J. H. Jennings,

Horseshoe.

No. 32,371. Patented May 21, 1861.

Fig. 1.

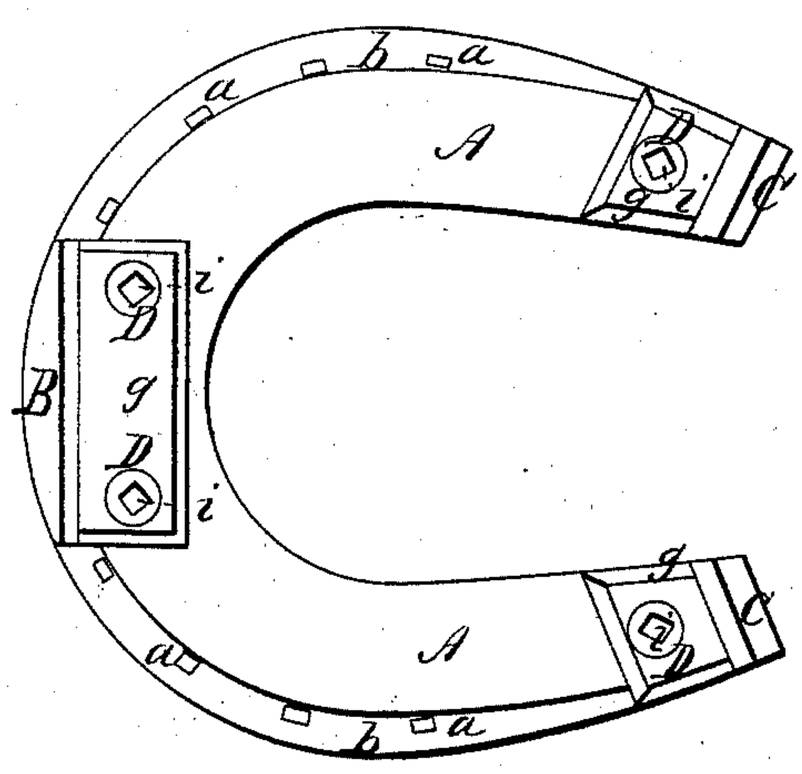


Fig. 2.

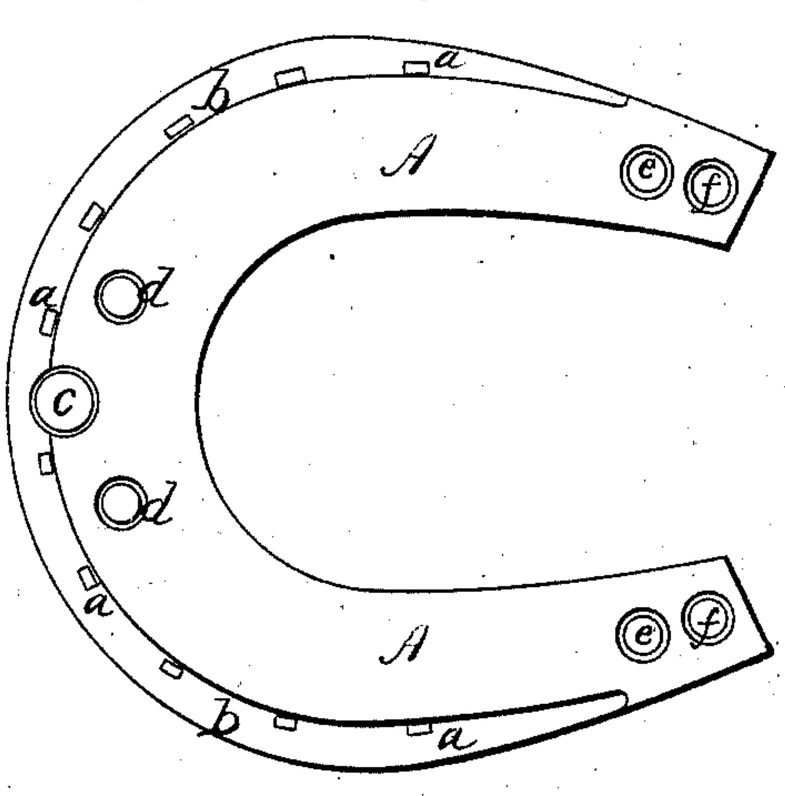


Fig. 3.

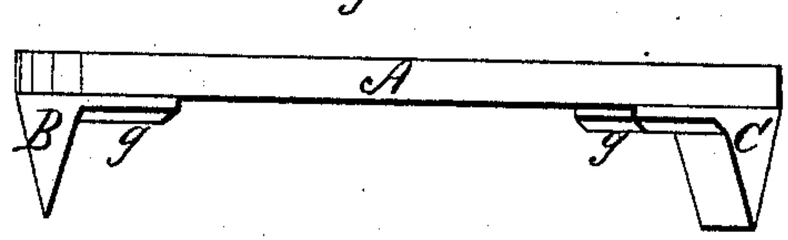


Fig. 4.

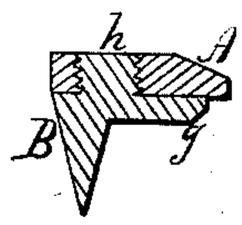


Fig. 5.

