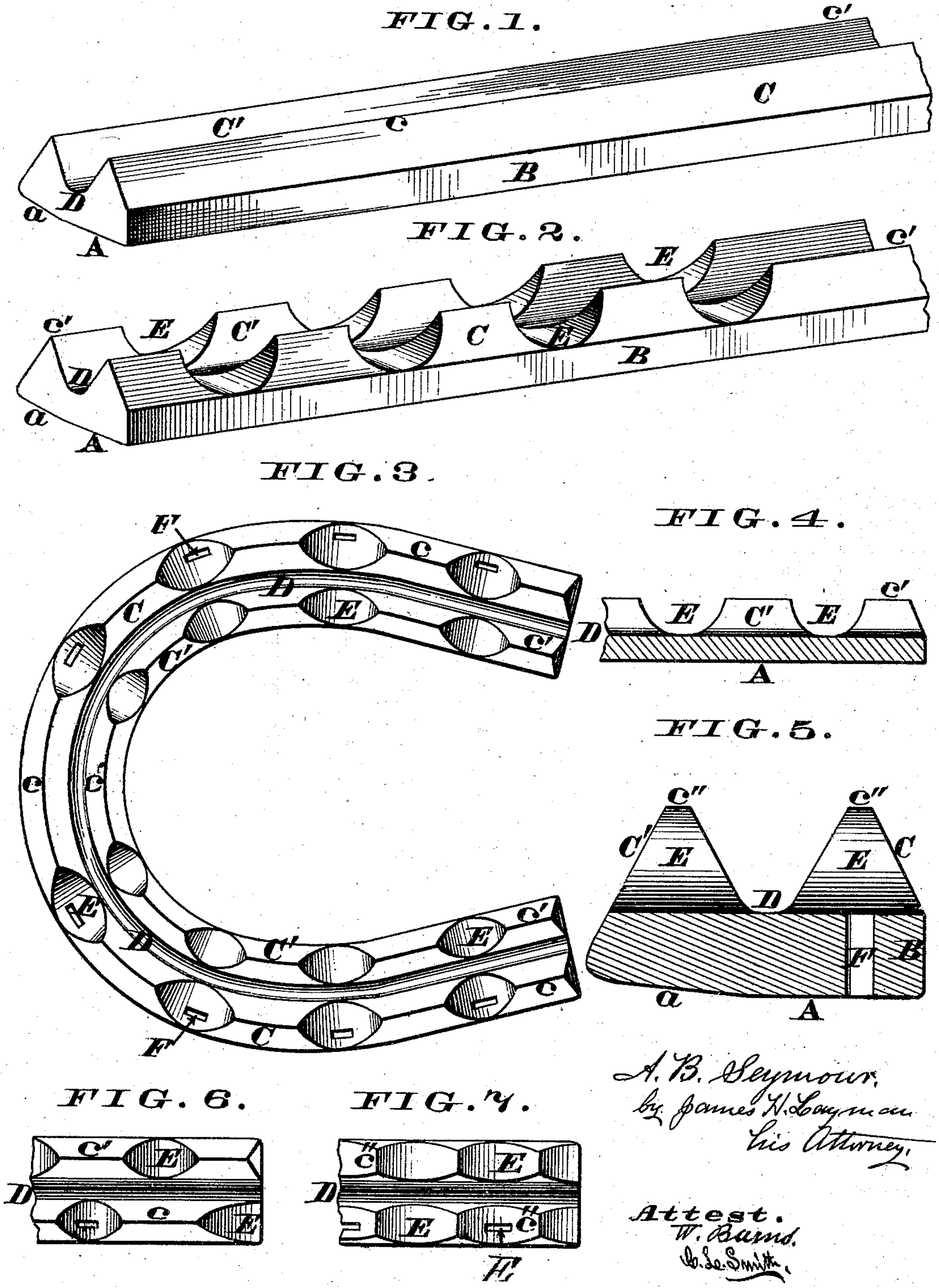
A. B. SEYMOUR.

HORSESHOE BLANK BARS.

No. 182,535. Patented Sept. 26, 1876.



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UNITED STATES PATENT OFFICE.

ALFRED B. SEYMOUR, OF CINCINNATI, OHIO.

IMPROVEMENT IN HORSESHOE-BLANK BARS.

Specification forming part of Letters Patent No. **182,535**, dated September 26, 1876; application filed May 31, 1876.

