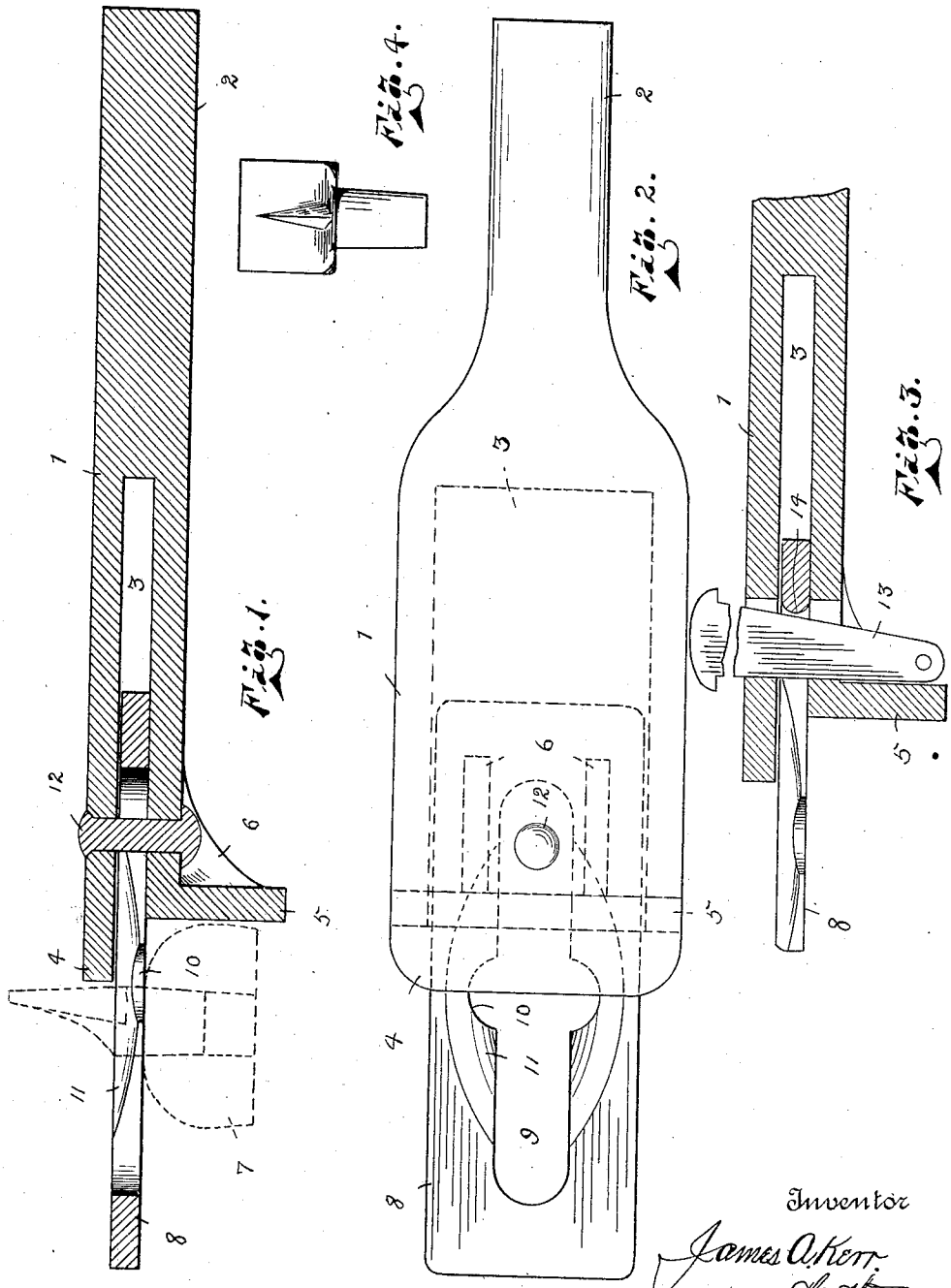
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J. A. KERR

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CALK EXTRACTOR AND ANVIL

Filed Feb. 12, 1923



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Patented Apr. 15, 1924. 1,490,327

UNITED STATES PATENT OFFICE.

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CALK EXTRACTOR AND ANVIL.

Application filed February 12, 1923. Serial No. 618,518.

To all whom it may concern:

Be it known that I, JAMES A. KERR, a citizen of the United States, residing at Duluth, in the county of St. Louis and State of Minnesota, have invented certain new and useful Improvements in Calk Extractors and Anvils, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to a calk extractor and anvil, and has special reference to a device particularly designed for the extracting of horseshoe calks which are applied to a horse's shoe by forcing them tightly into a hole such as are now commonly used.

These calks are now frequently applied and removed from a shoe while on a horse's foot, and the ordinary procedure, when the calk is applied, is simply to drive them by repeated forceful blows into the holes in the shoe. This, when done upon the heels of a horse's hoof, frequently results in serious damage to its foot, oftentimes producing lameness in the animal for days thereafter. When the calks are removed a wedge-like instrument is forced under the shoulders of the calk by driving it laterally with a hammer which may produce very undesirable shocks and stress upon the horse's hoof, besides frequently loosening the shoe.

To avoid these inhumane and damaging results is the principal object of my present invention, though other objects and advantages of the novel device will become evident as the description thereof proceeds.

