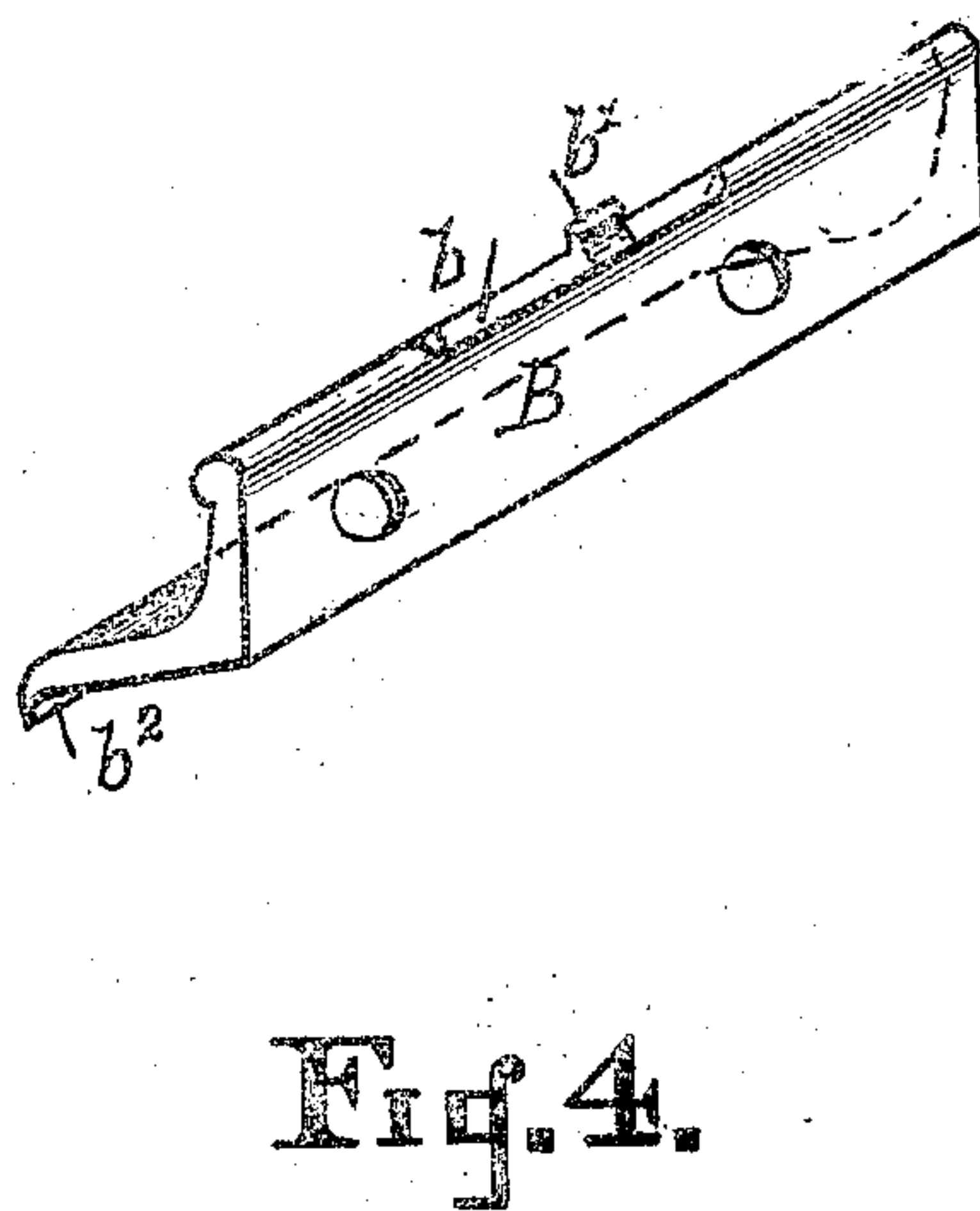
