No. 876,265. PATENTED JAN. 7, 1908.

C. A. CAMPBELL.

HORSESHOE.

APPLICATION FILED OCT. 18, 1907.

2 SHEETS—SHEET 1.

Fig. 1.

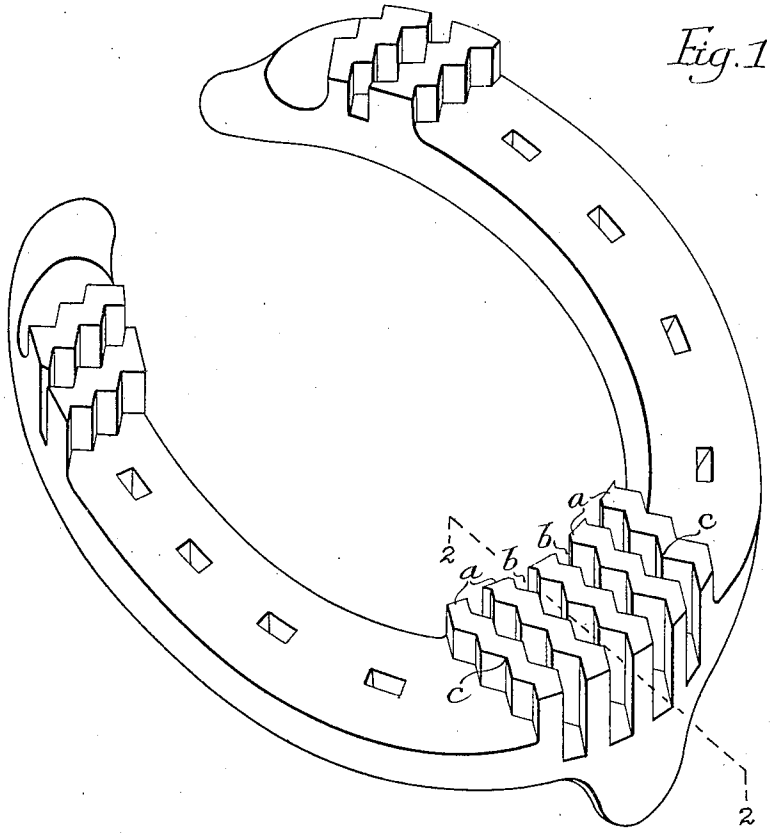
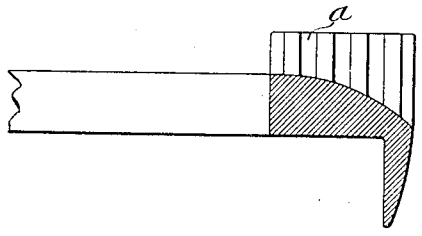


Fig. 2.



Witnesses:-
Walter F. Pellinger
Augustus B. Coppes

Inventor:
Charles A. Campbell.
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2 SHEETS—SHEET 2.

Fig. 3.

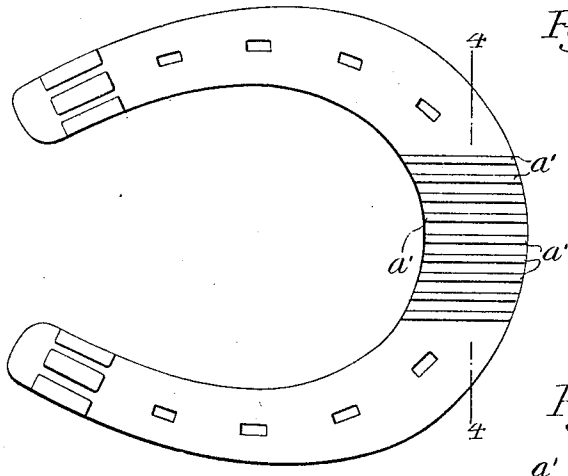


Fig. 4.

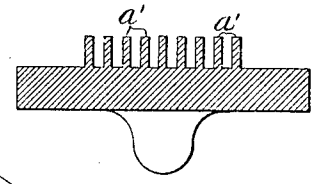


Fig. 5.

