No. 666,304. Patented Jan. 22, 1901.

H. G. COVEY.

HORSESHOE.

(Application filed Mar. 15, 1900.)

(No Model.)

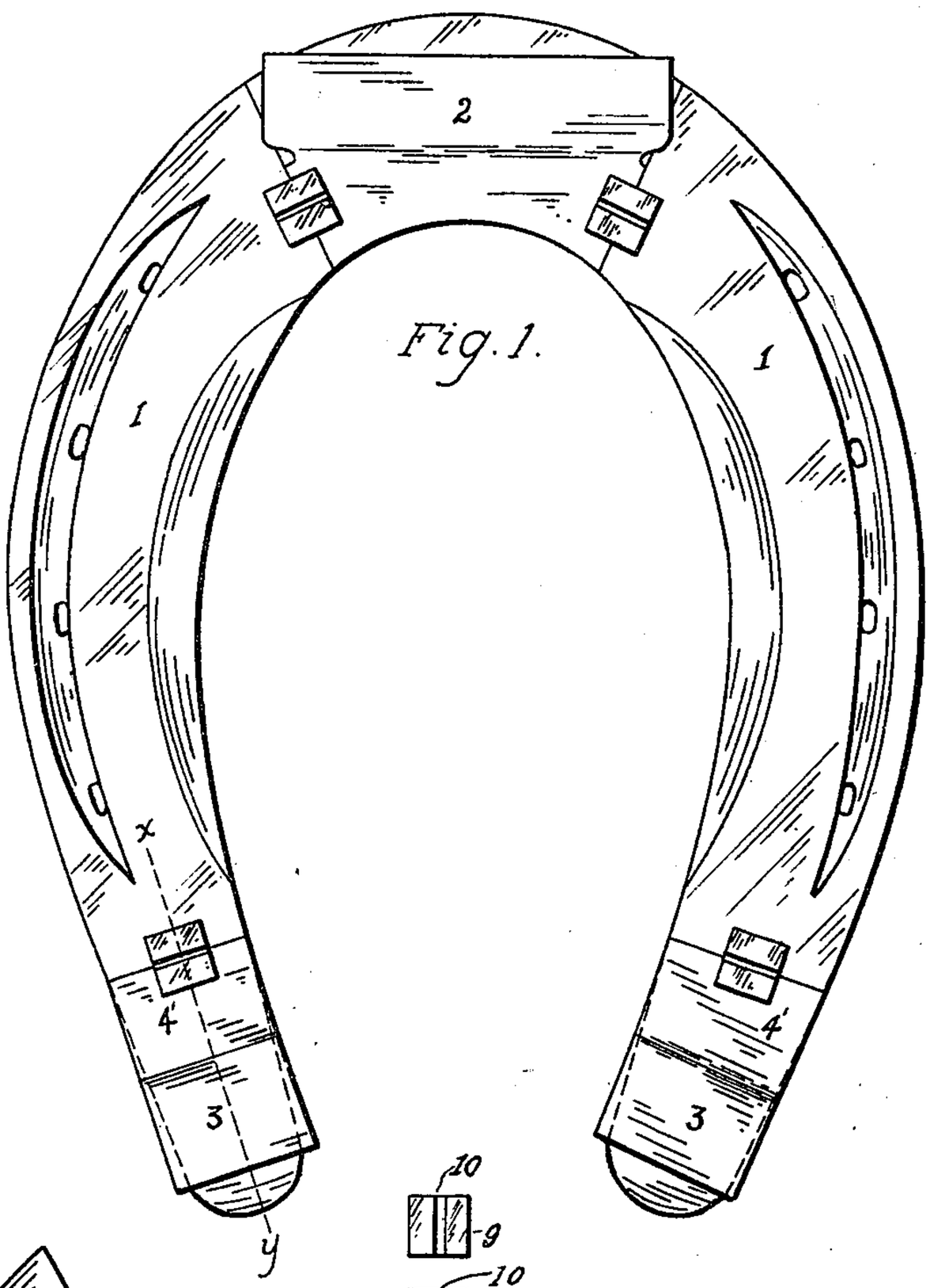

Fig. 1.

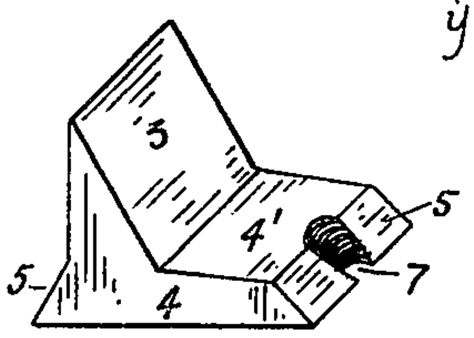

Fig. 2.

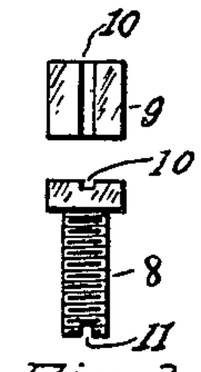

Fig. 3.

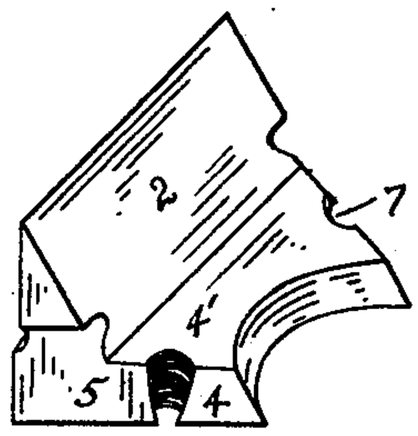

Fig. 4.

