No. 810,843. PATENTED JAN. 23, 1906.

W. B. COLE & F. H. THORNLEY.

HORSESHOE CALK.

APPLICATION FILED APR. 10, 1905.

FIG. 1

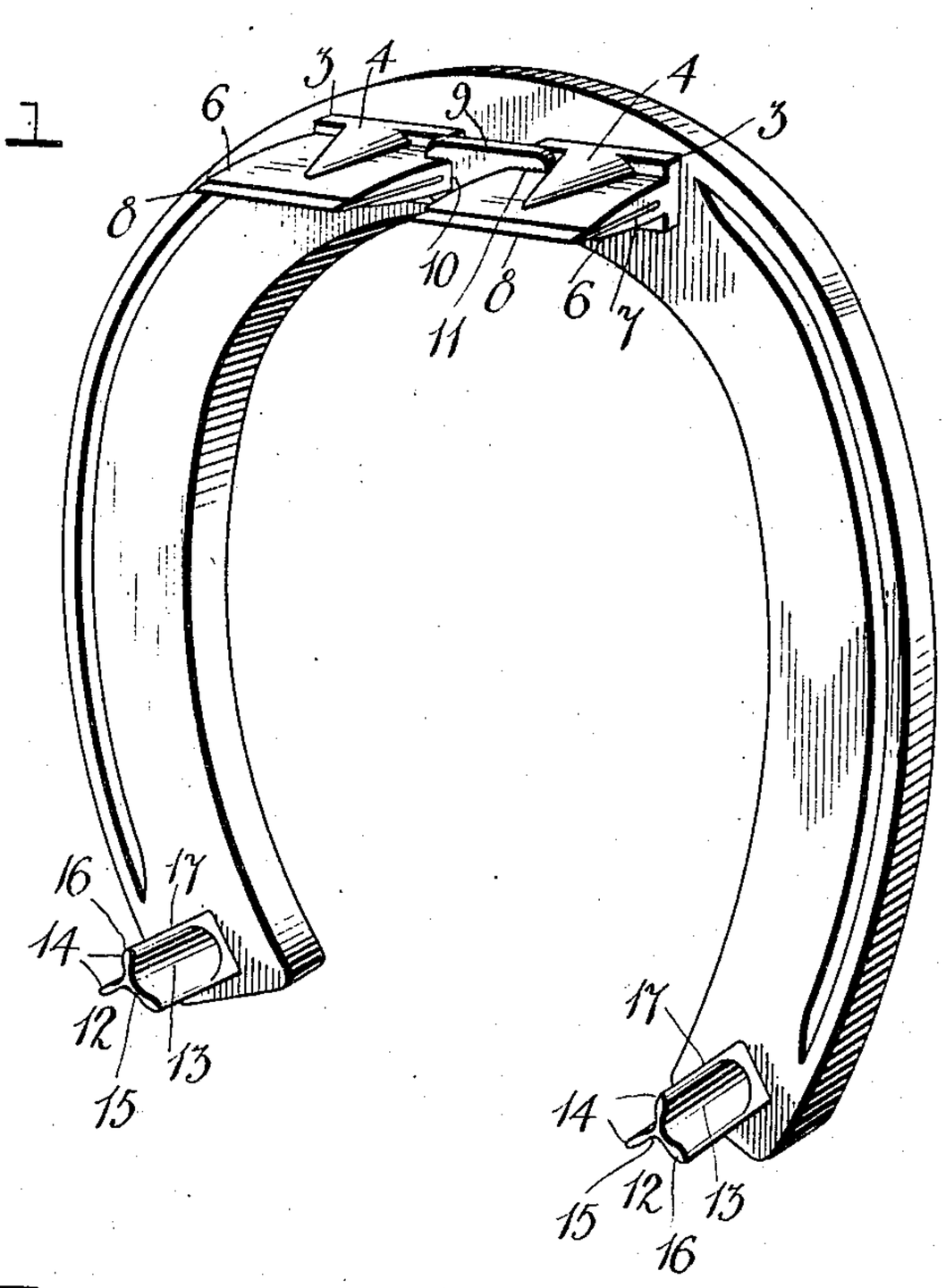


FIG. 2

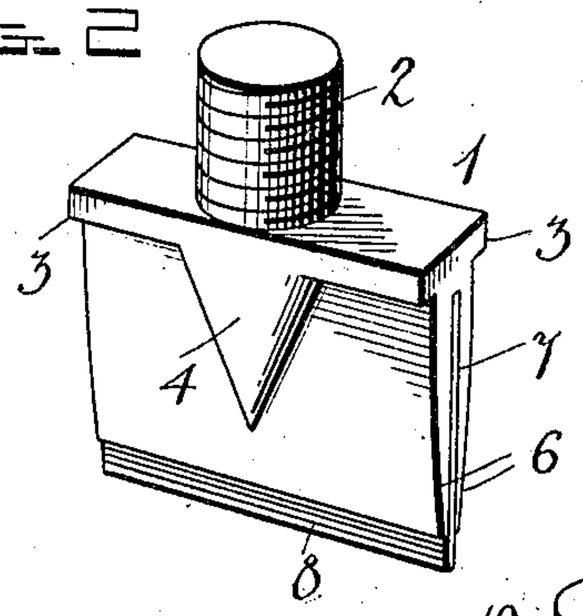


FIG. 3

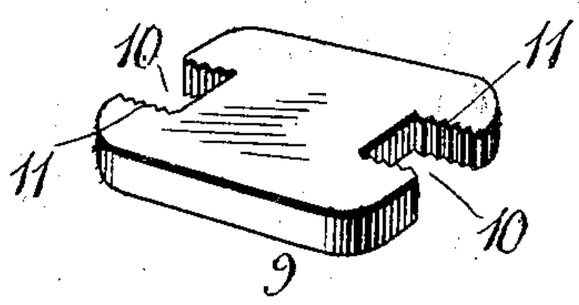
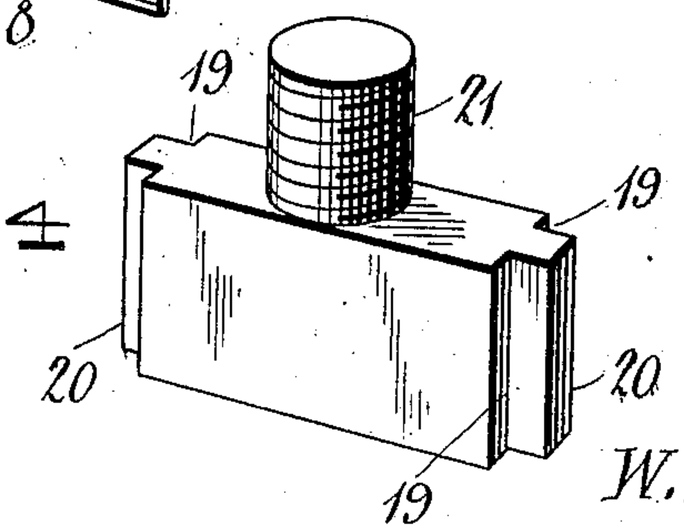


FIG. 4



Witnesses.
J. F. Brydon
C. H. Griesbauer.

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by Berry & Cowl
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM B. COLE AND FRANK H. THORNLEY, OF RHINEBECK, NEW YORK.

HORSESHOE-CALK.

No. 810,843. Specification of Letters Patent. Patented Jan. 23, 1906.

Application filed April 10, 1905. Serial No. 254,825.

To all whom it may concern:

Be it known that we, WILLIAM B. COLE and FRANK H. THORNLEY, citizens of the United States, residing at Rhinebeck, in the county of Dutchess and State of New York, have invented new and useful Improvements in Horseshoe-Calks, of which the following is a specification.