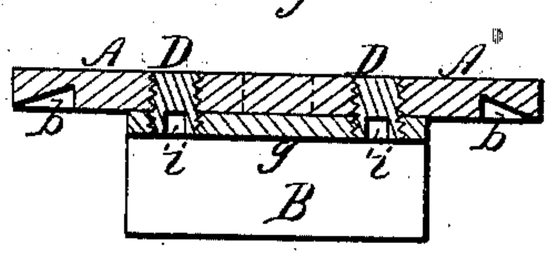


Fig. 6

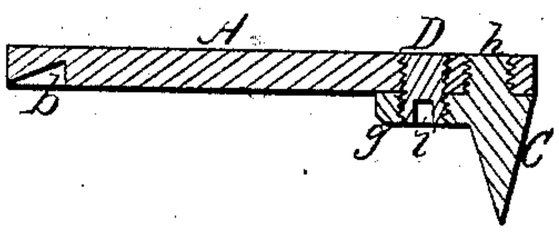


Fig. 7.

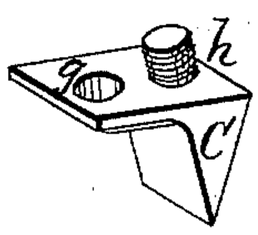
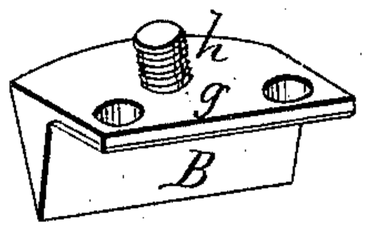


Fig. 8.



Witnesses;

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F. P. Hall Jr.

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UNITED STATES PATENT OFFICE.

JOHN H. JENNINGS, OF NEW BEDFORD, MASSACHUSETTS.

IMPROVEMENT IN CALKS FOR HORSESHOES.

Specification forming part of Letters Patent No. **32,371**, dated May 21, 1861.

To all whom it may concern:

Be it known that I, JOHN H. JENNINGS, M. D., of New Bedford, in the county of Bristol and State of Massachusetts, have invented a new and useful Improvement in Shoes for either Horses or Cattle; and I do hereby declare the same to be fully described in the following specification and illustrated in the accompanying drawings, of which—

Figure 1 is an under side view, and Fig. 2 an edge view, of a horseshoe provided with my invention. Fig. 3 is a view of the shoe-plate without the calks. Fig. 4 is a section taken through the toe of the shoe and the pivot-screw of its toe-calk. Fig. 5 is a transverse section taken through the key-screws of the toe-calk. Fig. 6 is a longitudinal section of one of the heel-calks and the heel part of the shoe to which it is affixed. Figs. 7 and 8 are perspective views of a heel and a toe calk.

The principal object of my invention is to enable the calks of a horseshoe to be readily affixed to or removed from the shoe while it may be fastened on the foot of the animal, my invention saving the necessity of detaching the shoe from the foot, and subsequently reattaching it thereto, operations which are requisite when calks are to be affixed to the shoe by the welding process.

In the drawings, A exhibits the body part of a horseshoe, it being provided with the usual nail-holes, *a a a*, and their creases *b b*. It is also made not only with three screw-holes, *c d d*, arranged at the toe, but two others—viz., *e f*, formed through each heel, their arrangement being as exhibited in Fig. 3. Each of the screw-holes is to be made as a female screw to receive a male screw.

B C C are the toe and heel calks, each being made with a flange, *g*, projecting laterally from it and flattened, so as to rest on the face of the shoe and support the calks by a broad base. A male screw, *h*, termed a "pivot-screw," projects from the middle of the base of each calk, and with such calk is formed in one piece, or may be welded to the calk. This pivot-screw is intended to enter one of the screw-holes *c* or *f*, and is to be screwed therein until the calk and its flange are brought firmly into contact with the shoe. Next, in order to prevent the calk from turning around in the shoe, as well as to further fix the two together, I employ one or more key-screws, D, to each calk, one in most cases being sufficient for each heel-calk, while two of them may be used in the flange of the toe-calk. Each of these key-screws is a cylindrical piece of metal, formed with a prismatic key-hole, *i*, and with a screw-thread cut in the cylindrical surface of such piece of metal, the length of the cylinder being equal to a little less than the thickness of the shoe and that of the flange of the calk. A key-screw is screwed through each of the flange-holes of the calk and into the shoe until the outer end of the screw may be flush, or about so, with the surface of the flange, the insertion of the screw being effected by means of a key suitably formed. Subsequently the keyhole or socket of each screw should be stopped by a piece of gutta-percha, cork, or india-rubber driven closely therein.

From the above it will be seen that the pivot-screw, which being, by reason of its situation, properly protected from injury, is supported by the key-screw, and is prevented thereby from turning around on its female screw. Thus the calk is firmly fixed to the shoe by means of the pivot-screw, the flange, and the key-screw or screw. By making the key-screw without a head it is not only rendered less liable to be injured while the shoe may be in use, but it admits of the calk being used to the best advantage. The flange of the calk serves to stiffen and brace both the shoe and the calk; and, furthermore, my improvement admits of the shoe being fastened to the horse's foot by nails driven through the toe part of the shoe.

With my improvement or mode of making and applying or affixing a calk a dulled or damaged calk may be easily removed from and either a sharp calk or what is termed a "blunt" be applied to a shoe at any time while fastened to the hoof of an animal, whether such be a horse or an ox, as my invention is equally applicable to the shoes of most kinds of cattle or draft-animals.

By means of my invention much manual

labor and much danger or liability of injury to a horse is saved, as when the shoe has been once affixed to his foot it does not need to be removed therefrom in order to have its calks affixed to it.

I claim—

The above-described application of the calk to the shoe—viz., by means not only of a flange and a pivot-screw attached to and projecting from the calk, and with the latter screwed into the shoe, but by one or more key-screws extended through the calk-flange and into the shoe, and made substantially as specified.

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Witnesses:
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F. P. HALE, Jr.