

(Model.)

C. E. SEARLES.

HORSESHOE.

No. 353,165.

Patented Nov. 23, 1886.

Fig. 1.

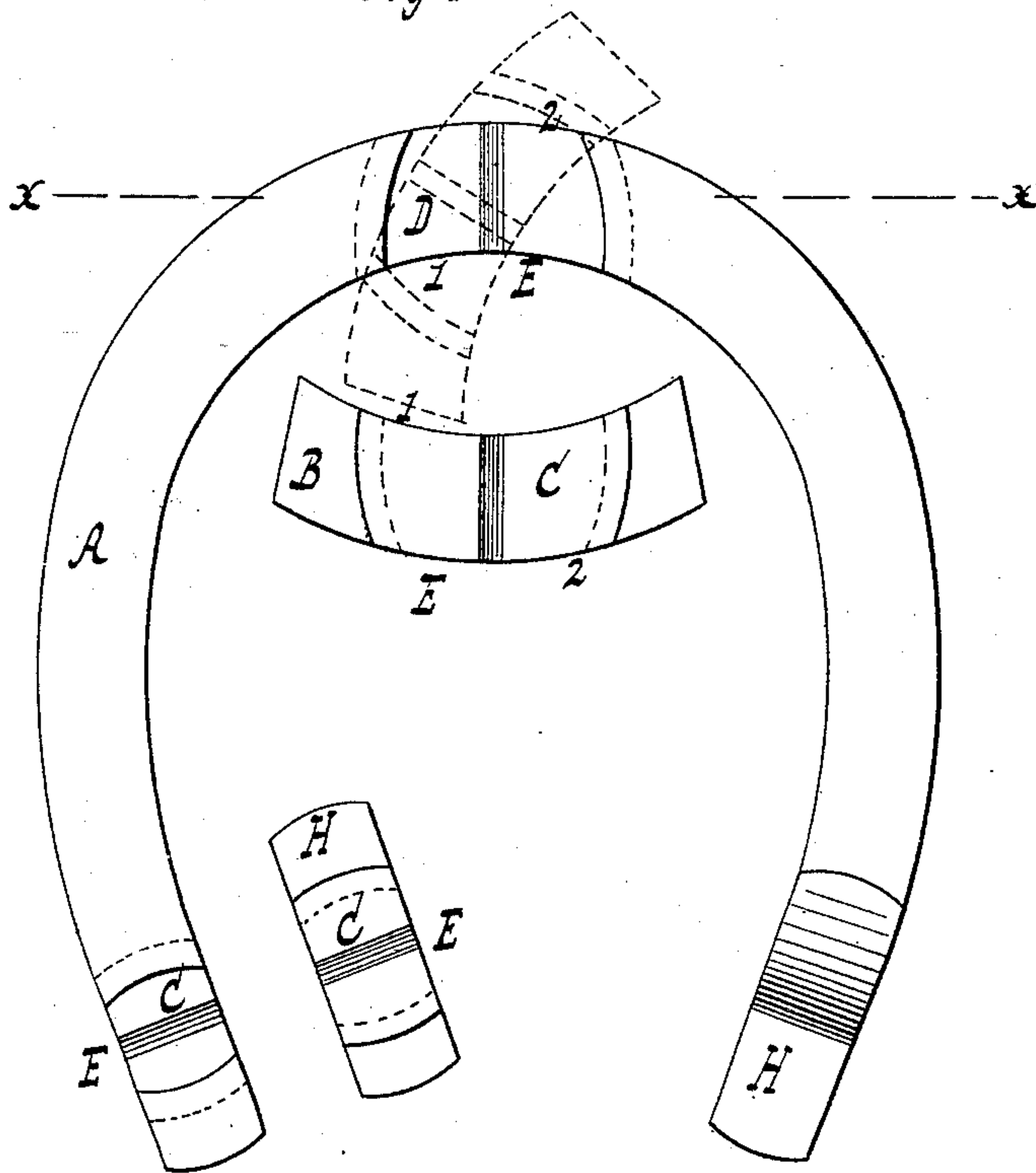


Fig. 4.



Fig. 2.

