

(No Model.)

3 Sheets—Sheet 1.

J. E. BINGHAM.

MANUFACTURES FOR THE SHOEING OF HORSES.

No. 346,350.

Patented July 27, 1886.

Fig. 2

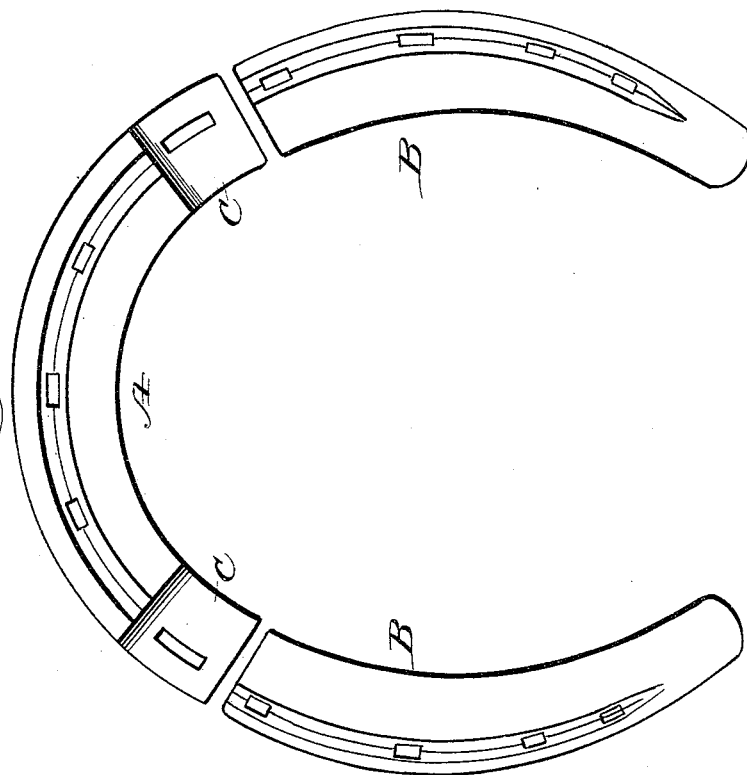
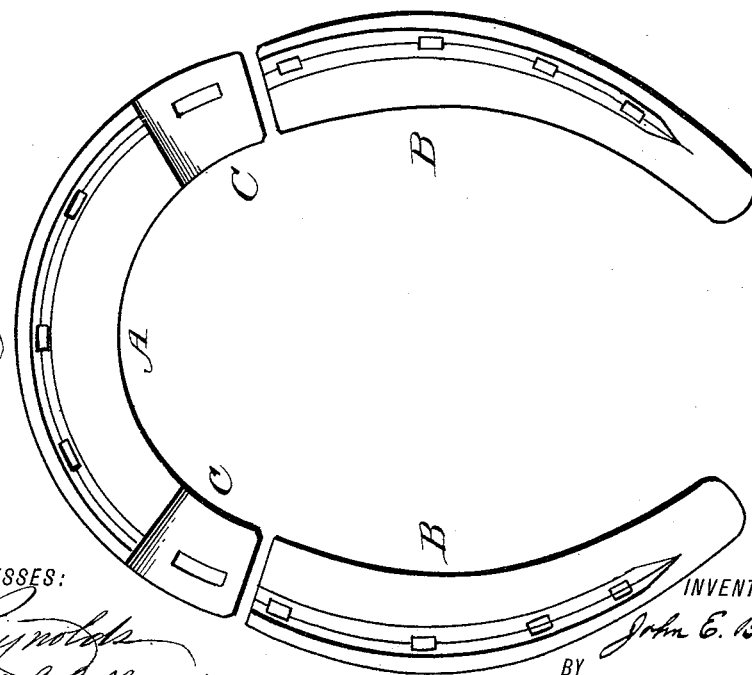


