

H. ELLIOT.
RAILWAY FROG.

Patented Sept. 17, 1895.

Fig. III.

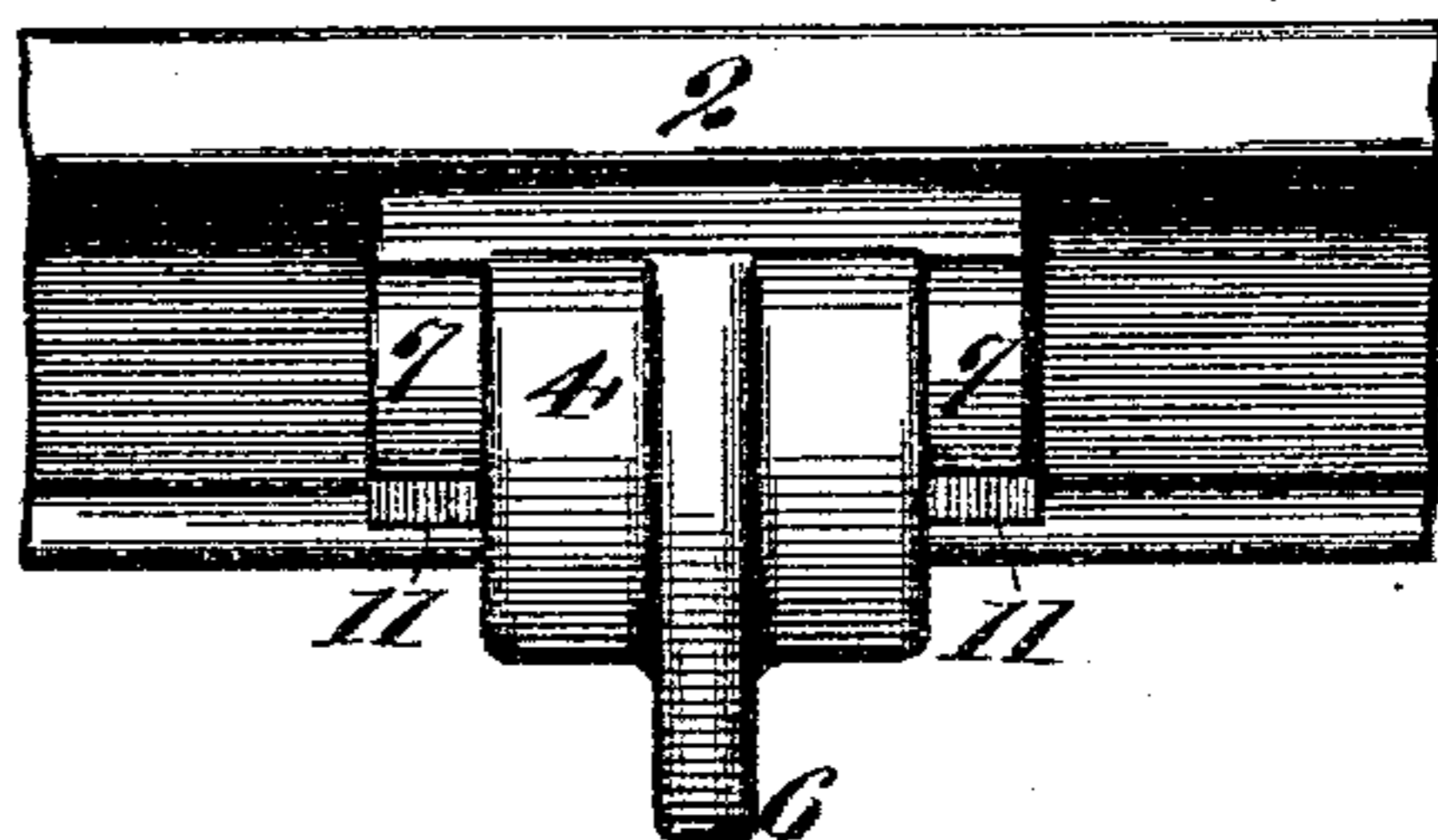
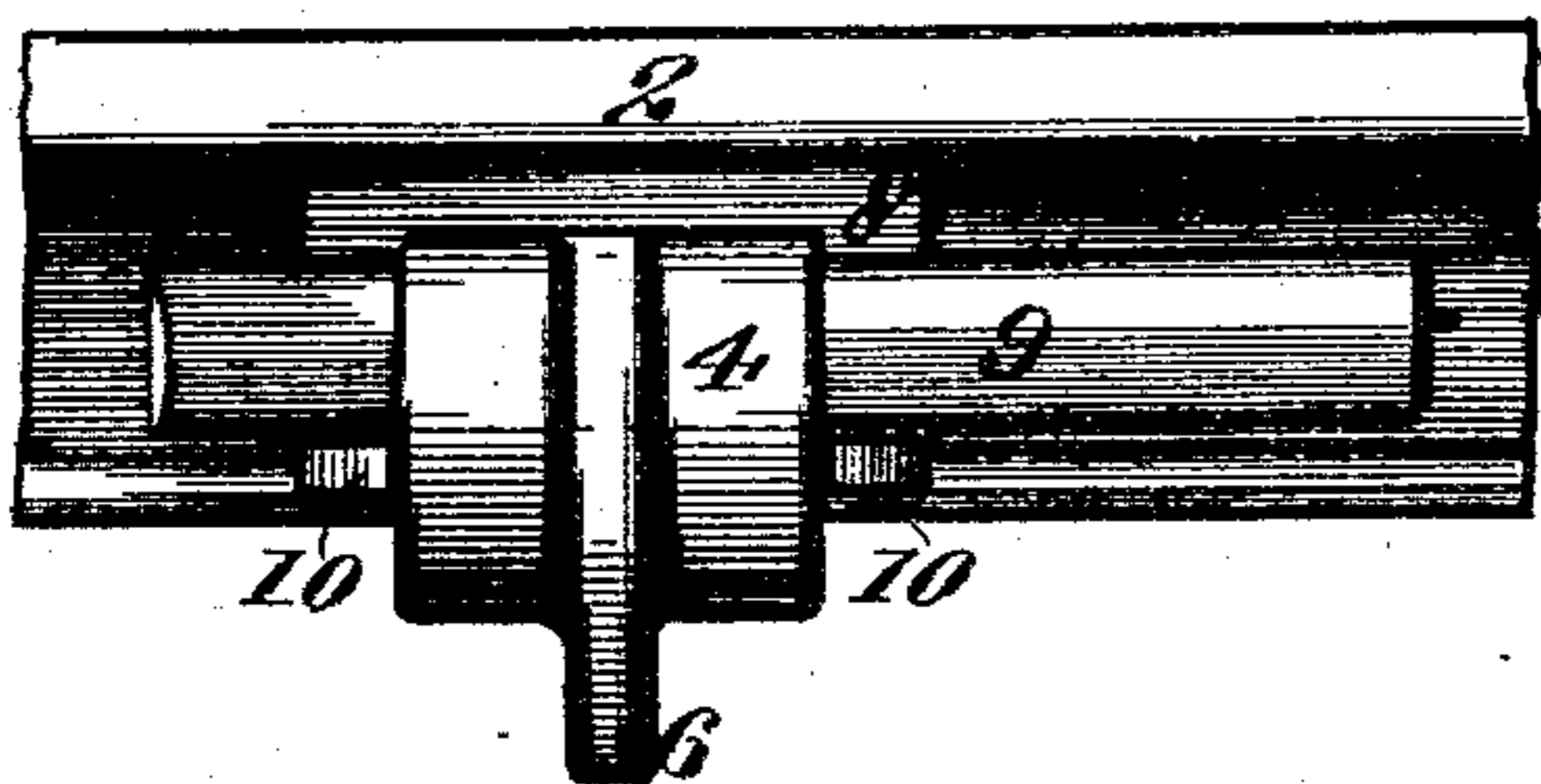