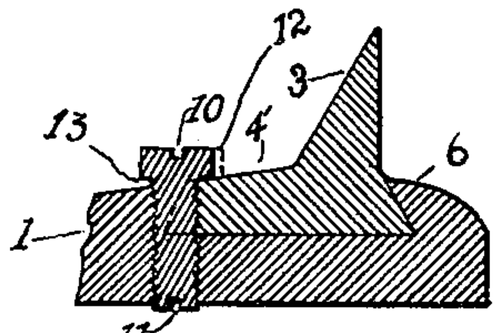

Fig. 5.

WITNESSES:

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HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 666,304, dated January 22, 1901.

Application filed March 15, 1900 Serial No. 8,859. (No model.)

To all whom it may concern:

Be it known that I, HERBERT GRAYSON COVEY, a citizen of the United States, residing at Chinchilla, in the county of Lackawanna and State of Pennsylvania, have invented certain new and useful Improvements in Horseshoes, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to improvements in horseshoes such as are provided with removable calks, and has for its objects to provide a removable calk having a broad and stable base, to provide improved means for fastening such calks and making them more easily removable, and other objects as herein set forth and embodied in the claims.

To these ends the invention consists of the construction, arrangement, and combination of the several parts as herein specified.

Referring to the drawings, Figure 1 shows a plan view of one of my improved horseshoes complete with the calks secured thereto. Fig. 2 is a detail view of one of the heel-calks removed. Fig. 3 is a detail view of the top and side of one of the securing screw-plugs used in connection with the removable calk. Fig. 4 is a detail view of the toe-calk of one of my improved horseshoes. Fig. 5 is a view in cross-section of part of one of my improved horseshoes, taken on the line $x\ y$ of Fig. 1.

Similar numerals of reference denote like and corresponding parts throughout the several views.

In the drawings, 1 designates the main or body portion of one of my horseshoes, to which is secured a toe-calk 2 and heel-calks 3 3, each slid into matrices provided in the body of the shoe, the sides of the said matrices being sloped so as to permit of the calk sliding inward or outward laterally, but not allowing them to lift out directly. The calks in my improved horseshoe are provided with a broad base portion 4, and each presents a slightly-sloping surface 4′, the base being thinnest in the proximity of the bore-hole cutting its side and thickening toward the calk proper. The base portion is provided with two sloping sides 5 5, adapted to impinge on the projecting metal 6, forming the sides of the matrices. Through one of the sloping sides 5, partly cutting the main body of the horseshoe, a screw-threaded hole 7 is cut. The said hole is adapted to receive the screw-threaded plug 8, the said screw-threaded plug being provided with a square head 9 and being hacked at 10 and 11, so as to adapt it to be turned with a screw-driver or wrench, as occasion may demand, the hack 11 being particularly intended for occasions where the head 9 may become broken off. When the calks are in position, the sloping surface 4′ is raised slightly above the surface of the main body of the shoe, so that the head of the plug 8 when screwed home impinges on the base of the calk, thus tending to cramp the said plug against the opposite walls of the bore, so as to prevent it from turning and becoming loose.

In the use of my improved horseshoe the calks may be of any desired form, except the base portions, which of course must agree to that shown. When any of the calks become dull or when it is desired to remove any of them, the plug 8 is removed by means of a wrench or screw-driver, and the calk may then be removed by slightly tapping it with a hammer and driving it outsidewise, or frontwise if it be the toe-calk. The inserted calk, which may be kept in stock by any horse-owner, need not be screw-threaded in the bore 7, as the device is operative either with or without screw-threads. In inserting the plug it should be left in a square position with the sides of the shoe, as shown in the drawings. The corners of the head of the screw will then serve as a sort of stop to prevent the plug from unscrewing, since the corner extending farther from the center than the side it would come in contact with a thicker portion of the base 4 of the calk. This further extension is indicated by the dotted lines at 12. The opposite side of the head of the plug is not resting on anything, as shown at 13. This, as before explained, produces a sort of cramped position for the plug, tending to hold it in, and this cramping is augmented when the plug is turned diagonally, so as to bring the corner to a more thickened portion, as shown at 12.

Having thus explained my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a horseshoe, the combination with the body portion, of the broad-based removable calk adapted to slide into a matrix thereon, a matrix adapted to receive said calk, and a bore-hole cutting the edge of the base of the calk and extending through the body of the shoe, a screw-threaded plug having a square head adapted to be secured in the said bore-hole, and an enlargement in the base of the calk aforesaid adapted to cramp against the square corner of the screw-threaded plug aforesaid for the purpose of preventing the same from becoming loose, substantially as specified.

2. As a new article of manufacture, the herein-described horseshoe with a calk having a broad base broadest at its lower part, and the said base having a sloping surface; a matrix adapted to receive the base of said calk, and the bore-hole partly cutting the base and partly cutting the wall of the matrix; a plug having a square head adapted to be fitted into the said bore-hole, and the said plug screw-threaded, and the corners of the head thereof adapted to come in contact with the sloping surface of the base-piece aforesaid when the plug is screwed home, whereby the plug becomes cramped in its position when about to be turned, substantially as and for the purpose specified.

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

HERBERT G. COVEY.

Witnesses:

JAMES HOLGATE,

E. H. ESTABROOK.