

J. S. THOMPSON.
BRAKE SHOE.

APPLICATION FILED APR. 13, 1908.

907,918.

Patented Dec. 29, 1908.

Fig. 1.

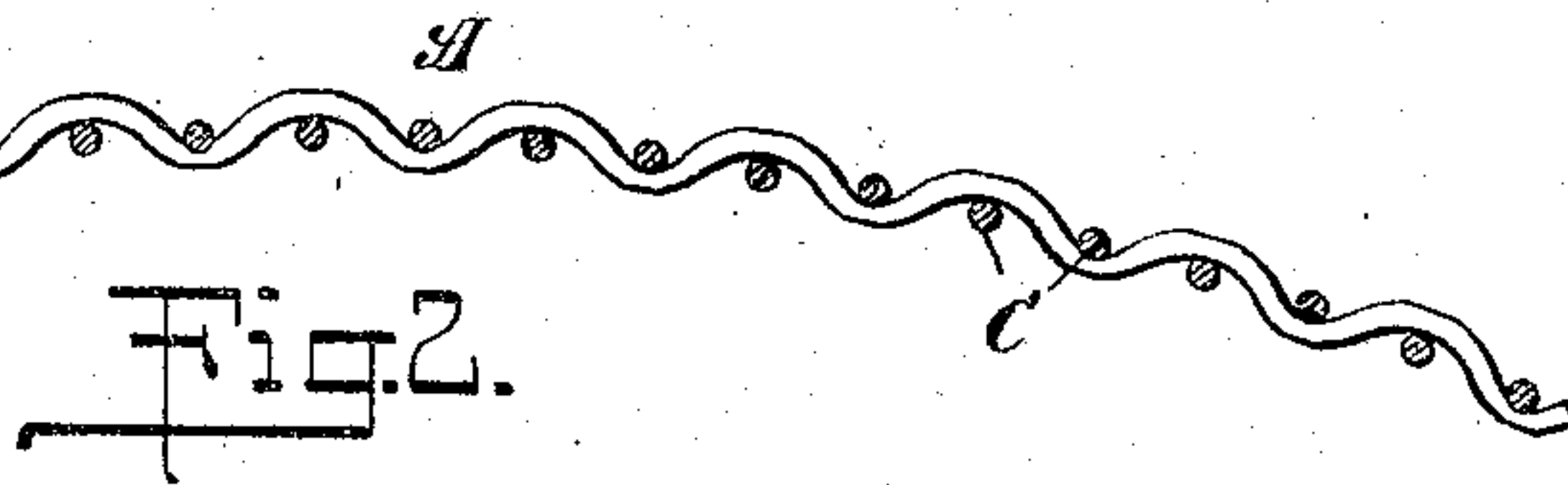
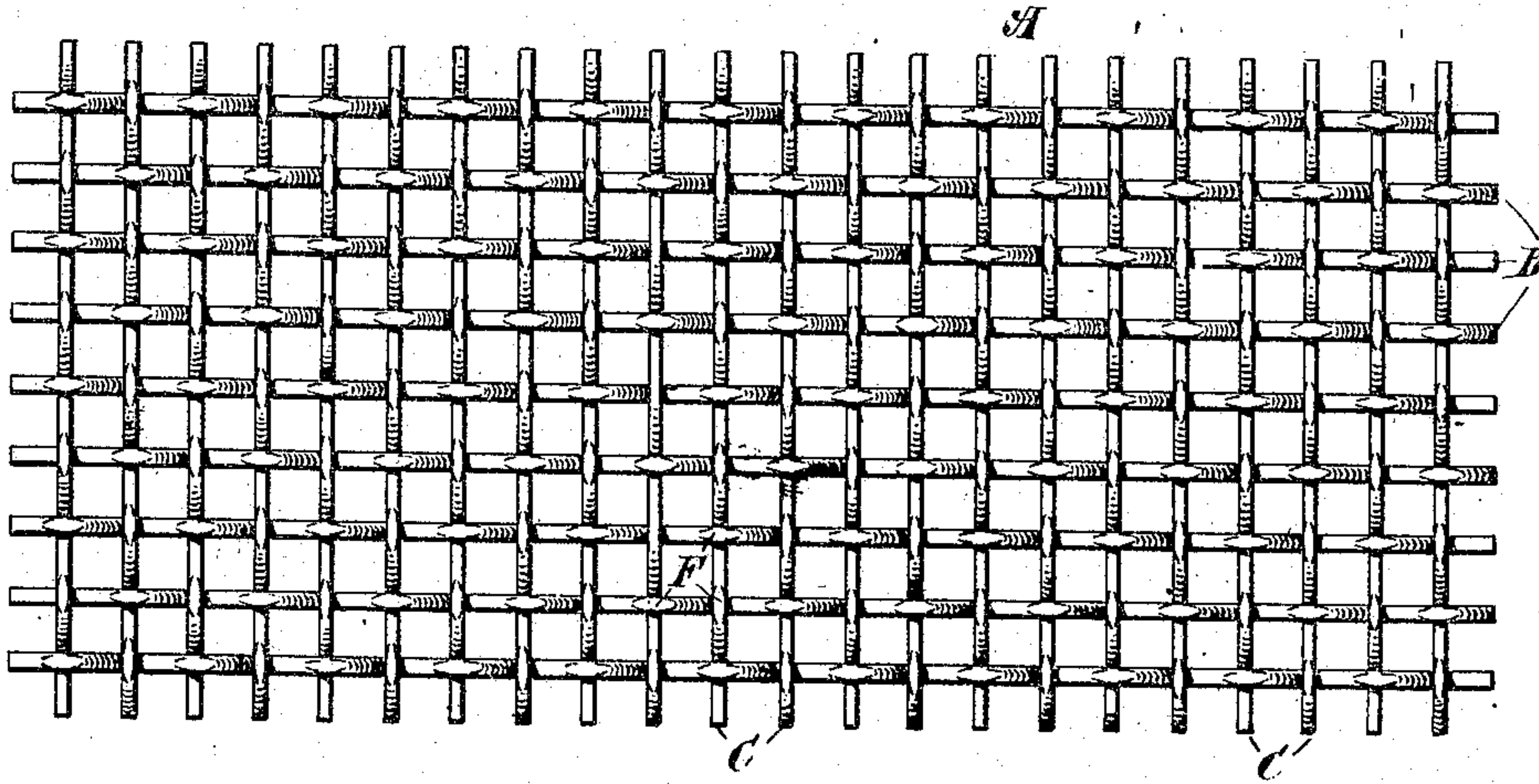


