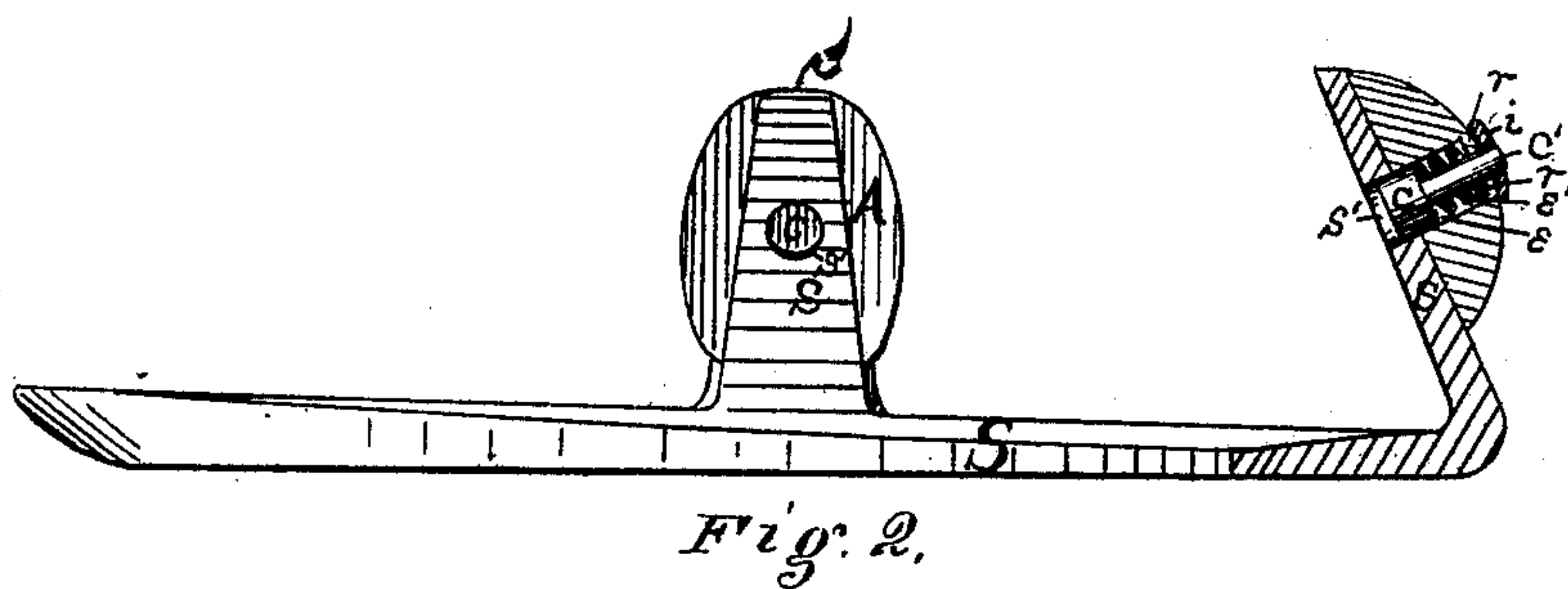