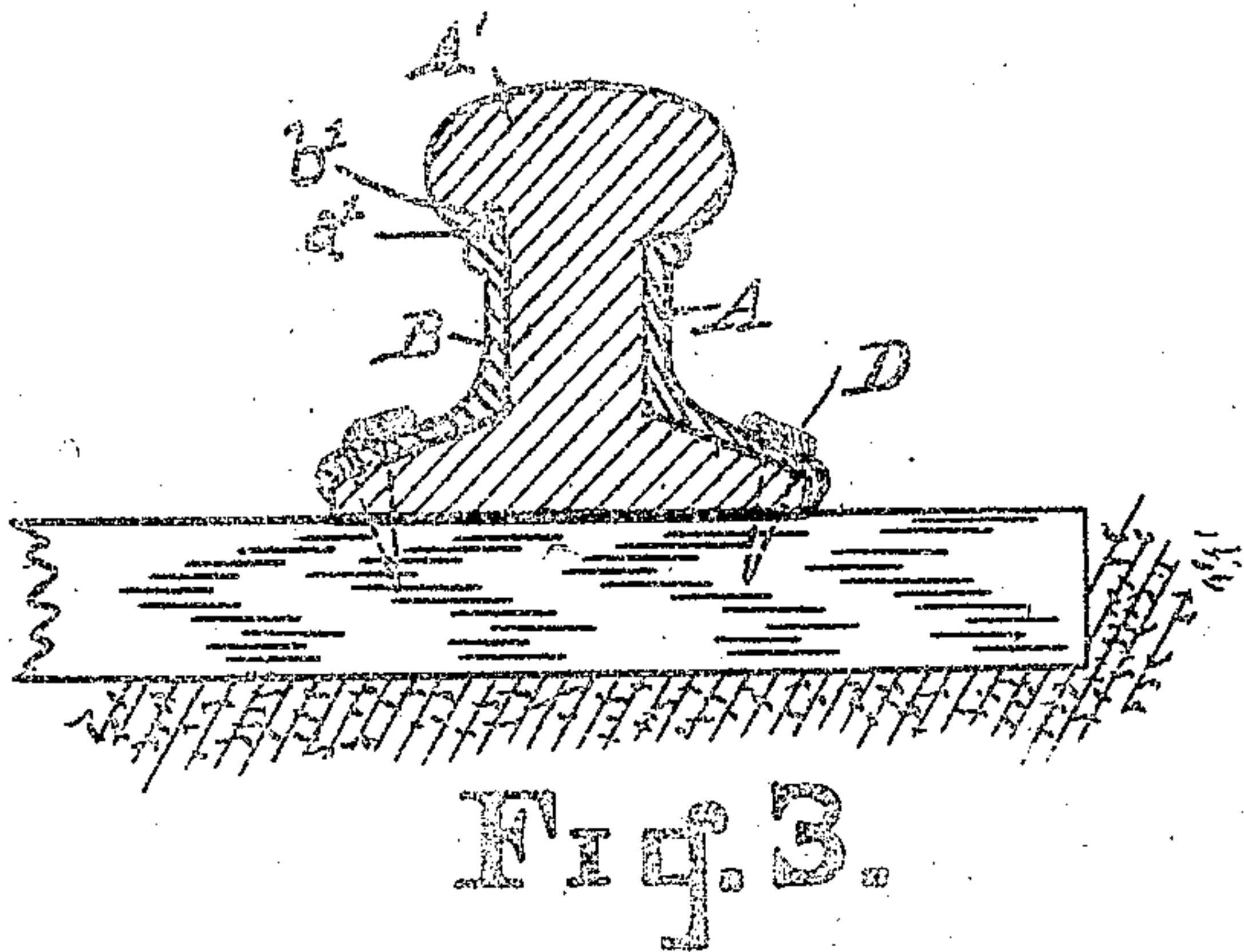
