

B. D. LOCKWOOD & F. M. WHYTE.
BRAKE SHOE.

APPLICATION FILED JULY 25, 1908.

Patented Sept. 22, 1908.

899,454.

FIG. 2.

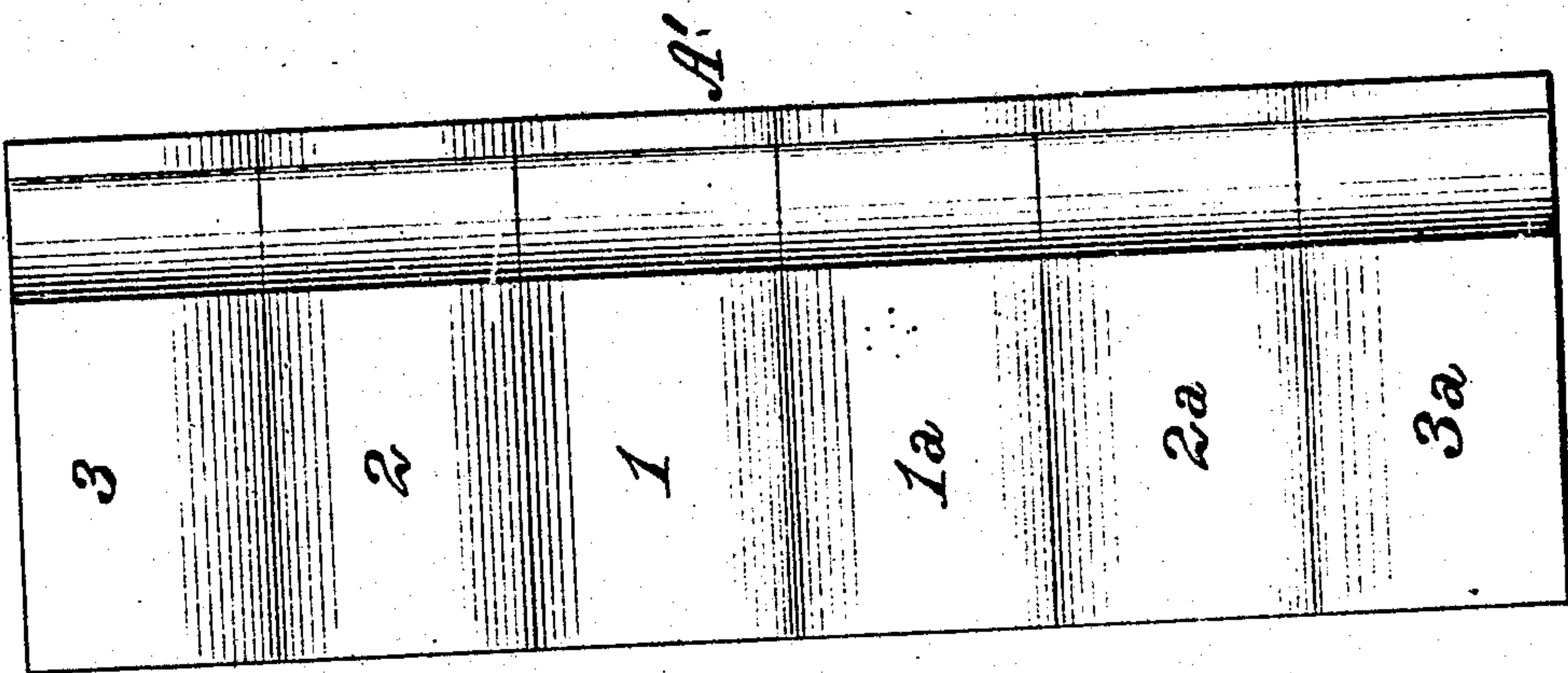


FIG. 1.

