J. J. KINZER.

BRAKE SHOE.

APPLICATION FILED AUG. 25, 1915.

1,166,993. Patented Jan. 4, 1916

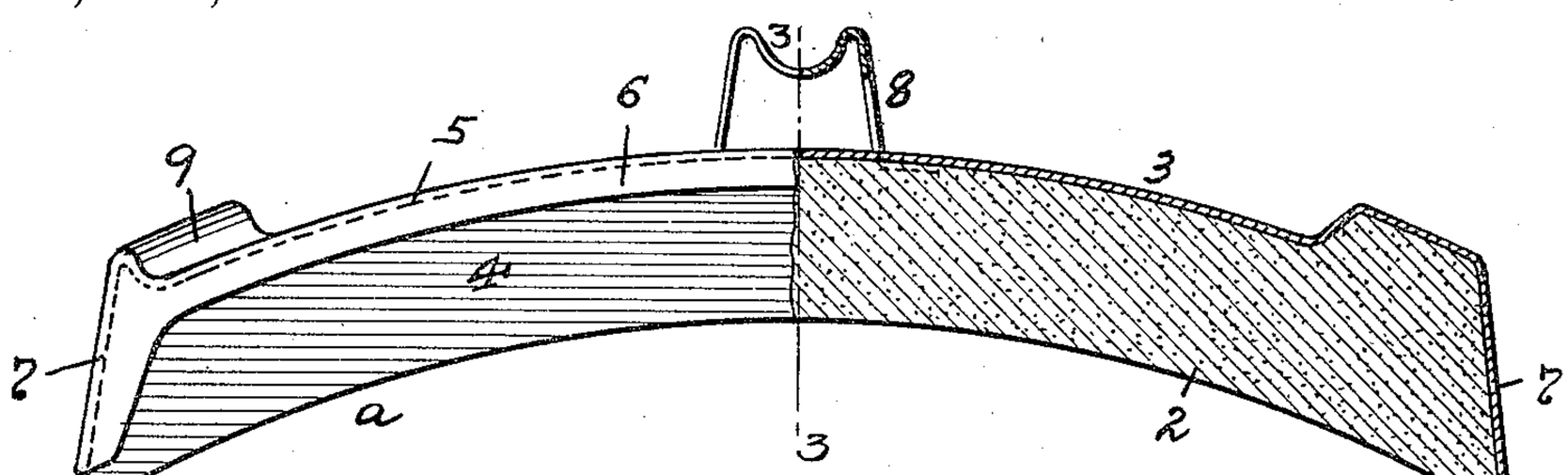

Fig. 1.

