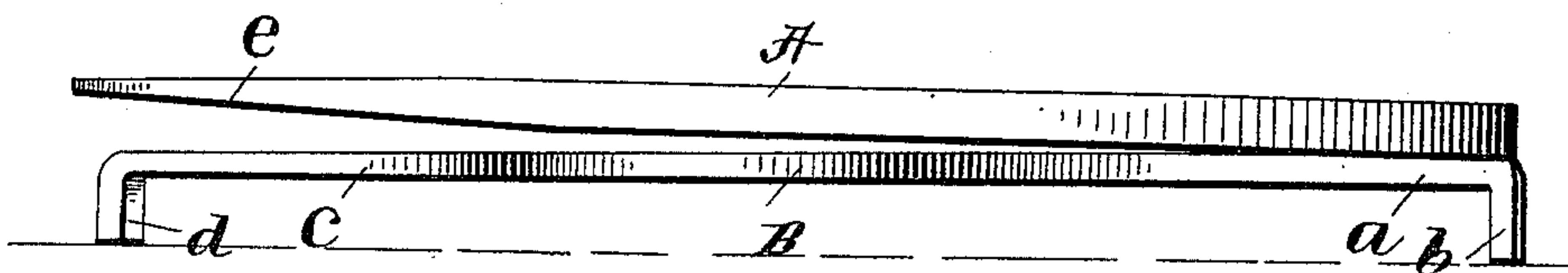
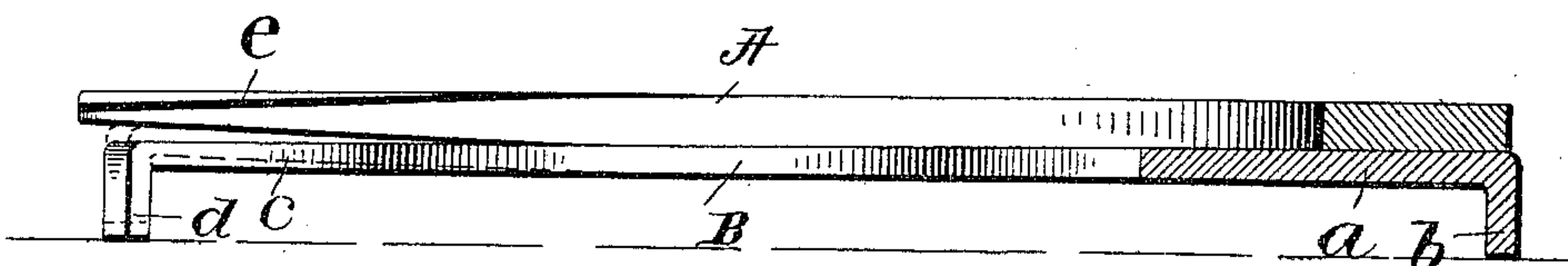


Fig. 3.



Witnesses
Geo. E. French.
Chas. R. Wright.

Inventor
William Hamilton,
by A. J. Pattison,
Attorney.

UNITED STATES PATENT OFFICE.

WILLIAM HAMILTON, OF SHERIDAN, ILLINOIS.

SPRING-HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 639,972, dated December 26, 1899.

Application filed September 22, 1899. Serial No. 731,297. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HAMILTON, a citizen of the United States, residing at Sheridan, in the county of La Salle and State of Illinois, have invented new and useful Improvements in Horseshoes, of which the following is a specification.

My invention relates to improvements in spring-horseshoes, and pertains to a horse-shoe provided with a V-shaped spring, the apex of the V being permanently attached to the front of the horseshoe, the said spring carrying the toe and the heel calks, all of which will be fully described hereinafter and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is an inverted perspective view of a horseshoe with my invention applied thereto. Fig. 2 is a side elevation of the same. Fig. 3 is a vertical sectional view taken through the center of the shoe.

Referring now to the drawings, A is an ordinary calkless horseshoe to which my invention is applied.

My invention consists of a V-shaped member B, the apex *a* of which is welded to the under side of the front of the shoe A and is provided with the toe-calk *b*. The diverging arms *c* have their rear ends turned downward, as shown at *d*, which constitutes the rear of the heel-calk.

