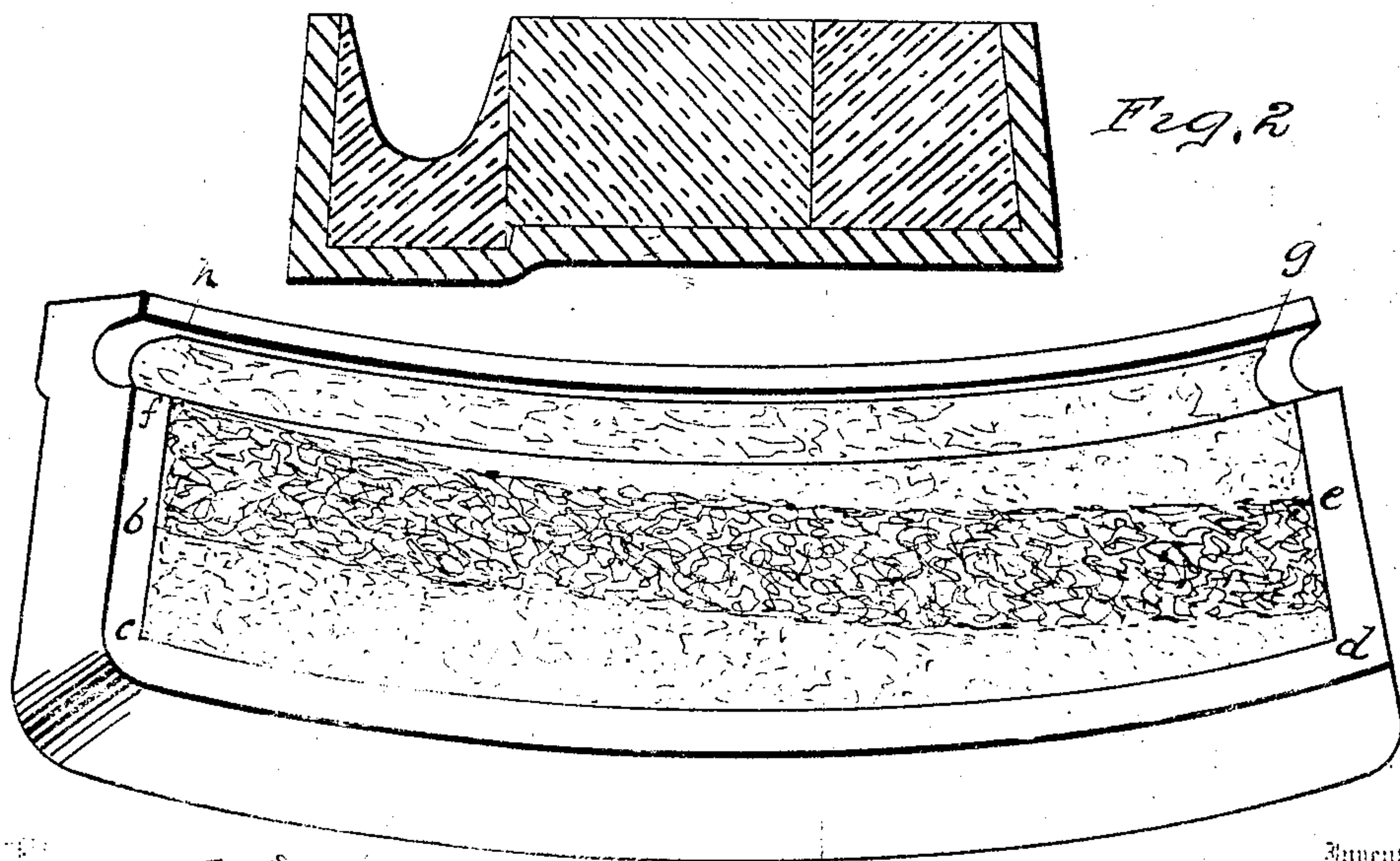
