R. L. BROWN.

BRAKE SHOE.

APPLICATION FILED MAY 4, 1908.

910,494.

Patented Jan. 26, 1909.

2 SHEETS—SHEET 1.

Fig. 1

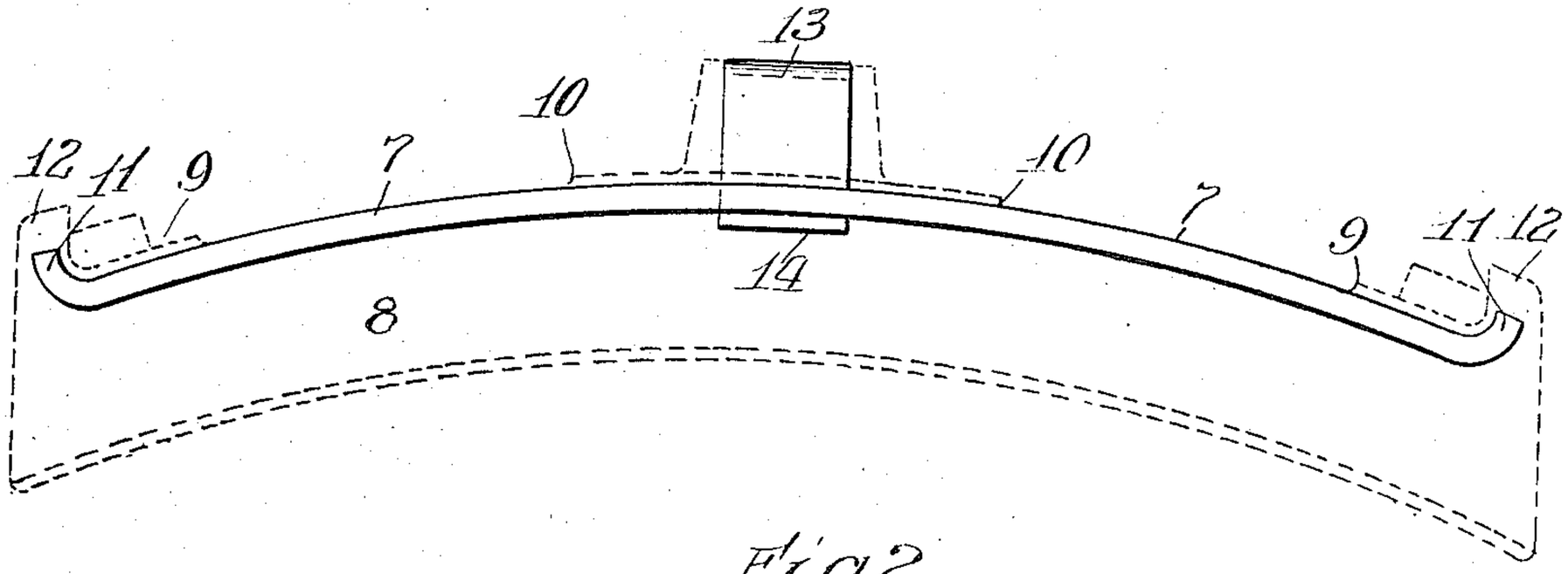


Fig. 2

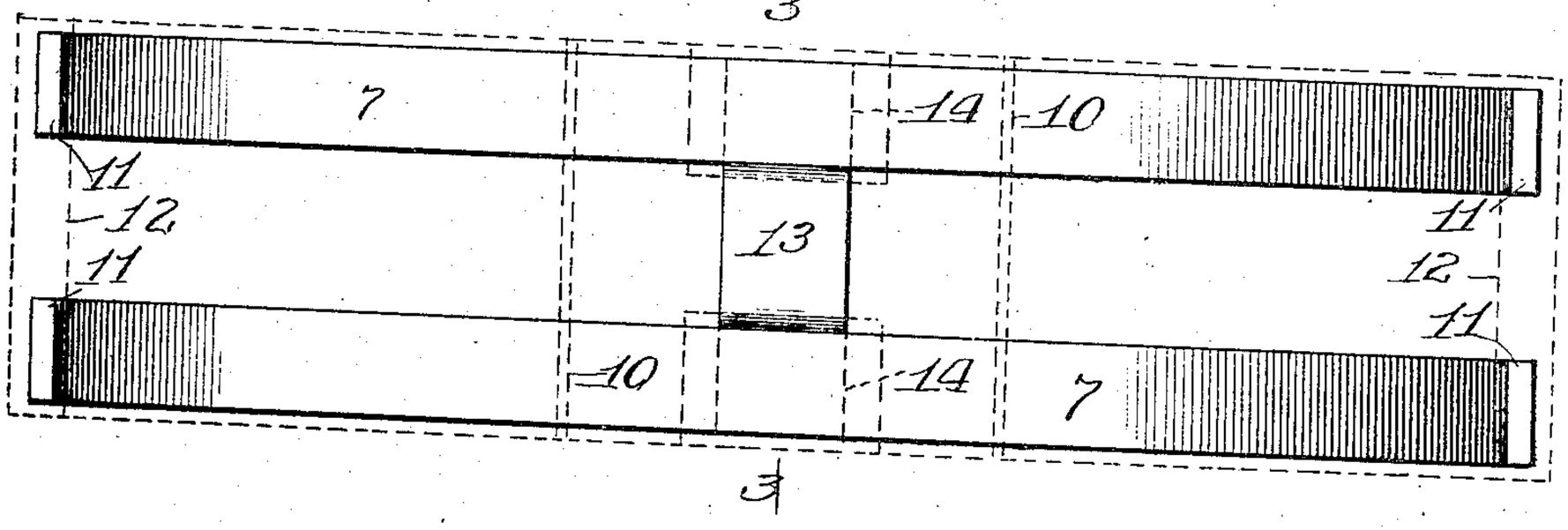
