

No. 834,183.

PATENTED OCT. 23, 1906.

G. BINDER.
DETACHABLE HORSESHOE CALK.

APPLICATION FILED APR. 2, 1906.

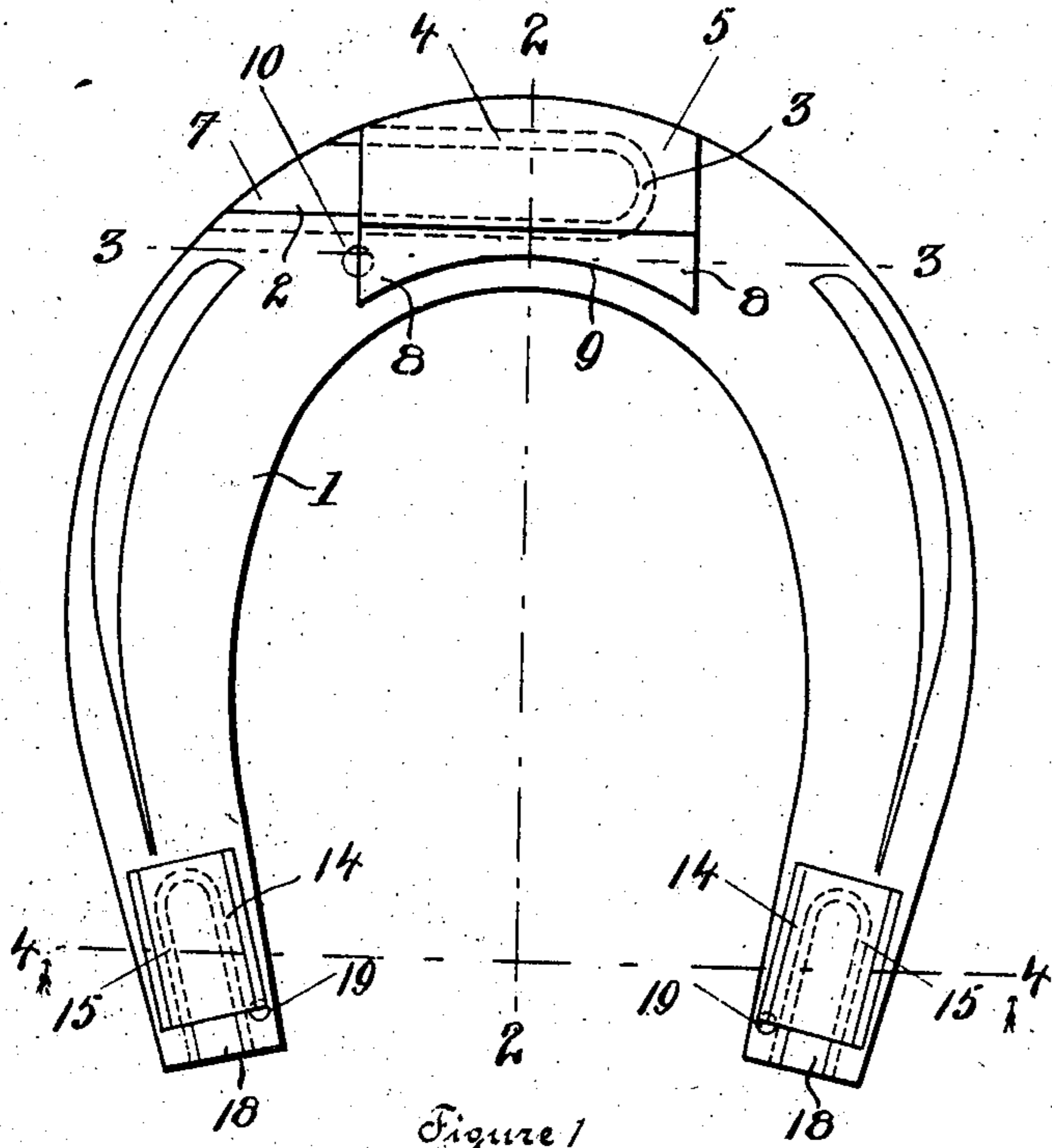


Figure 1

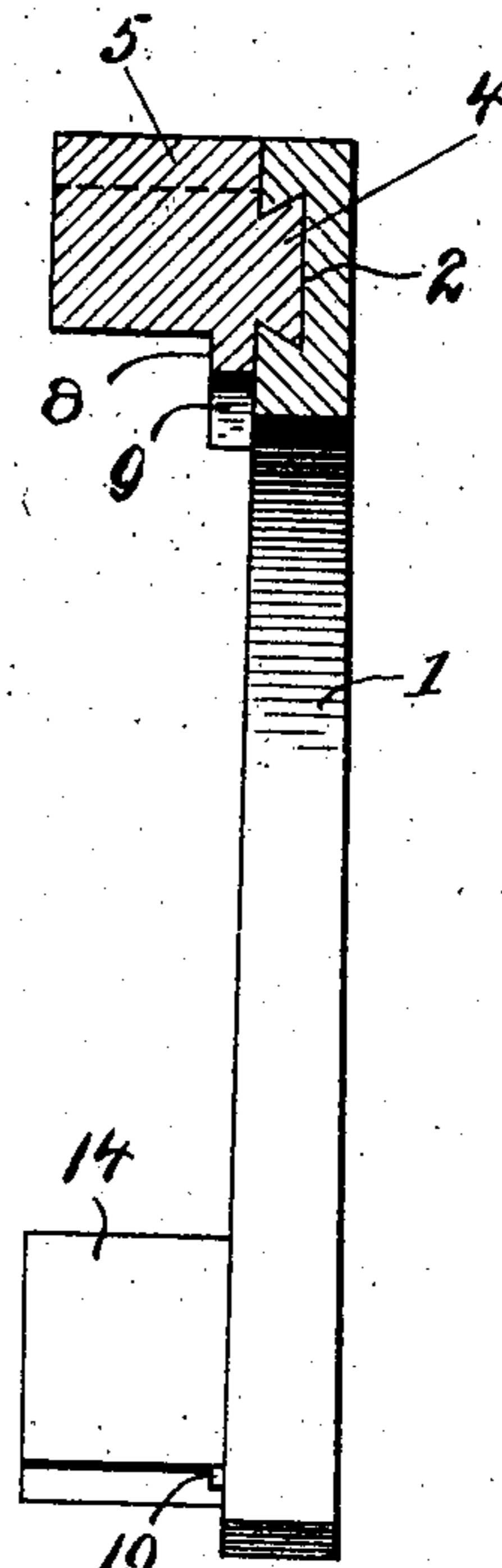


Figure 2

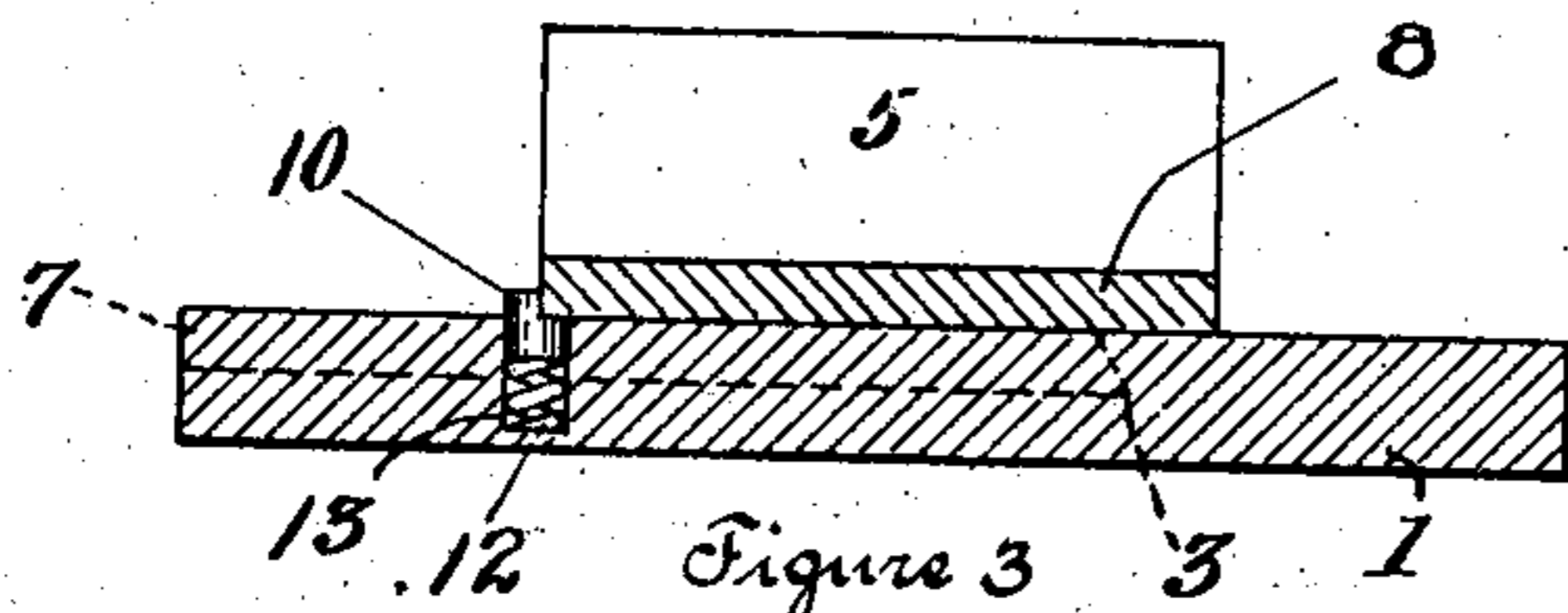


Figure 3

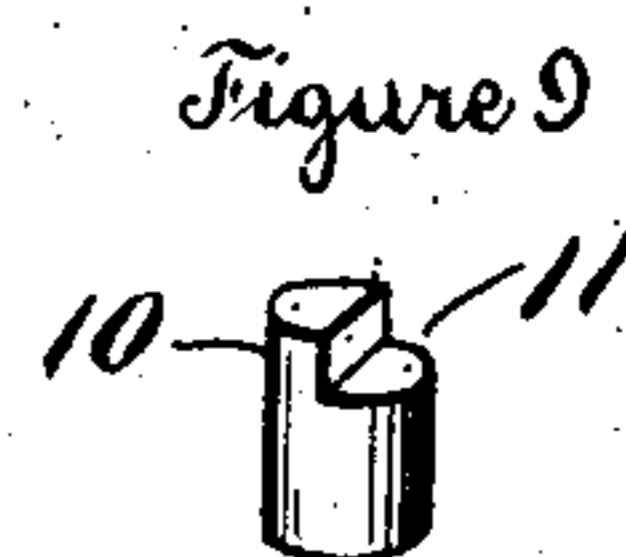


