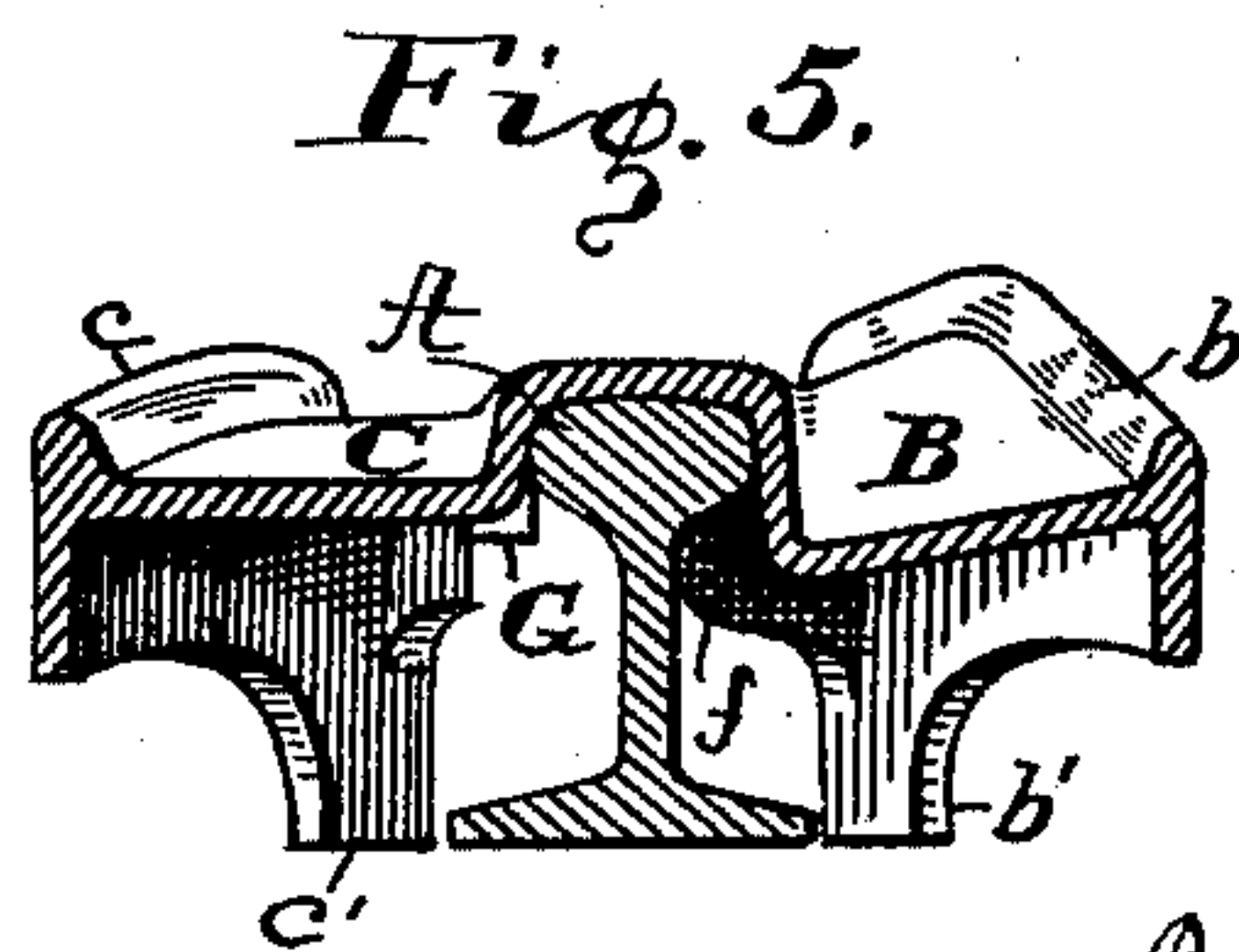
