

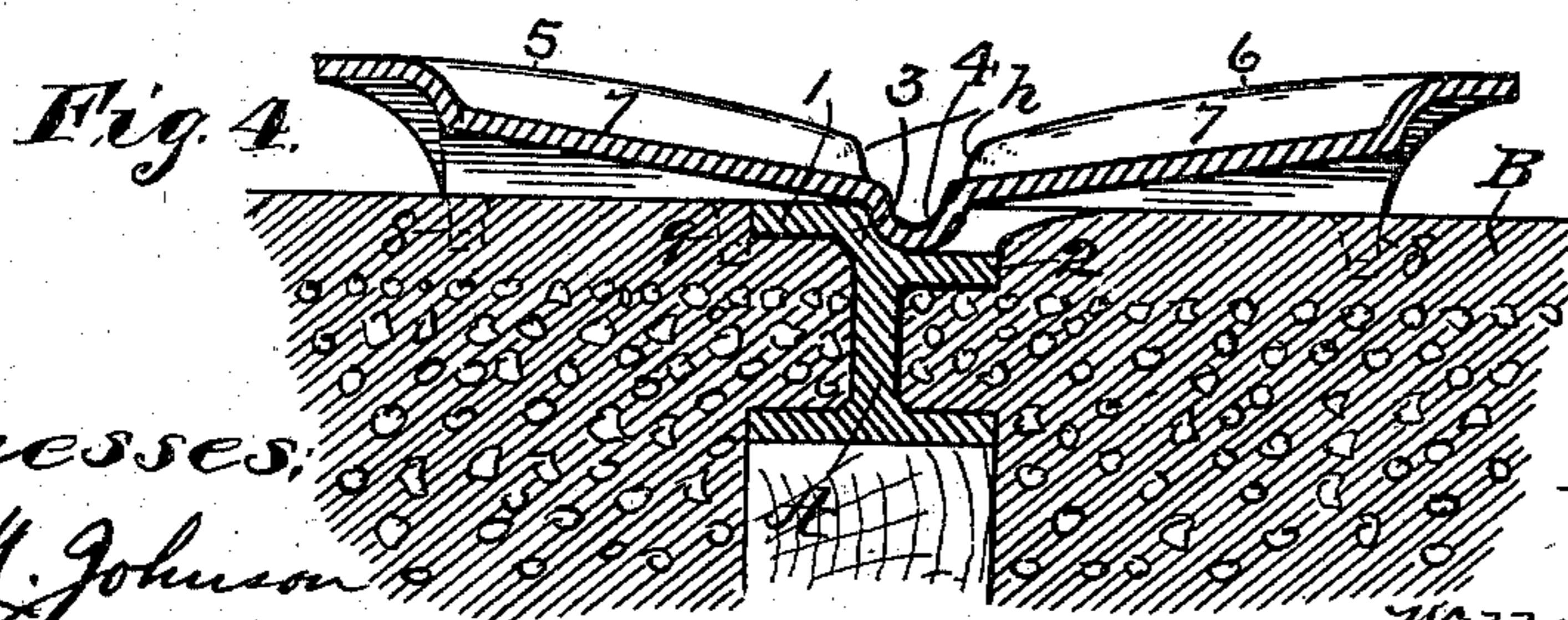