Figure 9

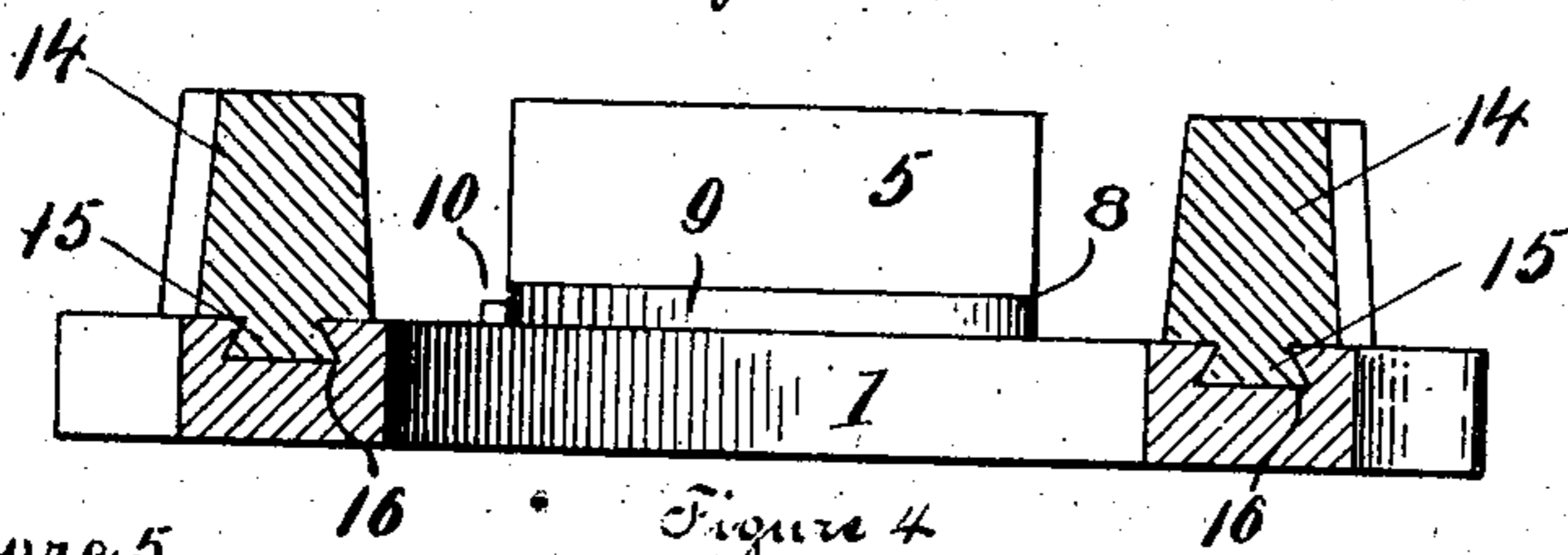


Figure 4

Figure 5

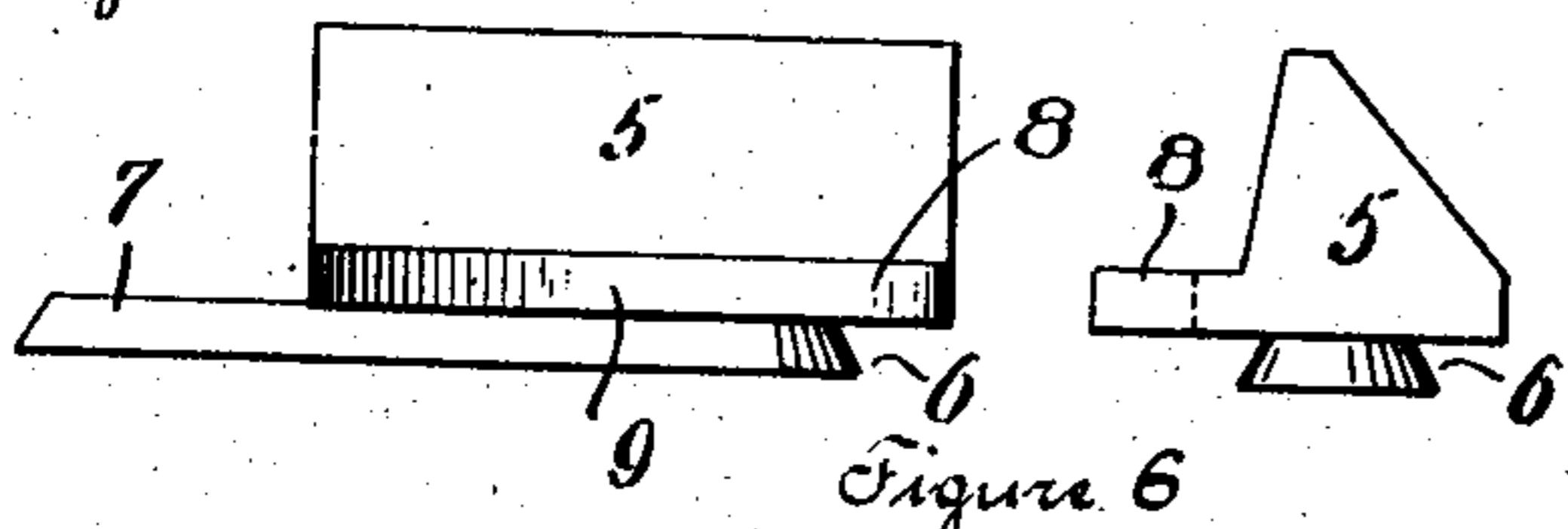


Figure 6

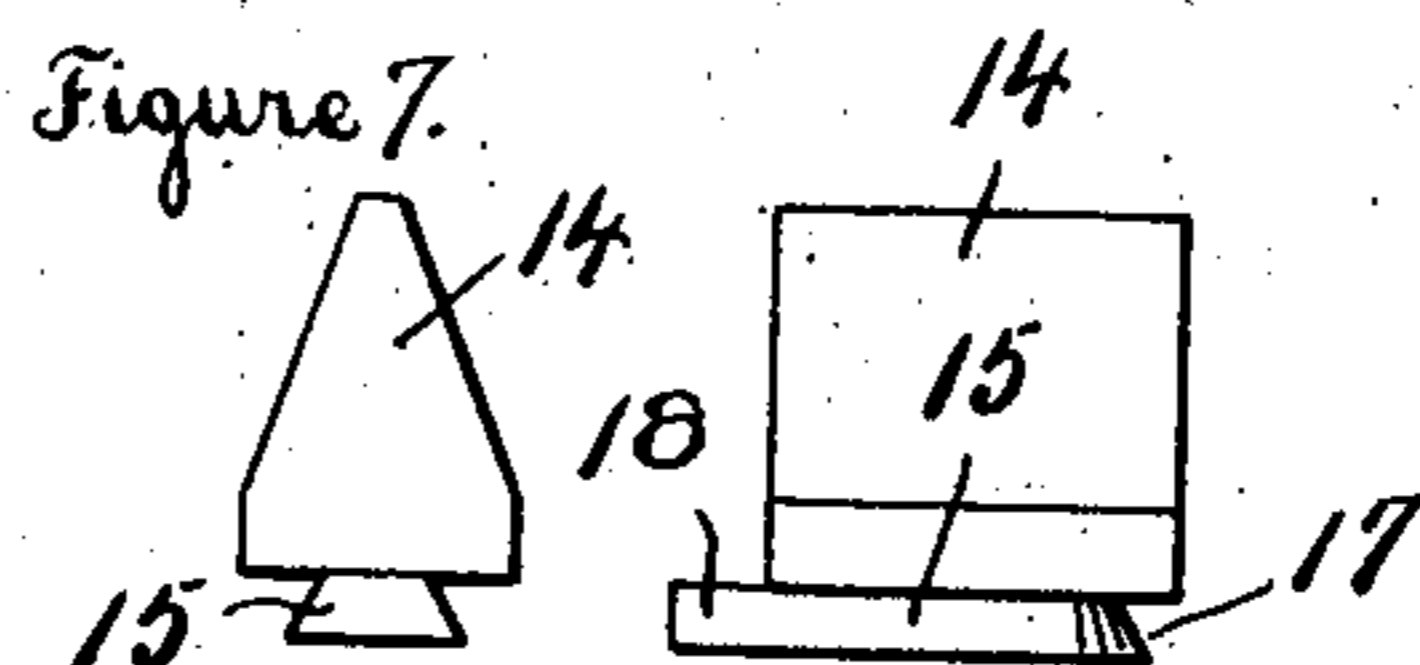


Figure 7

Figure 8. Inventor
Gottlieb Binder

2 Witnesses
Edward Kim.
John Lubbers

UNITED STATES PATENT OFFICE.

GOTTLIEB BINDER, OF LOUISVILLE, KENTUCKY, ASSIGNOR TO KENTUCKY GEAR AND MACHINE COMPANY, OF LOUISVILLE, KENTUCKY, A CORPORATION OF KENTUCKY.

DETACHABLE HORSESHOE-CALK.

No. 834,183.

Specification of Letters Patent.

Patented Oct. 23, 1906.

Application filed April 2, 1906. Serial No. 309,493.

To all whom it may concern:

Be it known that I, GOTTLIEB BINDER, a citizen of the United States, residing at Louisville, in the county of Jefferson, State of Kentucky, have invented certain new and useful Improvements in Detachable Horseshoe-Calks, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to a detachable horseshoe-calk, and particularly to means for removably retaining the same in position upon the shoe.

The invention has for an object to provide 15 an improved construction and arrangement of holding-pin adapted to cooperate with the base of the calk and by means of its spring tension to retain said calk against removal from its receiving-groove and also against vibration therein.