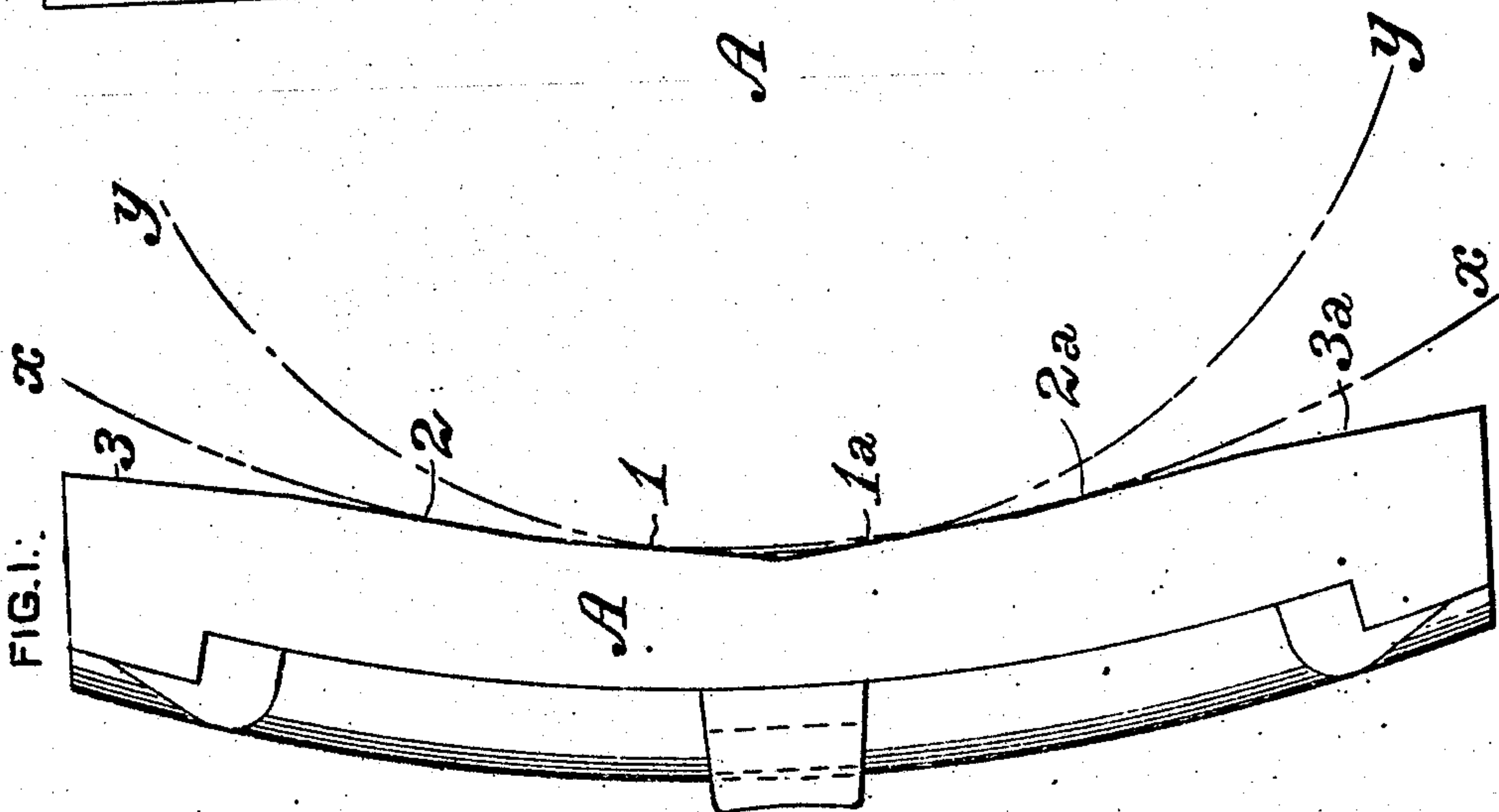