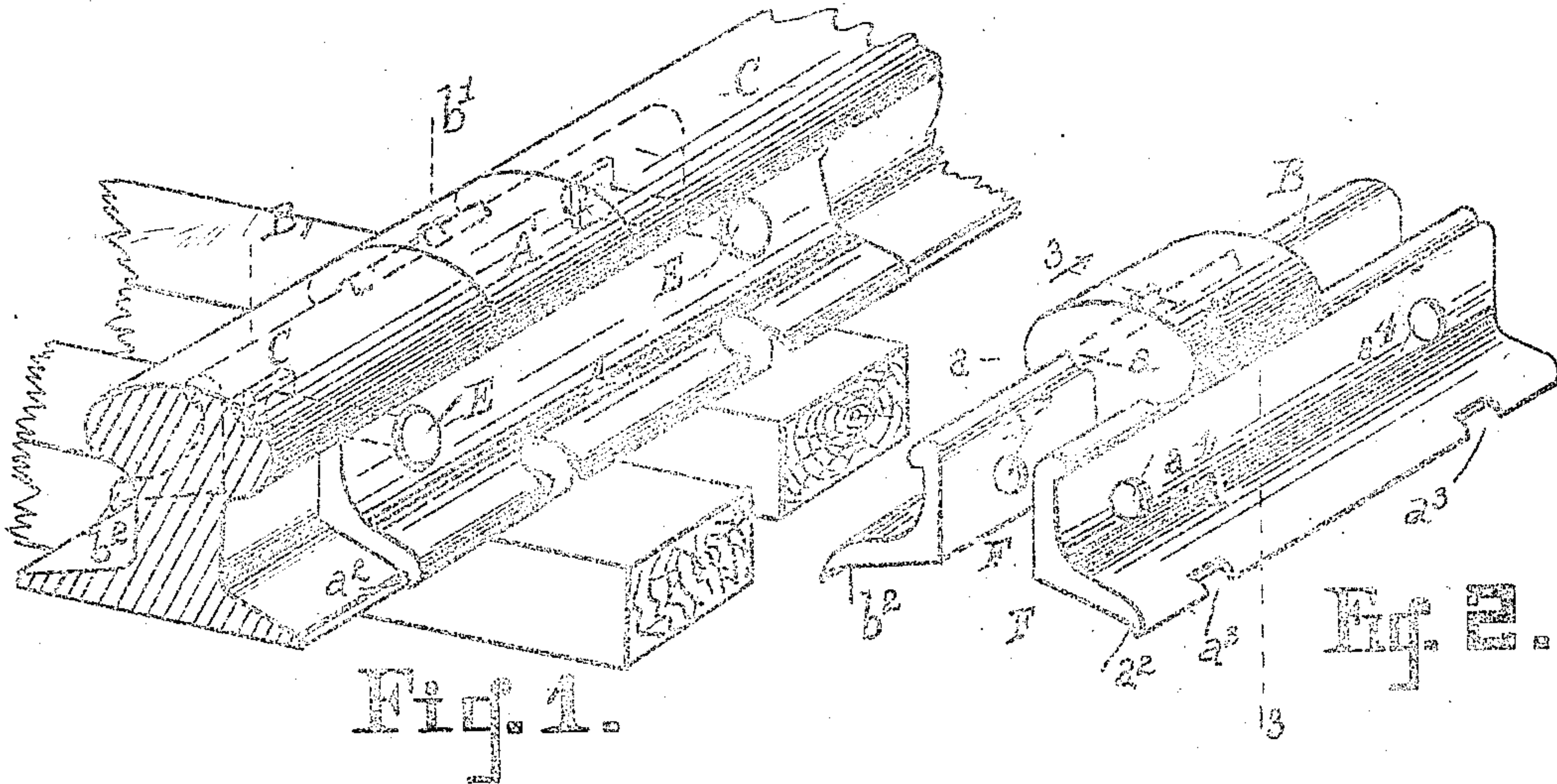


