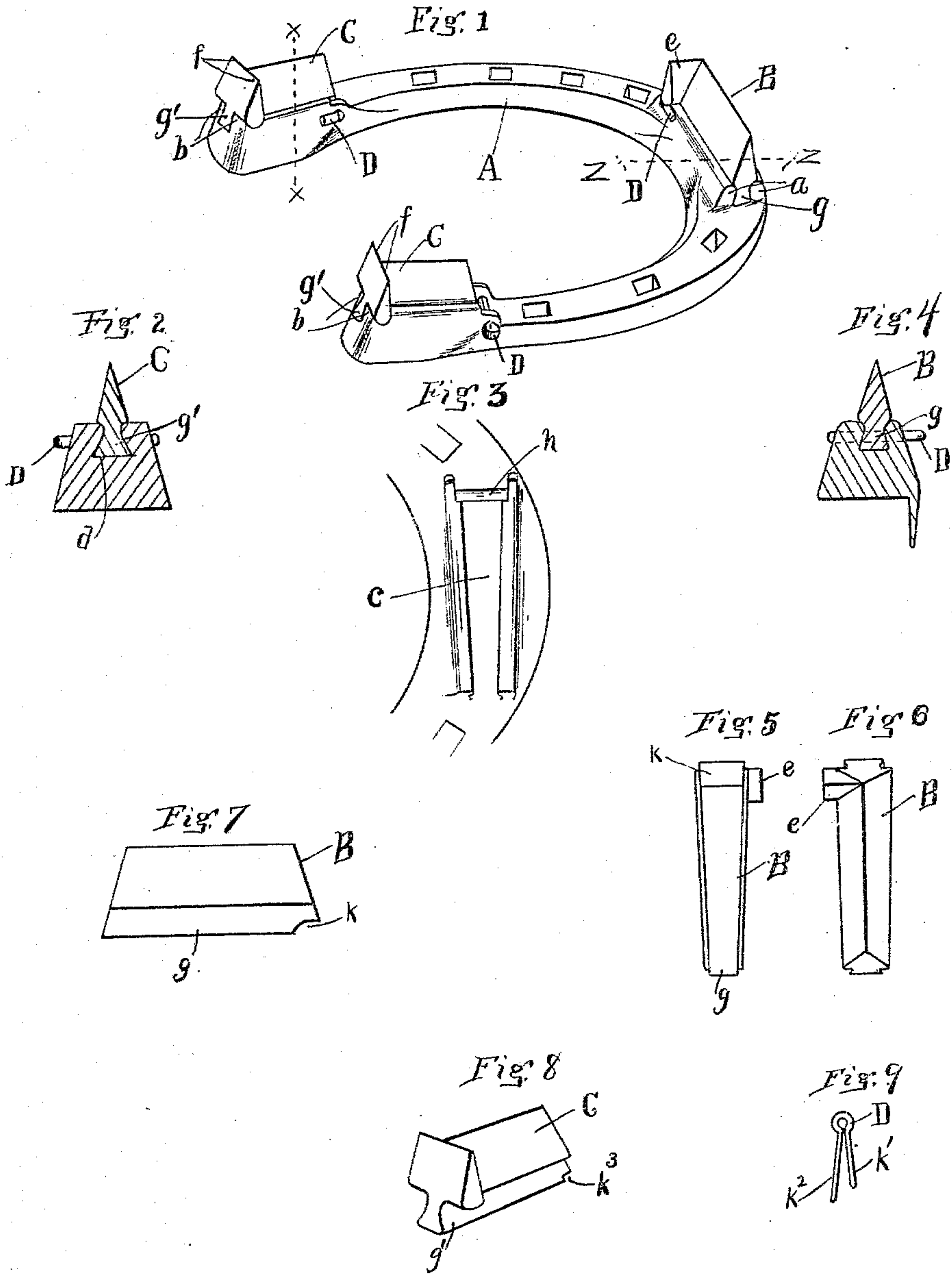


(No Model.)

J. B. GRAVIS.
HORSESHOE.

No. 556,818.

Patented Mar. 24, 1896.



WITNESSES
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JOHN B. GRAVIS, OF CANTON, OHIO.

HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 556,818, dated March 24, 1896.