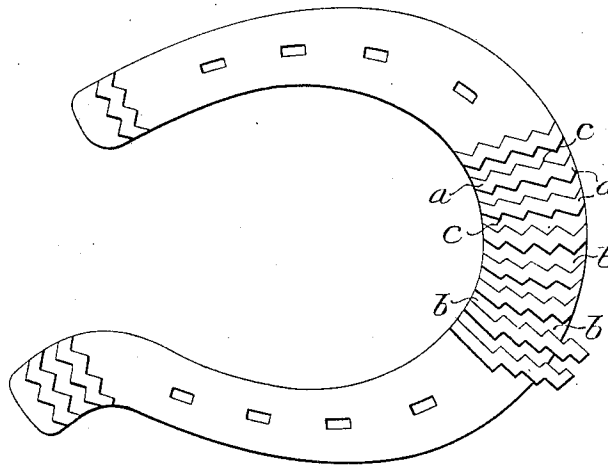


Fig. 6.

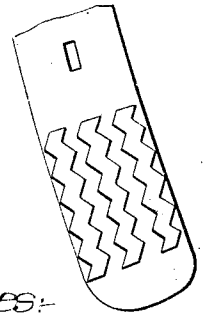
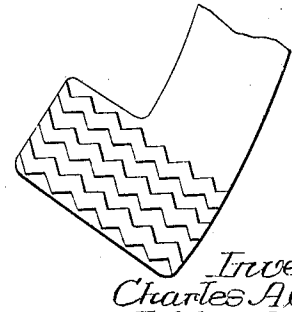


Fig. 7.



Witnesses:
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UNITED STATES PATENT OFFICE.

CHARLES A. CAMPBELL, OF PHILADELPHIA, PENNSYLVANIA.

HORSESHOE.

No. 876,265. Specification of Letters Patent. Patented Jan. 7, 1908.

Application filed October 18, 1907. Serial No. 398,061.

To all whom it may concern:

Be it known that I, CHARLES A. CAMPBELL, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Horseshoes, of which the following is a specification.

The object of my invention is to provide a horse-shoe with a lower face which will prevent slipping and give an improved bearing surface, and to this end consists in furnishing said lower face with a series of ridges so disposed as to form spaces therebetween for receiving and retaining therein packed snow or dirt, said packed snow or dirt to take the place of the ordinary calks.

In the accompanying drawings Figure 1 is a perspective view showing the lower face of a horse-shoe embodying one form of my invention; Fig. 2 is a broken sectional view on the line 2—2 Fig. 1; Fig. 3 is a plan view showing a modification of my invention; Fig. 4 is a sectional view taken on the line 4—4 Fig. 3; Fg. 5 is a plan view of a special form of shoe having my invention applied thereto; Fig. 6 is a plan view of one of the heel portions of a shoe to which a modified form of my invention is applied; and Fig. 7 is a plan of one of the heel portions of a special form of shoe, having my invention applied thereto.

Referring particularly to Figs. 1 and 2, *a*, *a* are a series of ridges cast integral with the under face of the shoe, forming between them a series of recesses *b*. Said ridges are disposed much nearer to each other than in the case of calks heretofore used, and being thus adjacent the recesses *b* are adapted for the reception and retention of snow or dirt from the road traveled by the horse, said snow or dirt becoming packed therein and providing a rough and gripping surface for the shoe. The walls of the ridges *a* are substantially vertical as shown best in Fig 4, said construction aiding the reception and retention of snow or dirt before referred to. I may provide the sides of the ridges with corrugations *c*, to more readily retain the snow or dirt, but said corrugations are not essential to my invention in its broadest sense and they may be dispensed with as illustrated in Fig. 3, which shows a series of ridges *a'*, having straight sides. The recesses *b* increase in depth as they extend forwardly, said recesses at the toe extending beyond the uncalked portion of the under face of the shoe. This construction, which is clearly shown in Figs. 1 and 2, deepens the recesses at the toe of the shoe, the point of greatest wear, and consequently lengthens the period during which the ridges and recesses will perform their function.

The ridges provided for the toe of the shoe are disposed in substantially parallel lines running in the direction of travel, or the longitudinal axis of the shoe, and extend substantially from the inner edge of the face of the shoe to the outer edge. They thus afford a rolling motion in said direction and prevent or diminish side-slipping. The heel ridges I prefer to arrange transversely and also extending substantially across the heel portions of the shoe from edge to edge, as shown in Fig. 1, as this provides for any rolling motion the shoe may have from side to side and has a tendency to prevent slipping forward or backward. I may, however, if I desire, dispose the heel ridges or cleats in the same direction as the toe ridges and I have shown such an arrangement in Figs. 3 and 6.