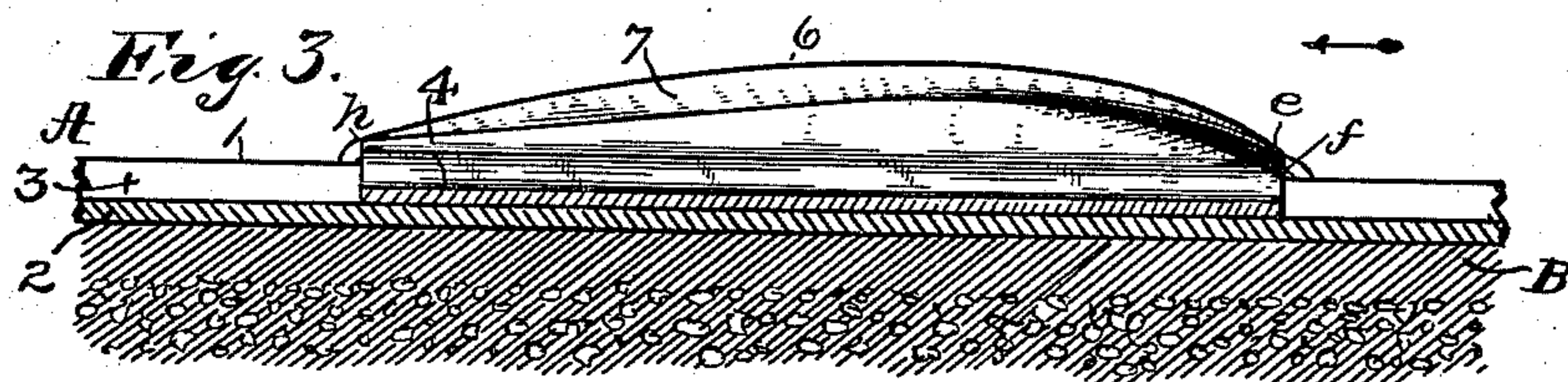
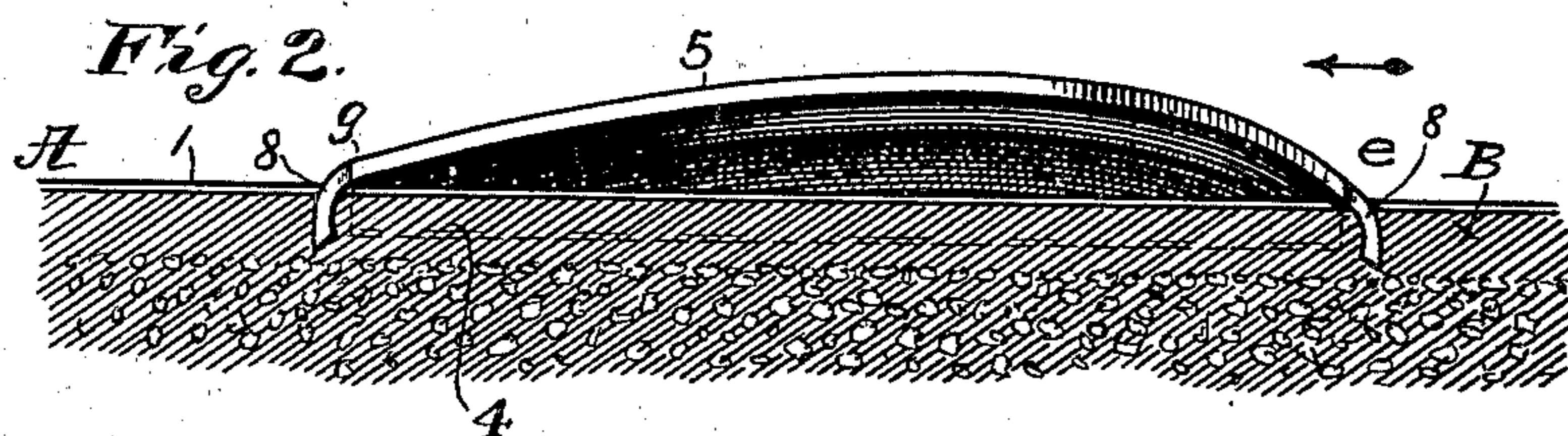
