

(No Model.)

Z. BIRDSALL.
HORSESHOE.

No. 516,046.

Patented Mar. 6, 1894.

Fig. 1

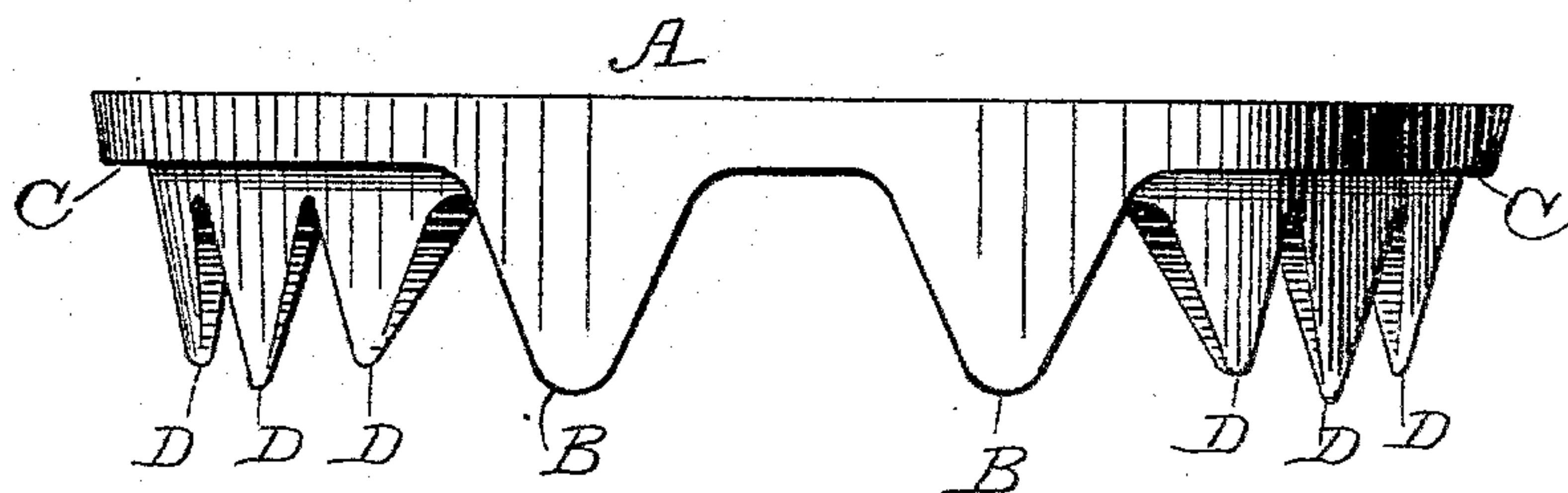


Fig. 2

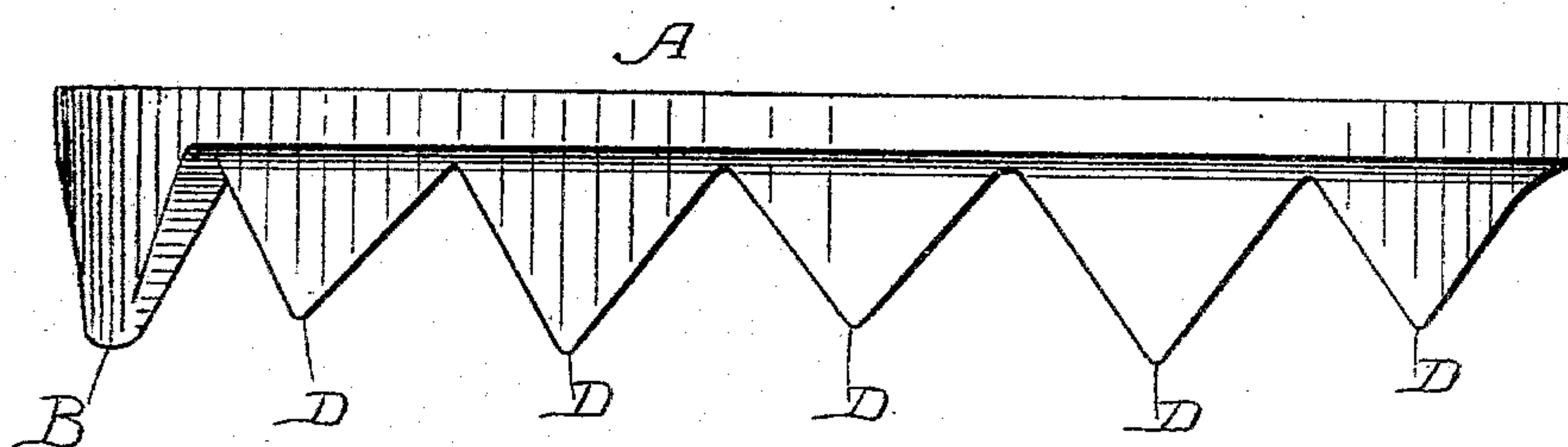


Fig. 3.