Fig. 3.

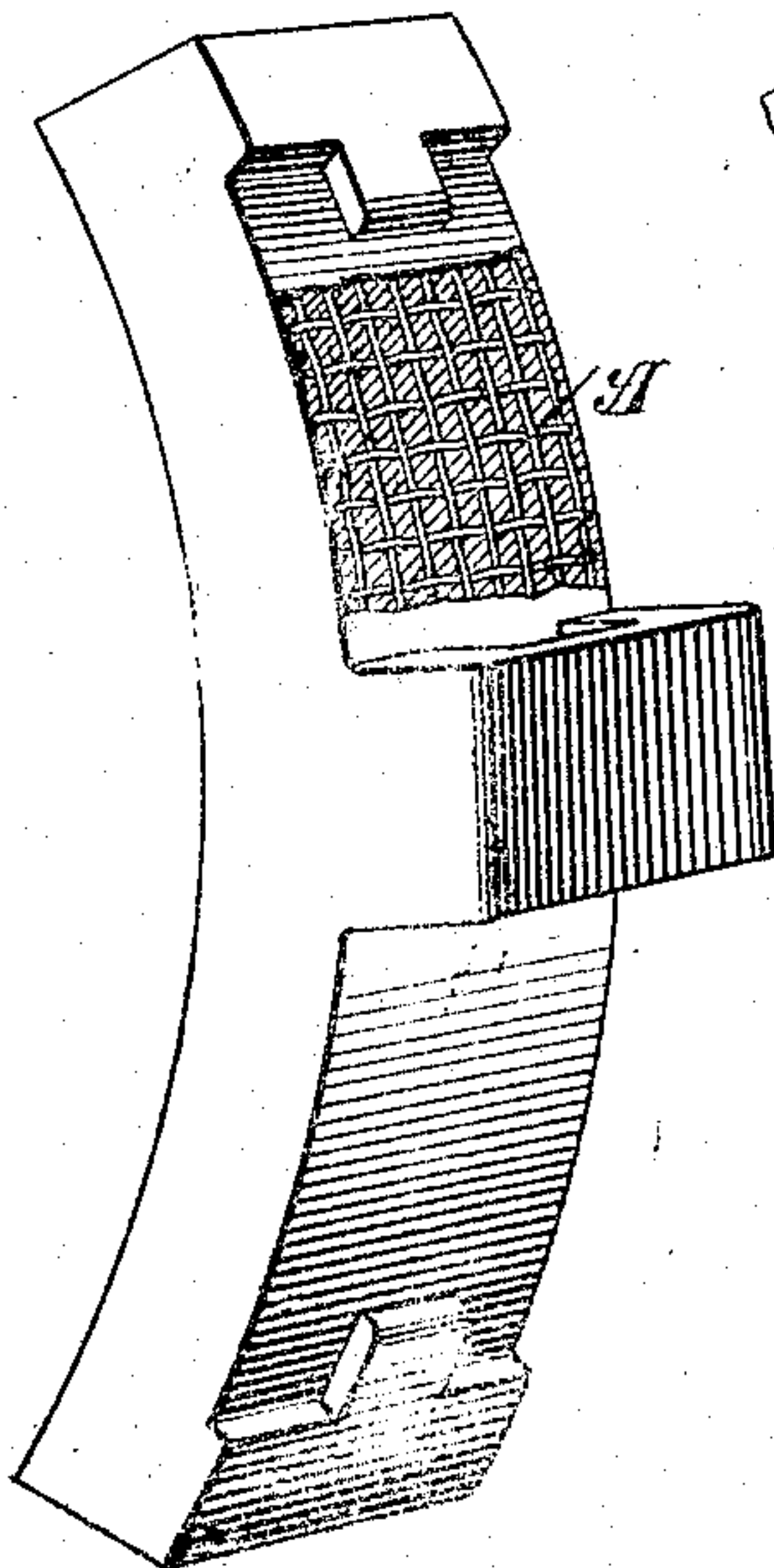


Fig. 6.

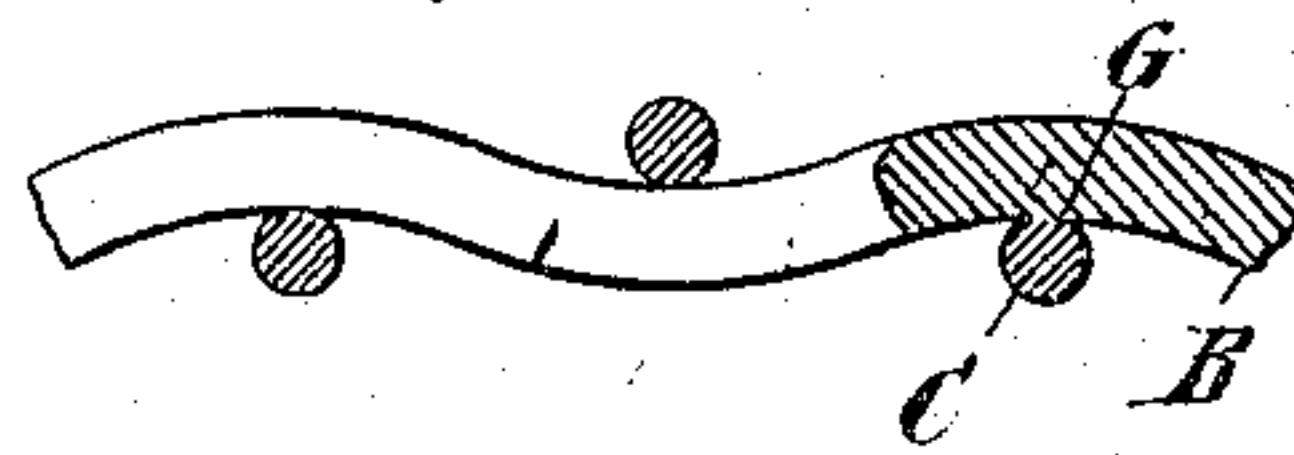


Fig. 7.

