

(No Model.)

L. H. BELLAMY.

HORSESHOE.

No. 329,700.

Patented Nov. 3, 1885.

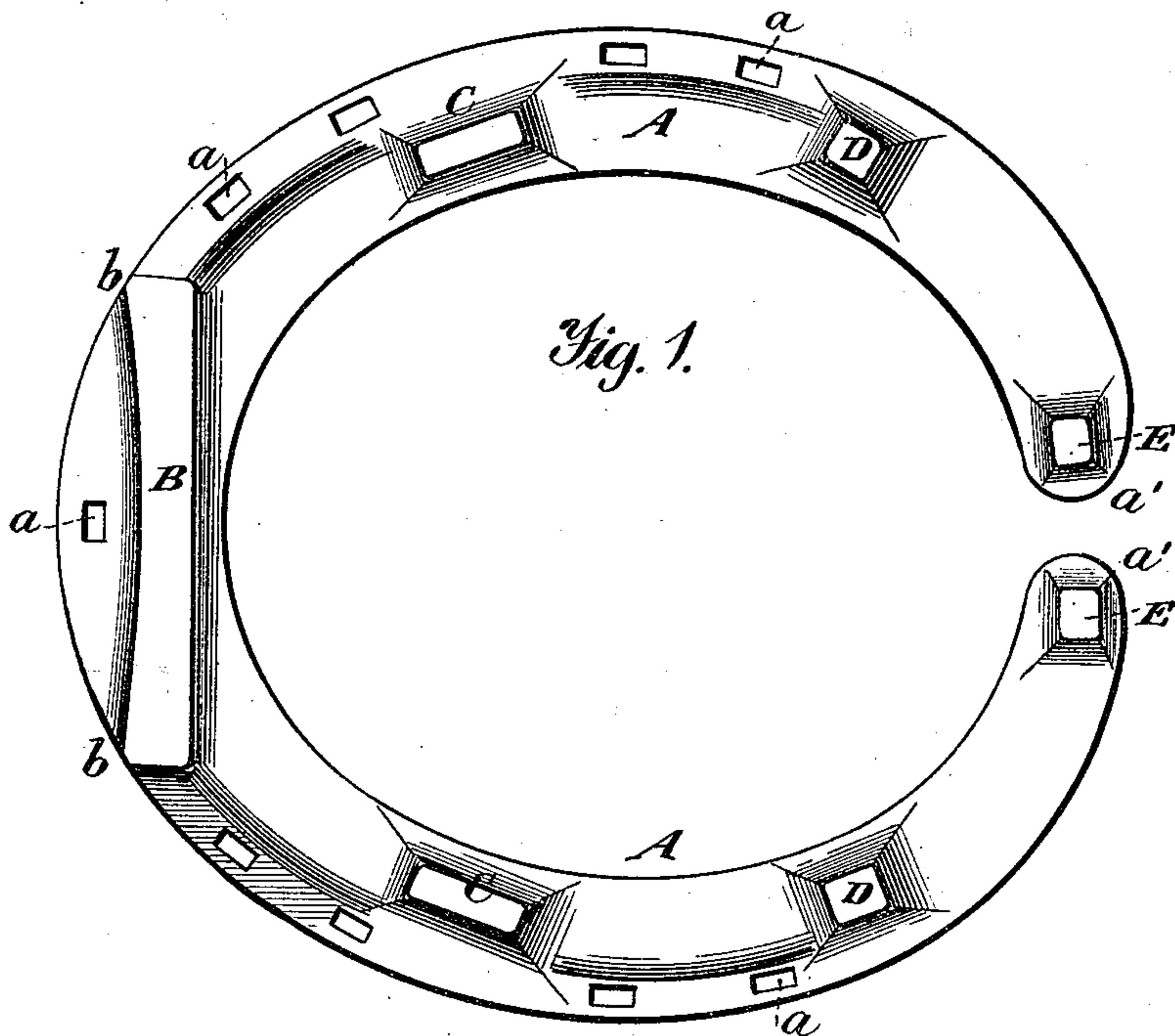


Fig. 2.