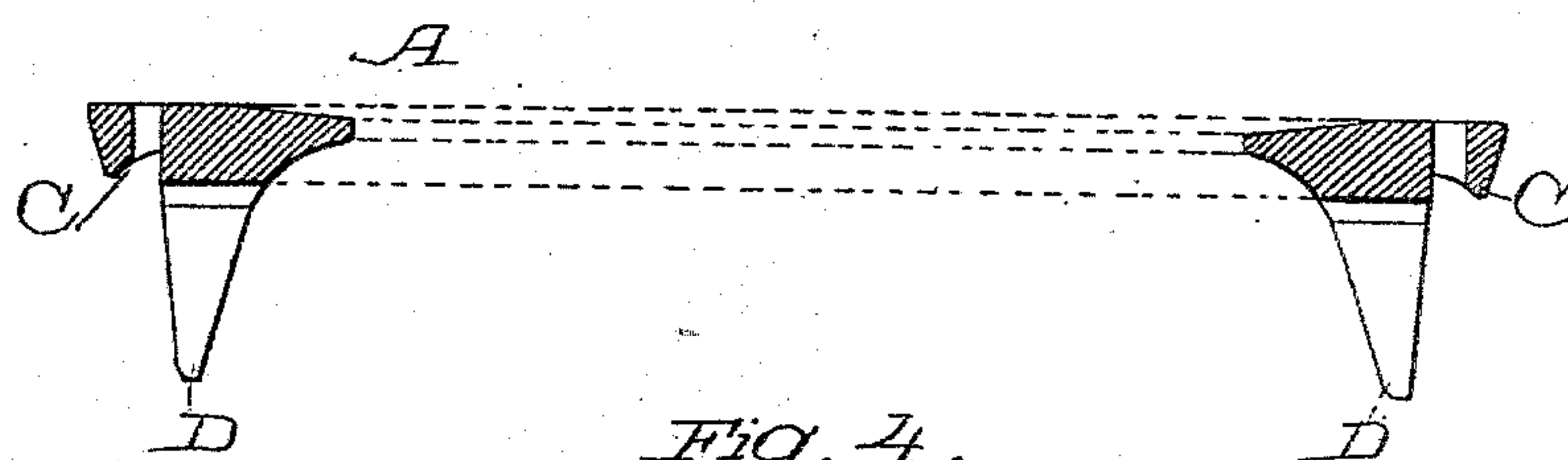
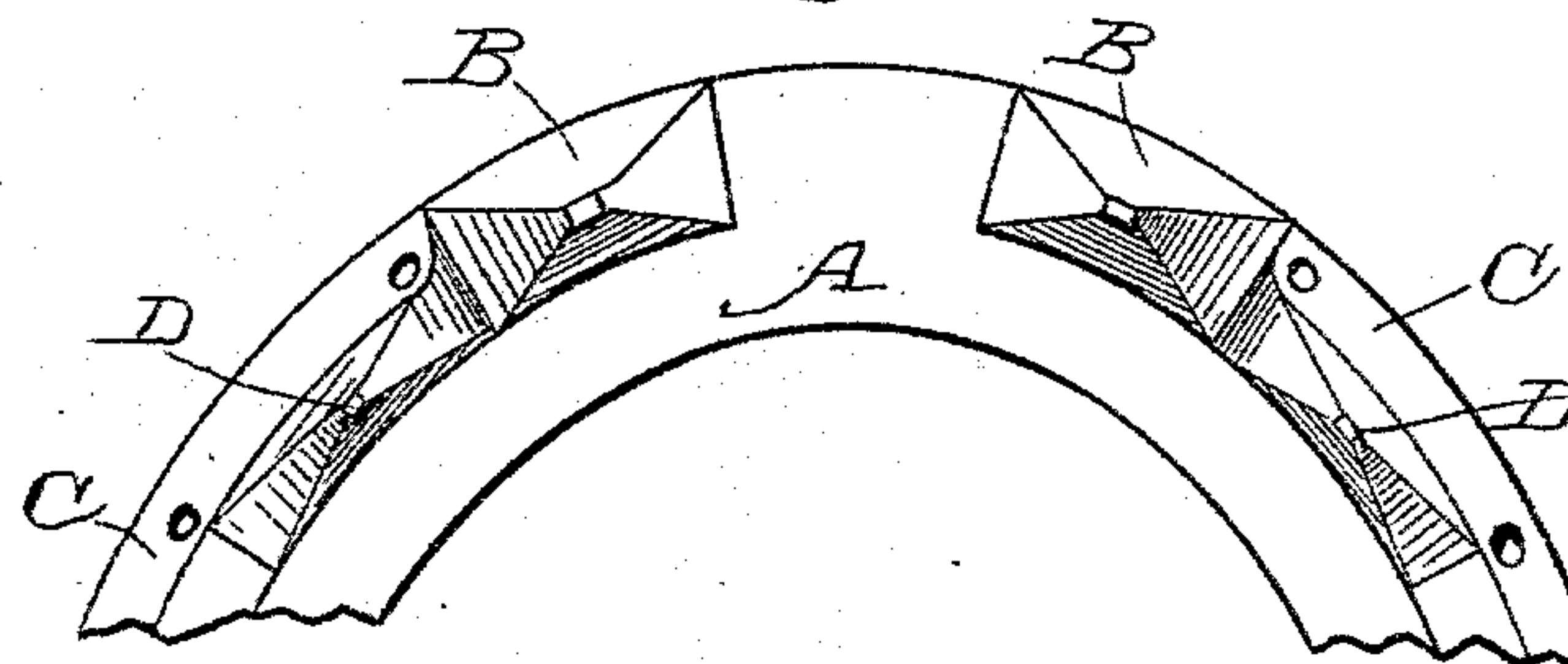


