(No Model.)

E. & V. D. SIMAR.

HORSESHOE.

No. 281,932. Patented July 24, 1883.

FIG. 1

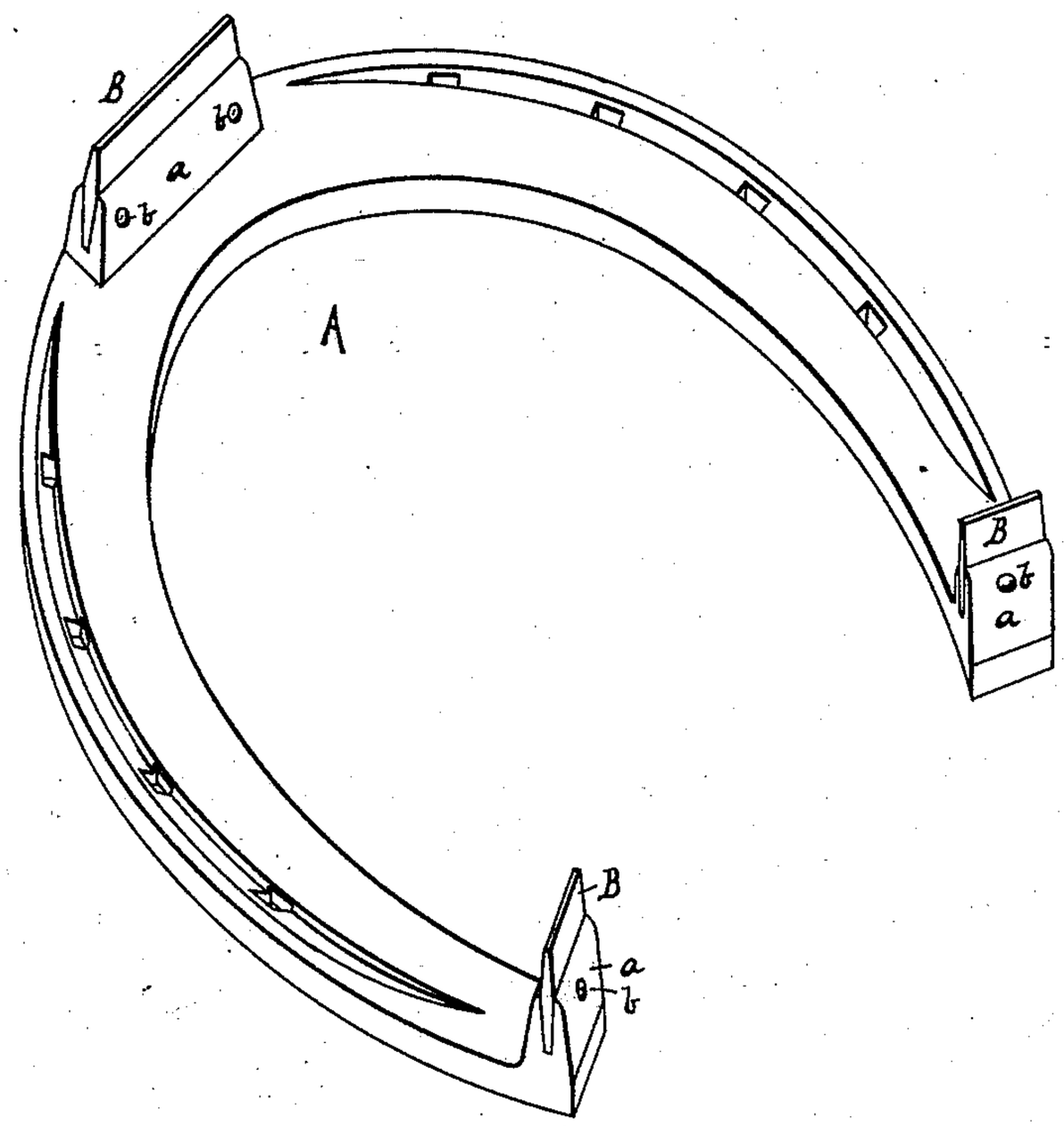


FIG. 2

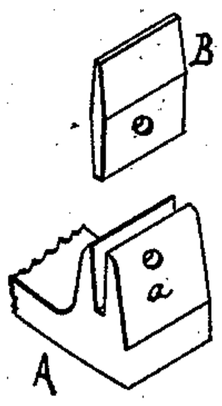


FIG. 3

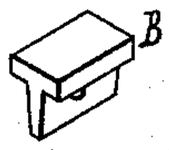


FIG. 4

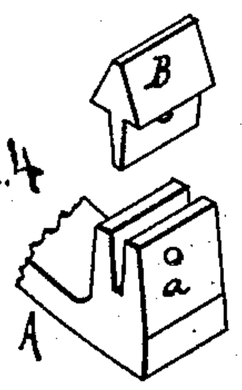