Fig. 5 shows my invention as applied to a shoe designed for speed, two of the toe ridges being extended forwardly beyond the line of contour of the ordinary shoe, to give a more effective grip at that point. I may vary the number of ridges both at the heel and toe, to suit varying conditions of travel or varying peculiarities of the animal to be shod, and this feature I have also illustrated in the form of shoe shown in Fig. 5. Where the shoe is to be used with a pad, it is customary to shorten the heel portions of the shoe, and in such case as in others if desired the heel ridges may be dispensed with. Where the shoe is provided with a bar at the heel, the bar can be provided with ridges as shown in Fig. 7. My invention can be applied to many other special forms of shoe, in ways which will readily suggest themselves to those skilled in the horse-shoeing art.

I claim:

1. A horse-shoe having the toe portion of its lower face provided with a series of adjacent ridges parallel to each other and to the longitudinal axis of the shoe, whereby there are formed a series of recesses adapted to receive and retain snow or dirt to form a bearing surface for the shoe, substantially as described.

2. A horse-shoe having the toe portion of its lower face provided with a series of adjacent ridges extending substantially from inner to outer edge of said shoe, and being parallel to each other and to the longitudinal

axis of the shoe whereby there are formed a series of recesses adapted to receive and retain snow or dirt to form a bearing surface for the shoe, substantially as described.

3. A horse-shoe having the toe portion of lower face provided with a series of ridges running substantially in the direction of travel, and substantially from inner to outer edge of said toe portion, said ridges being adjacent to each other and having substantially vertical sides, whereby they form recesses adapted to receive and retain snow or dirt to form a bearing surface for the shoe, substantially as described.

4. A horse-shoe having the heel and toe portions of its lower face provided with series of ridges projecting beyond said face and extending substantially from inner to outer edge thereof, the ridges of each series being adjacent to each other and having substantially vertical sides whereby they form recesses adapted to receive snow or dirt to form bearings surfaces for the shoe, substantially as described.

5. A horse-shoe having the heel and toe portions of its lower face provided with series of ridges, the toe ridges extending longitudinally and the heel ridges transversely of the shoe and substantially from the inner to the outer edge thereof, the ridges of each series being adjacent to each other and having substantially vertical sides, substantially as described.

6. A horse-shoe having the toe portion of its lower face provided with a series of substantially parallel ridges running in the direction of travel, said ridges having corrugated sides and extending substantially from inner to outer edge of said toe portion, the spaces between said ridges being adapted to receive and retain snow or dirt to form a bearing surface for the shoe, substantially as described.

7. A horse-shoe having the heel and toe portions of its lower face provided with series of ridges projecting beyond said face and extending substantially from inner to outer edge thereof, the spaces between said ridges being adapted to receive and retain snow or dirt to form bearing surfaces for the shoe, substantially as described.

8. A horse-shoe having the heel and toe portions of its lower face provided with series of projecting ridges having corrugated sides and extending substantially from the inner to the outer edge of the shoe, the spaces between said ridges being adapted to receive and retain snow or dirt to form bearing surfaces for the shoe, substantially as described.

9. A horse-shoe having the heel and toe portions of its lower face provided with series of substantially parallel ridges, the toe ridges extending longitudinally and the heel ridges transversely of the shoe and substantially from the inner to the outer edge thereof, substantially as described.

10. A horse-shoe having the heel and toe portions of its lower face provided with series of substantially parallel ridges having corrugated sides, the toe ridges extending longitudinally and the heel ridges transversely of the shoe, substantially as described.

11. A horse-shoe having the toe portion of its lower face provided with a series of ridges, the spaces between said ridges being of greater depth at their forward ends than at their rear ends, substantially as described.

12. A horse-shoe having the toe portion of its lower face provided with a series of substantially parallel ridges, the spaces between said ridges being of greater depth at their forward ends than at their rear ends.

13. A horse-shoe having the toe portion of its lower face provided with a series of ridges, the spaces between said ridges being of gradually increasing depth as they extend toward the forward point of the toe, substantially as described.

14. A horse-shoe having the toe portion of its lower face provided with a series of ridges so arranged that the spaces between them may receive and retain snow or dirt to form a bearing surface for the shoe, the top of said spaces at their rear points being on a level with the uncalked portion of the lower face, and said spaces increasing in height as they extend toward the forward point of the shoe, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses.

CHARLES A. CAMPBELL.

Witnesses:

CHARLES H. HOWSON,

WM. A. BARR.