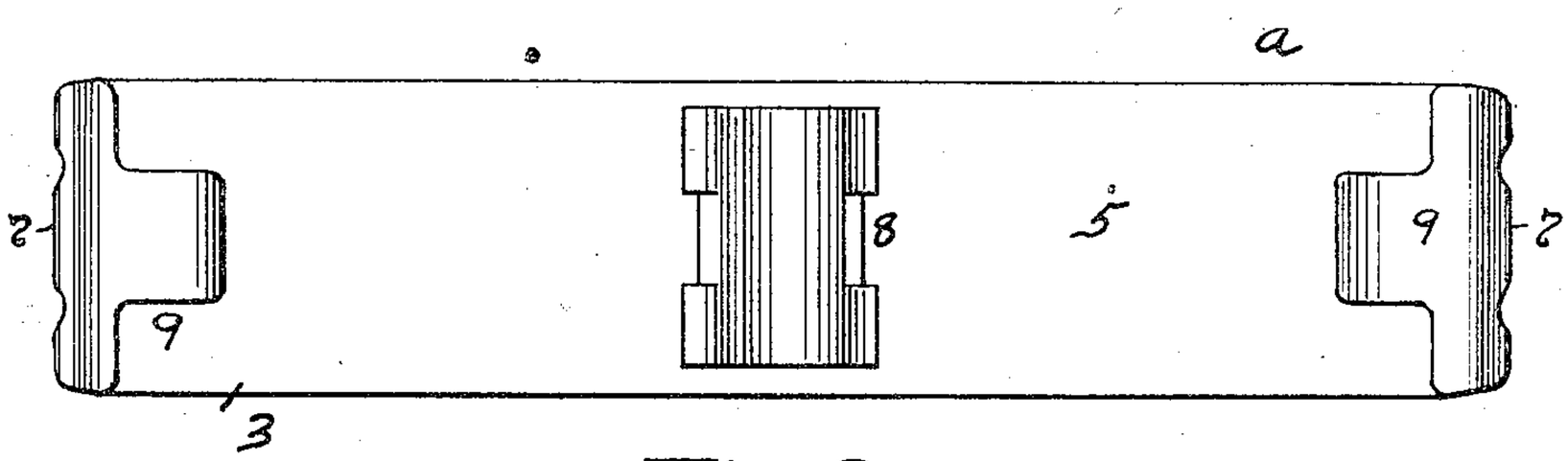

Fig. 2.

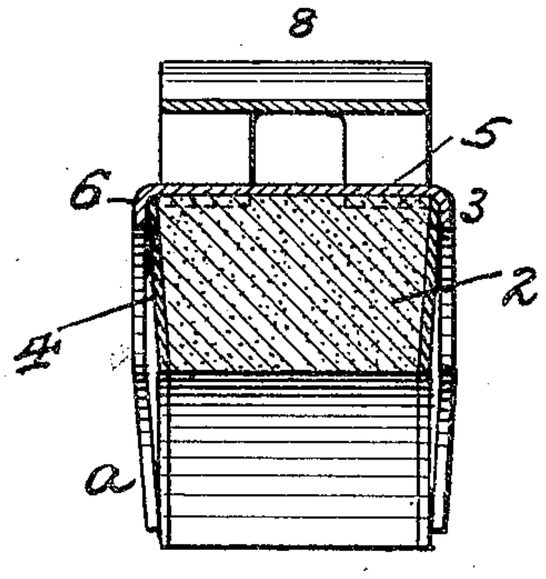

Fig. 3.

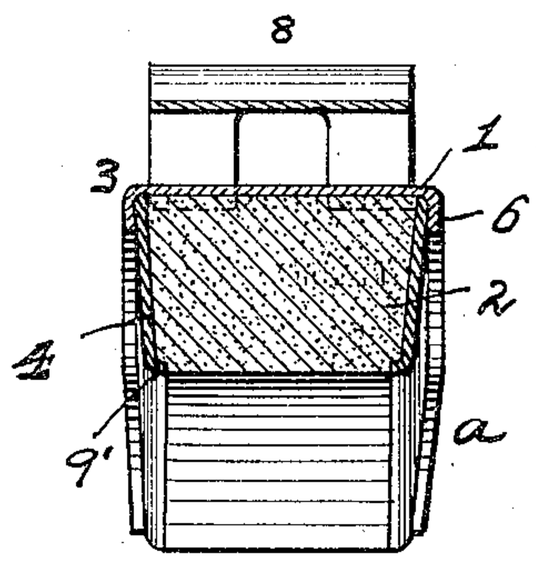

Fig. 4.

Witnesses:
Walter Famariss
J. M. Geoghegan.

Inventor:
John Jacob Kinzer,
By J. N. Cooke
Attorney.

UNITED STATES PATENT OFFICE.

JOHN JACOB KINZER, OF WILDWOOD, PENNSYLVANIA, ASSIGNOR TO PITTSBURG BRAKE SHOE COMPANY, OF PITTSBURGH, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

BRAKE-SHOE.

1,166,993. Specification of Letters Patent. Patented Jan. 4, 1916.

Application filed August 25, 1915. Serial No. 47,253.

To all whom it may concern:

Be it known that I, JOHN JACOB KINZER, a citizen of the United States, and a resident of Wildwood, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Brake-Shoes; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to brake-shoes, and has special reference to the class of such shoes which are provided with an inclosed metallic casing around a filling of frictional material for engagement with a wheel in braking.

The object of my invention is to provide a cheap, simple and efficient form of a brake-shoe wherein the sides will not cut into or wear down the throat of the wheel, and one in which the sides will wear down evenly and uniformly with the filling of frictional material.

To these ends, my invention consists, generally stated, in the novel arrangement, construction and combination of parts, as hereinafter more specifically set forth and described and particularly pointed out in the claims.