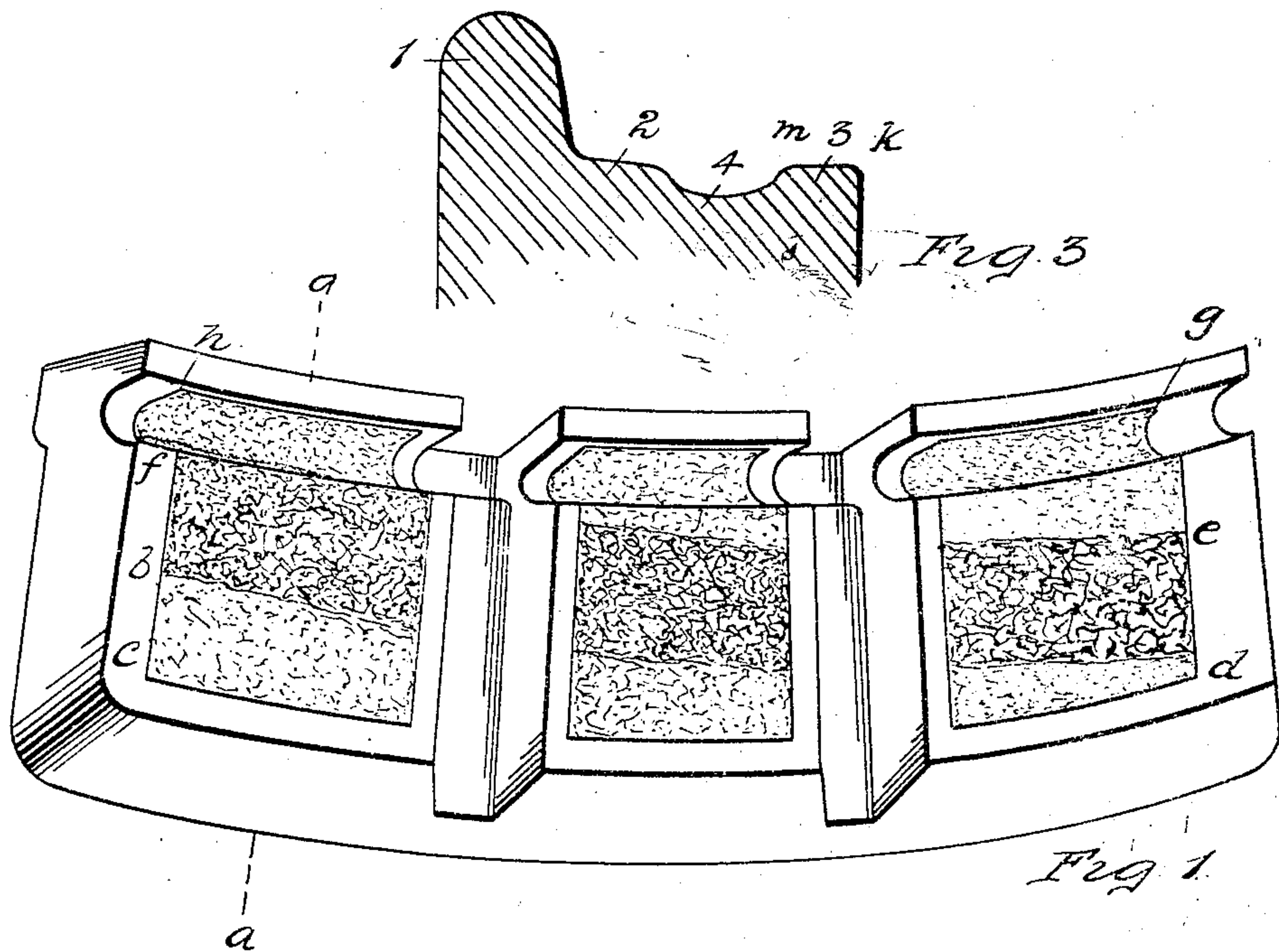


