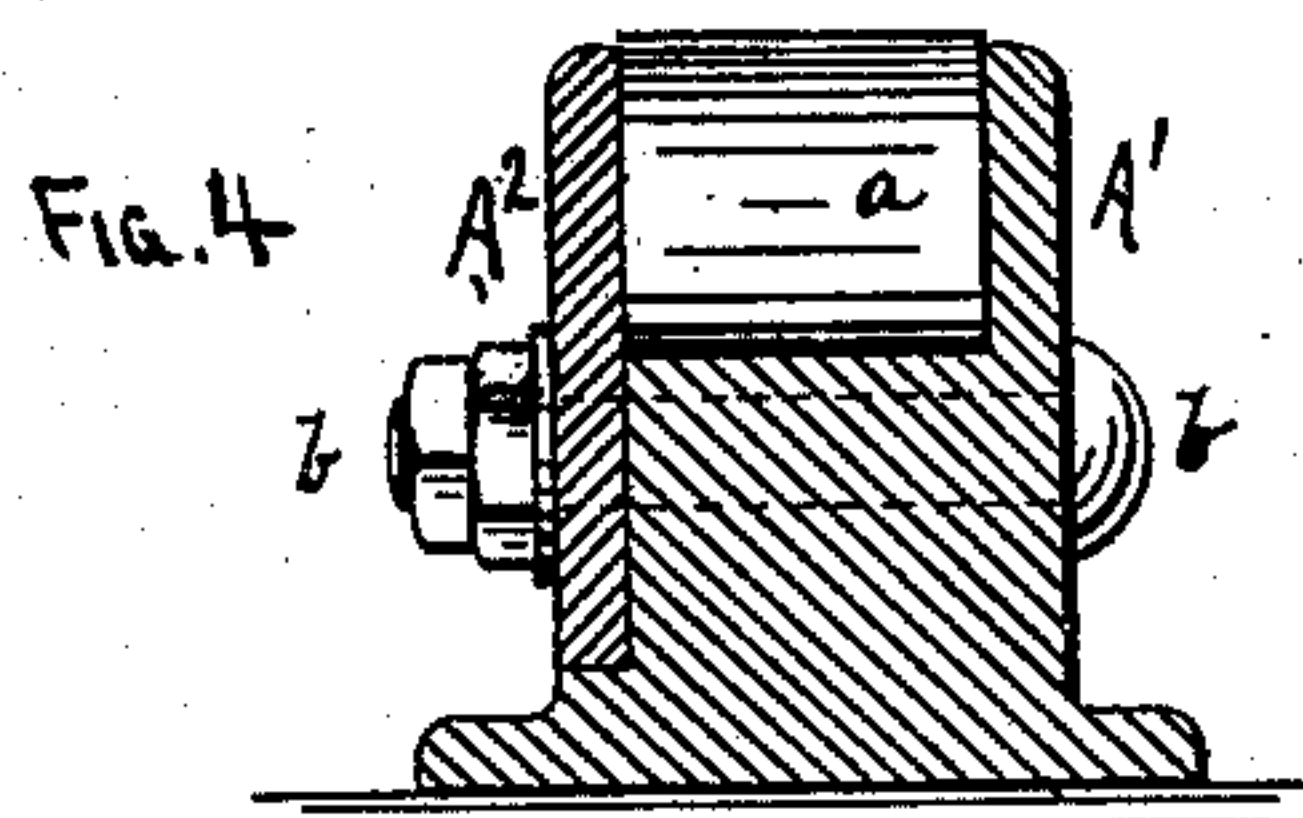