Fig. 1



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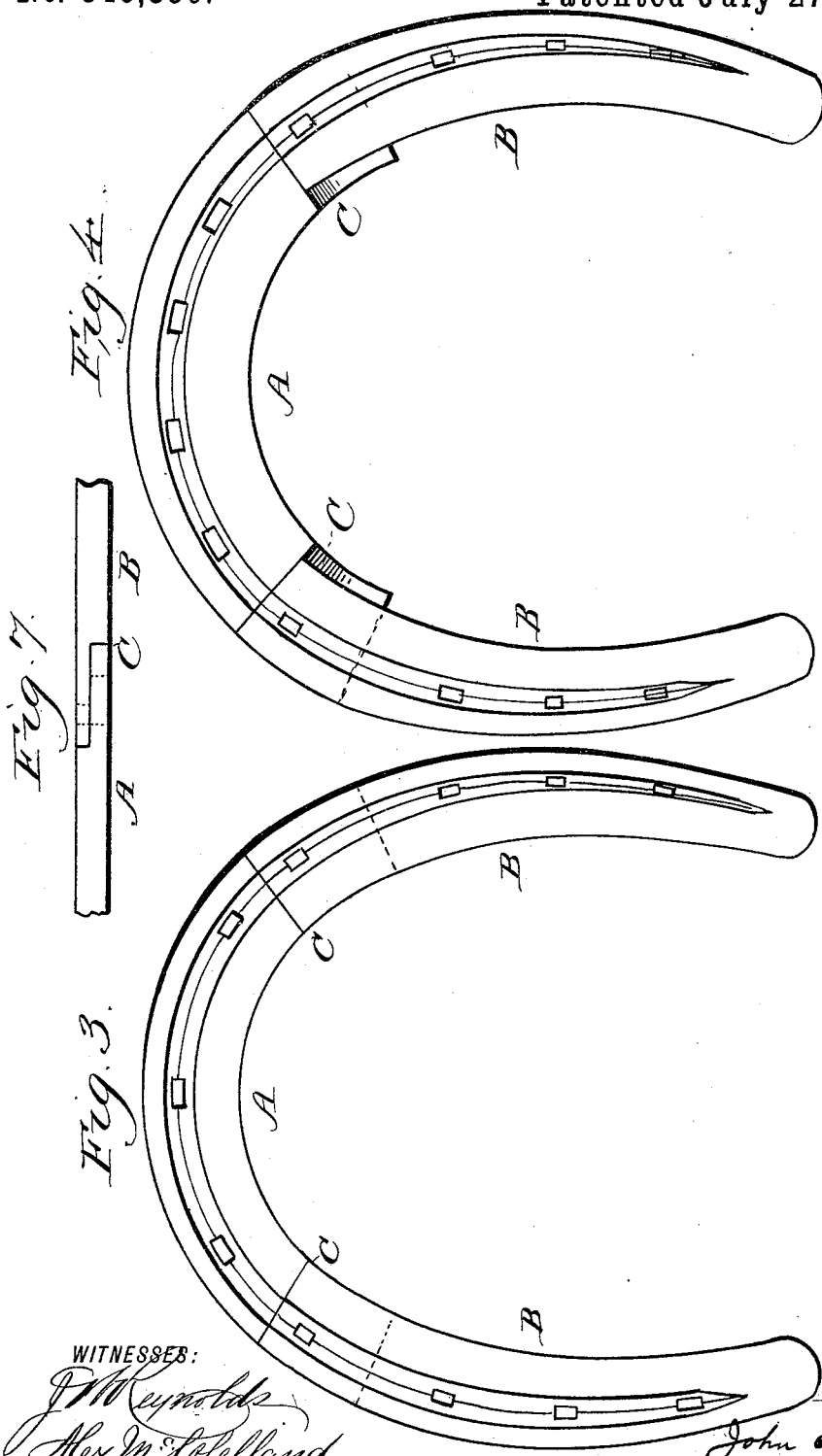
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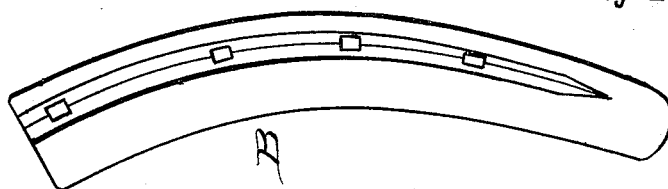


Fig. 6

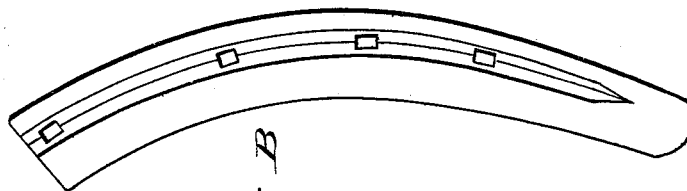
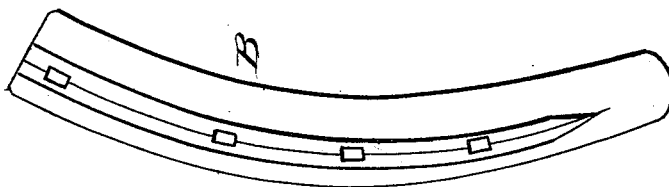
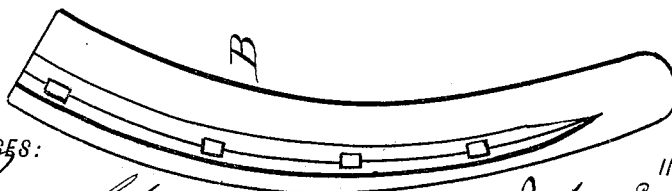


Fig. 5.



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# UNITED STATES PATENT OFFICE.

JOHN E. BINGHAM, OF WALLA WALLA, WASHINGTON TERRITORY.

## MANUFACTURE FOR THE SHOEING OF HORSES.

SPECIFICATION forming part of Letters Patent No. 346,350, dated July 27, 1886.