To enable others skilled in the art to which my invention appertains to construct and use my improved brake-shoe, I will describe the same more fully, referring to the accompanying drawing, in which:

Figure 1 is a side elevation partly in section of a brake-shoe constructed in accordance with my invention; Fig. 2 is a plan or back view of the same; Fig. 3 is a cross-section of the shoe on the line 3—3 Fig. 1; and Fig. 4 is a sectional view showing another form of the shoe.

Like symbols of reference herein indicate like parts in each of the figures of the drawing.

As illustrated in the drawing my improved brake-shoe shown at *a* is of the usual curvature and comprises an inclosing casing 1, and a filling 2 of frictional material inserted within such casing. This filling material 2 is adapted to engage with the wheel and the rubbing or frictional action of the brake-shoe upon the wheel is exhausted by such frictional member 2, which consists of any suitable metal composition of matter, or other material secured within the casing 1 to exert proper and sufficient friction upon the periphery of the wheel without the imposition of undue or excessive pressure thereon. The inclosing casing 1 for the filling member 2 consists of a metallic cap 3 and the side pieces or plates 4, which are formed of fiber or other suitable soft material, such as wood, soft iron or other metal. The cap 3 is provided with an integral back wall 5, side lips 6 and end walls 7, and such end walls are deeper or larger than said side walls. The usual supporting lug 8, through which the brake-shoe is connected to the brake-head or hanger (not shown) is fixed to the back 5 in any suitable manner, and the usual bearings 9 are formed on such back 5, adjoining its ends, to abut against bearings on the ends of such brake-head or hanger, while central or intermediate bearings on said head or hanger are adapted to abut against said back and on each side of the lug 8.

In the formation of the brake-shoe *a*, after the metallic cap 3 is formed, with the lug 8 connected to the back 5 in any suitable manner, the soft or fibrous side pieces or plates 4 and filling material 2 are inserted within such cap in any suitable manner, so that when so placed, such pieces or plates will form the side walls of the shoe and assist with such cap in holding the filling in place, as such side walls are tapered inwardly on such shoe.

By soft, as used in the above specification and appended claims, it is understood that the material used for the sides of the shoe, is of such a nature, as to be worn away itself, rather than cause the wearing away of the wheel to which the brake-shoe is applied.

It will thus be seen that my improved brake-shoe will prevent any possibility of the uneven wearing of the wheel throat, and will also enable the filling and sides of the shoe to wear down evenly, uniformly and together, while such form of shoe will avoid any excessive wear on the wheel by the sides of the shoe, and enable the placing of separate sides on the shoe made of a material suitable for the wheel to be engaged by such shoe.

If desired, the outer ends of the side pieces or plates 4 can be curved or rounded, as at 9′, in Fig. 4 in order to conform to the throat of the wheel, while various other modifications and changes in the design and

construction of my improved brake-shoe may be resorted to, without departing from the spirit of the invention or sacrificing any of its advantages.

What I claim as my invention and desire to secure by Letters Patent is:—

1. A brake-shoe having an inclosing casing and a filling material, said casing comprising a cap and separate side plates formed of a soft material and supported by said cap and filling material.

2. A brake-shoe having an inclosing casing and a filling material, said casing comprising a cap and separate side plates formed of a fibrous material and supported by said cap and filling material.

3. A brake-shoe having an inclosing casing and filling material, said casing comprising a cap having an integral back, ends and side lips, and separate side plates formed of a soft material supported by said lips and filling material.

4. A brake-shoe having an inclosing casing and a filling material, said casing comprising a cap having an integral back, ends and side lips, and separate side plates formed of a fibrous material and supported by said lips and filling material.

5. A brake-shoe having an inclosing casing and a filling material, said casing comprising a supporting member, and separate side plates supported by said member and filling material.

6. A brake-shoe comprising a receptacle having open sides, filling material in said receptacle, and separate side plates for retaining said filling material in said receptacles and for protecting the sides of said filling material.

7. In a brake-shoe, a body portion formed of frictional material, and separate side members for protecting the sides of said body portion, said side members being of a material having a lesser wearing quality than the wheel engaged by such shoe.

In testimony whereof, I the said JOHN JACOB KINZER have hereunto set my hand.

JOHN JACOB KINZER.

Witnesses:
J. N. COOKE,
JOHN F. WILL.