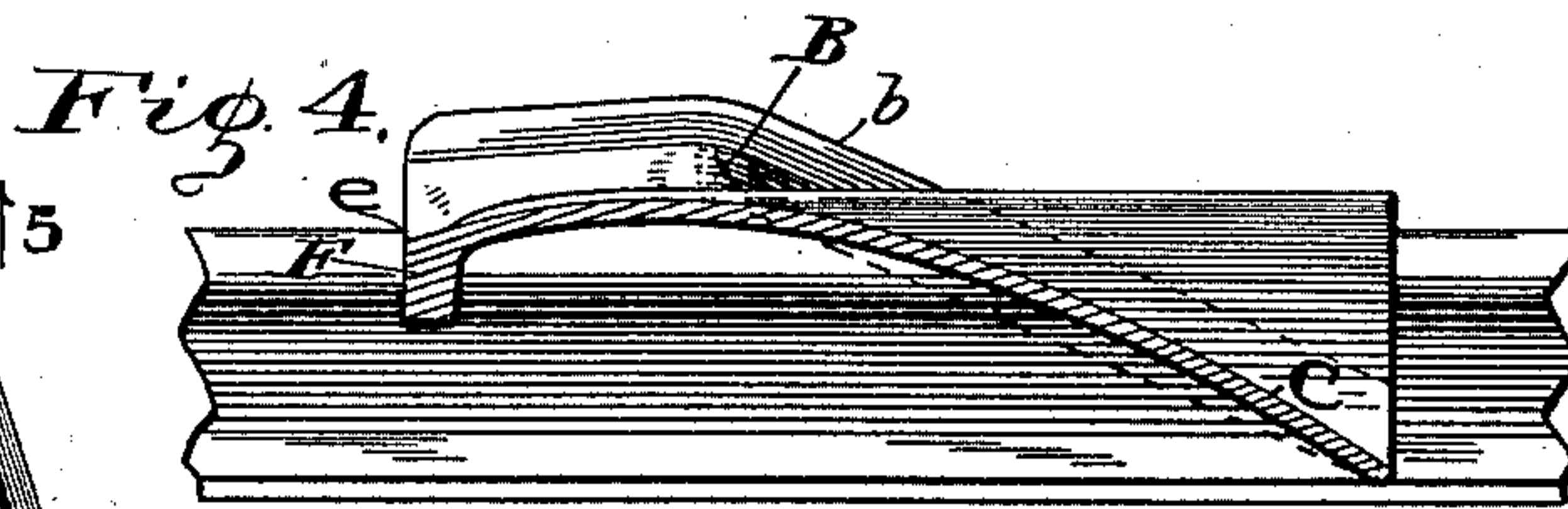
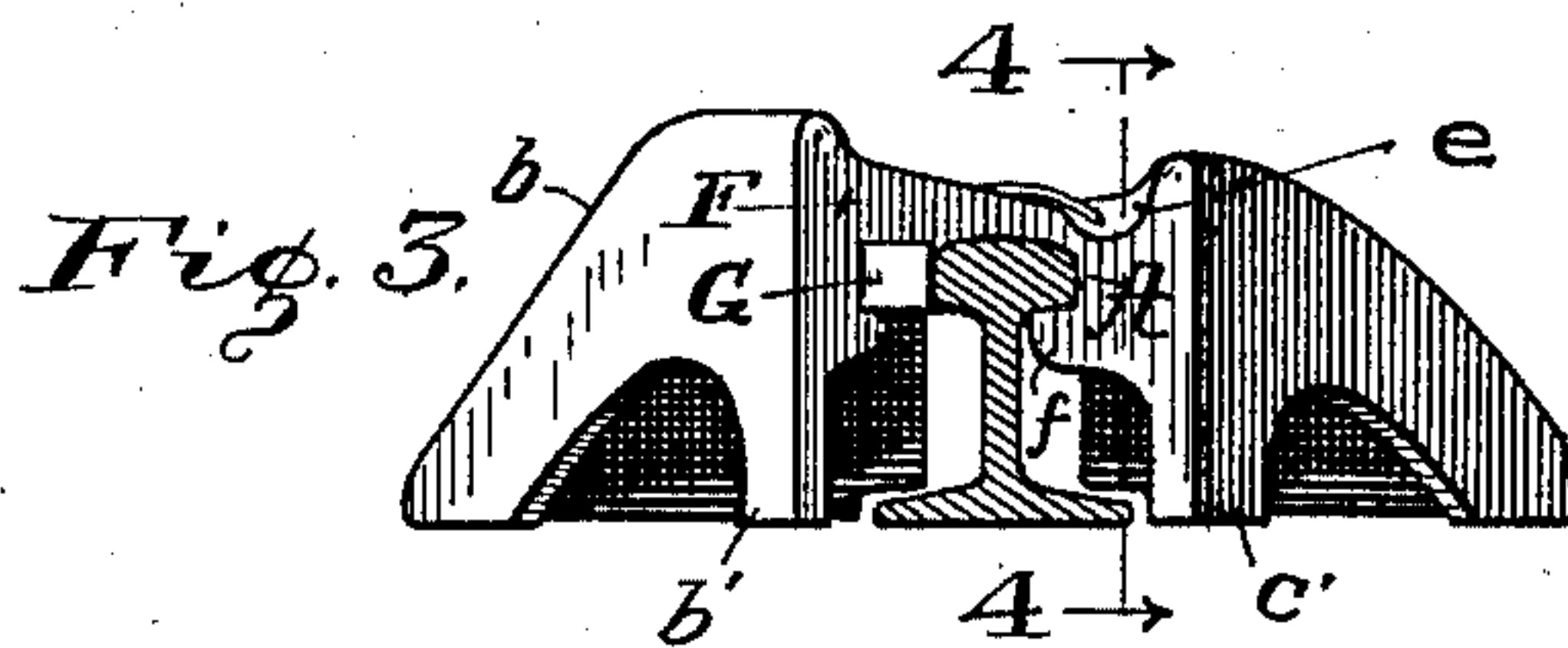