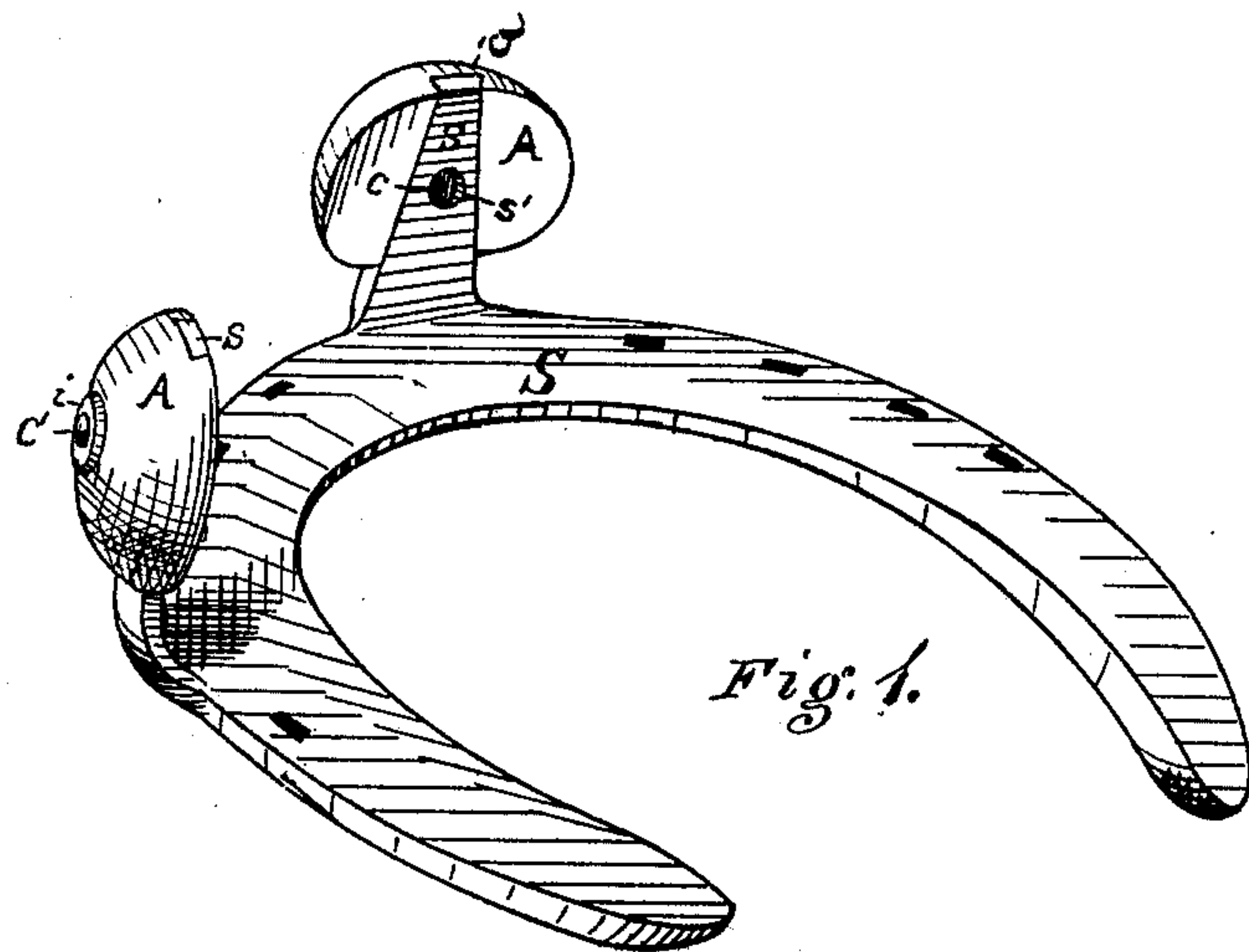