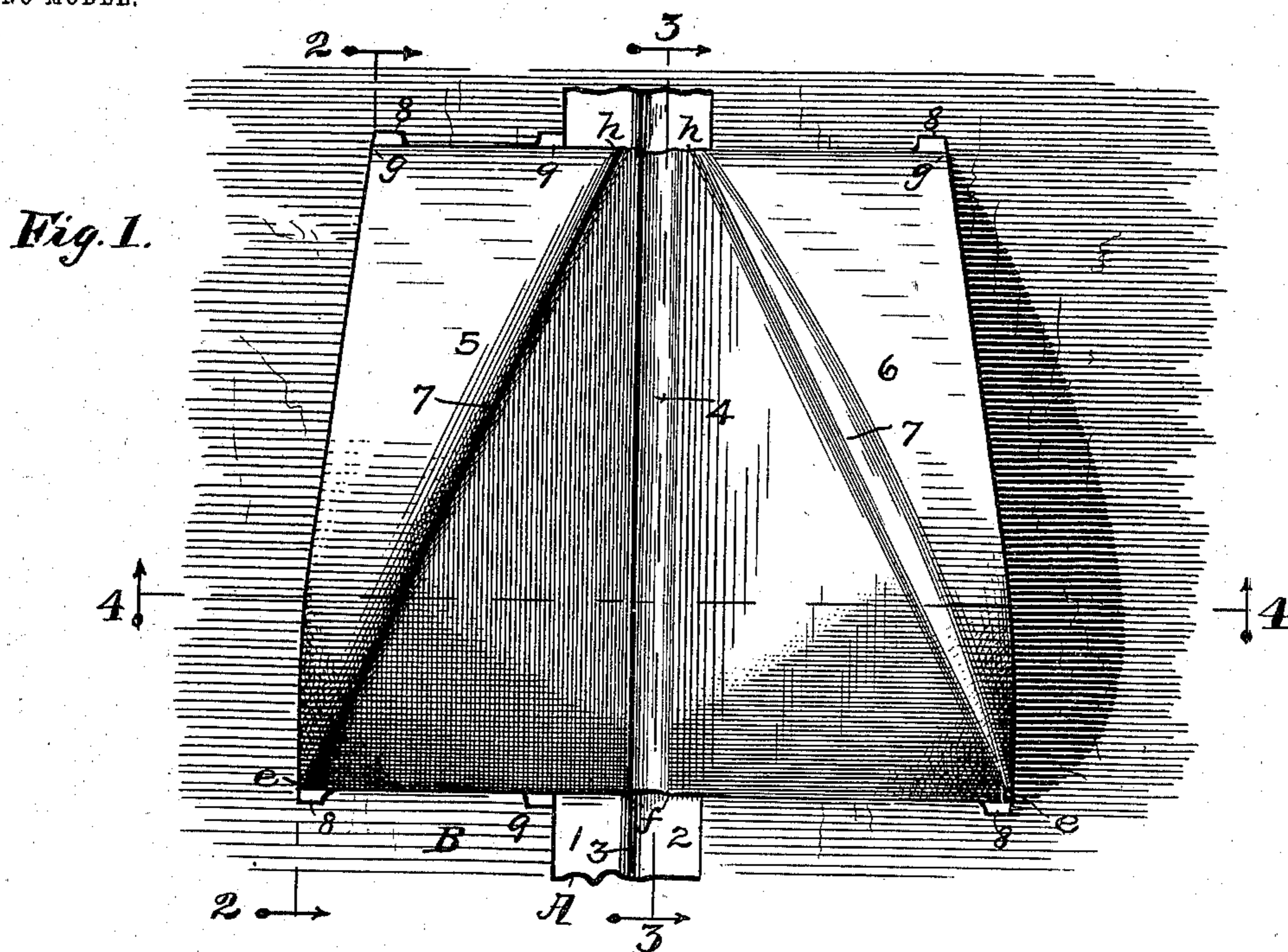
No. 734,611.