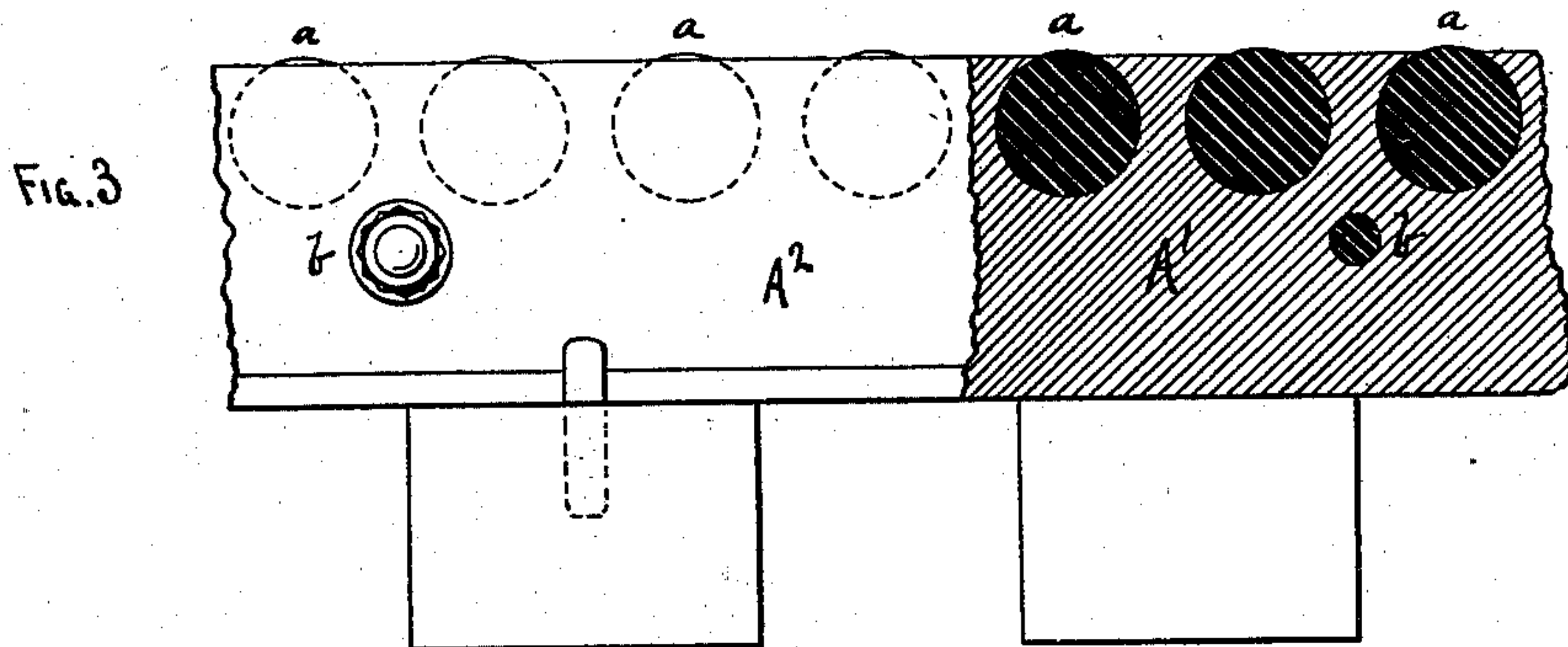
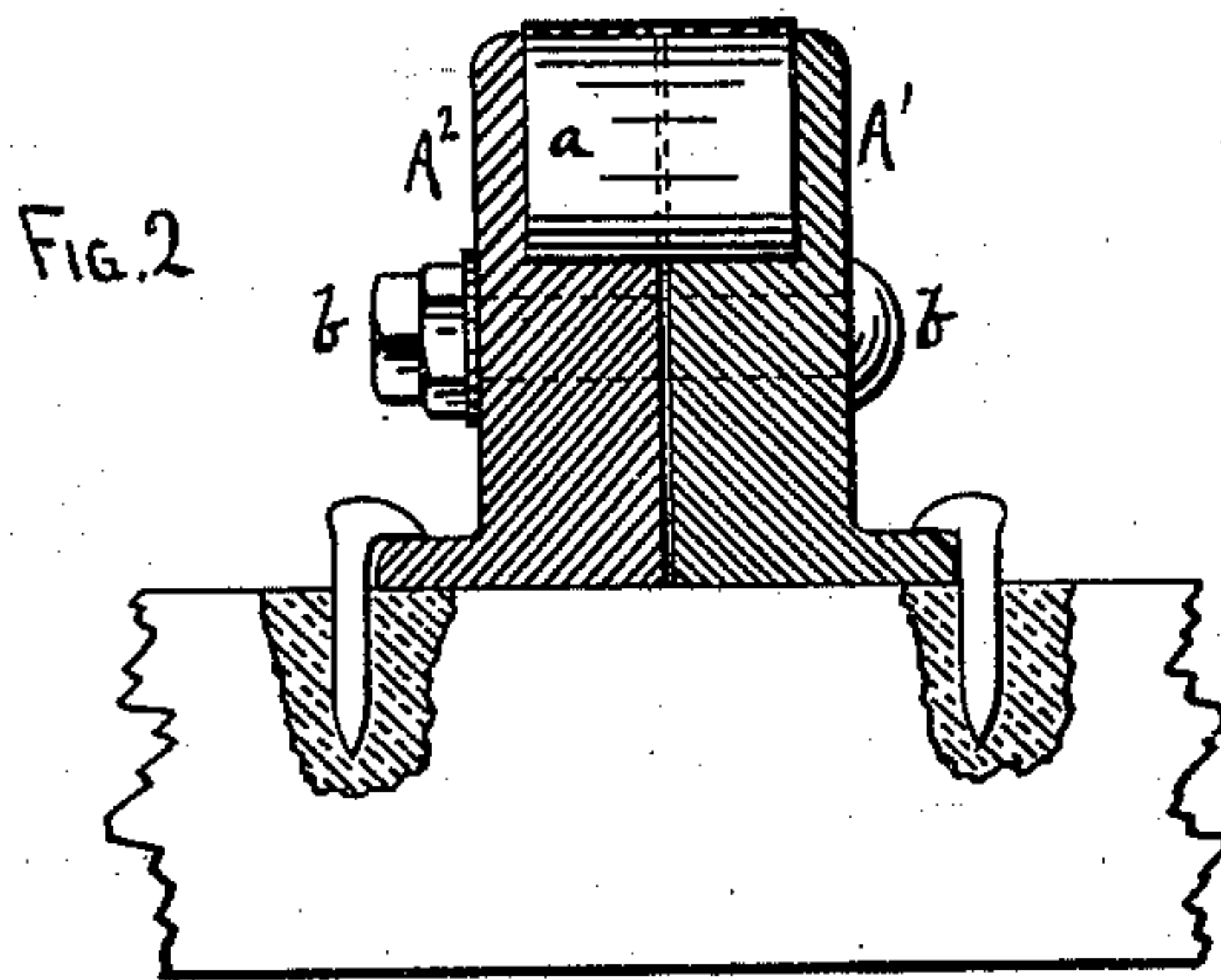