No. 881,160.

PATENTED MAR. 10, 1908.

J. G. SMITH.
RAIL JOINT.

APPLICATION FILED JULY 18, 1907.



UNITED STATES PATENT OFFICE.

JOHN G. SMITH, OF PAWNEE, ILLINOIS.

RAIL-JOINT.

No. 881,160.

Specification of Letters Patent.

Patented March 10, 1908.

Application filed July 18, 1907. Serial No. 384,468.

To all whom it may concern:

Be it known that I, JOHN G. SMITH, a citizen of the United States, residing at Pawnee, in the county of Sangamon and State of Illinois, have invented a new and useful Rail-Joint, of which the following is such a full, clear, and exact description as will enable others skilled in the art to which it appertains to make and use my said invention.

My invention relates to means for connecting the rails of railways so as to admit of expansion and contraction of the rails separately, and prevent lifting of, or lateral displacement of the rails.

The invention consists in the novel features of construction, and combinations of parts, shown in the annexed drawings, to which reference is hereby made, and hereinafter particularly described and finally recited in the claims.

Referring to the drawing; Figure 1, shows two rails connected by means of my improved rail-joint; Fig. 2 is an enlarged detached perspective view of the complete rail-joint; Fig. 3 is a vertical transverse section on the line 3-3 of Fig. 2; and Fig. 4 is a perspective view of the detachable member of the rail-joint.

The rail joint is made of steel and comprises two members A and B.

The member A is provided with an integral central block A' shaped to match the heads of the rails C, which are connected by the rail joint.

The member B has a longitudinal rib *b* fitting in a corresponding channel *a* in the under side of the block A'; and a lug *b*¹ fitting in a corresponding notch *a*¹, in the under side of the head A'.

The lower part of the member A is shaped to conform to the base of the rail and has a longitudinal lip *a*², fitting along the outer edge of the base of the rail, and notches *a*³ accomodating spikes D which connect the members with the ties.

The member B has a corresponding lip *b*² and notches *b*³.

Holes *a*⁴ in the member A, and similar holes *b*⁴ in the member B, accomodate bolts E con-

necting the rails with the rail joint members A and B.

The longitudinal rib *b*, fitting in the longitudinal channel *a*, holds the member B against the block A' when the rail-joint is spiked down to the ties and prevents lateral movement of the member B.

The central lug *b*¹, fitting in the notch *a*¹, centers the member B relative to the member A, so that the bolt holes *a*⁴ and *b*⁴ will always be in line for the insertion of the bolts E connecting the rails with the rail-joint.

The spaces F and F' between the members A, and B, conform to the webs and the bases of the rails C, so that the rails fit snugly in the spaces. The ends of the rails match the ends of the block A' and the heads of the rails rest upon the upper edges of the members A and B.

The bolt holes of the rails are elongated in the usual manner sufficiently to permit contraction and expansion of the rails separately.

The members A and B are formed to fit closely against the rails and when the members A and B are spiked to the ties it is impossible for the rails to lift, or to move laterally.

The great practical advantage of the rail-joint herein set forth is that it may be used with rails of the forms now in common use without making any change in the rails.

Having fully described my invention what I claim as new, and desire to secure by Letters Patent is:

1. A rail-joint comprising a member having an integral central block provided with a longitudinal channel and a central notch; and a complementary member having a longitudinal rib fitting in the longitudinal channel of the block of said first named member, and a central lug fitting in the central notch on the under side of the central block of said first named member.

2. A rail-joint comprising a member having an integral central block conforming to the head of a rail and provided with a longitudinal channel and a central notch on the under side of said block and also having a

longitudinal lip adapted to fit along the edge
of the base of a rail; and a complementary
rail-joint member having a longitudinal rib,
adapted to fit in the channel on the under
5 side of the block of the first named member,
a lug adapted to fit in the central notch on
the under side of said block, and a lip adapt-
ed to lie along the edge of the base of a rail.

In witness whereof I have hereunto
signed my name at Pawnee Illinois this 14th 10
day of May 1907.

JOHN G. SMITH.

Witnesses:

CLAUDE H. KEEL,
JAMES M. DUNCAN.