To all whom it may concern:

Be it known that I, ALFRED B. SEYMOUR, of Cincinnati, Hamilton county, Ohio, have invented certain new and useful Improvements in the Manufacture of Horseshoes, of which the following is a specification:

The object of the present invention is to increase the bearing-surfaces of such shoes as are described in Letters Patent No. 167,027, issued to me August 24, 1875.

By referring to this patent it will be noticed that the device described therein is furnished with but a single row of calks projecting from the median line of the shoe, which arrangement, although perfectly reliable and satisfactory for general use, does not afford as extended a bearing-surface upon the ground as is desirable in some cases. Therefore, to increase the bearings of the shoe, I duplicate the calks, so as to produce an outer row and an inner one, which occupy parallel positions with reference to each other, as hereinafter more fully explained.

My present improvement consists in the production of a blank with two parallel V-shaped ridges, either sharpened or truncated, formed with transverse concave depressions, and separated by a longitudinal groove, as hereinafter described.

In the annexed drawing, Figure 1 is a perspective view of the bar from which a horseshoe-blank is to be made. Fig. 2 is another perspective view, showing the second step in the manufacture of the blank. Fig. 3 is a plan of a complete shoe, as made from my improved blank. Fig. 4 is a longitudinal section of the same, taken through the valley between the two rows of calks. Fig. 5 is an enlarged transverse section of the shoe, and Figs. 6 and 7 represent modifications of my invention.

The first step in the manufacture of my improved horseshoe-blank consists in rolling a steel or iron bar into the shape shown in Fig. 1, which rolled bar may be of any suitable size. It will be observed that said bar is constructed with a flat under side, A, and a vertical or nearly vertical front edge, B, the inner portion of bottom A being somewhat beveled or chamfered off at *a*. The bar or blank is also constructed with two V-shaped ridges, splines, or ribs, C C′, whose respective apices *c c′* are parallel with each other, and in the same plane. In rolling this bar the ridges C C′ may be brought to a sharp edge, as seen in Figs. 1 and 2, or said ridges may be truncated, as represented at *c″ c″* in Figs. 5 and 7. These two parallel ridges are separated by a groove, valley, or depression, D, having, preferably, the concave bottom, as represented in Fig. 5, thereby avoiding sharp angles in the shoe. This ridged and longitudinally-grooved bar having been reduced to the previously-described shape, either at a single operation or by a consecutive series of operations, the final pass through the rolls channels said blank transversely, so as to remove any desired amount of metal from each of the opposing ridges C C′. Fig. 2 represents the blank after it has been channeled transversely, the interdental spaces or notches E being of any suitable length with reference to the standing portions of the ridges, which projecting members constitute the calks proper of the shoe.

For the purpose of removing these interdental portions of the ridges I may employ either a cutter, or press, or punch, or any other device that will accomplish the desired result without straining or otherwise injuring the bar.

In applying my improved blank to the manufacture of horseshoes, the blanks are cut into lengths proportionate to the size of shoe desired, after which the bar is reheated and bent around a suitable former or die, so as to impart to the shoe a shape approximating to the one represented in Fig. 3.

By referring to this illustration it will be noticed that the toe-calk is somewhat longer than the other calks, which is my preferred way of manufacturing the shoe, although I reserve the right to vary the size and number of projections to suit the demands of trade. After bending the blank the holes F for the nails may be punched through the shoe in any appropriate place.

It is evident that, by thus providing the shoe with two distinct sets of calks, the bearing-surface upon the ground will be increased accordingly, and, consequently, the animal will have a more secure hold on a rough and irregular pavement, and be less liable to slip and injure himself. This duplication of the

bearing-surfaces enhances the utility of the shoe without adding materially to the original cost.

The bar represented in Fig. 2 has the transverse notches E of the two ridges C and C′ exactly in line with each other and of corresponding width; but this arrangement may be departed from, so as to bring the outer row of calks opposite the transverse channels of the inner row of calks. (See Fig. 6.) Fig. 7 shows another modification, in which the ridges C C′ are very much truncated, and the interdental spaces E are cut so as to communicate with each other, by which means the calks are disposed transversely of the shoe, instead of being arranged longitudinally of the same.

I claim as my invention—

The blank herein described, consisting of a bar, A B, with parallel ridges C C′, transverse cavities E E, and a longitudinal separating-groove, D, as specified.

In testimony of which invention I hereunto set my hand.

ALFRED B. SEYMOUR.

Witnesses:

JAMES H. LAYMAN,

GEORGE O. NEUMAN.