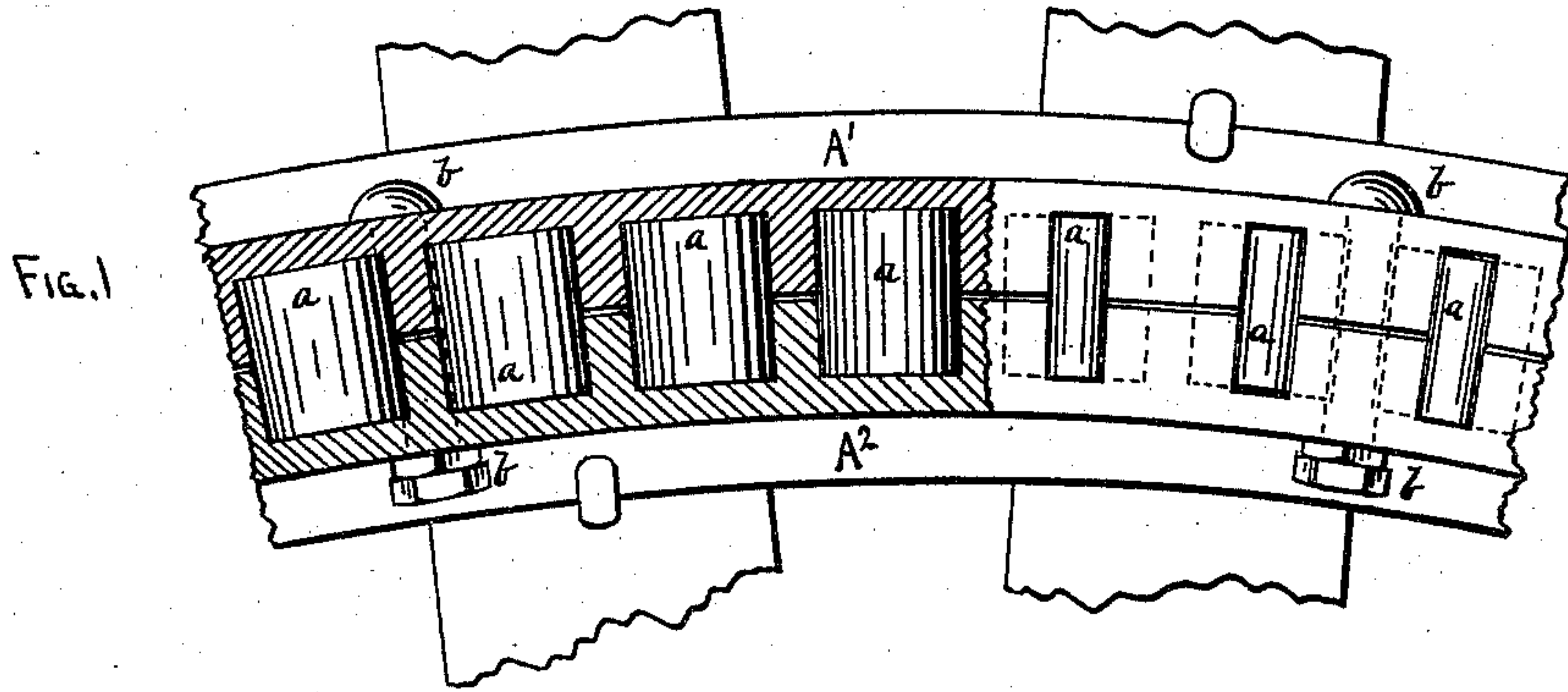