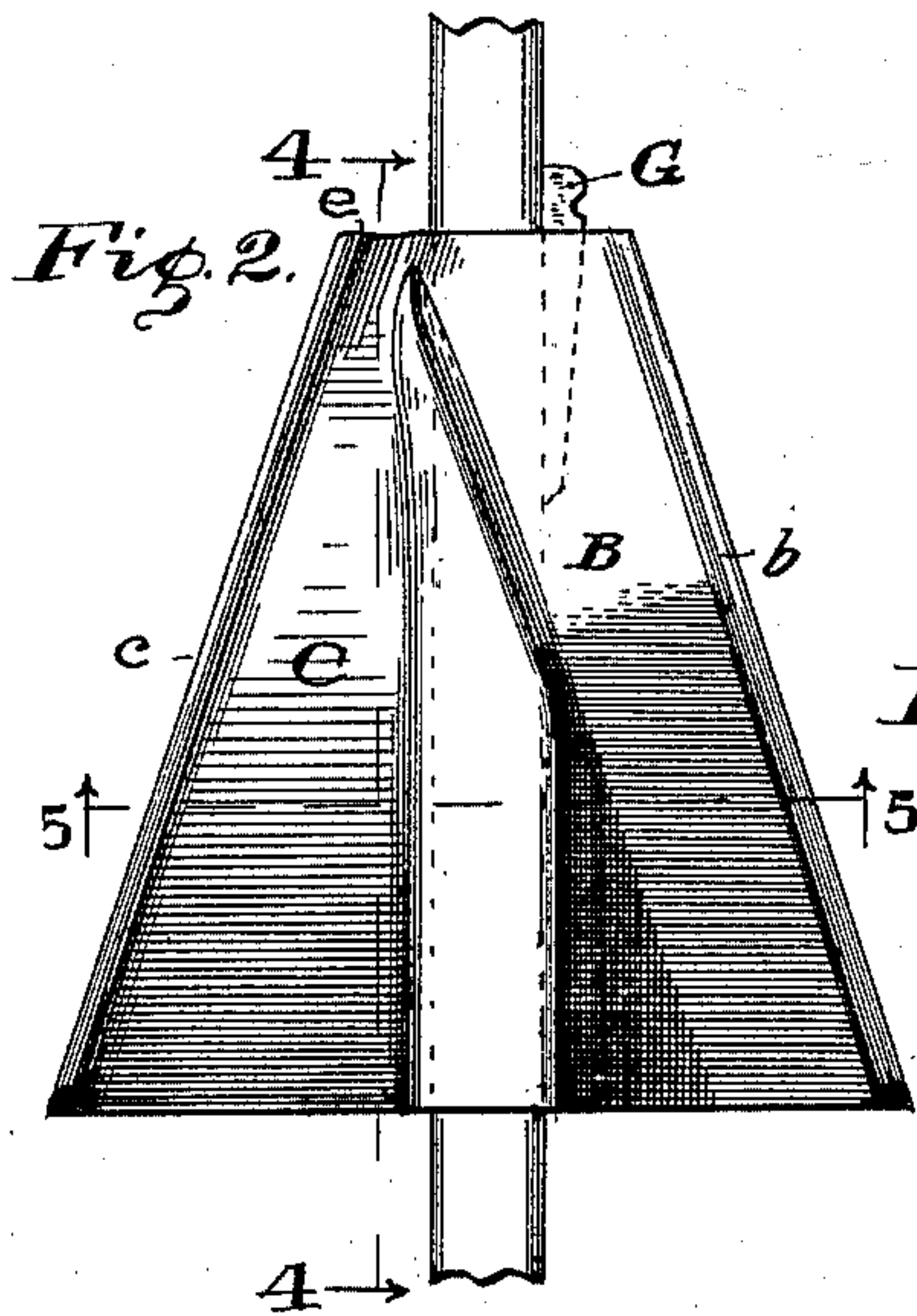