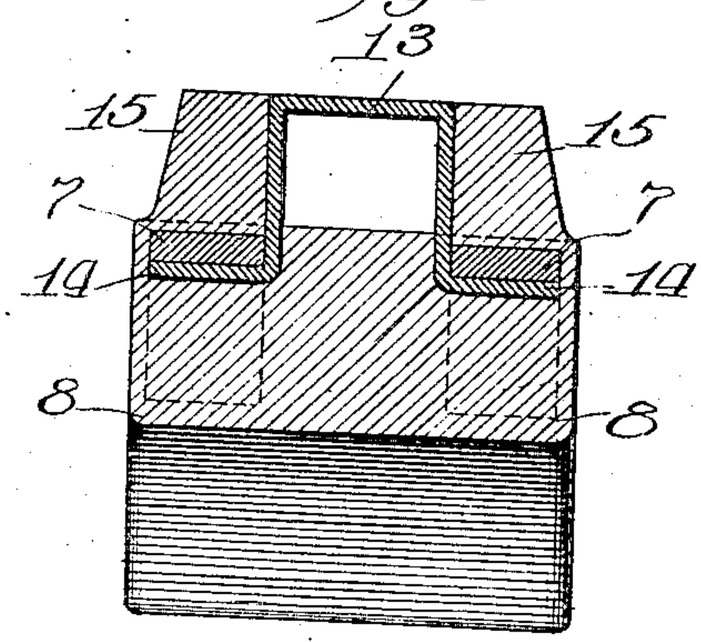


Fig. 3



Witnesses:
Harry R. Lubke
M. A. Riddle

Inventor:
Rudolph L. Brown
By Wright Bell Atty.

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2 SHEETS—SHEET 2.

