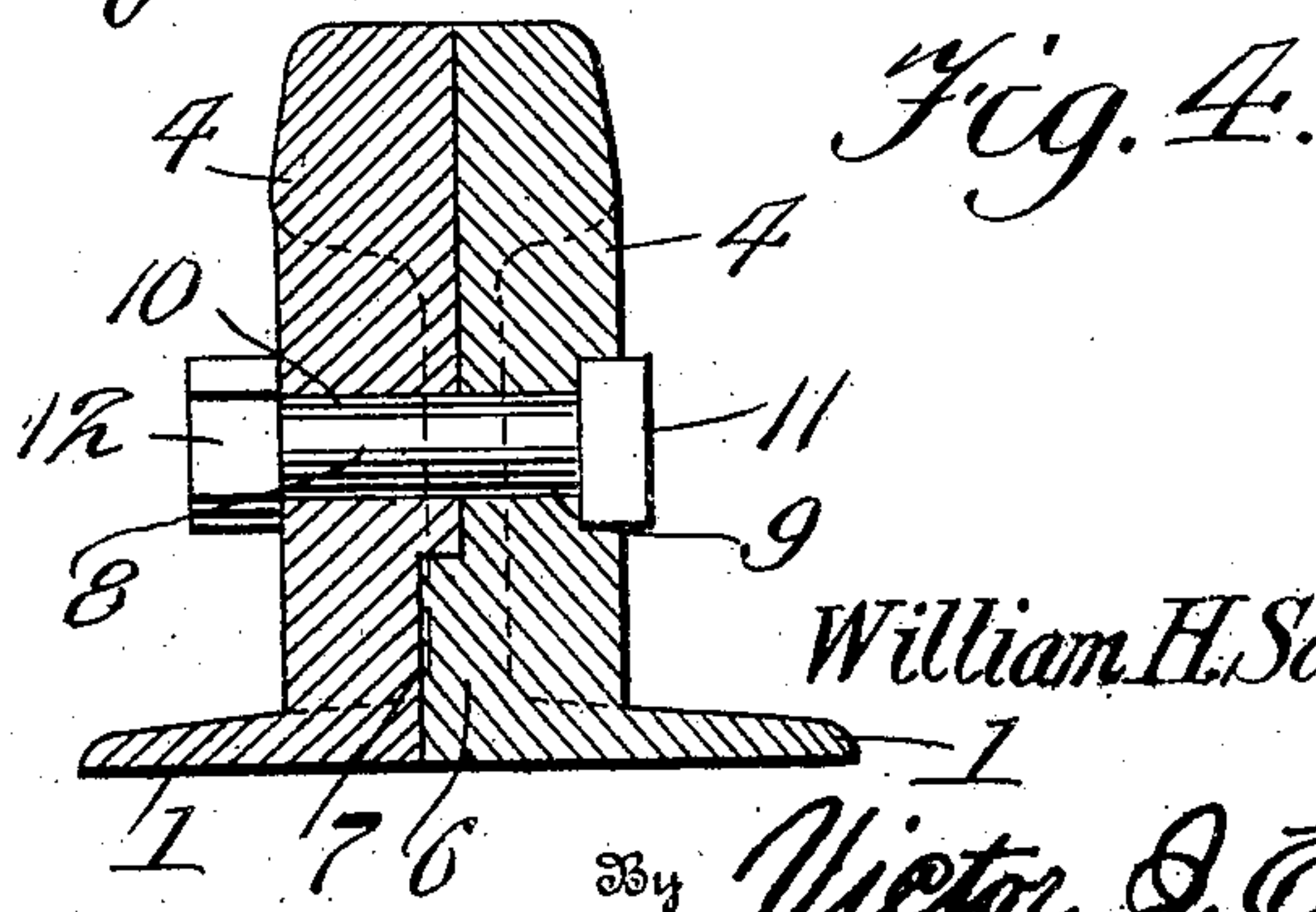