By reference to the drawings it will be noted that the arms of the V-shaped member are normally out of contact with the adjacent portions of the shoe, whereby a spring action is afforded. This V-shaped member is composed of a suitable spring metal, preferably steel, and attention is also directed to the fact that for the purpose of strengthening the spring member the apex or stem portion extends inward beyond the inner edge of the front of the horseshoe and that the arms *c* do not begin directly at the inner edge of the front of the shoe, which constitutes a wide and strong stem or apex for the spring member and makes the same considerably more durable than would be the case if the apex or stem of the spring member were of a length only about equal to the width of the shoe to which it is attached, as will be readily understood.

Especial attention is also directed to the

fact that the rear or heel portions *e* of the shoe are inclined upward or cut away at their under sides, as indicated, the object of which is to have the spring-arms in their action engage the under side of the shoe at a point in front of the rear ends thereof, whereby a double spring action is produced—that is to say, when the weight of the animal is first placed upon the shoe the spring-arms are carried in engagement with the under side of the shoe at points in front of its rear ends, thus affording a comparatively yielding contact with the surface of the ground; but after this first contact of the arms with the shoe there is a limited space between the ends of the arms and the rear ends of the shoe, whereby an additional spring action is afforded under greater strain or weight. This construction produces a double spring action in that a comparatively easy spring is afforded when the foot of the animal first strikes the surface and a less yielding spring action afforded when the whole weight is placed thereon. This is found to produce an action exceedingly comfortable and easy to the animal and adapted to cure the many diseases to which the hoof of an animal is subjected and is well adapted to afford great relief to foundered knees and spavined horses. It is also calculated to increase the speed of the horse as well as to enable it to travel more freely by relieving the strain upon the cords and muscles of its legs and feet.

From the above description it should be noted that by a spring member and a horseshoe constructed substantially as herein shown and described I secure a rocking spring action between the spring member and the shoe and that this may be accomplished by modifications in specific constructions from that herein disclosed without departing from the spirit and scope of my invention.

It will be readily understood that instead of forming the spring separate from the shoe, as here shown, the shoe with the spring attached can be cut from a steel bar by the use of a die without departing from the spirit of my invention.

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

1. The combination with a horseshoe, of a

V-shaped spring member applied to the under side of the shoe and having a stem portion extending to the front edge of the shoe and turned downward to form a calk, the arms of the V-shaped member extending rearwardly under the rear ends of the shoe and normally out of contact therewith, the rear ends of the said arms also turned downward to form calks, substantially as described.

2. The combination with a horseshoe having its rear ends cut away or inclined upwardly, of a V-shaped member having its bent portion secured to the under side of the front of the shoe, the arms of the V extending rearwardly and under the cut-away rear ends of the shoe and normally out of contact therewith, whereby the said spring-arms will first engage the rear ends of the shoe at points in front thereof, and finally engage the rear ends thereof to produce a double spring action, substantially as described.

3. The combination with a horseshoe of a V-shaped spring member, the stem of the spring member secured to the under side of the front of the shoe and the arms of said member extending under and normally out of contact with the rear ends of the shoe, the adjacent faces of the arms at the rear ends of the shoe constructed and adapted to cause an

engagement of said members first at a point in front of the rear ends thereof and secondly at their rear ends, substantially as described.

4. The combination with a horseshoe of a V-shaped member, the stem of the said spring member secured to the under side of the front of the shoe, the arms of said member extending rearward under the rear ends of the shoe and normally out of contact therewith, the adjacent faces of one of said members being cut away whereby they will first engage at a point in front of their rear ends, substantially as and for the purpose described.

5. The combination with a horseshoe of a V-shaped spring member, the apex of the said member being secured to the underside of the front of the shoe, the arms of said V-shaped member extending under the rear ends of the shoe, the adjacent faces of the spring-arms and the shoe having a rocker-like engagement, substantially as and for the purpose described.

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

WILLIAM HAMILTON.

Witnesses:

GEORGE WORTMAN,
GEORGE NETTLEINGHAM.