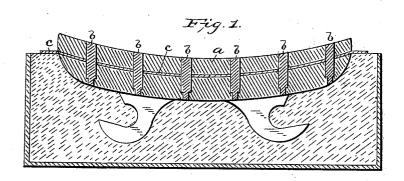
(No Model.)

## J. POLLOCK. BRAKE SHOE.

No. 410,989.

Patented Sept. 10, 1889.



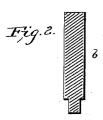
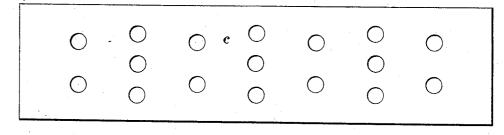


Fig.3.



2 Witnesses 6. W. Combayer & O. O. Joseph Pollock

By his Ottorney

Coll Alexandre

## UNITED STATES PATENT OFFICE.

JOSEPH POLLOCK, OF SELMA, ALABAMA, ASSIGNOR OF ONE-THIRD TO EDWARD G. GREGORY, OF SAME PLACE.

## BRAKE-SHOE.

SPECIFICATION forming part of Letters Patent No. 410,989, dated September 10, 1889.

Application filed July 9, 1889. Serial No. 316, 927. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH POLLOCK, a citizen of the United States, residing at Selma, in the county of Dallas and State of Alabama, have invented certain new and useful Improvements in Brake-Shoes, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 represents a vertical sectional view of the improved brake-shoe complete, resting in the lower half of an ordinary mold; Fig. 2, an enlarged detail view of one of the rods or pins; Fig. 3, a detail view of a perforated; plate used to support and steady the pins in the mold during the operation of casting the shoe.

This invention relates more particularly to improvements in the manufacture and construction of the brake-shoe patented by me on the 6th day of December, 1887, and numbered 374,427, which consists of a cast-iron body having extending entirely through it from its wearing-surface to its rear side a second secon

The present invention has for its object the provision of simple means for holding the rods in an upright position and in their proper 30 relative positions in the mold until the same is closed.

It has also for its object the provision of means for preventing the rods pushing through and out at the back of the shoe while 35 in use, as will be more fully hereinafter set forth.

It has for its further object to obviate the liability of the castings becoming full of blowholes in consequence of the molten iron composing in contact with the cold iron rods in the mold.

In the accompanying drawings, a designates the cast-iron shoe, and b the rods passing entirely through the shoe.

To hold the rods b in their proper relative 45 positions while the mold is being closed and the molten metal poured in, I employ a perforated metal or other plate c, the ends of which are supported on the lower half of the mold. After the shoe is cast the projecting 50 ends of the plate may be broken or cut off.

To prevent the rods b pushing through the shoe in consequence of frequent heating of the same, I provide the rods near their rear ends with shoulders, the shoulders being prefeably formed by flattening the ends of the rods.

To prevent blow-holes being formed by the molten metal coming in contact with the cold rods, I provide the latter before inserting them 60 in the mold with a coating of boiled linseed-oil and bromo mineral paint.

Having thus fully described my invention, what I claim is—

1. The combination, with the brake-shoe, 65 of the rods and the perforated plate, substantially as described.

2. The combination, with the shoe, of the rods provided with shoulders near their rear ends, substantially as described.

3. The combination of the brake-shoe and the rods, the latter being provided with a coating of boiled linseed-oil and mineral paint, as described.

In testimony whereof I affix my signature in 75 presence of two witnesses.

JOSEPH POLLOCK.

Witnesses:

JAMES R. MCARTHUR, E. M. TYLER.