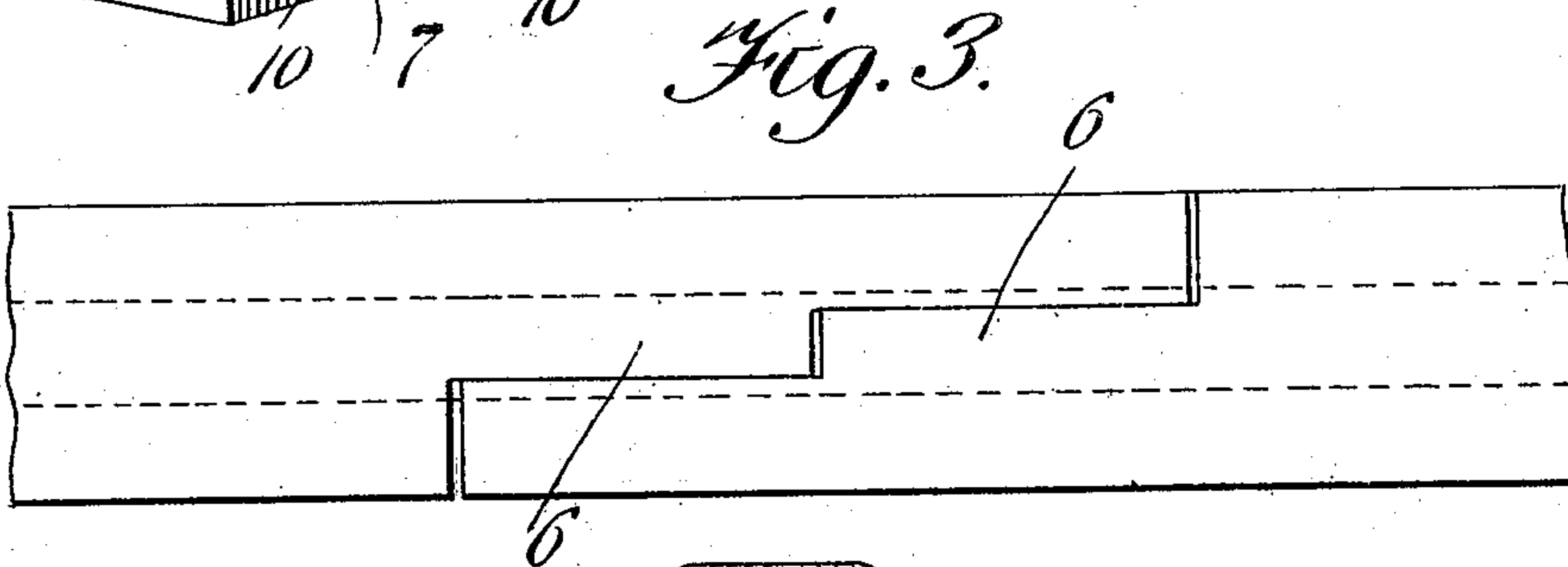
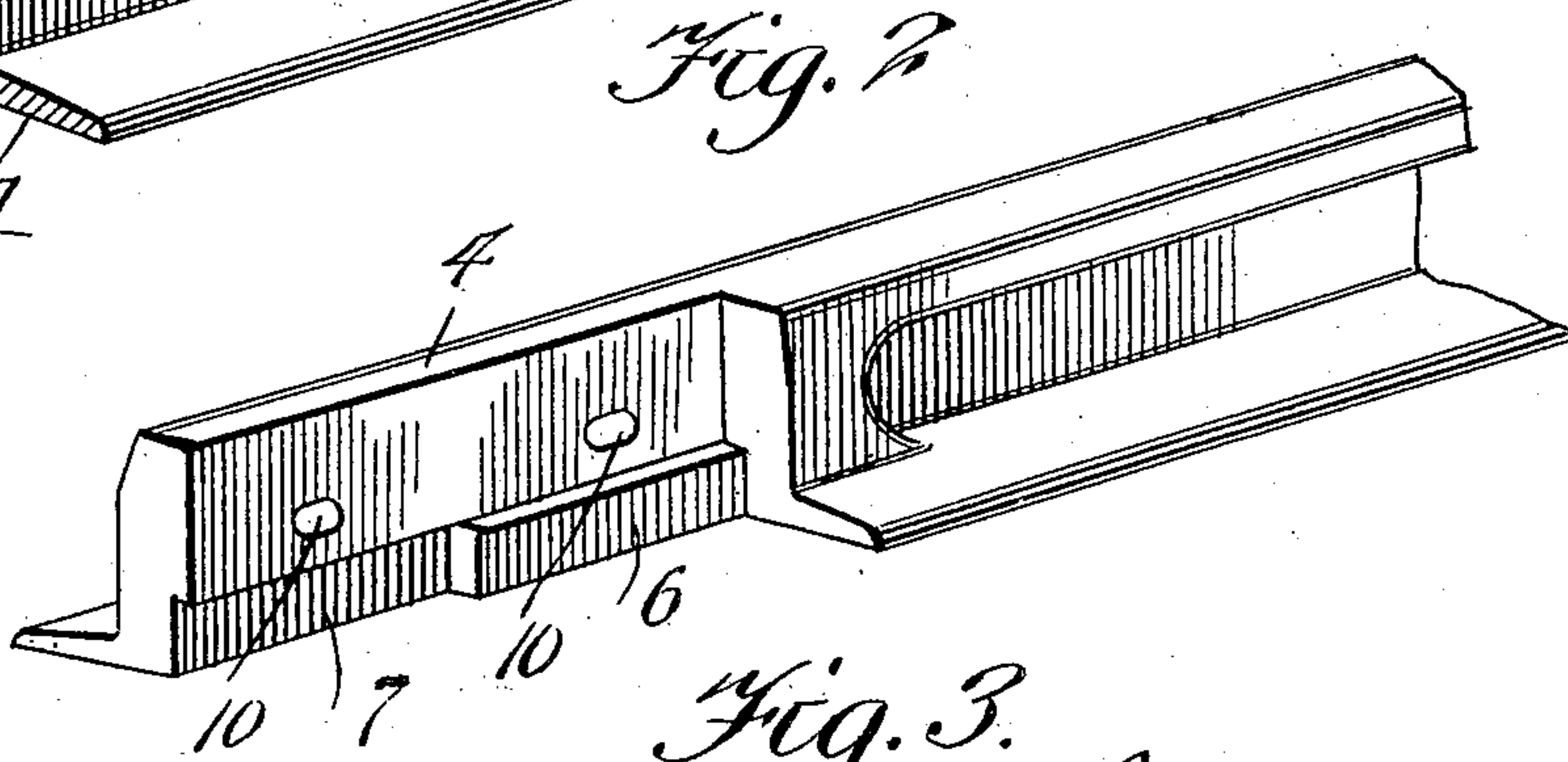