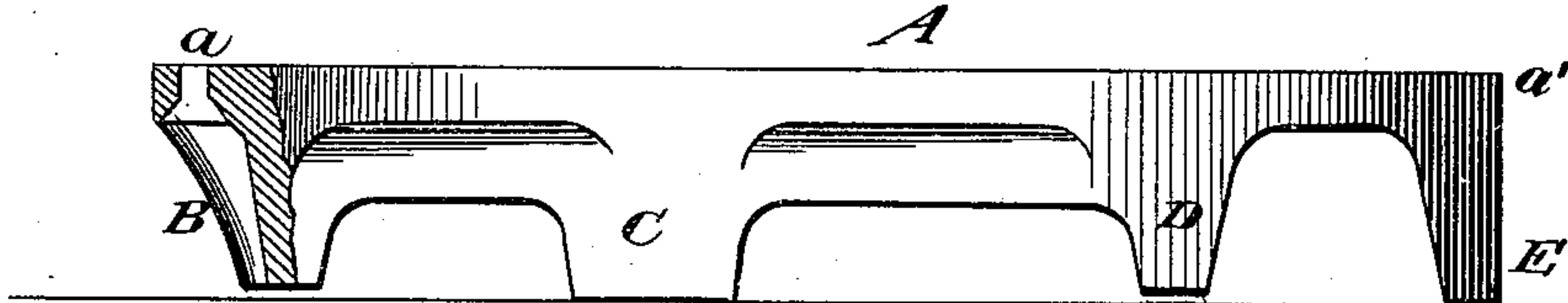
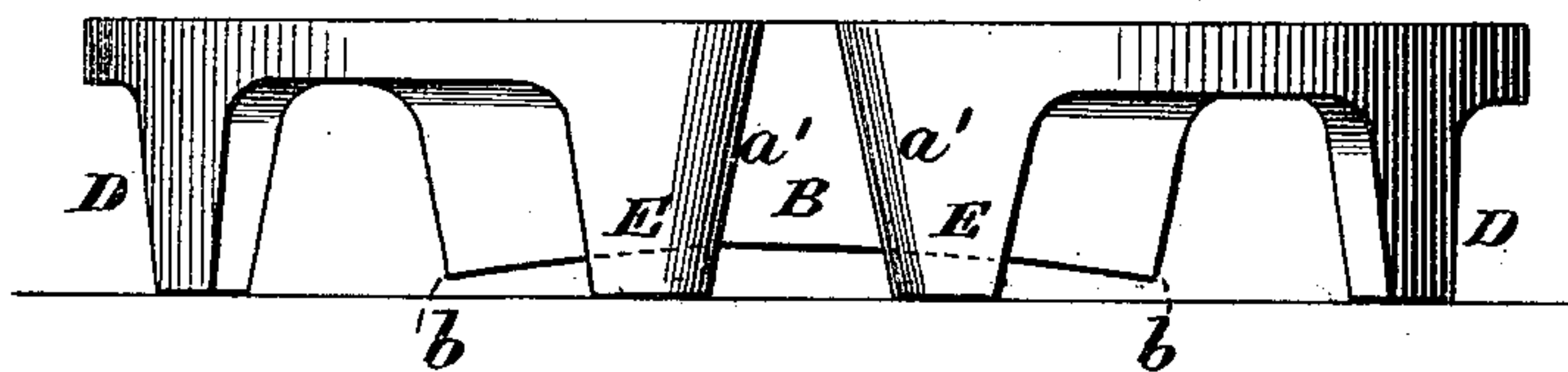


Fig. 3.



Witnesses

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LUTHER HALL BELLAMY, OF BROCKVILLE, ONTARIO, CANADA.

HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 329,700, dated November 3, 1885.

Application filed February 25, 1885. Serial No. 157,053. (No model.)

To all whom it may concern:

Be it known that I, LUTHER HALL BELLAMY, residing at Brockville, in the county of Leeds, Province of Ontario, and Dominion of
5 Canada, have invented an Improved Horseshoe, of which the following is a specification.

The special objects of the invention are to provide a ready-made horseshoe which will fully care for all the wants of foot, preserve
10 the natural elasticity of the frog and heel, remove or prevent contraction of the hoof, and as nearly as possible resemble the tread of the natural foot. In order to attain these objects I construct the shoe on scientific principles, so
15 as to distribute the resistant pressure properly over the weight-bearing surfaces of the foot and strictly maintain its natural action and form. Another evil which I aim to prevent is slipping and the lateral rolling of foot, which
20 so often cause cutting and interference.

Another very important object is to allow perfect knee action, and yet so take the shock of concussion as to avoid all injury to foot or leg, and afford positive relief to the lame or
25 tender-footed horse, and, lastly, to provide for the natural expansion of foot.