PATENTED JULY 28, 1903.

W. H. PRITCHARD.
CAR REPLACER.

APPLICATION FILED JAN. 22, 1903.

NO MODEL.



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM H. PRITCHARD, OF INDIANAPOLIS, INDIANA.

CAR-REPLACER.

SPECIFICATION forming part of Letters Patent No. 734,611, dated July 28, 1903.

Application filed January 22, 1903. Serial No. 140,094. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. PRITCHARD, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Car-Replacers, of which the following is a specification.

This invention relates to improvements in car-replacers, and is especially adapted for use in replacing derailed street-cars upon the comparatively flat or flanged rail used in connection with paved surfaces; and the object of the invention is to provide a portable frog which will be very light in weight, so as to be easily handled by one man, also that it will be securely braced and anchored to prevent slipping and tilting sidewise under the action of the car-wheels.

The object also is to provide a replacer that will be strong and durable and that will not require a very considerable raising of the car-wheels to get them into position on the rails.

I accomplish the objects of the invention by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a top plan view of my improved replacer in operative position upon the left rail of a railway-track; Fig. 2, a section on the line 2 2 of Fig. 1; Fig. 3, a section on the line 3 3 of Fig. 1; Fig. 4, a section on the line 4 4 of Fig. 1, all of said sections being taken looking in the direction of the arrows associated with their respective section-lines in said Fig. 1.

Like characters of reference indicate like parts throughout the several views of the drawings.

A represents the railway-rail, having the horizontal flange 1, over which the face of the car-wheel travels, and the horizontal flange 2 at the lower level, forming the offset or shoulder 3 between the two faces to engage the flange of the car-wheel and hold it on the track.

B represents the paved surface of the street in which the railway is laid, which is approximately on a level with the upper face of the flange 1.

My replacer will preferably be made out of heavy sheet-steel, which is pressed while in a heated condition into proper shape in a

suitable mold. The lowest part of my replacer will be that part through its longitudinal middle which is designed to lie against the shoulder 3 upon the flange 2 of the railway-rail. The walls of this longitudinal portion will be half-round in cross-section to form the groove or channel 4, and these walls will be continued on each side of the groove to form the wings 5 and 6. As the parts of the replacer on each side of the groove 4 differ from each other only in being of opposite or reversed shapes and curves, the description of one side will answer for both. The wings 5 and 6 start from a horizontal base-line *e f e*, which is straight so as to lie down close to the pavement, and they terminate in a line *g h g* at the opposite end of the replacers, which is also straight and parallel with the edge *e f e* and which also lies flat against the pavement. Between the lines *e f e* and *g h g* the wings are curved upwardly in an arch, as shown in Fig. 2, in which it will be seen that the highest part is between the middle and the base-line *e f e*. Extending diagonally of each wing, beginning at *e e* on each and running diagonally toward the middle front *h*, are the shoulders or offsets 7 7, and the portions of the wings between said offsets and the groove 4 have a downward slant, as shown in Figs. 1 and 4. This compound curvature of the inner wing-surfaces elevates the car-wheel that passes over it and at the same time causes it to slide by gravity toward the groove which it enters before the wheel leaves the replacer and is deposited by the groove in right position on the rail. When the wheel comes in contact with the shoulder 7, it is directed by said shoulder over into the groove.

Longitudinal movement of the replacer is prevented by the lugs or spurs 8, and lateral displacement is prevented also by the contact of the bottom of the groove 4 with the shoulder of the rail on one side and by the contact of the lugs 9 with the other or outer side of the rail.

The replacer for the left rail of the track will have the lugs 8 on the left wing; but for the right rail of the track the lugs will be part of the right wing, and in this alone will there be any difference between the replacers for the two rails.

Having thus fully described my invention, what I claim as new, and wish to secure by Letters Patent, is—

1. A car-replacer having a longitudinal central channel and wings sloping toward said channel.

2. A car-replacer having a longitudinal central channel and wings sloping toward said channel, said wings having inclined approaches.

3. A car-replacer having a longitudinal central channel and wings sloping toward said channel, said wings having inclined approaches and shoulders starting from the far end of the channel and diverging toward said approaches.

4. A car-replacer having a longitudinal central depression or channel, wings arched longitudinally and each having a diagonal offset, said wings having a downward lateral slope from said offset to said channel.

5. A car-replacer having a longitudinal central channel, wings sloping toward said channel and pendent lugs from said wings.

6. A car-replacer having a longitudinal central channel and wings that begin and end in horizontal edges, said wings being arched between said edges and said wings being integral with the walls of said channel and sloping downwardly thereto.

7. A car-replacer having a longitudinal central channel and longitudinally-arched and laterally-sloping wings that begin and end with straight horizontal ends, and lugs pendent from said ends.

In witness whereof I have hereunto set my hand and seal, at Portsmouth, Ohio, this 17th day of January, A. D. 1903.

WILLIAM H. PRITCHARD. [L. s.]

Witnesses:

SAM M. JOHNSON,

EMMA J. JENNINGS.