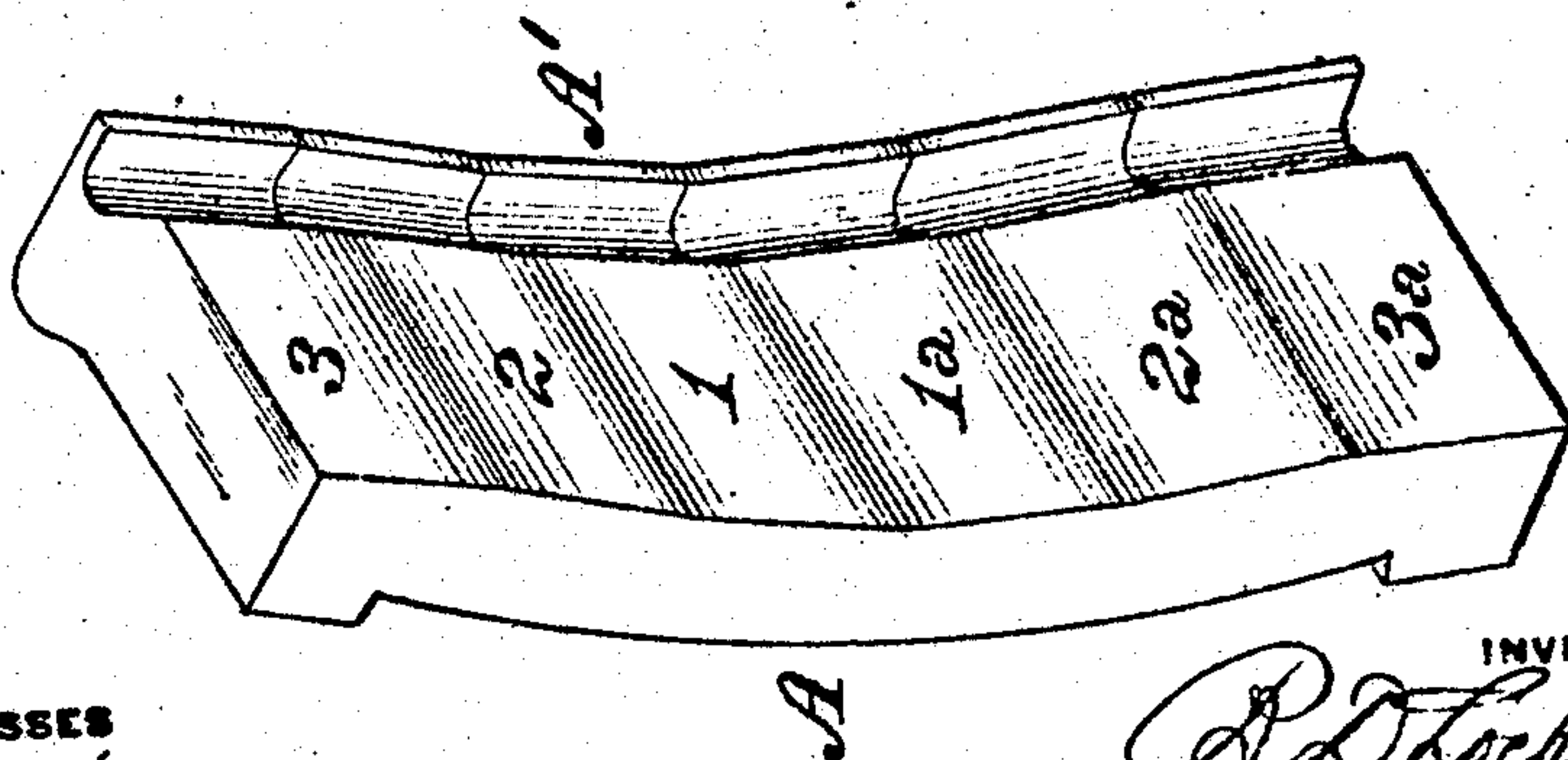