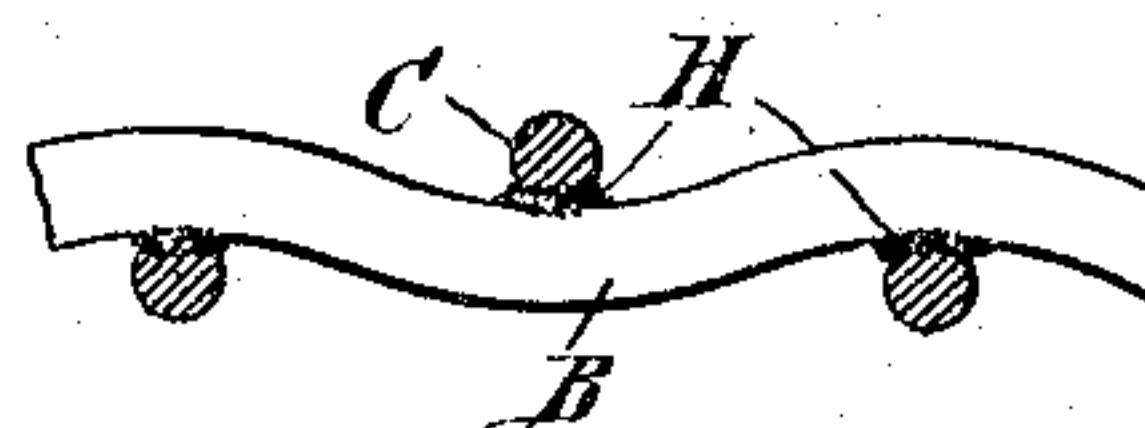


Fig. 4.