Application filed February 3, 1886. Serial No. 190,714. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN E. BINGHAM, a citizen of the United States, residing at Walla Walla, in the county of Walla Walla and Territory of Washington, have invented a certain new and useful Manufacture Designed for the Convenience of the Public and of Horse-shoers in Particular, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention consists in substantially the following, to wit: interchangeable conformable blank sections of which to constitute sectional horseshoes, said sections severally being of varying dimensions and curvatures, adaptable to hoofs of different sizes and shapes, and furnished to the public and to the trade in the varieties named, as a new manufacture.

The object of the invention is to enable shoes to be procured from the factory or dealer ready-made and finished, of iron or steel, and tempered, if desired, that can be applied in a very short space of time and with perfect accuracy of fit, without having to reheat the same or bend them to conform to the shape of the hoof. All that is required is to ascertain and combine the pieces of the proper size and shape to fit the foot to be shod, and note the numbering or other marks designating the sizes and curves of the pieces so used, and, when subsequent or additional fitting is desired, to simply procure, by reference to said numbering or other marks of designation, the same sizes and curves first employed.

In the practice of the invention I prefer to construct the pieces in a series of different sizes and curves, designating each size and curve by some appropriate mark thereon, and to form the shoe of at least three pieces, although it is evident that a greater number could be resorted to, the said pieces consisting of a toe-piece forming about one-third of the whole shoe, and two side pieces forming each another third, the three being joined together in any suitable manner, but preferably as indicated in the accompanying drawings, or as in my applications of February 6 and 9, 1886, bearing Serial Nos. 191,056 and 191,337, respectively.

Heretofore it has been customary to make a shoe, of any of the different styles, about the

right size and general shape of the foot to be shod, (this being done usually at the factory, where the shoes are made in large quantities and with the aid of machinery,) which, being selected by the farrier, is by him reheated and reshaped to exactly conform to the shape of the hoof. This requires the tools and skill of a blacksmith, and consumes the time of the smith and of the animal being shod.

In the accompanying drawings, Figures 1, 2, 3, and 4 represent views of whole shoes embodying three pieces each, the corresponding parts constituting the several shoes being of varying sizes and curves, and it is evident that by taking either the toe-piece or the sides from one shoe and combining the same with the remaining portion or portions of another a shoe of a different size and contour is formed. Figs. 5 and 6 represent views of side pieces of varying curves or lengths; and Fig. 7 is a view in section, representing the manner of joinder of the sections of the shoe.

In the figures, A represents the toe-piece of the shoe; B B, the two side pieces; and C indicates one manner of joinder of the said side pieces with the toe-piece.

I am aware that shoes have been heretofore constructed in three or more pieces, with a view to allowing the heel parts of the foot to expand and contract more freely than is possible with the old style of shoe formed in one piece; but in such former instances the shoes had to be specially shaped to fit each foot to which they were applied, it being impracticable to keep on hand a stock and assortment of shoes ready-made of all the various sizes and shapes necessary to properly fit many different feet.

It is evident that from the many combinations that may be formed with a comparatively small stock of pieces manufactured in accordance with my invention a great number and variety of different-shaped feet can be fitted.

In the practice of my invention on horses, about five different sizes of toe-pieces are required for the front feet, and about the same number of toe-pieces are required for the hind feet. The toe of the front foot of a horse, as a rule, is nearly circular in outline, while the hind foot is slightly pointed. The curves of these five toe-pieces should correspond with

the ordinary outlines of the feet. In exceptional cases a toe-piece designed for the hind foot will be required to fit a front foot, and sometimes a toe-piece designed for a front foot will be required to fit a peculiarly-shaped hind foot. Of the side pieces about four different curves of each pair will suffice; but each curve will need to be made of about four different lengths. Thus there will be sixteen right and sixteen left side pieces and ten toe-pieces. The side pieces are used on the front or hind feet alike. Frequently the opposite sides of the same foot do not correspond in either length or curve. In such cases suitable side pieces should be used so as to exactly fit the peculiarities of each side. Any of the ten toe-pieces can be arranged in combination with any of the right or left side pieces, so as to fit a very great number of differently-shaped feet. Several hundred different shapes can thus be readily fitted without other tools or appliances than the ordinary rasp, shoeing-hammer, and nails, and without reheating or bending the pieces.

While I have referred herein to several forms of joining the parts of the shoes to-

gether, it is evident that in the practice of my method I am not limited to any particular form of joinder thereof, for in some instances it may be desirable to employ such manner of connection as to give the shoe an approximate rigidity throughout its length; and it is further evident that variations could be made in the number of parts contributing to make up the entire shoe without departing from the principles intended.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

Interchangeable conformable blank sections of which to constitute sectional horse-shoes, said sections severally being of varying dimensions and curvatures adaptable to hoofs of different sizes and shapes; and furnished to the public and to the trade in the varieties named, as a new manufacture.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN E. BINGHAM.

In presence of—

GEO. T. THOMPSON,  
C. M. STEARNS.