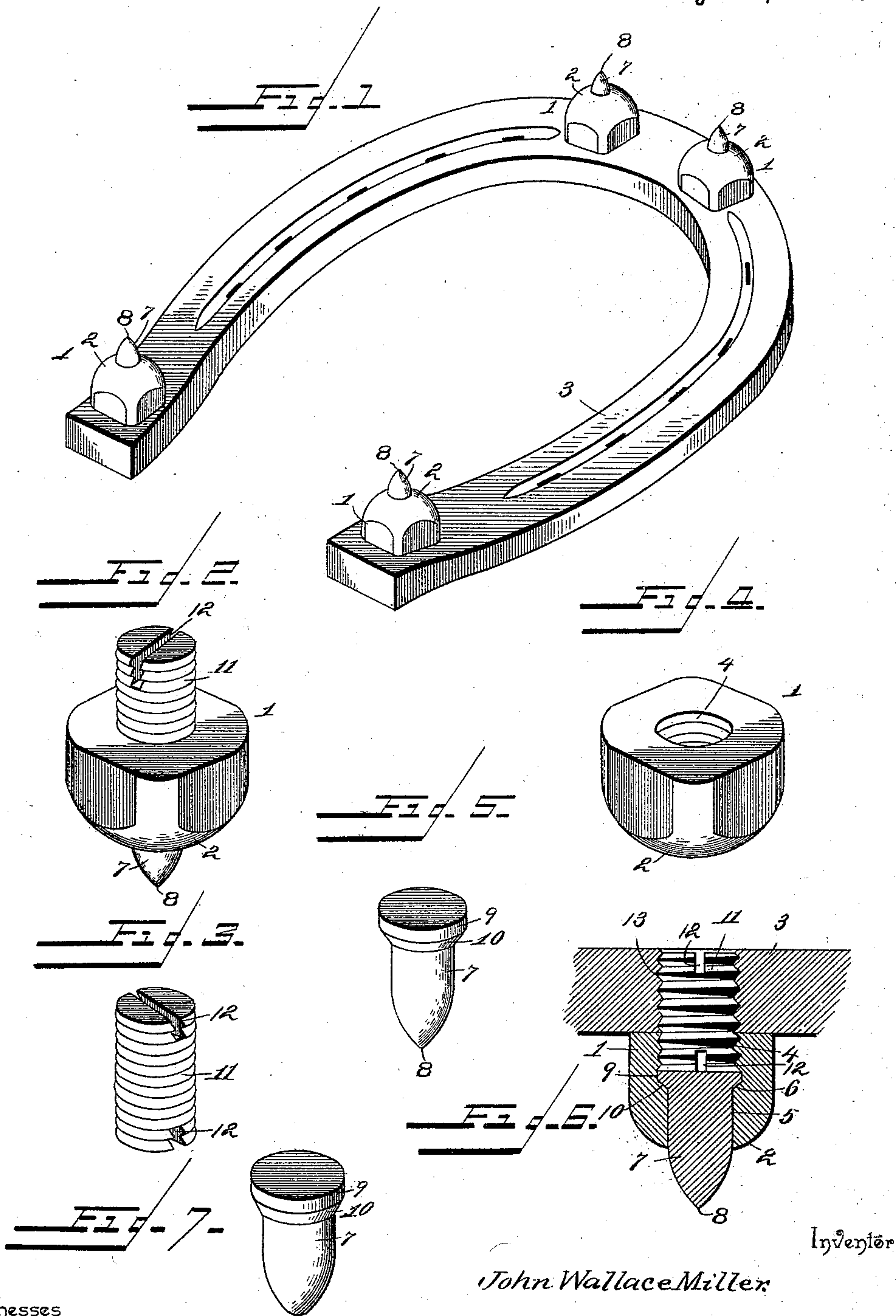


(No Model.)

J. W. MILLER.
HORSESHOE CALK.

No. 540,023.

Patented May 28, 1895.



Inventor

John Wallace Miller

By his Attorneys.

Witnesses
J. W. Puley.
R. M. Smith.

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

JOHN WALLACE MILLER, OF READING, PENNSYLVANIA.

HORSESHOE-CALK.

SPECIFICATION forming part of Letters Patent No. 540,023, dated May 28, 1895.

Application filed March 20, 1895. Serial No. 542,536. (No model.)

To all whom it may concern:

Be it known that I, JOHN WALLACE MILLER, a citizen of the United States, residing at Reading, in the county of Berks and State of Pennsylvania, have invented a new and useful Horseshoe-Calk, of which the following is a specification.