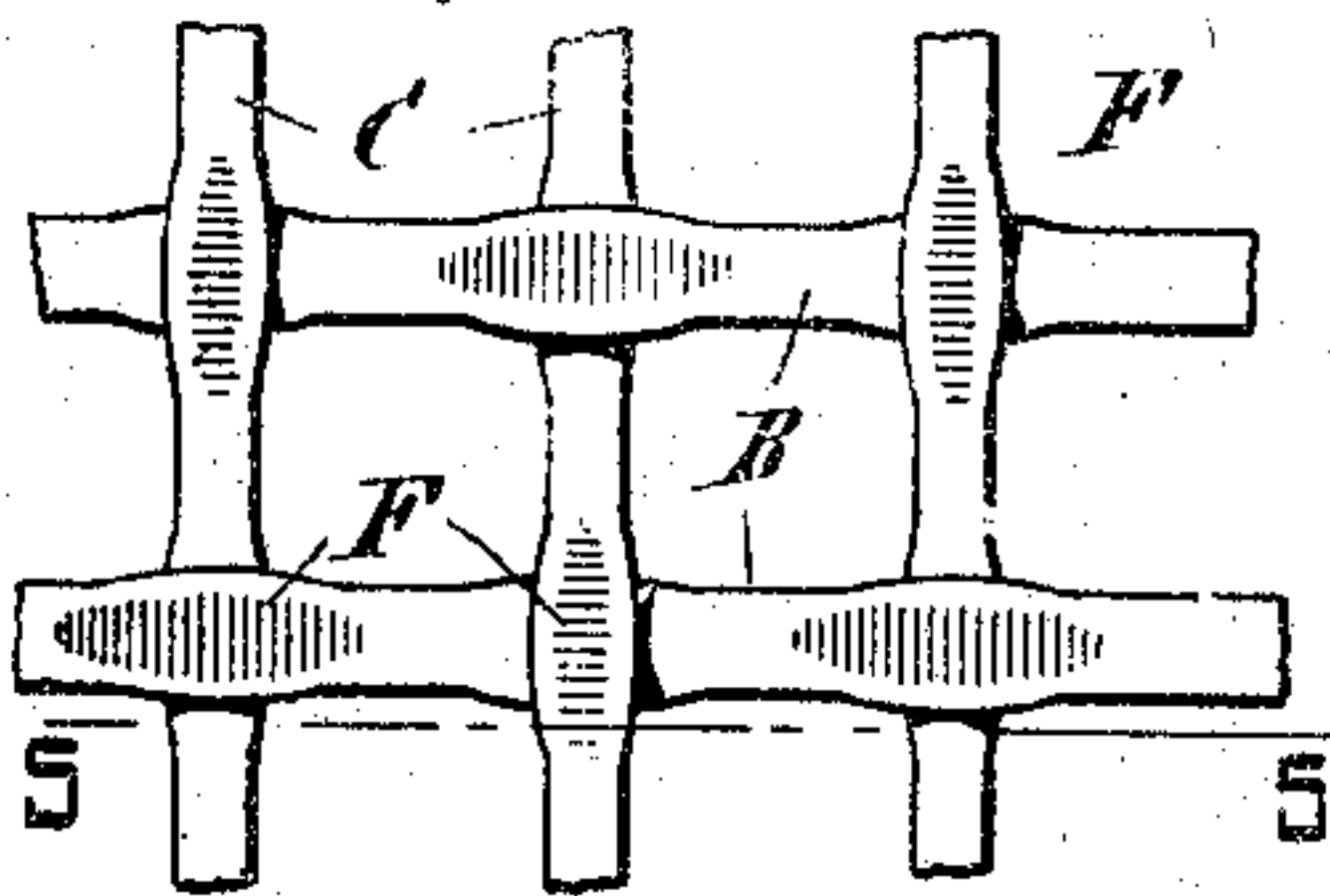
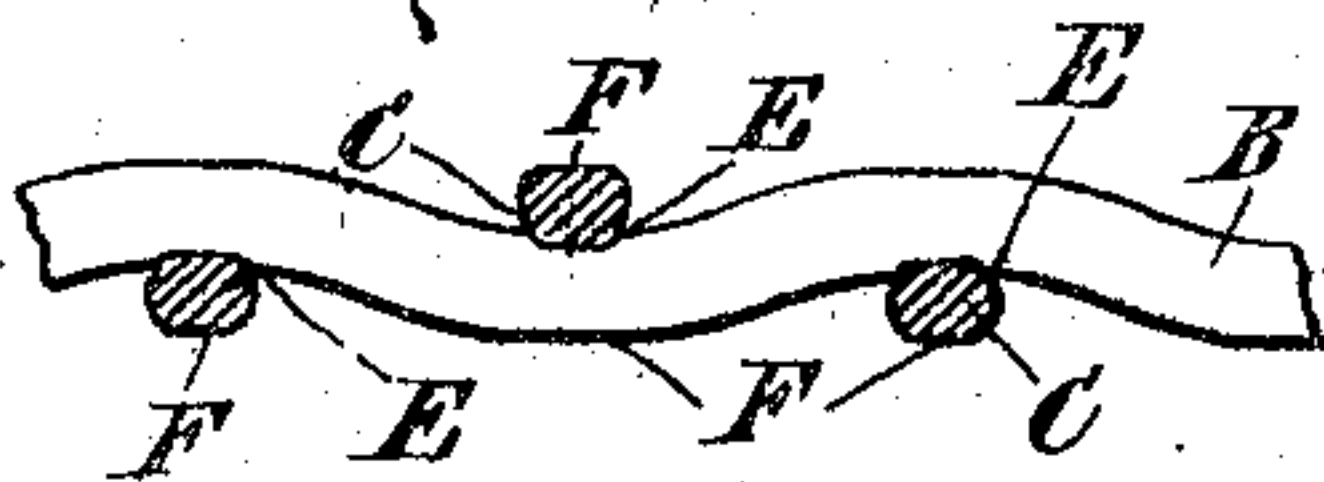


Fig. 5.



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BRAKE-SHOE.

No. 907,918.

Specification of Letters Patent.

Patented Dec. 29, 1908.

Application filed April 13, 1908. Serial No. 426,644.

To all whom it may concern:

Be it known that I, JAMES S. THOMPSON, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have made and invented certain new and useful Improvements in Brake-Shoes, of which the following is a specification.

My invention relates to an improvement in brake shoes, such as are used on locomotives, and railroad or railway cars, and more particularly to brake shoes which consist of a cast iron body portion having a reinforcing member made of steel, wrought iron, or other ductile metal embedded therein, whereby in the event of a fracture of the body portion for any reason, the parts of the shoe will be held together and prevented from dropping onto the rails.

More specifically my invention relates to an improvement of the brake shoe shown and described in Letters Patent No. 642,318, granted to J. D. Gallagher, January 30th, 1900. In this patent is shown a reinforcing member consisting of a wire mesh or netting in which the longitudinal and transverse strands are not connected at their intersecting points, and I have found that the strands may at times be shifted or displaced from their normal positions during the course of construction.