FIG. 3.



WITNESSES

James C. Herron
J. R. Bell.

INVENTORS

B. D. Lockwood,
F. M. Whyte,
by J. M. Bell, Att'y.

UNITED STATES PATENT OFFICE.

BURNS D. LOCKWOOD, OF INDIANAPOLIS, INDIANA, AND FREDERIC M. WHYTE, OF TARRYTOWN, NEW YORK.

BRAKE-SHOE.

No. 899,454.

Specification of Letters Patent.

Patented Sept. 22, 1908.

Application filed July 25, 1908. Serial No. 445,297.

To all whom it may concern:

Be it known that we, BURNS D. LOCKWOOD, of Indianapolis, in the county of Marion and State of Indiana, and FREDERIC M. WHYTE, of Tarrytown, in the county of Westchester and State of New York, have jointly invented a certain new and useful Improvement in Brake-Shoes, of which improvement the following is a specification.

The object of our invention is to provide a brake shoe which will be adaptable to use on wheels of various diameters, thereby obviating the necessity of making and keeping in stock, a special pattern and set of castings for each of the several diameters of locomotive and car wheels in service on a rail-road.

The improvement claimed is hereinafter fully set forth.

In the accompanying drawing: Figure 1 is a side view, in elevation, of a brake shoe illustrating an embodiment of our invention; Fig. 2, a face view of the same, and Fig. 3, a view in perspective.

In the practice of our invention, we provide a brake shoe, A, which, except as to its rubbing or wearing face, to which only our invention relates, may be of any of the various known types, and our invention consists in making said rubbing or wearing face in the form of a plurality of flat or plane surfaces, as 1, 1^a, 2, 2^a, 3, 3^a, which are inclined in pairs inwardly or in the direction of the curvature of the tread of the wheel to which the shoe is to be applied, at equal and progressively increasing angles in each pair, from the middle of the shoe towards its ends. The usual flange, A', for providing frictional surface to act upon a wheel flange, may, when desired, be formed on one side of the shoe, and in such case, the face of the groove of the flange similarly comprises a plurality of relatively inclined surfaces, each of which, while substantially semi-cylindrical in transverse section, presents a right line in longitudinal section at every part of its width, as in the case of the plane tread bearing surfaces of the shoe.

By reference to the curved lines *x x* and *y y* of Fig. 1, which indicate, respectively, the contour of a wheel tread of a large and of a small diameter, it will be seen that the

brake shoe will have two lines of contact and bearing on the wheel to which it is applied, whether the wheel be of large or of small diameter, and, in the case of either wheel, these lines of bearing will be on opposite sides of, and at equal distances from, the middle of the shoe, and at such distances from the connections of the latter to the brake head as to obviate liability to injurious strains upon the shoe. As the shoe wears down in service, the area of its bearing surface on the wheel tread will be gradually and correspondingly increased in either case.

The specific number of plane surfaces which make up the rubbing or wearing face of the brake shoe, is not an essential of our invention, as it may be greater or less in the discretion of those familiar with brake apparatus. Neither is it essential that said plane surfaces should, as shown in the drawing, immediately adjoin each other, as their separation by short spaces or recesses would not involve any departure from the principle and operative efficiency of our invention.

We claim as our invention and desire to secure by Letters Patent:

1. A brake shoe having a plurality of relatively inclined flat or plane surfaces on its rubbing or wearing face.
2. A brake shoe having its rubbing or wearing face composed of a plurality of relatively inclined flat or plane surfaces.
3. A brake shoe having a tread wearing face composed of a plurality of relatively inclined flat or plane surfaces, and a flange wearing face composed of a plurality of relatively inclined surfaces.
4. A brake shoe having, on its rubbing or wearing face, a plurality of flat or plane surfaces, which are inclined in pairs, inwardly or towards the curvature of a wheel tread, at equal and progressively increasing angles in each pair.

BURNS D. LOCKWOOD.
FREDERIC M. WHYTE.

Witnesses as to B. D. Lockwood:

A. C. CALDWELL,
J. P. BAKER.

Witnesses as to F. M. Whyte:

GEORGE A. PRICE,
JOHN J. DOWD.