This invention relates to an improvement in horse shoe calks, and the object thereof is to simplify and improve the construction of such devices, and to provide one which shall be capable of being applied to or removed from a horse shoe without detaching said shoe from the hoof; which may be quickly and easily renewed when worn out or unfit for further use, and which shall be thoroughly efficient in preventing the animal from injuring himself on slippery or icy pavements.

The present invention consists in a device comprising a centrally perforated internally shouldered and threaded nut, a shouldered and pointed calk seated therein, and a double ended screw adapted to lock said calk in place and also engage a threaded perforation or socket in the shoe.

It further consists in certain features and details of construction and arrangement of parts hereinafter fully described, illustrated in the drawings, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of a horseshoe provided with my improved calks. Fig. 2 is a detail perspective view of a complete calk constructed in accordance with my improvements. Fig. 3 is a similar view of the double-ended screw. Fig. 4 is a similar view of the nut; Fig. 5, a similar view of the pointed and shouldered calk. Fig. 6 is a vertical section through a portion of a horseshoe, showing also the nut, calk, and double-ended screw in section and applied to the shoe. Fig. 7 is a detail perspective view of a rounded or blunt calk for use in dry weather.

Similar numerals of reference indicate corresponding parts in the several figures of the drawings.

Referring to the drawings, 1 designates a nut provided with a polygonal outer face adapting it to receive and be tightened by a wrench and preferably rounded or convex on its lower face, as shown at 2, the upper face of said nut being flat adapting the same to be

screwed snugly against the lower face of a horse shoe. Indicated at 3. The nut 1 is provided with a central perforation extending vertically through it, the upper portion of said perforation being screw threaded, as shown at 4, and the lower portion of said perforation being reduced in diameter at 5 to form a shoulder 6 which is preferably inclined.

The calk proper designated by the numeral 7 is cylindrical in cross section and pointed at its lower end 8 for adapting it to engage and obtain a firm hold upon slippery or icy pavements, although the lower end may be blunt or rounded off as shown in Fig. 7 in any preferred manner for use upon dry pavements and roads. The upper end of the calk 7 is shouldered or provided with an annular flange 9 having an inclined base 10 corresponding to and adapted to fit snugly against and be held in place by the internal shoulder 6 of the nut 1.

11 designates a double ended screw or a threaded shank of the same diameter throughout, formed with a screw thread extending from end to end. The screw 11 is provided at either end with an eye or slit 12 by means of which said screw may be engaged with or withdrawn from either the nut 1 or the horse shoe 3.

In operation the shouldered calk 7 is inserted in the central perforation of the nut 1 until its shoulder 10 rests upon the corresponding internal shoulder 6 of the nut. The double ended screw 11 is then threaded into the upper screw threaded portion 4 of said nut until it meets with the upper end of the calk 7. By means of the eye or slit 12 in the upper end of the screw, the latter with the aid of a screw driver may be tightened against the head of the calk thus securely locking the latter in place. The upper portion of the screw 11 is now inserted into a threaded perforation or socket 13 in the horse shoe and by means of a wrench applied to the nut 1, the device as a whole is firmly secured to the lower face of the shoe. By means of the double ended screw and the eye or slit in either end thereof, when the nut 1 is removed for the purpose of sharpening or renewing the calk 7, said screw may be removed either from the nut or the shoe, according to which part it remains in, which constitutes a great advantage and im-

provement over devices of a similar nature heretofore constructed.

By having two sets of calks, one set pointed or sharpened as in Fig. 5, and the other blunt or rounded off, as in Fig. 7, the shoes may be equipped with either, and adapted for use on either dry or wet and slippery pavements, as desired.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

1. In a horseshoe calk, an internally threaded nut, in combination with a shouldered calk fitting therein, and a double ended screw for locking said calk in place within the nut and connecting the device as a whole with a horse shoe, substantially as described.

2. In a horseshoe calk, an internally threaded nut, in combination with a shouldered calk fitting therein, and a screw provided with a thread extending from end to end thereof, and having an eye or slit in either end whereby the same is adapted to be applied to or removed

from either the nut or the horse shoe or both, substantially as specified.

3. In a horseshoe calk, an internally threaded and shouldered nut, a shouldered calk fitting therein, and a double ended screw adapted to lock said calk within the nut and to unite the device as a whole to a horse shoe, in combination with a horse shoe having a screw threaded perforation or socket for the reception of the upper portion of said double ended screw, substantially as described.

4. A horse shoe calk comprising a centrally perforated internally threaded and shouldered nut, a pointed and shouldered calk seated within said nut, and a double ended screw, threaded from end to end and provided with an eye or slit in each end, whereby the latter may be united to or removed from either the nut or the shoe, substantially as and for the purpose described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN WALLACE MILLER.

Witnesses:

D. D. BECKER,
LESTER HARVEY.