Fig. 4

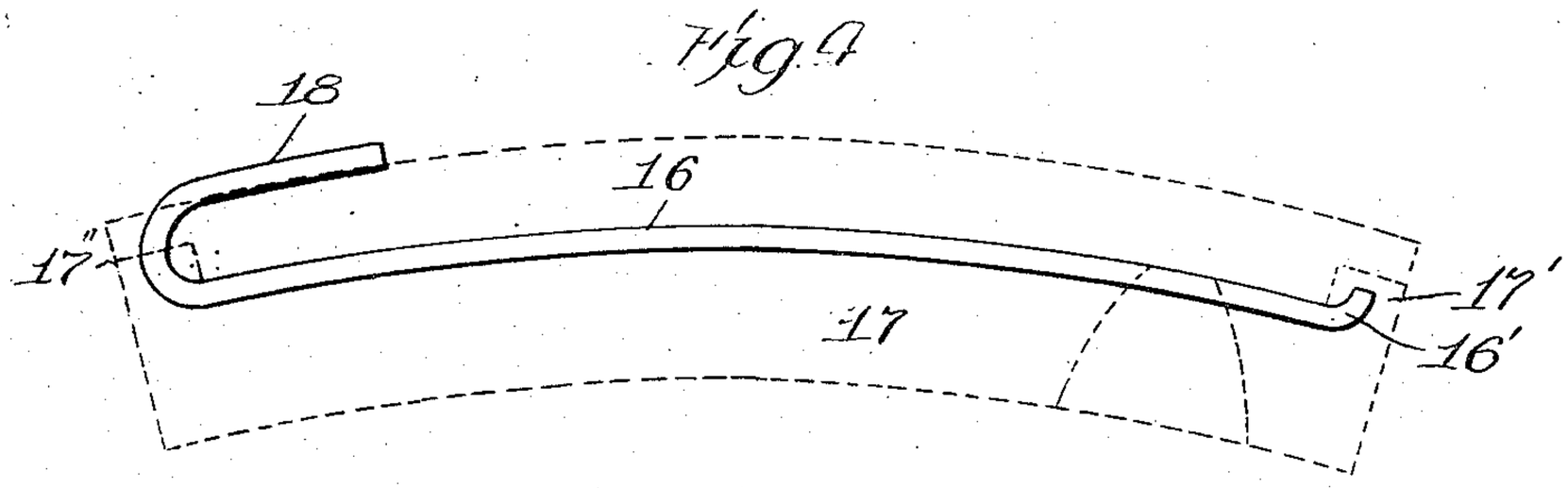


Fig. 5.

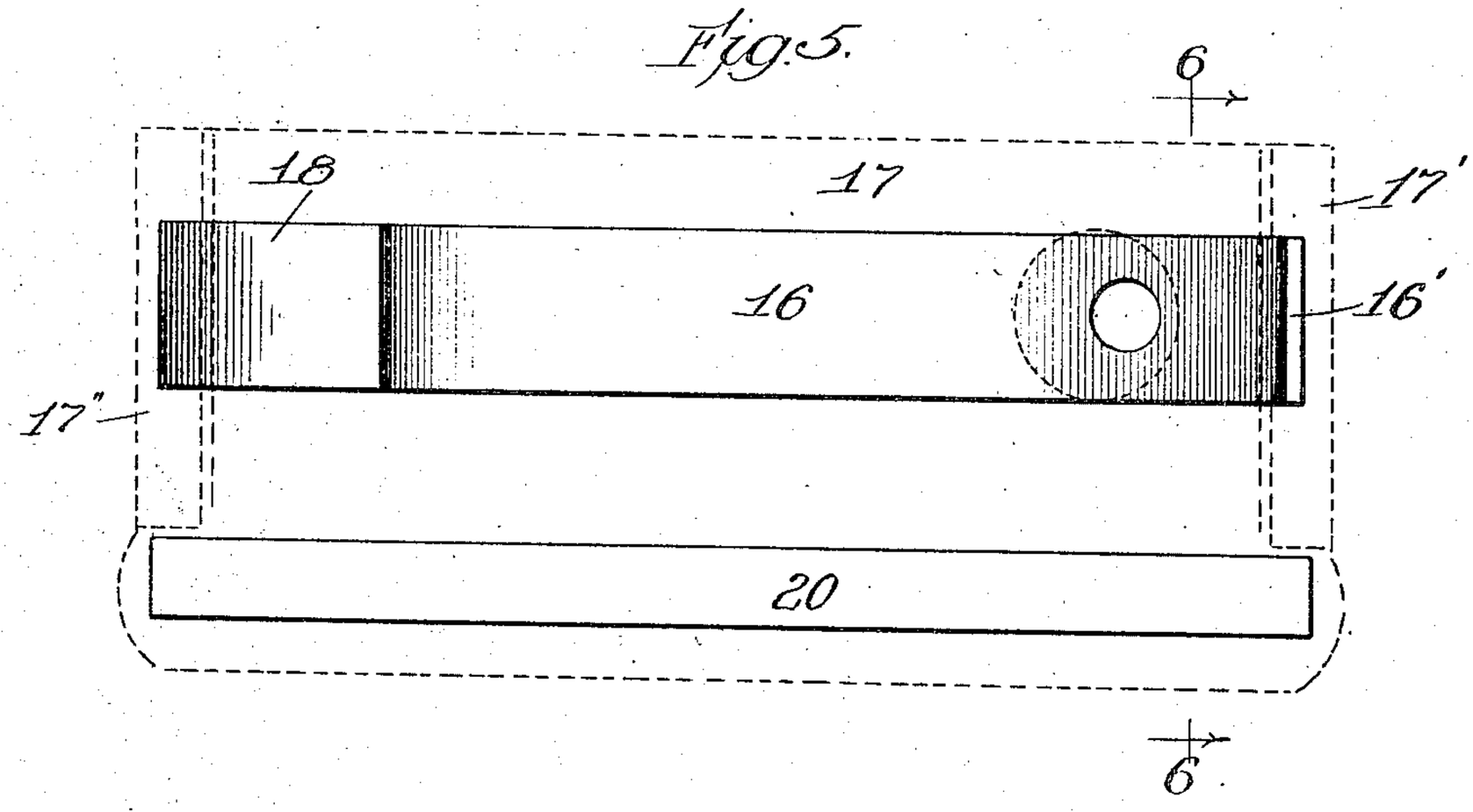
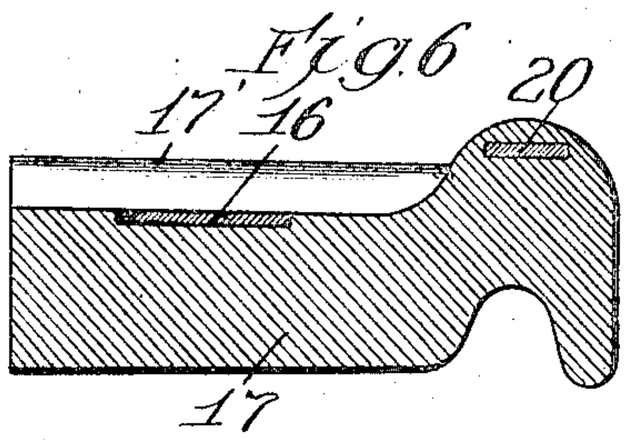