The purpose of my present invention is to overcome this difficulty, and I accomplish the same by constructing a wire mesh or netting, in which the strands are securely fastened at their points of intersection, thereby positively preventing any possible displacement of the same.

With this and other ends in view, my invention consists in certain novel features of construction and combination of parts, as will be hereinafter fully described and pointed out in the claims.

In the accompanying drawings Figure 1 is a plan view of a strip of wire mesh or netting of the proper dimensions to form a reinforcing member. Fig. 2 is a longitudinal sectional view of the same after it has been bent or curved to conform to the curvature of the shoe. Fig. 3 is a perspective view of the shoe, part being broken away to show the reinforcing member in position. Fig. 4 is an enlarged detail view of a portion of the wire mesh or netting shown in Fig. 1. Fig. 5 is a sectional view taken on the line 5—5 of Fig. 4. Figs. 6 and 7 are detail sectional views,

similar to Fig. 5, showing modified forms of construction.

Referring to the drawings, A represents the reinforcing member which consists of a strip of wire mesh or netting having openings of suitable size, and comprising longitudinal strands B and transverse strands C, the longitudinal strands being preferably somewhat heavier or of greater diameter than the transverse strands, owing to the fact that they are subjected to a greater strain, although it will be understood that both sets of strands may be of the same diameter without departing from the spirit of my invention. The width of the strip A is slightly less than the width of the shoe in which it is to be embedded, and its length is such that, when it is curved to conform to the curvature of the shoe, its curvilinear length will be slightly less than the curvilinear length of the shoe.

At their points of intersection D, the longitudinal and transverse strands are firmly secured against movement in any suitable manner, whereby all danger of their shifting or altering their relative positions, is positively prevented. As indicated in Figs. 4 and 5, the wire mesh or netting has been subjected to pressure while cold, as for example, by being passed between suitable rolls, as a result of which the strands will be forced together, thereby forming interlocking depressions in their contacting surfaces at their points of intersection, as indicated at E, Fig. 5, thereby being firmly held against relative movement, and the outer surfaces or portions of the strands at said points will be slightly flattened as indicated at F. If desired, the wire mesh or netting may be first heated, and then subjected to pressure, as for example by being passed between rolls, in which case the strands will be welded together, at their intersecting points as indicated at G, Fig. 6.

In the modification shown in Fig. 7, the strands are rigidly secured against movement by means of solder applied thereto at their intersecting points, as clearly indicated at H.

While I have shown and described three methods of accomplishing the desired result, it will of course be understood that any other method may be employed without departing from the spirit of my invention, which is to so secure or fasten the strands at their points of intersection, that any dis-

placement, shifting or relative movement thereof will be positively prevented.

In constructing the shoe, the strip of wire mesh or netting A formed as above described, is first bent or curved in any suitable manner, to conform to the curvature of the shoe, as shown in Fig. 2, after which it is placed in a suitable mold at or adjacent to the back thereof, and the molten metal constituting the body of the shoe is then poured into said mold, which molten metal, as will be readily understood, will flow around the strands of the strip and when cold, will firmly anchor the same in the body of the shoe, as indicated in Fig. 3. During the bending or curving of the wire mesh, and also during the casting process, it will be impossible for the strands to shift their relative positions or become displaced in any way, owing to the rigid connections which exist between them at their intersecting points.

It will thus be seen that I have provided a brake shoe comprising a very efficient reinforcing member which will retain its original configuration during the construction of the shoe, and which will be inexpensive to manufacture.

Having fully described my invention, what

I claim as new and desire to secure by Letters Patent, is:—

1. In a brake shoe, the combination with a body portion, of a reinforcing member of wire mesh, the strands of which, prior to casting said body portion thereon, are secured against shifting at their intersecting points, substantially as described.

2. In a brake shoe, the combination with a body portion, of a reinforcing member of wire mesh, the strands of which, prior to casting said body portion thereon, are connected at their intersecting points, substantially as described.

3. In a brake shoe, the combination with a body portion, of a reinforcing member of wire mesh, the strands of which, prior to casting said body portion thereon, are welded together at their intersecting points, substantially as described.

Signed at Chicago, in the county of Cook and State of Illinois, this 8th day of April 50 A. D. 1908.

JAMES S. THOMPSON.

Witnesses:

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