W. NEELY, Jr.
Weight for Horseshoes.

No. 219,973.

Patented Sept. 23, 1879.



Witnessed
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UNITED STATES PATENT OFFICE.

WILLIAM NEELY, JR., OF SEWICKLEY, PENNSYLVANIA.

IMPROVEMENT IN WEIGHTS FOR HORSESHOES.

Specification forming part of Letters Patent No. **219,973**, dated September 23, 1879; application filed February 24, 1879.

To all whom it may concern:

Be it known that I, WILLIAM NEELY, Jr., of Sewickley, county of Allegheny, State of Pennsylvania, have invented or discovered a new and useful Improvement in Weights for Horseshoes; and I do hereby declare the following to be a full, clear, concise, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—like letters indicating like parts—

Figure 1 is a perspective view of a horseshoe having weights attached thereto illustrative of my invention; and Fig. 2 is a vertical sectional view of the same, taken through the center of the front or toe weight.

My invention relates to weights for horseshoes; and consists in an improved construction and means of attachment of the weight to the shoe.

It has been customary heretofore to attach weights to horseshoes by means of screw-bolts passing through the weights, and screwing either into the body of the shoe, or into a clip or tang extending up or out from the shoe.

Several objections attend such screw-bolt attachments, among which is the rapid cutting or wearing away of the threads by dust, sand, or grit, so as practically to destroy such threads in a short time; also, when the weights are removed, the threaded hole in the tang or shoe becomes choked with dirt, which it is often difficult to remove from the threads, so as to allow the bolt to be screwed in; also, such screw-bolts are apt to become loosened by the severe jar incident to the usual use of such devices; also, the bolt being unconnected with the weight, the two are liable to become separated and lost; and, also, the time required to screw up or unscrew such bolts is often vexatious and annoying, especially when a horse is restive.

These objections I effectually obviate by my improved weight, which is constructed and secured as follows: A tang or clip, *s*, is extended up from the outer edge of the shoe *S* in the desired position of the weight, and, by preference, in such direction as to lie against or near to the surface of the hoof of the horse. This tang or clip is tapered in width toward the top, and is also shaped to a dovetail form in

cross-section, with the narrow face adjacent to the hoof.

The weight *A* is made of any desired heft, and preferably with the inner face curved or shaped approximately to the form of the hoof, and the outer face or surface rounded, as shown, so as to avoid sharp or cutting angles.

Across the inner face is made a tapering dovetail groove, *a*, corresponding to the tang or clip *s*, and adapted to receive the tang or slip down upon it to the desired position.

The dovetail and tapering form of the tang and groove will hold the weight upon the tang as against removal in any direction except upward, or that from which it is slipped on; and to prevent such upward removal, except when desired, I make use of a bolt, *c*, which has a stem, *c'*, passing through a chamber, *e*, in the weight, and through the outer shell or rim, *r*.

A nut or head, *i*, is secured to the projecting end of the stem which connects the bolt to the weight, but leaves the bolt free to move endwise within the chamber.

A spiral spring, *e'*, is arranged around the stem *c'*, one end of which rests against the rim *r*, and the other end against the rear end of the bolt or head *c*.

The arrangement and adjustment of these devices are such that when the weight is slipped onto the tang and is in place, the spring *e'* will throw the bolt, so that its projecting end *c* will enter or pass through a hole, *s'*, made through the tang in the proper place.

To remove the weight the head *i* may be grappled with any suitable implement, or a knife-blade may be passed between the head and the weight, and the bolt drawn back out of the hole *s'*, when the weight may be slipped upward and off the tang.

The strain upon the bolt *c* is very slight and only in one direction, and the spring *e'* may be made comparatively light, and still suffice to hold the bolt in the hole *s'* until intentionally drawn back.

The bolt *c* automatically locks or secures the weight when it is slipped in place, and having a smooth surface, it is relieved from the objections attending a threaded surface. The several parts being fitted neatly, dirt or dust will be excluded from the chamber *e*.

The head *i* may be screwed to the end of

the stem c' , so that the devices may be readily removed, if desired; but unless intentionally taken apart the weight and bolt cannot become separated and the parts lost. Weights of different heft and form may be arranged to slip onto the same tang, or such weights may be arranged over the toe or at the sides of the shoe, or at other points, as desired.

I am aware that, broadly considered, it is not new to attach a weight to the standard or clip of a horseshoe by means of a spring-actuated device, whereby the weight is made removable, and hence I make no claim herein to such combination in its broad sense.

Neither do I claim, broadly, the combination of a tapering dovetail-shaped clip or tang with the shoe and weight, the latter having a correspondingly dovetail and tapering slot, whereby the weight may be held without the aid of auxiliary fastenings, since in the construction of my device auxiliary fastenings of some sort are essential.

I claim herein as my invention—

1. In combination with a horseshoe, a tang or clip, s , having a hole, s' , through the same, and having a dovetail form in cross-section, a weight, A , having a slot, a , cut across its face corresponding in form to the tang, a bolt, c , secured to the weight within a chamber, e , and spring e' , for giving the bolt endwise motion, substantially as set forth.

2. A horseshoe-weight, A , having a chamber, e , therein opening into a dovetail slot, a , in combination with a bolt, c c' , and spiral spring e' , arranged in such chamber, substantially as and for the purposes set forth.

In testimony whereof I have hereunto set my hand.

WILLIAM NEELY, JR.

Witnesses:

CLAUDIUS L. PARKER,
GEORGE H. WOODS.