

(No Model.)

J. A. GARNEAU.
HORSESHOE.

No. 594,616.

Patented Nov. 30, 1897.

FIG: 1.

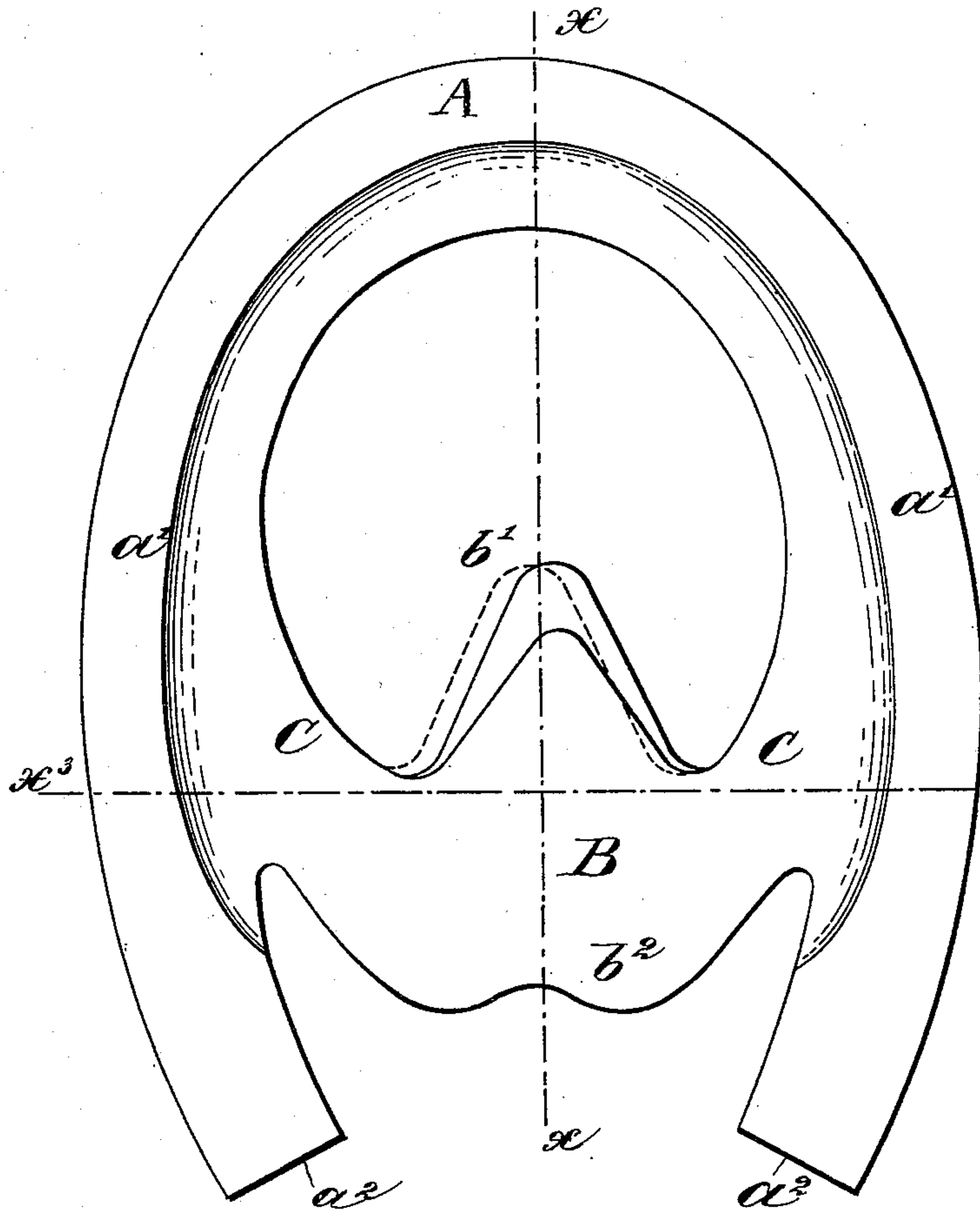


FIG: 2.