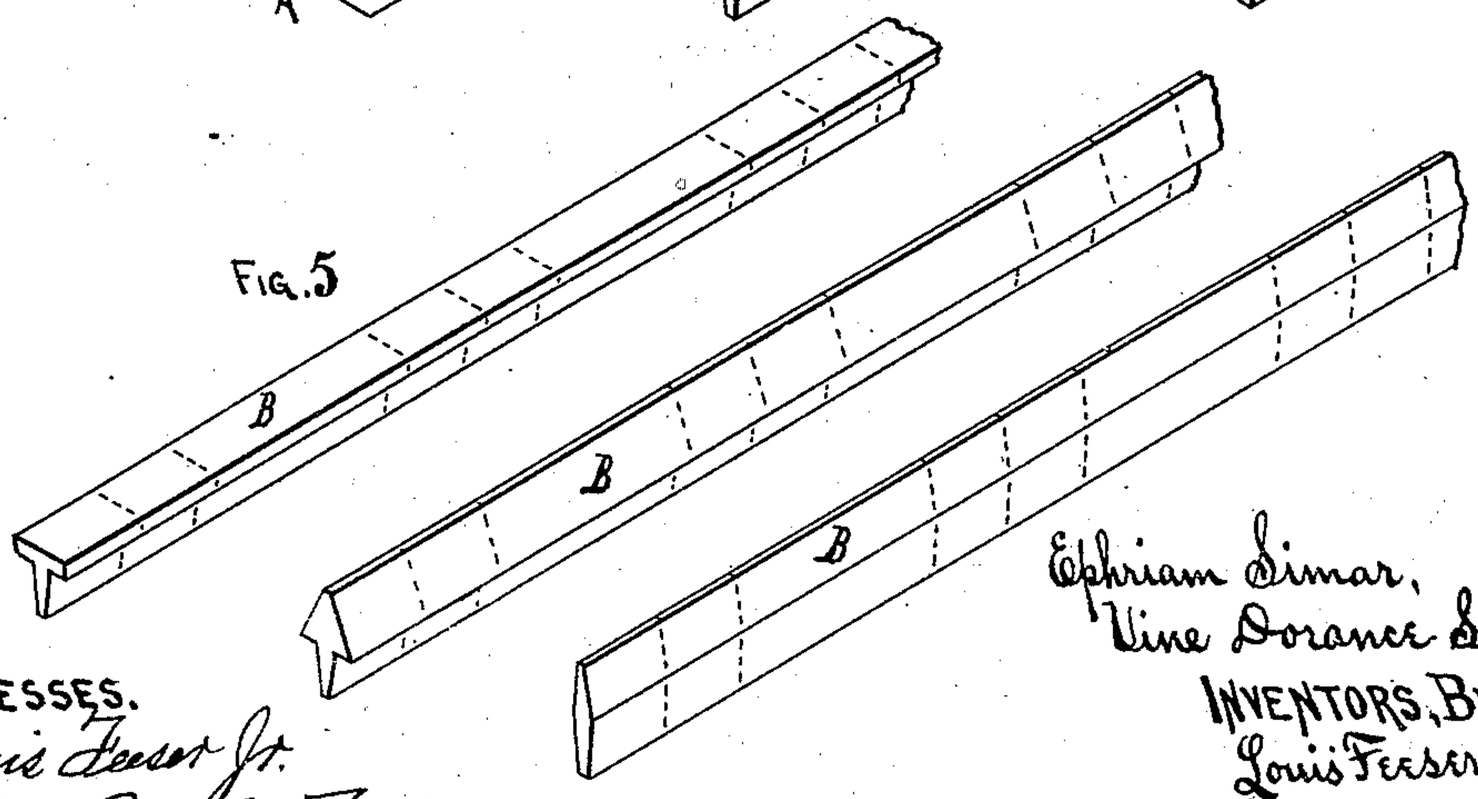


FIG. 5



WITNESSES.
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Ephriam Simar,
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INVENTORS, BY
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UNITED STATES PATENT OFFICE.