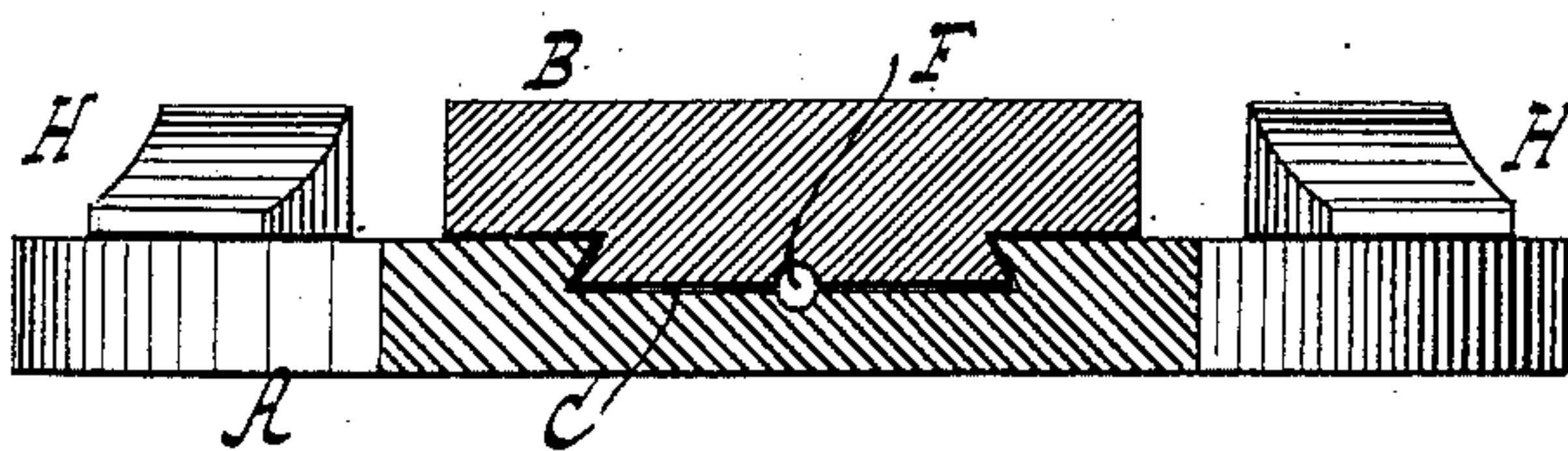
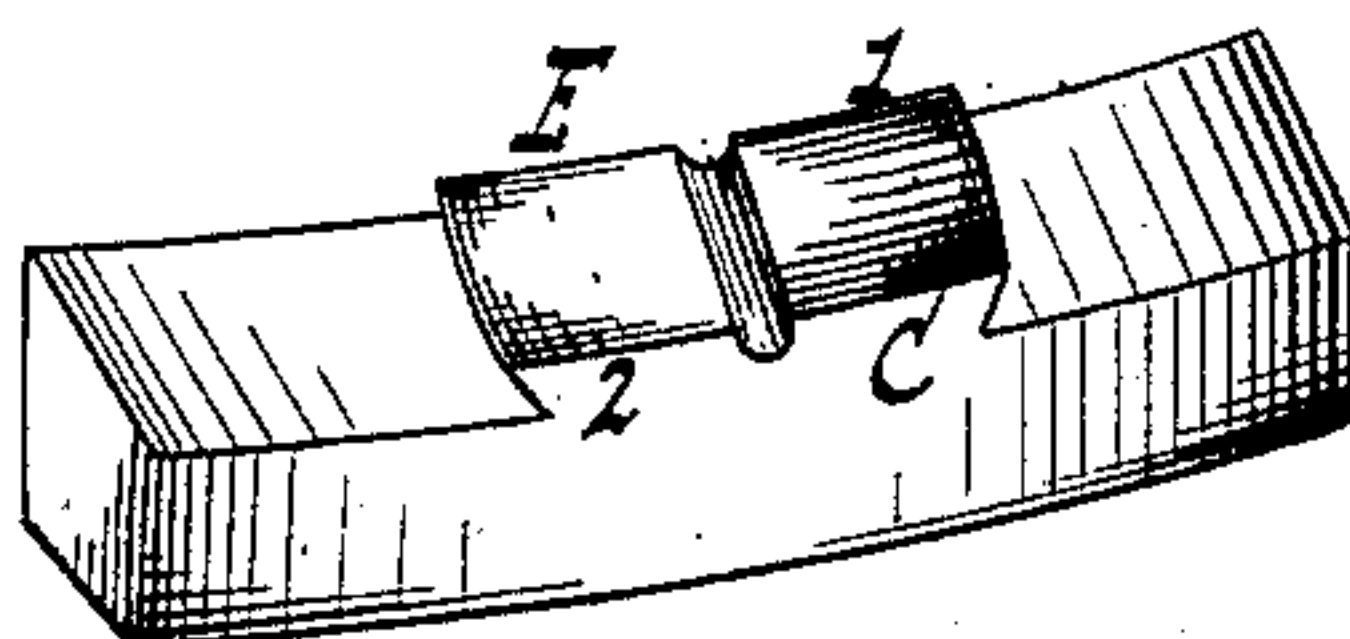


Fig. 3.