Other and further objects and advantages of the invention will be hereinafter fully set forth, and the novel features thereof defined by the appended claims.

25 In the drawings, Figure 1 is a plan view showing the invention applied to a horseshoe. Fig. 2 is a section on line 2 2, Fig. 1. Fig. 3 is a section on line 3 3, Fig. 1. Fig. 4 is a section on line 4 4, Fig. 1. Fig. 5 is a detail-elevation of the calk. Fig. 6 is an end view thereof. Fig. 7 is an end view of one of the heel-calks. Fig. 8 is a side elevation thereof, and Fig. 9 is a detail perspective of the holding-pin.

35 Like numerals of reference indicate like parts throughout the several views of the drawings.

The numeral 1 designates a horseshoe of any desired construction or configuration 40 which is provided at the toe portion with a laterally-extending undercut dovetailed groove 2, provided at its inner end with a curved seat 3, adapted to receive the dovetailed rib 4, carried by the toe-calk 5, which 45 may be of any desired character, as found most convenient in use. This rib is provided with a curved front portion 6 to engage the seat 3 and with an extended tail-plate 7 to completely fill the recess when the calk is 50 in position. The inner face of the calk is also provided at its base with a flange 8, having a curved surface 9 to correspond with the curvature of the toe and adapted to cooperate

with the holding-pin 10, which is preferably formed with the offset or shoulder 11 at its upper portion, so as to engage the under face of the portion 8, as well as the end thereof, as shown in Fig. 1. This pin is mounted in the recess 12, formed in the shoe, and held at its uppermost position by means of a tension-spring 13.

The heel-calks 14 are each provided at the base with a dovetailed rib 15, adapted to travel in a groove 16, which is dovetailed similarly to the groove 2, and the calk is provided with a curved face 17 to engage the end of the groove, as in the instance of the toe-calk, while the rear of the calk is provided with an extended plate 18 to fill the remaining portion of the groove. A retaining-pin 19, similar to the pin 10, is mounted in the shoe, so as to engage and retain each of the heel-calks in position.

In the operation of the invention it will be seen that when the calk is applied to the shoe it completely fills the undercut groove therein, and when the curved end is seated in contact with the face at that point the calk will be held against any longitudinal movement in its groove by means of the offset-pin, which has its shoulder in contact with both the bottom and end wall of the calk. The pressure against the bottom of the calk holds it tightly against rattling or vibration in the shoe, while the end pressure prevents any accidental removal of the calk. When it is desired to remove the calk, however, it is only necessary to force the pin downward upon the tension-spring, and the calks can be simply slipped from the shoe, so that the latter may be used without the same. The calks are likewise capable of convenient application, and the structure thereof is both simple and efficient, while avoiding threaded or other securing means which become injured in the use of the shoe, and therefore prevents either the convenient application or removal of the calks when desired.

Having now described my invention and set forth its merits, what I claim, and desire to secure by Letters Patent, is—

1. The combination with a shoe having an undercut groove therein, of a calk provided with a dovetailed rib at its base, an extended plate at one end of said calk to fill the groove beyond the same, and retaining means for

said calk disposed at one side of said groove to engage the base of the calk.

2. The combination with a shoe having an undercut groove therein, of a calk provided
5 with a dovetailed rib at its base, an extended plate at one end of said calk to fill the groove beyond the same, and a spring-pressed pin disposed at one side of said groove to engage the base of said calk.

10 3. In a detachable horseshoe-calk, a shoe provided with a receiving-groove, a calk adapted to enter said groove, and a spring-pressed pin adapted to engage said calk to retain it in position.

15 4. In a detachable horseshoe-calk, a shoe provided with a receiving-groove, a calk

adapted to enter said groove, and a spring-pressed pin provided with a shoulder to engage the end and under face of said calk.

5. In a detachable horseshoe-calk, a shoe 20 provided with a receiving-groove, a calk mounted to slide in said groove and provided at one side with a holding-flange, and a spring-pressed pin mounted in the shoe at one side of said groove to engage said flange. 25

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

GOTTLIEB BINDER.

Witnesses:

EDWARD F. KIRN,
LAURENCE B. CROWDER.