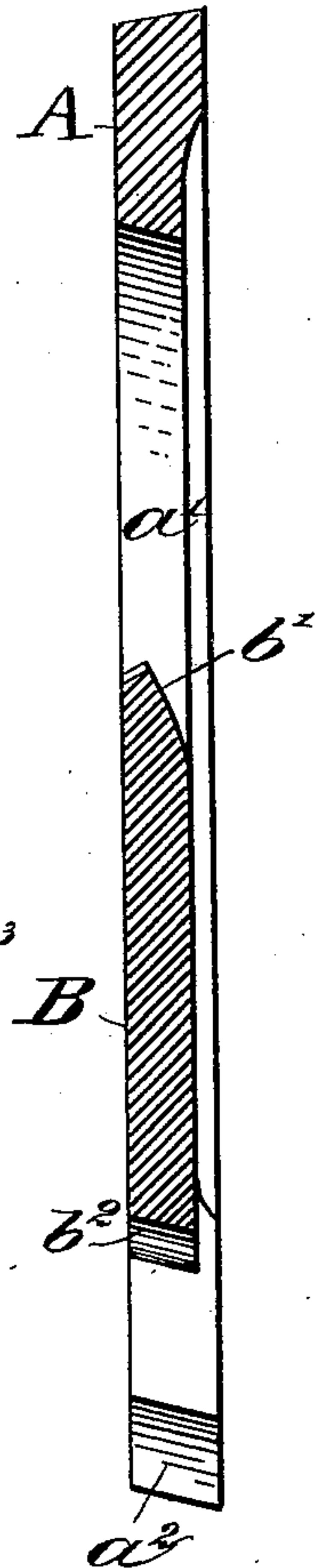
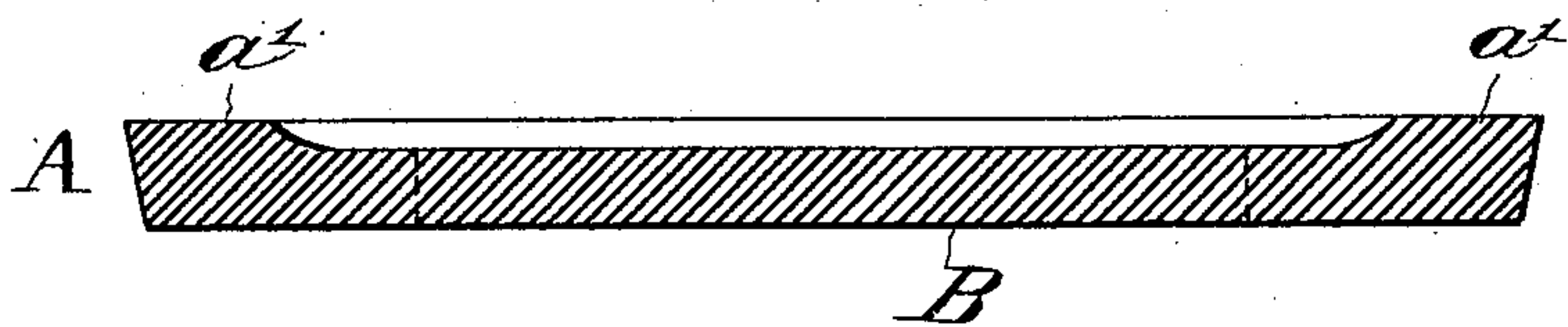


FIG: 3.



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HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 594,616, dated November 30, 1897.

Application filed December 8, 1896. Serial No. 614,892. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH ADOLPHE GARNEAU, physician and surgeon, a subject of the Queen of Great Britain, residing at St. Rochs, Quebec, in the district and Province of Quebec, in the Dominion of Canada, have invented certain Improvements in Horseshoes, of which the following is a specification.

My invention relates to rigid or solid horseshoes of either iron or steel; and the object is to provide a shoe which will give a firm and proper support for all parts of the horse's foot and yet avoid the weakening of the shoe and injury to the frog of the foot from jars produced by the striking of the heels on a hard surface. The ordinary rigid or uncut horseshoe by failing to supply a proper firm support for the frog of the foot brings about a difficulty which will be readily comprehended by medical men. The frog not being kept in constant exercise tends to atrophy and fails to perform its proper functions as a part of the foot. Hence the foot suffers a distinct injury. By my invention I provide a firm support for the frog and give to it the constant exercise it would get if the horse were unshod.