WITNESSES:

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CHARLES E. SEARLES, OF STAMFORD, ASSIGNOR TO HIMSELF, AND JAMES
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HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 353,165, dated November 23, 1886.

Application filed March 18, 1886. Serial No. 195,729. (Model.)

To all whom it may concern:

Be it known that I, CHARLES E. SEARLES, a citizen of the United States, residing at Stamford, in the county of Fairfield and State of Connecticut, have invented new and useful Improvements in Horseshoes, of which the following is a specification.

This invention relates to the securing of toe and heel calks to horseshoes and forming the joints by which they are connected to each other; and it consists in forming on the body of the calk a dovetail tenon of circular form, and fitting the same into a corresponding cavity provided with circular sides formed on the under side of the shoe, in which the calk is placed, so that the dovetail parts interlock when they are secured to each other by means of a locking-key placed in a hole made by forming transverse grooves in the adjacent surfaces of the shoe and of the calk, so that when the calk is in place the grooves will lie one over the other, and will together form an opening transverse of the shoe and calk, into which the key can be inserted, so as to prevent the calk from turning on the shoe. The calk and shoe are also secured together by the eccentricity of the dovetail joint.

The construction is more particularly set forth in the following specification and illustrated in the accompanying drawings, in which—

Figure 1 is an under side plan view of a horseshoe made according to my invention, one of the heel-calks being shown connected to the shoe, the other heel-calk and the toe-calk being shown detached from the shoe. Fig. 2 is a section on the line *xx* of Fig. 1, looking toward the body of the shoe, the toe and heel calks being shown in their places in the section. Fig. 3 is a perspective view of the toe-calk.

Similar letters indicate corresponding parts.

The letter A designates the body of the shoe, which, as well as the calks, is represented in an unfinished condition, except with respect to the joints by which the calks and shoe are connected to each other. The toe-calk B is provided on its upper face with a circular dovetail tenon, C, which fits into a cavity, D, made in the under surface of the toe of the

shoe, the sides of the cavity being dovetailed and curved in a similar manner to the tenon of the toe-calk, so that the tenon of the toe-calk can be turned into its place in the cavity, as represented in Fig. 2. The bottom of the cavity D is provided with a transverse groove, E, and the tenon C of the toe-calk is provided with a similar transverse groove, said grooves being so arranged that they will be in line with and directly opposite each other when the toe-calk is in its place on the shoe, when they together form an opening, F, into which is inserted a locking-key, G. (Seen detached in Fig. 4.) Said key prevents the calk from turning on the shoe when it is in its place in the cavity, as represented in Fig. 2.

The heel-calks H H are provided with similar curved or circular dovetailed tenons C, fitted to similar cavities D in the heels of the shoe, and with similar transverse grooves E, coinciding with similar grooves in said cavities D, and with locking-keys G, as already described in respect to the toe-calks.

The dovetail tenons of the calks and the dovetail cavities of the body of the shoe are of greater length along the ends marked 1 than along the ends marked 2, so that the tenons are stopped from turning any farther in the cavities D than is sufficient to bring the joints together and bring the grooves into coincidence, so as to produce the openings for the locking-keys.

In placing the calks in the shoe, the tenons are presented to the cavities D in diagonal positions, and are then turned to their places, as is indicated in dotted lines in Fig. 1.

I prefer that the locking-key be inserted into the opening F from the inside of the shoe, and that the key and the grooves E, and consequently the openings F, be made slightly tapering, and that the key when driven home should not project on the outside of the shoe.

What I claim as new, and desire to secure by Letters Patent, is—

1. A horseshoe provided with a cavity extending transversely across one surface and having curved dovetailed sides, in combination with the calk having the horizontal circular tenon, provided with a flat bearing-surface, said cavity and tenon being wider at one

end than at the other to limit the turning of the calk in attaching it, substantially as described.

2. The curved horizontal dovetail tenon C
5 on the calk of a horseshoe, the cavity D in the shoe adapted to receive said tenon, in combination with the transverse grooves E in the tenon C and cavity D, and locking-key G, substantially as described.

10 3. The curved horizontal dovetail tenon C on the calk of a horseshoe, the cavity D provided with dovetail sides to receive said tenon,

said tenon and cavity being made of unequal length, as described, so that the curves of the dovetail joints are eccentric, substantially as 15 shown and described.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

CHARLES E. SEARLES. [L. S.]

Witnesses:

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JULIUS B. CURTIS.