Fig. 1 is a perspective view of a mechanical assembly, likely a valve or pump component. It features a central shaft (5) passing through a housing (6). The housing has a complex internal structure with various components labeled: 1, 2, 3, 4, 7, 8, 9, 10, and 11. The assembly is shown in a perspective view, highlighting its three-dimensional structure.

Charles Pickles
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Henry Elliot.

By Wright Pro *Atty*

UNITED STATES PATENT OFFICE.

HENRY ELLIOT, OF ST. LOUIS, MISSOURI.

RAILWAY-FROG.

SPECIFICATION forming part of Letters Patent No. 546,312, dated September 17, 1895.

Application filed January 29, 1895. Serial No. 536,545. (No model.)

To all whom it may concern:

Be it known that I, HENRY ELLIOT, residing at the city of St. Louis, State of Missouri, have invented a certain new and useful Improvement in Railway-Frogs, of which the following is a full, clear, and exact specification, reference being had to the accompanying drawings.

The object of my invention is to provide a foundation clamp or seat to hold the rails, said rails being separated from each other by distance-blocks made to fit and bear against the rails and clamp, and in which the parts are of a construction to allow them to be easily put together, taken apart, and replaced when worn, and in which the open ends of the clamps are not liable to be sprung outwardly.

The various features of my invention are shown in the drawings, in which—

Figure I illustrates a top view of the frog. Fig. II illustrates a detail side elevation, showing the end of the clamp which is adapted to receive the wedge. Fig. III illustrates a similar view of the other side of the frog. Fig. IV is a section taken on line IV IV, Fig. I.

1 are the inner or point rails, and 2 are the outer or wing rails.

3 are the distance-blocks placed between the rails for the purpose of holding the rails in position.

4 is the clamp.

5 is a pin passed through the rails 1 and 2 and through the blocks 3, and it enters outside blocks 7 and 8 to prevent any lengthwise movement of the blocks.

6 is a strengthening-rib on clamp 4. The outside brace-block 7 has a convex side adapted to fit the concave face of the clamp, as shown, and the block 8 is concaved on the clamp side to receive the convex side of the wedge 9.

10 are lugs on the block 8 to secure this end of the clamp from moving lengthwise of the rails, and the block 7 is grooved at 11 to receive the clamp to prevent endwise movement of the clamp at this end.

As shown in the drawings, the clamp 4 is placed at right angles to the rails and curves up at its ends, so as to receive and engage the bracing-blocks. The pin 5 is located back from the center of the clamp, as shown in

Fig. I, so that should the blocks break at the pin-holes the main parts or portions of the blocks will remain uncracked between the clamp and rails. It will be readily seen that with the bracing-blocks fitting accurately against the base and under side of the head of the rails, and with the pin 5 passing through the rails and through the bracing-blocks to prevent longitudinal movement, and with the interposition of the proper wedge to tighten the whole, the various parts of the frog will be held rigidly in place.

I am aware that the rails and bracing-blocks of a frog have been heretofore held in place by means of a clamp, (as, for instance, in the patent of J. S. Richardson, dated May 29, 1877, No. 191,470;) but difficulty has been encountered in that the clamps are liable to spread at the tops of their ends, so that a bearing exists only at the bottom of the ends of the clamp. To avoid this difficulty I have provided the construction described, in which the binding force is equally distributed by using concave ends to the clamp instead of angular ends. These concaves being adapted to receive the convex bracing-blocks and wedge, provide a means of keeping the pressure equalized on the ends of the clamp.

By the peculiar construction that I have employed it is obvious that the parts may be easily separated for repairs when any one of them becomes worn, thus accomplishing a saving of both time and expense.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a railway frog, the combination of a binding clamp having its ends concaved and adapted to receive and inclose the rails and bracing blocks, bracing block 7 having its outer side convex and adapted to engage one end of said binding clamp, bracing blocks 8 having a concave outer side, and a wedge 9 having convex sides adapted to engage the bracing block 8 and the other end of said binding clamp and secure the parts, substantially as described.

2. In a railway frog, the combination of binding clamp 4 provided with concave ends, bracing block 7 having a convex outer side adapted to engage one end of said clamp, bracing block 8 having a concave outer side, wedge 9 having convex sides adapted to en-

gage said bracing block 8 and the other end of said binding clamp, rails 1 and 2, bracing blocks 3, and pin 5 adapted to secure said rails and bracing blocks in position, substantially as described.

3. In a railway frog, the combination of a binding clamp having its ends concaved and adapted to receive and inclose the rails and bracing blocks, bracing block 7 having its outer side convex and adapted to engage one

end of said binding clamp, bracing block 8, and wedge 9 having a convex outer side adapted to engage bracing block 8 and the other end of said binding clamp and secure the parts, substantially as described.

HENRY ELLIOT.

In presence of—

A. S. BROWN,

STANLEY STONER.