Application filed December 5, 1895. Serial No. 571,405. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. GRAVIS, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have
5 invented certain new and useful Improvements in Horseshoes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of
10 this specification, and to the letters of reference marked thereon, in which—

Figure 1 is a view of the horseshoe, showing the different parts properly assembled. Fig. 2 is a transverse section through line *x x*.
15 Fig. 3 is a view showing the bottom or under side of the toe portion of the shoe with the calk removed. Fig. 4 is a transverse section through line *z z*. Fig. 5 is an under side view of the toe-calk. Fig. 6 is a detached view of
20 the toe-calk. Fig. 7 is a detached side elevation of the toe-calk. Fig. 8 is a detached view of one of the heel-calks. Fig. 9 is a detached view of one of the cotters.

The present invention has relation to horse-shoes; and it consists in the different parts and combination of parts hereinafter described, and particularly pointed out in the claim.

Similar letters of reference indicate corresponding parts in all the figures of the drawings.
30

In the accompanying drawings, A represents the horseshoe proper, which may be constructed in the ordinary manner, reference being had to attaching the different parts belonging to the horseshoe.
35

The bottom or under side of the horseshoe A is provided with integral flanges *a* and *b*, said flanges being for the purpose of forming
40 grooves or ways *c* and *d*, which grooves are formed tapering vertically and are so formed for the purpose of assisting in holding the toe or heel calks, as hereinafter described.

The toe-calk B is substantially of the form
45 shown in Fig. 1, and, as shown, one end of said calk is provided with the lateral extension or portion *e*, which portion or extension is so located that it will come upon the outer side of the foot when the shoe is properly attached to the horse's hoof. In use the outer
50 ends of the calks wear away more rapidly than the inner ends, and the said extension

e is provided for the purpose of compensating for the difference between the wear of the inner end and the outer end of the calk. Another object and purpose of providing the lateral extension *e* is to prevent what might be termed a "side" or "lateral" slipping of the horse's feet.
55

The heel-calks C are substantially of the form shown in the drawings, and, as shown, they are each provided with the T ends *f*, which T ends are for the purpose of increasing the durability and lessening the wear of the calks and at the same time preventing the
60 horse's foot from slipping in either direction.

The calks B and C are all formed detachable, and are so formed for the purpose of providing a means for removing the calks from the shoe without the necessity of detaching the shoe proper from the hoof of the horse.
65

Each of the calks B and C is provided with the shanks *g* and *g'*, said shanks being for the purpose of holding the calks in proper position upon the shoe by means of the grooves
70 *c* and *d*.

For the purpose of securely holding the calks in proper position with reference to the shoe after they have been connected thereto the cotters D are provided, which cotters are
75 passed through the flanges *a* and *b*, substantially as illustrated in the drawings.

For the purpose of providing a suitable passage for the cotter used in securing the toe-calk B the groove *h* is formed in the top or
80 upper side of the groove *c*, substantially as illustrated in Fig. 3. The end of the calk where the cotter is located is provided with the cut-out portion *k*, which cut-out portion comes opposite the groove *h* when the calk is
85 placed in proper position, thereby leaving the space for the cotter to be passed through. It will be understood that the cotter should be formed of sufficient size to partially fill the cut-out portion *k*.
90

The heel-calks C are so arranged that when placed in proper position the cotters will abut against the inner ends of said calks. In use I prefer to form the cotters with long and short tangs *k'* and *k''*, the longer tang being
95 of sufficient length to be bent laterally so as to prevent the accidental displacement of the cotter.
100

It will be understood that by my peculiar

arrangement I am enabled to easily detach the different calks for the purpose of substituting new ones or repairing old ones.

5 If desired, the different calks may be formed tapering longitudinally, so as to provide for snugly fitting the shanks of the calks into the grooves.

10 If desired, the inner ends of the heel-calks C may be cut out, as shown at k^3 , Fig. 8, to form a space for receiving the cotters.

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

The combination of the shoe A, provided

with the detachable calks B and C, the calk 15 B provided with the cut-out portion k and the side extension e , and the calks C having the T ends f , and means for securing the calks to the shoe, substantially as and for the purpose specified. 20

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN B. GRAVIS.

Witnesses:

F. W. BOND,

J. A. JEFFERS.