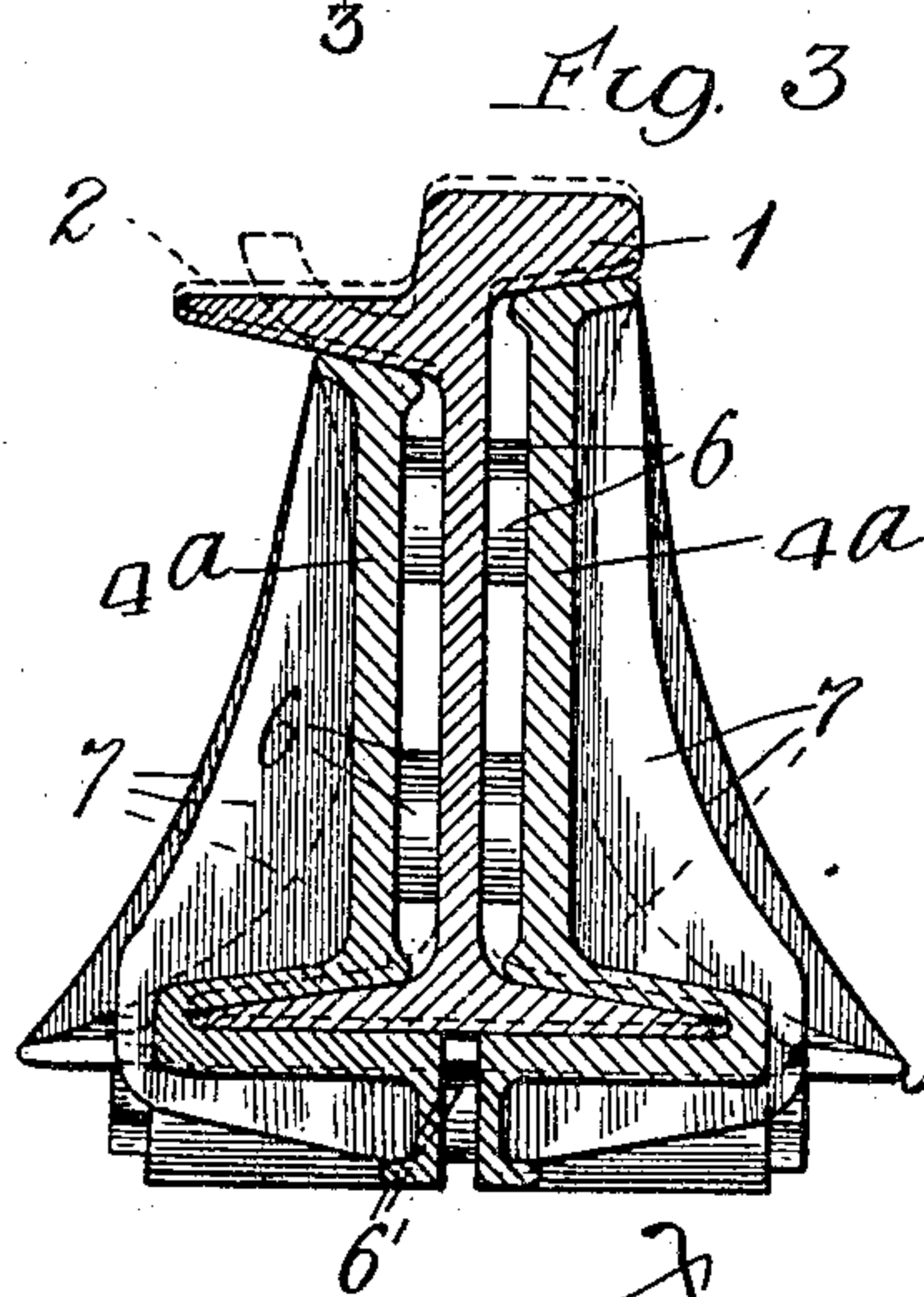
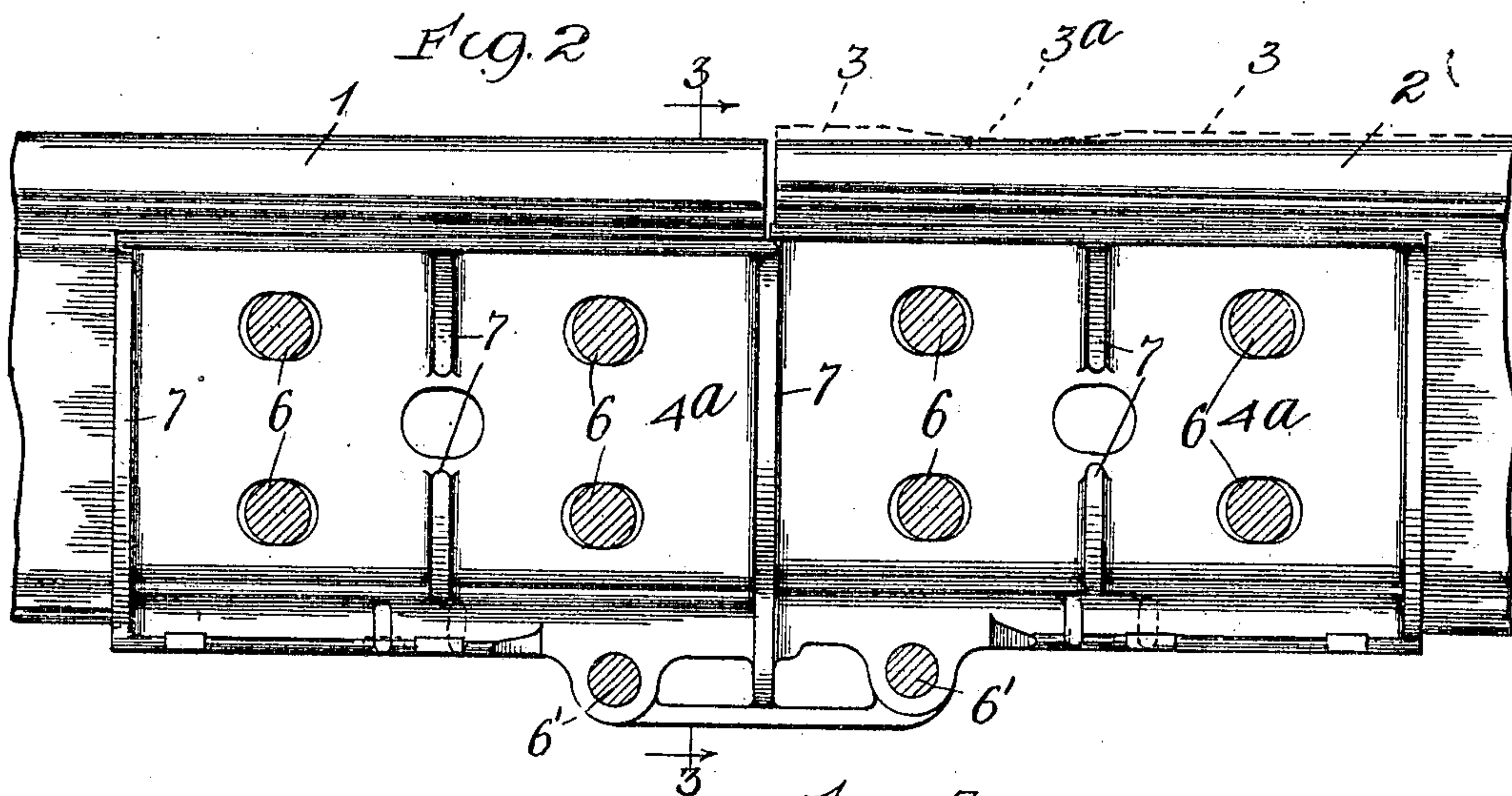