EPHRAIM SIMAR, OF WEST UNION, IOWA, AND VINE DORANCE SIMAR, OF ST. PAUL, MINNESOTA.

HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 281,932, dated July 24, 1883.

Application filed October 2, 1882. (No model.)

To all whom it may concern:

Be it known that we, EPHRAIM SIMAR and VINE DORANCE SIMAR, citizens of the United States, residing, respectively, at West Union, Fayette county, Iowa, and at St. Paul, in the county of Ramsey and State of Minnesota, have made new and useful Improvements in Horseshoes, of which the following is a specification.

This invention relates to horseshoes; and it consists in the construction and arrangement of parts substantially as specifically described and claimed.

In the drawings, Figure 1 is a reversed perspective view of one of the shoes complete, with "winter" or sharp calks attached thereto. Fig. 2 is a perspective view of one of the heels of the shoe with the calk removed. Fig. 3 is a perspective view of one of the "summer" or dull calks removed. Fig. 4 is a view similar to Fig. 2, showing a slight variation in the manner of forming the calk. Fig. 5 is a perspective view of three bars from which the calks are cut, illustrating the manner of forging them.

This invention relates to that class of horseshoes in which the calks are removable from the body of the shoe for repairs, sharpening, or changing from dull to sharp calks, or vice versa, or for any other purpose, without removing the shoes from the horse; and it consists in forming the shoe A with lugs or calk-bases *a*, having open-ended grooves or slots formed therein, as shown, in which the calks B are secured by rivets *b* or other suitable fastenings. The slots will be slightly tapering from the outside toward the shoe, and the calks will be made similarly tapering to fit them, so that the calks will fit down tightly into the slots.

The shoes A will be formed of malleable iron, and the calks B of hardened steel. By forming the slots in the bases *a* open at the end we gain three very important advantages.

First. Any obstructions in casting or otherwise in the slots can be readily and thoroughly cleaned out by filing or scraping with very little trouble, whereas if mere mortises or round holes were used, as is commonly the case, much difficulty would result in removing the sand or other obstructions. Then, again, if some of the iron runs into the slots in casting, they can be easily filed out true, while such an accident in mortises would necessitate the recasting of the entire shoe.

Second. The open-ended slots enable the calks to be easily driven out with a punch, no matter how badly rusted in or how firmly forced into the slots, whereas with mortises or tenons the calks have to be wrenched loose by pinchers or other instruments, frequently resulting in the breaking of the calk or shoe, or necessitating the removal of the entire shoe from the horse.

Third. The calks can be rolled out in the form of bars, as shown in Fig. 5, and then cut up into the proper lengths, as indicated by dotted lines. This could not be done were tenons or pins formed on the calks, as in that event each individual calk has to be forged separately.

By this means the shoes can be made very cheap and durable, and the necessity of removal for sharpening or replacing the calks avoided, as any person with a little practice can replace the calks themselves.

The calks may be made from any form of bar, as shown in Fig. 5, according to the weather or condition of the roads.

Having fully described our invention and set forth its merits, what we claim as new is—

1. A horseshoe provided with a base, *a*, having a slot therein formed with open ends, and tapering from the outside in toward the shoe, and adapted to receive a calk, substantially as and for the purposes set forth.

2. A horseshoe provided with a base, *a*, having a slot therein formed with open ends, and tapering from the outside in toward the shoe, having therein the taper portion of a calk, and means for removably securing the calk therein, substantially as and for the purposes set forth.

In testimony whereof we have hereunto set our hands in the presence of two subscribing witnesses.

EPHRAIM SIMAR.
VINE DORANCE SIMAR.

Witnesses to the signature of Ephraim Simar:

OSCAR W. ROGERS,
ED. C. DORLAND.

Witnesses to the signature of Vine Dorance Simar:

C. N. WOODWARD,
LOUIS FEESER.