(No Model.)

L. BRIGHAM.
RAIL FOR RAILROAD CURVES.

No. 254,793.

Patented Mar. 14, 1882.



WITNESSES.
Louis Fessler Jr.
P. B. Randall

Levi Brigham,
INVENTOR, BY
Louis Fessler & Co.,
Attys.

UNITED STATES PATENT OFFICE.

LEVI BRIGHAM, OF OSSEO, MINNESOTA.

RAIL FOR RAILROAD-CURVES.

SPECIFICATION forming part of Letters Patent No. 254,793, dated March 14, 1882.

Application filed April 22, 1881. Renewed January 20, 1882. (No model.)

To all whom it may concern:

Be it known that I, LEVI BRIGHAM, a citizen of the United States, residing at Osseo, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Rails for Railroad-Curves, &c., of which the following is a specification.

This invention relates to the rails of railroad-curves, &c., in which rollers are inserted in the tread to relieve the binding effect of the car-wheels running upon the inner or short rail; and it consists in forming the rail in two parts, longitudinally and vertically, and providing one or both parts with circular cavities or sockets running partially through the rail at right angles to its length, cutting partially through the tread, so that when rollers are inserted into said sockets and the two parts of the rail secured together the upper parts of the rollers project a short distance above the tread, and at the same time have bearing-surfaces upon all sides, except said projecting part, as hereinafter set forth. I attain these objects by the use of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a plan view, partially in section. Fig. 2 is a cross-sectional view. Fig. 3 is a side view, partially in section; and Fig. 4 is a cross-sectional view, showing a slight variation in the manner of dividing the rail.

In moving around curves on railroads, &c., the wheels of the car next the inner or short rail slide or bind, thus requiring a much greater degree of force to pull a train around curves than upon a straight track; and to overcome this friction, rollers, balls, &c., have been inserted into the treads, in some instances the rail being divided horizontally and formed with circular cavities, into which balls are fitted so as to project above the tread of the rail, and in other instances being provided with longitudinal channels, into which are fitted rollers in contact with one another, and provided with journals fitted into the sides of the rail, the rollers being held in place by

side strips resting upon the rail and fitting against both sides of the roller over its journals. To provide a more simple and practical method of inserting and holding such rollers is the object of my invention, which consists in dividing the rails into two parts, A' A^2 , and providing each part with cavities or sockets running partially through the rails at right angles to their lengths, in which the ends of rollers a are inserted, and the two parts of the rail brought together and secured by bolts b at intervals. The upper parts of the sockets for the rollers are cut through the tread, as shown, to permit a small portion of the rollers to project above the rail for the wheels of the car to act upon. By this arrangement the rollers are each held in a separate compartment, bearing upon all sides, except the small portion which projects above the rail, thus insuring a very large bearing-surface, so that the rollers will wear evenly on all sides and at the same time be held separate from each other. The rollers will be made of hardened steel, and the cavities or sockets chilled when the rails are made of cast-iron, or drilled into the rails when they are made of wrought-iron or steel.

The rail may be divided on a line with the ends of the rollers, as shown in Fig. 4, if desired, and with the sockets or cavities entirely in one part.

What I claim as new is—

A rail made in two parts, as described, and provided with a series of separate sockets running partially through the rail at right angles to its length, in combination with a series of rollers fitting in said sockets and protruding above the tread of the rail, substantially as set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

LEVI BRIGHAM.

Witnesses:

C. N. WOODWARD,
LOUIS FEESER, Sr.