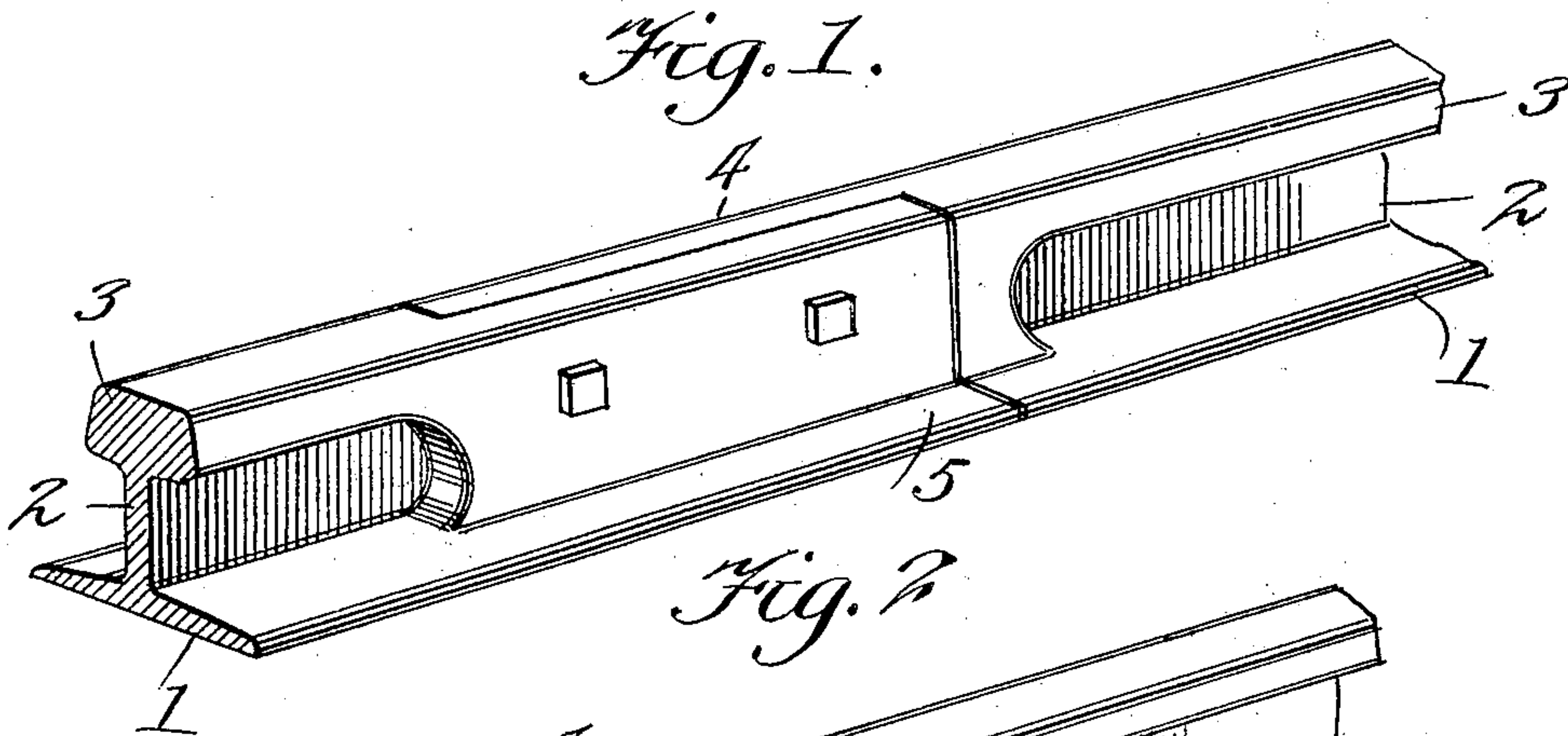