J. M. GRIFFIN.
 ABRADING SHOE FOR TRUING UP CAR WHEELS.
 APPLICATION FILED FEB. 15, 1909.

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Patented June 15, 1909.



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JUDSON M. GRIFFIN, OF DETROIT, MICHIGAN.

ABRADING-SHOE FOR TRUING UP CAR-WHEELS.

No. 925,170.

Specification of Letters Patent.

Patented June 15, 1909.

Application filed February 15, 1909. Serial No. 477,866.

To all whom it may concern:

Be it known that I, JUDSON M. GRIFFIN, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Abrading-Shoes for Truing Up Car-Wheels, and declare the following to be a full, clear, and exact description of the same, 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, which form a part of this specification.

This invention relates to abrading shoes for truing up car wheels.

It has for its object an improved abrading shoe adapted to be used to grind off parts from the periphery of wheels that have become irregular by being unevenly worn away in use.

In the drawings:—Figure 1, is a perspective of the improved shoe. Fig. 2, is a cross section of the same, at the lines *a—*a** of Fig. 1. Fig. 3, is a diagram, showing the cross sectional contour of an unevenly worn wheel. Fig. 4 is a perspective view, showing a shoe with a single abrading block. In Fig. 3 the irregularity is greatly magnified beyond that which would ordinarily occur in actual use.

In the use of car or locomotive wheels on tracks, the wheels commonly become worn and grooved around the periphery and intermediate the flange and the vertical inner face of the wheel, the wear taking place mostly on the tread of the wheel, and intermediate the side lines of the tread. In grinding or wearing off the wheel to produce a true, round surface again, it is necessary to cut down the flange 1, that part of the tread 2 which is nearest the flange and that part of the tread 3 which is most remote from the flange. The part intermediate between 2 and 3 is grooved or flattened, and it is not necessary to treat this part to so great an extent with the abrading shoe, as it is to treat the parts 2 and 3: between the high part 2 and the high part 3, the contour varies from the deepest part of wear 4 to the original surface of the wheel, and it is the object of this invention to provide a shoe having an abrading surface which shall present a greater amount of abrading action to the parts 2 and the parts 3 than is neces-

sarily presented to the low parts 4, and it is proposed also to present to the intermediate parts, between 2 and 4 and 3 and 4, an amount of abrading surface which increases somewhat in proportion to the distance from that which is immediately over the low part 4. To this end the abrading material is set into the shell in lines which are inclined to the side lines of the shell, so that the part bounded by lines *b* to *c*, *c* to *d*, *d* to *b* form a triangular figure filled with abrading material of a hard and cutting character, the parts bounded by lines from *b* to *d* to *e* to *f*, a somewhat quadrilateral in plan is filled with abrading material of less cutting material, or a material that is not essentially abrading in its character at all. The part from *f* to *e* to *g* to *h*, trapezoidal in plan, is filled with a hard and cutting abrading material. When this shoe is applied to the wheel for abrading purposes, the portion *b—c—d* lies along the wheel for substantially the entire length of the shoe, but lies across the wheel a distance that varies from the width *b—c* to the point of no width at *d*, and this effects a cutting against the part 3, which is much more efficient on the edge *k* than it is along the line *m* and as the part wears down the greatest efficiency of cutting is still on the broad face, and the same occurs on the surface 2. In operation this arrangement of the non-abrasive material in a diagonal strip gives equal wear at all points in any longitudinal line drawn through the shoe or around the periphery of the wheel, and gradually increasing wear from the bottom of groove up the inclined sides of the groove to the highest point, and maintaining the maximum cutting or wearing effect upon all of the highest points, where maximum grinding is needed.

What I claim is:—

An abrading shoe, having in combination with the shell, abrading material inserted therein in layers wider at one end of the shoe than at the other end, and a middle layer having substantially parallel sides, substantially as described.

In testimony whereof, I sign this specification in the presence of two witnesses.

JUDSON M. GRIFFIN.

Witnesses:

CHARLES F. BURTON,
VIRGINIA C. SPRATT.