

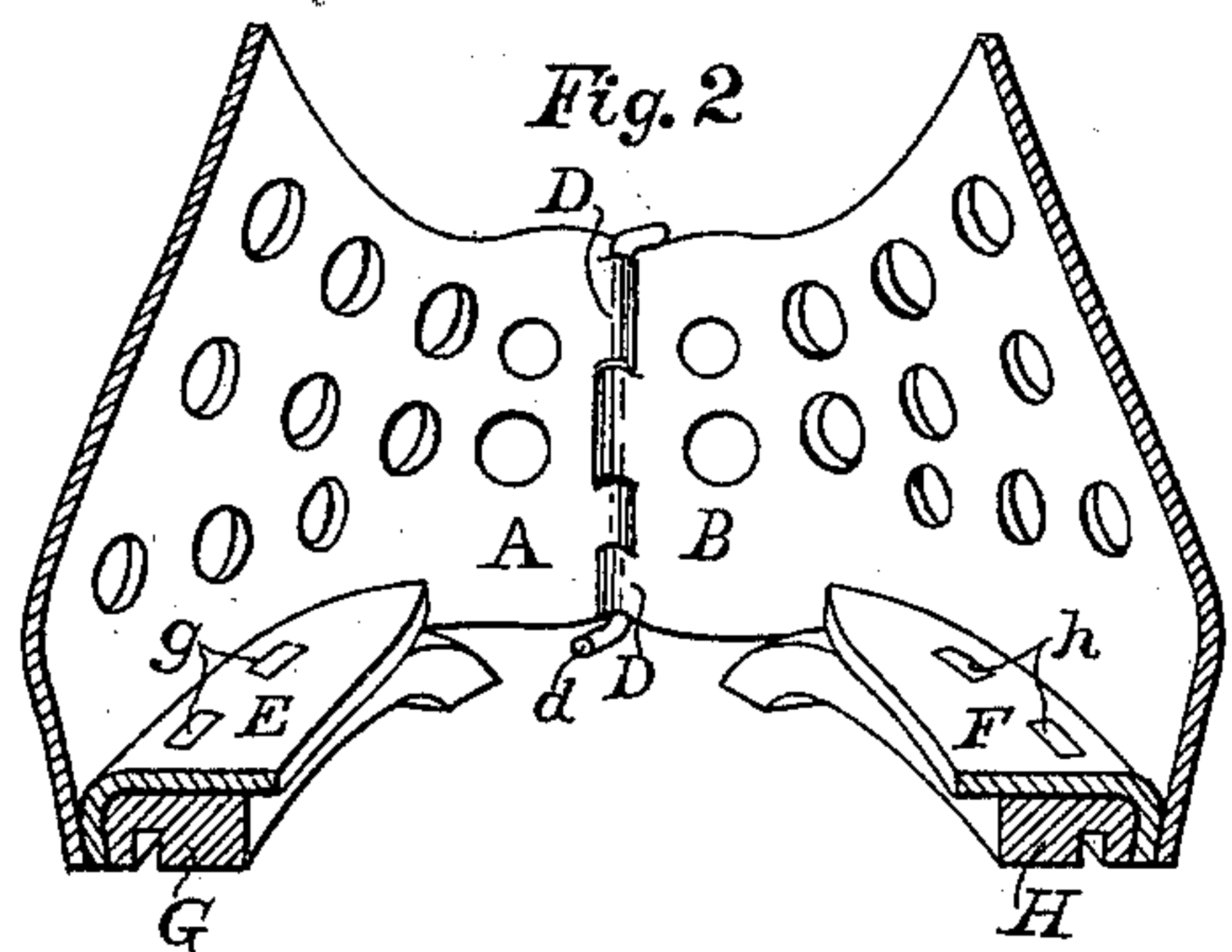