Figure 1 of the drawings is a plan view of the bottom of shoe; Fig. 2, a side elevation, and Fig. 3 a rear view in elevation.

30 In the drawings, A represents the web of the shoe, having nail-holes *a*, and curved inwardly-projecting ends *a' a'* at the rear. B represents the usual toe-calk. C C are side calks; D D, the heel-calks, and E E the frog-calks.

35 In front of the toe-calk B is projected a portion, *b*, of metal, to contain a nail-hole, so as to make a secure fastening where the shell of foot is strongest and can best stand the lateral as well as the backward strain on the nail. The
40 toe-calk B is also enlarged at *b b*, so as to provide for the greater wear at these points over the center, and thus cause them to wear off in a horizontal plane.

The side calks, C C, are rocking calks, located on the web midway between the usual
45 toe-calk, B, and heel-calks D D, while the calks E E on the inwardly-curved rear ends support that part of the web which forms the spring-bearings for frog and cushion for foot.

50 It will thus be seen that I provide seven bearings for the web—namely, one toe-bear-

ing, two side bearings, two frog-bearings, and two heel-bearings.

In order to prevent the lateral movement of foot and guard against interfering, lessen the
55 chances of stumbling, and obtain a forward rocking movement of foot at each step, I make the toe-calk shorter than the side calks, so as to form a slight clearance at toe, and also automatically adapt the tread to the inequalities
60 of road, so that the hard pavement may feel like natural ground; and in order to obtain frog-pressure I make the frog-calks longer than the adjacent heel-calks, so as first to come in contact with road or pavement. Thus the
65 principal bearing or pressure will be on the frog and side calks until the full weight of the horse causes the frog to yield to the springing projections E E, when the heel-calks D D will reach the pavement, thus bringing the lower
70 ends of the heel, side, and frog calks in the same horizontal plane, while that of the toe-calk remains in a higher horizontal plane, so as to allow for the rocking movement of foot at each
75 step. I thus not only provide a yielding or spring cushion to imitate nature and secure the frog-pressure necessary for health of foot, but also maintain the natural level of foot, prevent the side and forward slip, allow for the
80 natural expansion of foot, and obtain the forward rocking movement in an easy, natural, and safe way, all tending to greatly improve the knee action and enable the horse to travel on any kind of road with the greatest possible
85 safety and comfort, thus making the art of successful horseshoeing a possibility and within the reach of all.

The contraction of hoof produced by use of the ordinary shoe gives a cramped movement to the horse and shortens his natural step,
90 while my improved shoe provides for the expansion of foot, lengthens the step, and produces light elastic movement.

The metal is compressed in dies, so as to give the exact form desired, except that the web is
95 left straight and bent around by machinery to required shape for shoe. The unbent shoe may be formed single or a number of them together from large or small scrap iron or steel.

It will thus be perceived that I obviate the
100 great objection to all horseshoes as heretofore made—namely, that to a greater or less extent

they fail to secure the necessary frog-pressure and render useless nature's provision for taking the shock produced by concussion, the frog loses its natural elasticity, becomes dry and rigid, and fails utterly to subserve the important purpose for which it was wisely intended, and horseshoeing becomes a serious evil, which I now aim to overcome by the use of my improved form of shoe, which is light, durable, and cheap, and designed to come into general use. Being made by machinery, it gives accuracy of foot-bearing, uniformity of shape, fineness of finish, and is not liable to hold snow-balls or stones.

15 I make my shoes of all sizes and weights to suit different horses, different roads, different purposes, and different seasons of the year. I make them of steel, iron, or any other substance which is adapted to be shaped in a die.

20 Having thus fully described my invention, what I consider new, and desire to protect by Letters Patent, is—

1. A seven-calk horseshoe having the toe-calk B, the side calks, C C, the heel-calks D D, and the frog-calks E E, arranged on the web, as shown and described. 25

2. The horseshoe-web A, made elastic near the ends, then provided with calks at said ends, and having heel-calks made shorter than said frog-calks, as and for the purpose specified. 30

3. A horseshoe provided with the toe-calk B, concaved on its front face and gradually increasing in width or horizontal thickness from the middle to each end, as and for the purpose described. 35

Brockville, Ontario, January 26, 1885.

LUTHER HALL BELLAMY.

Witnesses:

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