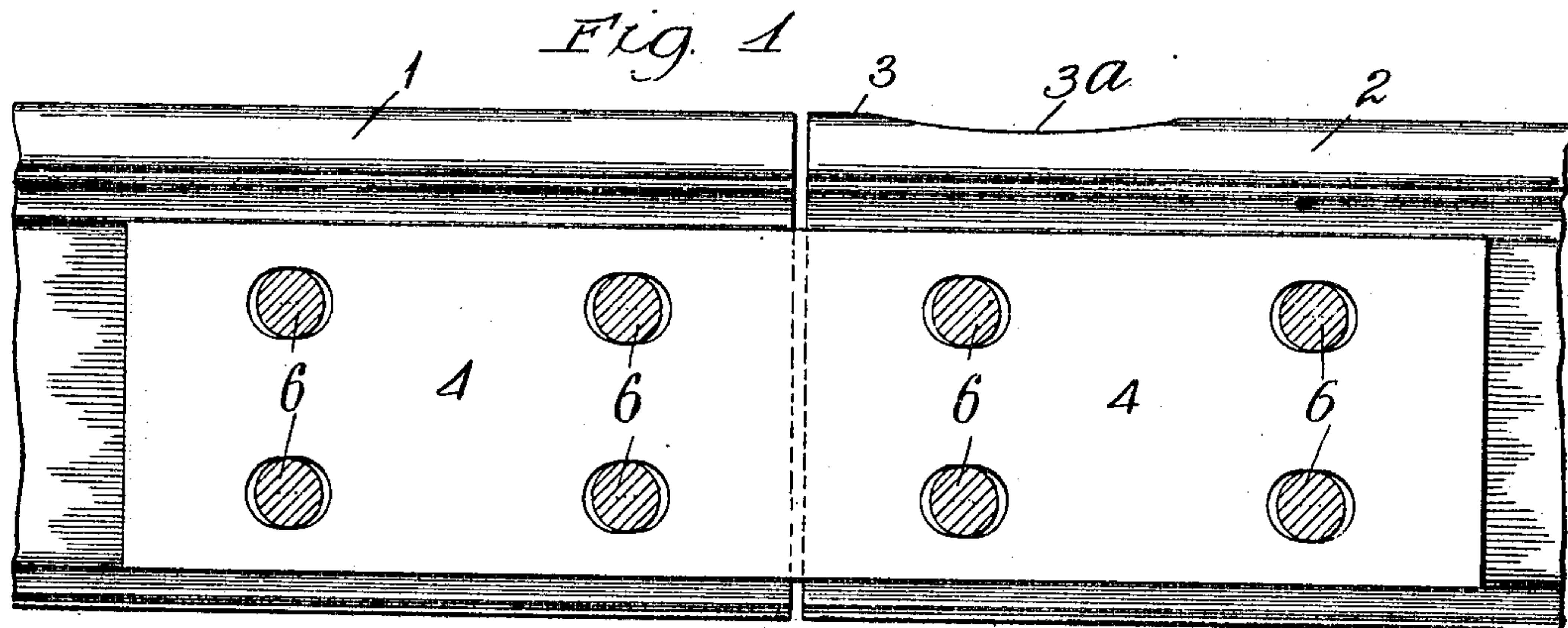