Fig. 6



Witnesses
Harry R. Lewis
M. A. Kiddie

Inventor:
Rudolph L. Brown
By Wm. C. Dale Atty.

UNITED STATES PATENT OFFICE.

RUDOLPH L. BROWN, OF CHICAGO, ILLINOIS.

BRAKE-SHOE.

No. 910,494. Specification of Letters Patent. Patented Jan. 26, 1909.

Application filed May 4, 1908. Serial No. 430,678.

To all whom it may concern:

Be it known that I, RUDOLPH L. BROWN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Brake-Shoes, of which the following is a specification.

The object of this invention is to reinforce and strengthen a brake shoe so that it can be worn thin without breaking and to hold the parts of the body together in event of fracture.

In the accompanying drawings I have illustrated the invention embodied in a car shoe and in a locomotive driver shoe, both of the common or solid cast iron type, but it will be understood that the invention may be embodied in a composite shoe having inserts of any kind. I prefer, however, to use the inserts arranged in the manner illustrated and described in my Letters Patent No. 716,984 dated December 30, 1902.

Referring to the drawings Figure 1 shows the invention embodied in a car shoe, the body of the shoe being indicated in broken lines. Fig. 2 is a top plan view of the car shoe shown in Fig. 1 with the body similarly indicated. Fig. 3 is a sectional view on the line 3—3 of Fig. 1. Fig. 4 shows the invention embodied in a locomotive driver shoe. Fig. 5 is a plan view of the shoe shown in Fig. 4. Fig. 6 is a transverse sectional view on the line 6—6 of Fig. 5.

The reinforce for the shoe comprises two strips 7 of band metal on which the body 8 of the shoe is cast. These strips extend lengthwise of the shoe and are properly bent to conform to the curvature thereof. I prefer to locate the strips at the back of the shoe so that they will be exposed more or less between the end guides 9 and the boss 10 of the attaching lug. The ends 11 of the strips are cut square and bent outward into the end lugs 12 on the body and this is done to prevent any portion of the body from slipping off the strips in case the body is fractured. The strips are preferably located at the extreme back of the shoe to enable the maximum degree of wear and the upturned ends on the strips will prevent any portion of the body slipping off the strips if the body is fractured when worn thin. The attaching lug (Fig. 3) is formed by an arch 13 having its ends 14 bent laterally to lie beneath the strips 7. The body metal may be allowed to flow up alongside of the arch at 15, if desired.

In the locomotive driver shoe shown in Figs. 4–6 the reinforce strip 16 is preferably located flush with the back of the body 17 and it has one end 16′ bent outward and embedded in the end lug 17′ and its other end bent to pass up through the end lug 17″ and form the attaching hook 18. This strip 16 is preferably made somewhat wider than the strips for a car shoe and it is provided with a bolt hole 19 to receive the bolt whereby the shoe is attached to its head. The reinforce strip 20 is located at the back of the flanged part of the shoe. The strips are made of what is commonly called "band metal", and they may be either iron or steel. I contemplate reducing the cost of manufacture by using band metal which is found in scrap piles for this can be purchased cheaply and it will fill all requirements. The strips reinforce and strengthen the shoe against fracture and in event of fracture, especially when the shoe is worn thin, they will hold the parts together to prevent any part from falling on the track and so that the shoe may continue in service. The arch constitutes a simple and effective means for providing a strong and substantial attaching lug on the car shoe and the hook similarly provides strong and substantial means for attaching the driver shoe. With my invention the shoe can be used until it is worn very thin and consequently there is a saving in the "scrap."

What I claim and desire to secure by Letters Patent is:

A brake shoe comprising a body, end lugs cast integral with the body, and a reinforce made of flat band metal embedded in the body at the back thereof and partly exposed between the ends of the shoe, the ends of said reinforce being cut square and bent outwardly into said end lugs.

RUDOLPH L. BROWN.

Witnesses:
WM. O. BELT,
M. A. KIDDIE.