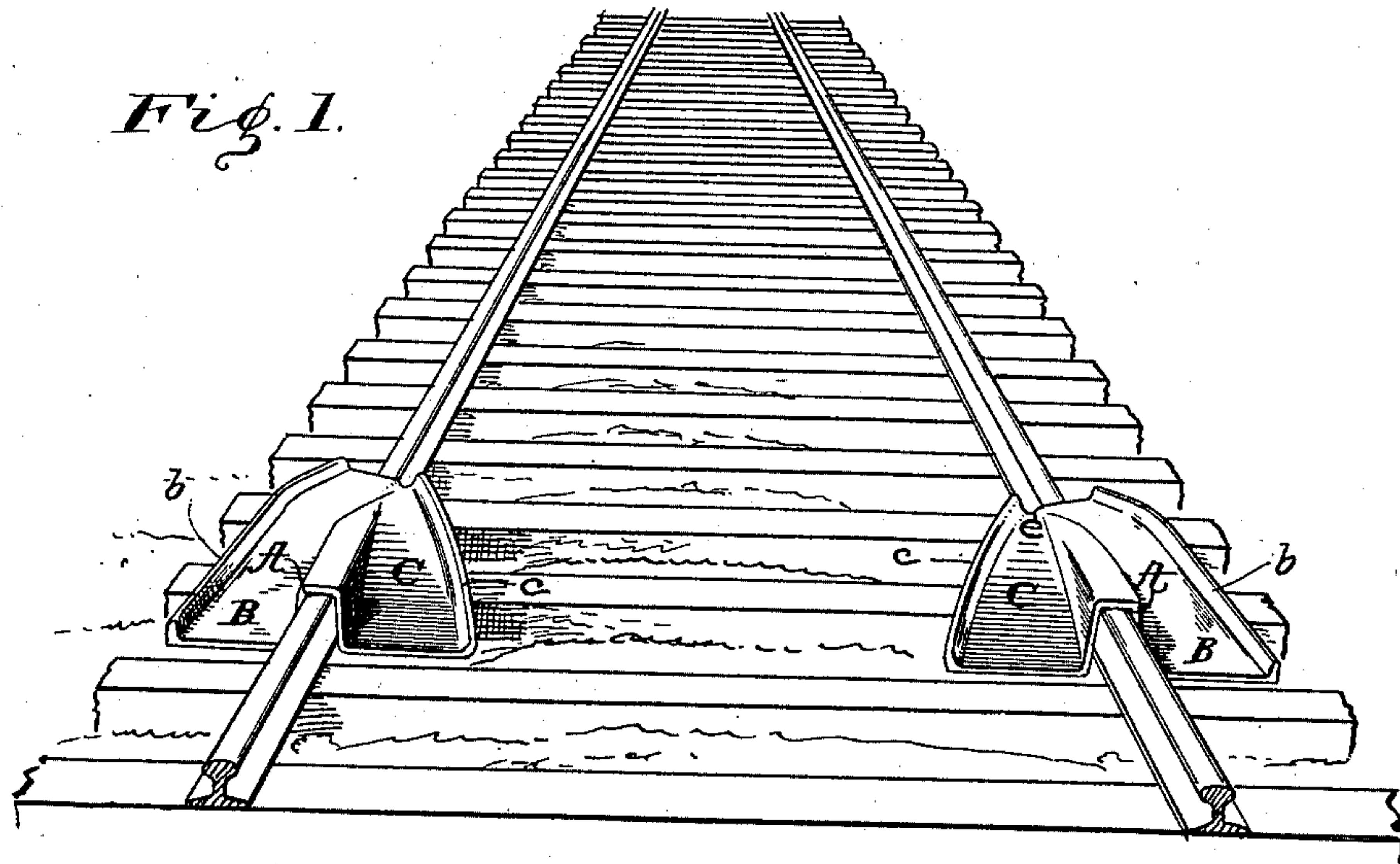