Fig. 4.



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UNITED STATES PATENT OFFICE.

ZEPHANIAH BIRDSALL, OF SAN FRANCISCO, CALIFORNIA.

HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 516,046, dated March 6, 1894.

Application filed November 17, 1893. Serial No. 491,248. (No model.)

To all whom it may concern:

Be it known that I, ZEPHANIAH BIRDSALL, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Horseshoes; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to improvements in horse shoes.

It consists in certain details of construction which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a front view of my improved horse shoe. Fig. 2 is a side view of the same. Fig. 3 is a vertical section. Fig. 4 is a bottom view of the front part of the shoe.

The object of my invention is to provide a shoe, with front toe calks formed on the line of curvature of the front of the shoe and separated from each other, and a series of pointed calks of different elevations extending around the periphery of the shoe to the heel, and in conjunction therewith of a projecting ledge exterior thereto through which the nail holes are made.

A is the shoe.

B B are toe calks which are made separate from each other so as to leave an intermediate space about the center of the front of the shoe. These calks thus separated follow the curvature of the front of the shoe instead of being made straight across as in the case of a single toe calk, and by reason of their being thus separated and curved, they have a better hold on smooth surfaces, and are especially prevented from entering the slots in cable railways when the horse is crossing said slots at nearly a right angle.

From the sides of the toe calks B an elevated ridge extends around the shoe to the heels, projecting from the flat surface or body A as shown, and this ridge is formed into alternate pointed calks or elevations D, and intermediate depressions. I prefer to make these points alternately high and low, every other one being higher than the alternate one on each side thereof, and this allows the higher points to be used until they become worn off

and blunted, when the intermediate sharper points will be brought into contact with the surface of the ground, and will thus present fresh holding points to take the place of those that are worn.

Exterior to the line of points or calks here described, the body of the shoe projects outwardly, forming a flat ledge C, through which the nail holes are made, and through these holes the nails are driven into the wall of the hoof in the usual manner. Besides being sunk into and protected in the holes, the nails are also protected from wear and blows which are likely to loosen them by the outwardly projecting points and ridges heretofore described.

The upper surface of the plate A is depressed around its inner periphery so that the shoe will have a bearing upon the outer portion of the hoof, and the inner lower portion forms a concave curvature from the tops of the points D to the inner edge of the main plate of the shoe which is efficacious in clearing the shoe of snow and ice, and also by reason of its shape allows the projecting points to be sharpened whenever they become dull without removing the shoe from the horse's foot.

Shoes made in this manner may be used until the points are worn down, when the shoe may be afterward taken off and put away and employed in the summer season as a flat shoe. Whenever large numbers of horses are employed, the sets of shoes may thus be used during the winter with the projecting points, and afterward laid away for summer use as flat shoes.

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

1. A horse's shoe consisting of the plate or bar curved to fit the outline of the hoof, toe calks integral with the plate or bar and situated upon each side of the center of the front, with an intermediate separating space or depression, ridges extending from the toe calks upon each side around to the heels of the shoe and formed with pointed elevations and intermediate depressions, each alternate point

being higher than those intermediate between them, substantially as herein described.

2. A horse shoe consisting of a curved plate having an exterior projecting ledge with nail
5 holes through which the shoe is secured to the hoof, a downwardly projecting ridge extending around the lower part of the shoe interior to the line of nail holes, having its lower edge divided into points of different eleva-
10 tions, and toe calks formed upon each side of a central space at the front of the shoe having a curvature corresponding with that of the

front periphery of the shoe, the interior of the front and side calks extending in a concave line from the projecting points to the interior
15 edge of the shoe, substantially as herein described.

In witness whereof I have hereunto set my hand.

ZEPHANIAH BIRDSALL.

Witnesses:

S. H. NOURSE,
H. F. ASCHECK.