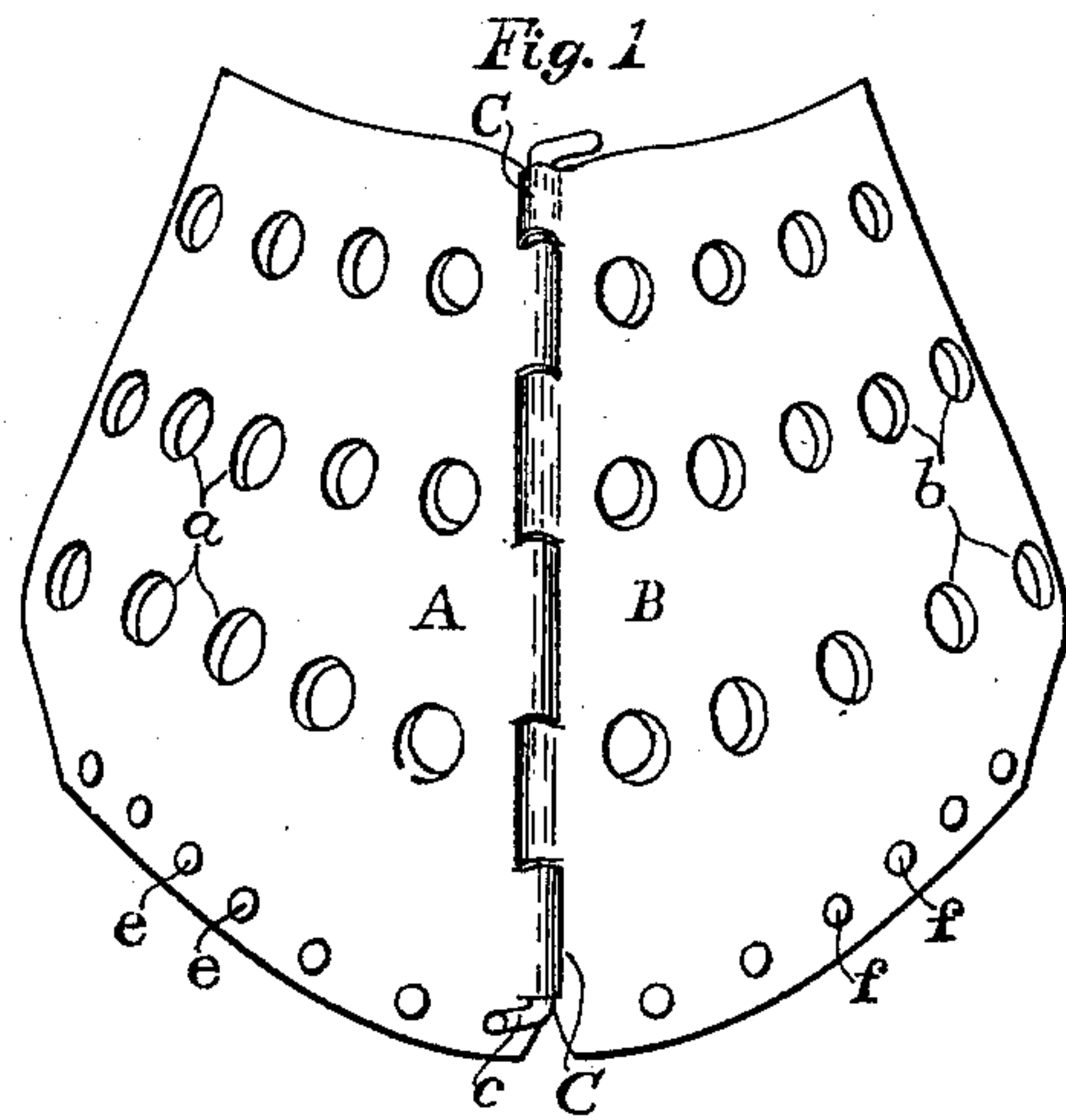
No. 671,433.