W. H. SANDERSON.  
RAIL JOINT.  
APPLICATION FILED JUNE 6, 1908.

920,661.

Patented May 4, 1909.



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## RAIL-JOINT.

No. 920,661.

Specification of Letters Patent.

Patented May 4, 1909.

Application filed June 5, 1908. Serial No. 436,943.

*To all whom it may concern:*

Be it known that I, WILLIAM H. SANDERSON, a subject of the King of Great Britain, residing at Virden, in the Province of Manitoba, Dominion of Canada, have invented new and useful Improvements in Rail-Joints, of which the following is a specification.

My invention relates to rail joints, and its primary object is the provision of a device of this character which is designed to prevent the ends of the rails from having relative vertical movements, thus preventing low joints and the rounding of the ends of the rails.

A further object of my invention is the provision of a rail joint which is simple, durable and efficient, and one which will not materially increase the cost of the rails.

With the above and other objects in view, the invention consists in the construction, combination and arrangement of parts herein-after fully described, claimed and illustrated in the accompanying drawing, wherein:

Figure 1 is a perspective view illustrating a rail joint constructed in accordance with my invention. Fig. 2 is a perspective view of the end of the rail formed in accordance with my invention. Fig. 3 is a bottom plan view of the rail joint, and Fig. 4 is a sectional view taken on a plane extending vertically through the rail joint.

Referring to the drawing by reference numerals, 1 designates the bases, 2 the webs, and 3 the heads of a pair of railway rails.

The ends of the rails are formed to provide longitudinally projecting tongues 4. The inner faces of the tongues are coincident with the longitudinal axis of the rails and are arranged to overlap when the rails are assembled. The outer faces of the tongues are coincident with the contiguous side edges of the heads of the rails, whereby when the rails are assembled the combined widths of the tongues are equal to the transverse extent of the heads of the rails. The tongues are provided with flanges 5 which are continuations of the bases of the rails. The inner face of each tongue is formed to provide a laterally projecting block 6 and a recess 7.

The block and recess extend in a direction longitudinally of the rails and are arranged at the lower edge of the tongue. The arrangement of the blocks and recesses is such

that the recess of one tongue receives the block of the other tongue when the rails are assembled. The location of the blocks 6 at the lower edges of the tongues provide greater bearing surfaces for the tongues. The tongues are designed to prevent the rails from having any relative vertical movement, whereby to prevent low joints and the rounding of the ends of the rails.

The ends of the rails are prevented from lateral separation by means of headed bolts 9, passing through openings 9 in one of the tongues and openings 10 in the other tongue. The openings 9 are countersunk to receive the rectangular heads 11 of the bolts, whereby to prevent the bolts from turning during the application or removal of nuts 12. The openings 10 are elongated to permit relative longitudinal movements of the rails during the contraction and expansion thereof.

It should be apparent from the above description taken in connection with the accompanying drawing, that I provide a rail joint which will prevent low joints and the rounding of the ends of the rails. It should also be apparent that the rail joint obviates the necessity of the use of splice bars.

Changes in the form, proportions and minor details of construction may be made within the scope of the claim without departing from the spirit or sacrificing any of the advantages of the invention.

Having fully described and illustrated my invention, what I claim is:

The combination of a pair of rails formed to provide longitudinally projecting tongues adapted to overlap when the rails are assembled, the inner faces of the tongues being coincident with the longitudinal axis of the rails and the other faces coincident with the contiguous side edges of the heads of the rails, the inner face of each tongue being formed to provide a longitudinally extending recess which opens out through the lower edge of the tongue and a block arranged at the lower edge of the tongue, the blocks being arranged in rear of and longitudinally alined with the recesses, and means securing the ends of the rails together.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM H. SANDERSON.

Witnesses:

W. H. BURGE,  
H. S. SCARTH.