No. 830,847.

PATENTED SEPT. 11, 1906.

A. L. PLIMPTON.  
RAIL JOINT.

APPLICATION FILED JUNE 9, 1905.



Witnesses:  
Harry R. White  
Ray White

Inventor  
Arthur L. Plimpton  
By J. C. Dain 2nd May  
Atty



# UNITED STATES PATENT OFFICE.

ARTHUR L. PLIMPTON, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO ATLAS  
RAILWAY SUPPLY COMPANY, A CORPORATION OF ILLINOIS.

## RAIL-JOINT.

No. 830,847.

Specification of Letters Patent.

Patented Sept. 11, 1906.

Application filed June 9, 1905. Serial No. 264,375.

*To all whom it may concern:*

Be it known that I, ARTHUR L. PLIMPTON, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification.

My invention relates to joints between adjacent rails of a railway, and particularly to the repairing of such a joint between rails one of which has become worn by use.

To this end my invention consists, broadly, in stepping up one of the rail ends and alining its tread with that of the other rail end; and it further consists in the features of joint construction hereinafter described and claimed.

I hereinafter describe a rail-joint embodying my invention and then point out the novel features in the claims, having reference to the accompanying drawings, in which similar characters of reference indicate similar parts throughout the various views, of which—

Figure 1 is a side elevation of a rail-joint to which my invention is to be applied. Fig. 2 is a similar view of a rail-joint to which my invention has been applied, and Fig. 3 is a sectional view on line 3 3 of Fig. 2.

In the drawings, 1 and 2 indicate the ends of two similar rails. It will be understood that the direction of travel is from rail end 1 to rail end 2.

Referring to Fig. 1, 4 is the ordinary splice-bar or fish-plate, and 6 6 the bolts securing the joint. The wear of the joint has been found to produce a depression upon the tread of the receiving rail end at a point beyond the juncture of the rail end, as shown at 3<sup>a</sup> in Fig. 1, and should the joint be continued in use in the condition shown in Fig. 1 great damage would result in the operation of the railroad. Of course such a defect may be remedied by replacing rail 2; but in order to obviate that expense and the expense and

impracticability of welding the two rail ends 1 and 2 together I have provided the following method of repairing the rail-joint: I raise the rail end 2 so that its depressed portion 3<sup>a</sup> is in substantial alinement with the tread of rail end 1 and hold said rail end 2 in that raised position by an upset or angular fish-plate 4<sup>a</sup> and cut off the portion 3 3 of rail end 2. This cutting off of the portion 3 3 of rail end 2 may be accomplished in various ways without departing from my invention. Said portions may be planed off or they may be allowed to be worn away or crushed down by the wheels of the trains moving over the joint.

It will be understood that in Fig. 2 I have shown a joint in which base-support is furnished to the rail ends, the particular joint illustrated being of what is known as the "suspended" type, provided with truss-bolts 6', extending below the base of the rail, and being also provided with vertical webs 7 7 of suitable configuration to make the joint one of great strength.

It will be understood, however, that I do not limit my invention to the particular style of joint, whether suspended or supported, webbed, or plain; but

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

1. The process of repairing rail-joints which consists of raising the worn rail, removably holding the same in raised position, and cutting down its tread.

2. In a rail-joint, the combination of a normal rail end, a rail end worn by traffic, with means for removably holding the cut-down tread of the worn rail end in alinement with the tread of the other rail end.

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

ARTHUR L. PLIMPTON.

In presence of—

GILBERT O. BURNHAM,  
WARREN RICHARDSON.