Our invention relates to improvements in calks for horseshoes; and it consists in the construction, combination, and arrangement of devices hereinafter described and claimed.

One object of our invention is to effect improvements in the construction of the toe-calk.

A further object of our invention is to provide a coupling device which is adapted to be used in combination with the toe-calks to prevent the latter from turning and to keep them in line with each other.

In the accompanying drawings, Figure 1 is a perspective view of a horseshoe provided with our improved calks and coupling device. Fig. 2 is a detail perspective view of one of the toe-calks. Fig. 3 is a similar view of the coupling device, and Fig. 4 is a similar view of a bar or summer calk.

The improved toe-calks shown in Figs. 1 and 2 are each formed of a body portion 1, made of iron, and having on its under side at its center a screw-threaded stem 2 to engage a screw-threaded opening in the toe of the shoe. The body portion 1 of each toe-calk is formed with oppositely-extending base-flanges 3 and at its center portion with reinforcing V-shaped webs 4, the sides of which converge outwardly. The sides of the body portion are parallel, or substantially so, for a suitable distance from the base-flanges 3, and the outer portions of the said sides converge inwardly, as at 6. The body portion of each toe-calk is provided with a longitudinal recess 7, in which is placed a steel blade or center portion 8, which extends from end to end of the body portion and projects outwardly therefrom and has its outer edges beveled toward each other, as shown. The toe-calks when they are secured to the shoe are spaced apart and between them is placed a coupling device 9, which is made of iron or other suitable metal, is substantially of oblong rectangular form, and is provided at its ends with recesses 10 to receive the opposing ends of the body portions of the toe-calks, the said coupling device bearing on the base-flanges 3 of the toe-calks and the opposite sides of its recesses 10 being provided with roughened surfaces 11, which cause the said coupling device to bite firmly on the said toe-calks, so that the same is prevented from becoming casually detached from the toe-calks. The width of the recesses in the ends of the coupling device prior to the application of the coupling device to the toe-calks is slightly less than that of the spaces between the parallel sides 5 of the toe-calks, so that when the coupling device is driven onto the body portions of the toe-calks the same becomes firmly secured thereto, as will be understood.

Each of our improved heel-calks 12 is hollowed on three sides, as at 13, to provide three radially-disposed wings 14. The said wings are narrowed toward the center of the calk, as at 15, and are widened near their outer edges, as at 16, their extreme outer edges being oppositely beveled, as at 17. Each heel-calk is formed at its inner end with a screw-threaded shank or stud, which engages a screw-threaded opening in one of the heels of the shoe to secure the calk thereto. By thus narrowing the inner portions of the wings or blades of the heel-calks the same are adapted to more readily cut into the ice to prevent the horse from slipping.

The form of our improved toe-calk shown in Fig. 4 is adapted for use in warm weather. The same is bar-shaped—that is to say, is of oblong rectangular form—and is provided at its corners with rectangular recesses 19 to provide end flanges 20, which are adapted to be engaged by the recesses in the ends of the coupling device. This form of our improved toe-calk is made, preferably, entirely of steel, the screw-threaded stem or stud being preferably formed integrally with the bar or head portion of the calk.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

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 our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A horseshoe having detachable toe-calks, in combination with a coupling device

having recesses in its ends to engage the opposing ends of the toe-calks and prevent the latter from turning, substantially as described.

2. A toe-calk comprising a body having substantially parallel sides, outwardly-extending base-flanges, strengthening-webs in the angles between the sides and base-flanges, a recess between the sides, and a blade in said recess, substantially as described.

3. A horseshoe having toe-calks provided with base-flanges, in combination with a coupling device bearing on the base-flanges of the calks and having recesses in its ends to receive the opposing end portions of the calks, said coupling device preventing the calks from turning, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

WILLIAM B. COLE.
FRANK H. THORNLEY.

Witnesses:
WM. H. GAY,
S. HAINOR.