No. 683,223.

Patented Sept. 24, 1901.

W. H. PRITCHARD.
PORTABLE RAILWAY FROG.
(Application filed Jan. 15, 1901.)

(No Model.)



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UNITED STATES PATENT OFFICE.

WILLIAM H. PRITCHARD, OF INDIANAPOLIS, INDIANA.

PORTABLE RAILWAY-FROG.

SPECIFICATION forming part of Letters Patent No. 683,223, dated September 24, 1901.

Application filed January 15, 1901. Serial No. 43,306. (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 Portable Railway-Frogs, of which the following is a specification.

This invention relates to improvements in removable frogs for the purpose of placing the wheels of derailed cars on the rails of the track; and the object is to provide a portable device which can be placed between any two side wheels of a car-truck, if desired, or in front of the front wheel of the truck by one or two men and which can be carried along with the train for prompt use when required.

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

Figure 1 is a perspective view of a railway-track with a pair of my improved portable frogs in operative position; Fig. 2, a top or plan view of the right one of my improved frogs; Fig. 3, a front elevation of the portable frog shown in Fig. 2; Fig. 4, a longitudinal section on the dotted line 4 4 of Figs. 2 and 3; and Fig. 5 a section on the line 5 5 of Fig. 2.

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

One of my portable frogs will be used for each rail of the track, and it will be noted that the frogs are rights and lefts. There is an under side longitudinal central channel A to fit over the rail, with inclined wings B and C adapted to drop to the ties at the rear and slope up to above the track-rail at the front end of the frog. These side wings also contract in width toward the front of the frog and have upwardly-projected outside flanges *b* and *c* to keep the car-wheel from leaving the incline. As the derailed car-wheels have inside flanges, it is necessary that the wheel on the outside of the track be lifted sufficiently high that its flange may pass over the top of the rail, while the other wheel need only be lifted high enough to bring its face upon the rail. For that reason the incline B is higher than the incline C, as shown in Fig. 4. The wheel-run on the incline C, or rather the run for the flange of

the wheel, terminates a *te* below the rail-top, and the wheel-run or flange-run on B runs into the depressed channel *e* before the end of the frog is reached. The upper face of the inclined wing B slopes toward the groove A in order to cause the car-wheel to slide down the incline in that direction, causing it to move laterally at the same time that it moves forward.

In practice when the wheels of a truck are off the rail they are worked over by leverage until they are within the compass of the lower ends of the wings, if necessary. Then the frogs being placed in front of the derailed wheels the car is drawn forward, the outside wheel starts up the incline B of its adjacent frog, and the opposite wheel up the incline C of its adjacent frog. The flange on the wheel inside the rail contacts with the flange *c* of the frog C, and the wheel is crowded over toward the rail by the shape and position of the flange, and this action is assisted by the inward slope of the face of the incline B, up which the other wheel is simultaneously moving. The track or way up the incline B passes over the rail, as shown, and deposits the wheel in right position on its rail as the other wheel is simultaneously positioned upon its rail. Then the frogs are removed.

Under the flanges *b* and *c* are downward flanges *b'* and *c'*, reaching down to the tie to form a support thereon for the front end of the frog; but intermediate the ends of the frog the flanges *b'* and *c'* are cut away to permit the broad end of the frog to drop down upon one of the ties.

The frogs are held from sliding forward in the following manner: The end plate F is notched to receive the railroad-rail and has the lug *f* to hook under the top of the rail in the manner shown in Fig. 3. Then a wedge G is driven between the other side of the notch and the top of the rail. A forward pressure on the frog drives it farther on the wedge and makes it tighter on the rail.

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

1. A portable frog for the purposes specified having an under side longitudinal groove to receive the rail, a lug to engage the side of the rail, lateral forwardly-tapering inclined

planes on either side of the groove and a wedge inserted at the front of the frog opposite the lug and between the frog and the rail, upon which the frog is tightened by the forward movement of the frog thereon, substantially as described and shown.

2. A portable frog for the purposes specified having an underside longitudinal groove with sides and top coextensive with said groove forming a middle flange to receive the rail and having inclined planes on either side of said middle flange starting below the top of the rail and rising to above the rail, said inclined planes having a forward taper and having outside flanges, the outer plane having a transverse obliquity and passing over the rail and merging with the forward end of the inner plane, substantially as described and shown.

3. A portable frog for the purposes specified having an underside longitudinal groove with sides and top coextensive with said

groove, forming a middle flange to receive the rail and having inclined planes on either side of said middle flange starting from a level below the top of the rail when in place and rising above the level of the rail-top, one of said planes dropping below the rail-top level at its upper end and the second plane passing over the rail giving a taper to the end of the middle flange, and merging with the first plane, said second plane having a transverse obliquity with its outer edge the higher, both of said planes having a forward taper and having outside flanges, substantially as described and shown.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 23d day of September, A. D. 1900.

WILLIAM H. PRITCHARD. [L. S.]

Witnesses:

JOSEPH A. MINTURN,
DANIEL R. BROWN, Jr.