Patented Apr. 9, 1901.

M. BOULGAR.
NAILLESS HORSESHOE.

(Application filed Sept. 13, 1900.)

(No Model.)



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UNITED STATES PATENT OFFICE.

MICHAEL BOULGAR, OF NORTH ADAMS, MASSACHUSETTS.

NAILLESS HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 671,433, dated April 9, 1901.

Application filed September 13, 1900. Serial No. 29,872. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL BOULGAR, a citizen of the United States, residing at North Adams, in the county of Berkshire and State of Massachusetts, have invented certain new and useful Improvements in Nailless Horseshoes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to nailless horseshoes, and has for its object the production of a hoof covering and protection for horses that will permit itself to be fitted accurately to each hoof, that is hinged front and rear and consists of two parts, that has perforated walls for purposes of ventilation, while those walls or sides grasp the entire surface of the hoof, and that affords a certain amount of elasticity to the tread of the animal.

Each constituent element of my invention is described in detail and its individual office, together with the mode of operation of the whole, fully explained in this application.

Of the accompanying drawings, Figure 1 is a front view of my invention, showing the front hinge and the perforated or ventilated side walls of the boot portion; and Fig. 2 is a vertical cross-section showing the rear hinge, the shoe proper, and the flange or shelf directly above the shoe which supports the hoof.

Similar letters refer to similar parts throughout the drawings.

Letters A and B mark, respectively, the left and right side walls of the boot portion and each is provided with a series of perforations *a* and *b* for the purpose of ventilation. These halves of the boot may be separated from each other by taking out the pins of the hinges, which will be mentioned below. It is my practice to make these sides A and B of strong but malleable metal, and any skillful farrier may form each half very accurately to fit the peculiar conformation of that side of the hoof which it is intended to protect.

The entire surface of the hoof is grasped by

the boot portion when it is properly shaped by the smith, and the perforations, while eliminating considerable metal, do not interfere at all with the comprehensive grasp of the boot on the hoof.

Letters C and D designate the front and rear hinges formed by tubular projections, by means of which the side walls A and B are held together.

The small letters *c* and *d* indicate the hinge-pins, and the ends of these pins may be slightly bent over after the boot is finally shaped and put on in order that they may not fall out and the shoe be thrown and lost.

In Fig. 2 will be seen the supporting flange or shelf for each side wall. The flange for side A is marked E and that for side B is denoted by the letter F. These flanges are securely attached to the side walls by the rivets *e e* and *f f*, placed at suitable intervals along the lower edges. The flanges are very strong, but still afford considerable elastic or spring effect to the tread of the animal, rendering the wearing of the shoe comfortable and easy. While the weight of my shoe is not great, it is often sufficient to cause the horse to acquire the habit of throwing the feet well forward, thus increasing his stride. In Fig. 2 will also be seen the shoe portion proper, (designated by letters G and H,) consisting of two independent parts—one for each side wall. The shoe portions may be variously formed. They are ordinarily attached by rivets *g g* and *h h* to the flanges. In the winter season, where the traveling is upon snow-covered roads, the shoe portions can be omitted, and the lower edges of the side walls of the boot will wholly prevent the horse from slipping. The shoe portions are not needed either if the animal is employed upon a farm or driven upon dirt roads.

To fit the shoe in place, the hinge-pins are removed, and each side wall is specially formed for its position if there is any material variation of shape between the hoof and the side of the boot. The sides are then placed on the hoof and the pins secured in their sockets. No nails are used or required.

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

1. In a nailless horseshoe, the combination

of the two corresponding separable side walls each provided with a series of perforations and having tubular projections front and rear, hinge-pins arranged to secure the side walls together by passing through the tubular projections, and flanges connected with the lower edges of the side walls, substantially as described.

2. In a nailless horseshoe, the combination of two corresponding separable side walls each having tubular projections front and rear, hinge-pins passing through the said tu-

bular projections, flanges connected with the lower edges of the said side walls, and a shoe consisting of two independent parts one being attached to one of the said flanges and the other to the remaining flange, substantially as described. 15

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

MICHAEL BOULGAR.

Witnesses:

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