Referring now to the accompanying drawing forming part of this application in which like reference characters indicate like parts:

Figure 1 is a central vertical section through one of the improved extractors and anvils;

Fig. 2 is a top plan view of the same;

Fig. 3 is a view similar to Fig. 1, though of a modified form; and

Fig. 4 is an elevation of a common horseshoe calk.

1 represents the body portion of the instrument which will be referred to hereafter as the anvil, the same being somewhat flattened in general form though rectangular in cross-section and terminating at one end as at 2 in a suitable handle-like shape to be grasped conveniently in the hand, while the main body portion is hollow having the rectangularly-shaped chamber 3 therein opening the full width thereof forwardly through the end opposite to that on which the handle is formed. The upper wall of the body portion projects beyond the entrance into the chamber as at 4, while the lower wall terminates some distance back from the end of the upper wall and has a downwardly projecting lip 5, the same being preferably at right angles to the body portion. This lip may be reinforced by suitable filiet brackets 6 formed integral with the body portion, and the whole anvil may be of wrought or cast metal as desired. The space between the face of the lip 5 and the front edge of the projection 4 is preferably substantially that which exists between the outermost edge of an ordinary horseshoe indicated at 7 and the adjacent edge wall of a calk hole therein, so that when the anvil is placed up against a shoe for example on a horse's foot, said shoe having a calk protruding therefrom, the edge of the projection 4 will impinge against the face of the calk, while the face of the lip will similarly engage the edge of the shoe; this being the position shown in Fig. 1 of the drawings and that which would result when the extractor and anvil is being employed for the purpose intended.

Within the chamber 3 is loosely fitted the flat extracting bit 8 which is provided with the central elongated slot 9 therein, and which slot intermediate of its ends and upon either side thereof is considerably widened in the form of a semicircle indicated at 10. The edges of this slot, from the upper side of the bit, are inclined inwardly and downwardly resulting in an elliptically-shaped concaved portion indicated at 11.

A through rivet or bolt 12 is mounted intermediate of the brackets 6 of the anvil just back of the lip 5 thereon and which bolt, when the bit 8 is in place in the anvil, is within the slot 9, thus preventing its being accidentally separated from the anvil. The widening 10 of the slot 9 in the bit is for the purpose of permitting the bit to be placed downwardly over the calk, as the wings thereof project beyond the shank of the calk forming the shoulders under which the beveled edges of the bit are engaged for extracting purposes.

In operation the bit is simply withdrawn to its outermost position, when the anvil is

so adjusted that the bit is brought down over the calk with the two butting faces of the anvil against the calk and shoe as before described, when a light blow or two on the end of the bit will force it towards the anvil which is simultaneously held tightly against the shoe and the calk and will result in its ready extraction without the injurious lateral jar experienced in the absence of a holding-on element.

The form of the bit being double-ended as it were permits of ready reversal of its ends within the anvil in the event of excessive wear so that the life thereof is practically doubled, the rivet 12, of course, having to be removed when such reversal is accomplished.

In the modified form shown in Fig. 3 the bolt 12 is simply changed to a driving rectangularly-shaped tapered member illustrated at 13, and the inner edge of the innermost end of the slot 9 in the bit 8 is rounded as at 14, so that when the bit is placed over a calk in the horse's shoe, the wedging member or key 13 being fully drawn outwardly, all that is necessary to extract the calk is to drive the key 13 downwardly which tends to contract or draw together the bit and the anvil, thus accomplishing exactly the same results, though possibly in a more desirable manner than the striking of the end of the bit with a hammer.

When a calk is being driven into a shoe on a horse's foot the projecting end 4 of the anvil, or the handle end, becomes convenient for holding up against the opposite face of the end of the shoe, for instance at the heel, so that when a blow is struck upon the end of the calk the jar will be taken by the anvil held against the shoe instead of the horse's foot, and the instrument being used for the extraction of the old worn calk and convenient of access for such purpose; otherwise of course it is apparent that if the horseshoer is so disposed he might use any piece of heavy iron for a similar purpose.

From the foregoing it is evident that I have not only conceived a convenient and practical combination extractor and anvil for the purpose set forth, but one having the additional meritorious attribute of encouraging humane treatment of horses.

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

1. A horseshoe calk extractor and anvil comprising in combination an anvil having lips for engaging simultaneously the calk and shoe, and a projective bit carried within the anvil intermediate of said lips having opposed inclined faces for extracting the calk when forced into the anvil.

2. An instrument of the type described comprising a hollow rectangularly-shaped anvil and a calk extracting bit loosely carried within the anvil.

3. An instrument of the type described comprising an anvil and a calk extracting bit carried by the anvil, said bit having a central opening therethrough for surrounding the calk.

4. An instrument of the type described comprising in combination an anvil and a reversible calk extracting bit.

5. An instrument of the type described comprising in combination an anvil and a reversible calk extracting bit having a central opening therethrough for surrounding a calk, said opening having wedge-like marginal edges for lifting engagement with the calk.

6. A horseshoe calk extractor comprising in combination an anvil for lateral engagement against a calk and a cooperative reciprocable extracting member adapted to be struck by a hammer for extracting the calk.

7. A horseshoe calk extractor comprising in combination an anvil for lateral engagement against a calk and a cooperative reciprocable extracting member for wholly surrounding the calk, said member having wedging engagement intermediate of the calk and shoe for extracting the calk.

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

JAMES ALEXANDER KERR.

Witnesses:
S. C. Bronson,
S. Geo. Stevens.