In carrying out my invention I employ a solid, rigid, or uncut horseshoe which may be of the usual kind and form, and between the side bars of the shoe I fix in an integral manner a solid supporting-plate for the frog of the foot, this plate being a little thinner than the shoe, so that on a smooth level surface it will not rest in contact with said surface. This plate is of a heart shape, with the apex directed toward the front or toe of the shoe, and it is connected at its sides with the respective side bars of the shoe by curved arms or lateral ties which extend forward obliquely, so as to join the said side bars at a considerable distance from the heels of the shoe, thereby avoiding the impact from jars caused by the blows struck by the heels on a hard surface.

In the accompanying drawings, which illustrate an embodiment of my shoe, Figure 1 is an under side plan view of the shoe. Fig. 2 is a longitudinal section of the same in the plane indicated by the line $x x$ in Fig. 1. Fig. 3 is a transverse section in the plane indicated by line $x^3 x^3$ in Fig. 1.

A is a horseshoe of iron or steel bent to the usual form and solid or uncut, and B is a frog-supporting plate situated between the side bars $a' a'$ of the shoe and in front of the heels $a^2 a^2$ thereof. This plate is connected integrally to the side bars of the shoe by ties C C, one at each side, which extend obliquely forward in a curve and merge into the curve of the shoe A.

The plate B is heart-shaped, its apex b' being directed toward the toe of the shoe and its broader portion b^2 toward the heel. On a horseshoe of the ordinary size the plate B should be about two and one-half inches long and about two inches wide at its widest part. The rear end b^2 of the plate should be about one and one-quarter inches forward of the extreme ends of the heels of the shoe. In Fig. 1 I have represented a shoe for the right foot of the horse, (seen from the under side,) and in this shoe the apex or front portion of the plate B inclines a little to the right. In a shoe for the left foot the inclination will be in the opposite direction, as indicated in the dotted lines in Fig. 1. This arrangement of the plate will bring it more accurately under the frog to be supported.

The shoe A should be a stiff or rigid curved piece of metal not less than one-fourth of an inch thick and three-fourths of an inch wide, and it will eventually be provided in the usual way with creases and nail-holes. (Not shown.) It may also, for certain uses, have toe and heel calks. The shoe will be beveled down at its inner edge on the under side or face to the thickness of the plate B and ties C C, which will be somewhat thinner than the shoe, but flush with the latter at their upper faces. The ties C branch from the respective sides of the plate B at its rear end, the rear edges of the ties forming in reality continuations of the said rear end and then extend obliquely forward, merging at their front edges into the inner chamfered edges of the side bars of the shoe. The rear edges of the ties join the side bars at about two inches from the extreme ends of the heels of the shoe. The ties are about one inch wide. This construction gives to the frog a firm and solid support and at the same time allows a sufficient length of the heel portion of the side bars back of the ties C free to absorb the effects of jars from the

blows of the heels on a hard surface and to prevent such jars from being transmitted to the supporting-plate B.

5 The plate B and ties C C may be made in one piece and be welded to a shoe already formed, or the whole may be formed integrally primarily. The apex *b'* of the plate B will be chamfered or beveled, as shown, to thin and lighten it.

10 I have given dimensions in the above description in order that the maker of the shoe may proceed without experiment; but these dimensions may of course be departed from to some extent.

15 I do not broadly claim a horseshoe with a bridge-piece across it to protect the frog or for tying the heels of the shoe together, as this is not broadly new; but

What I do claim is—

A solid uncut horseshoe A, having a frog- 20 supporting plate B, of a heart shape situated between the side bars of the shoe with its apex directed toward the toe of the shoe, said plate being connected integrally with the shoe by obliquely-arranged lateral ties at 25 points forward of the heels of the shoe, and having its apex inclined toward one side of the longitudinal axis of the shoe, as set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing 30 witnesses.

JOSEPH ADOLPHE GARNEAU.

Witnesses:

CAMILLE GUAY,
OSCAR O. MOUIR.