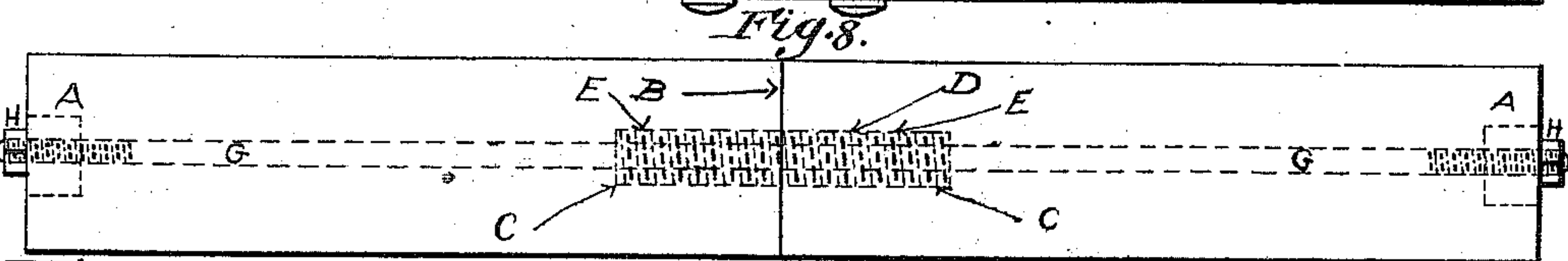
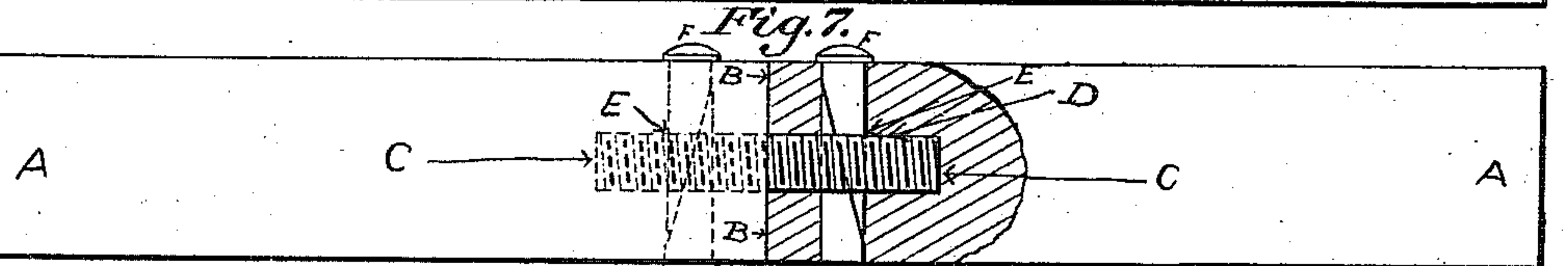
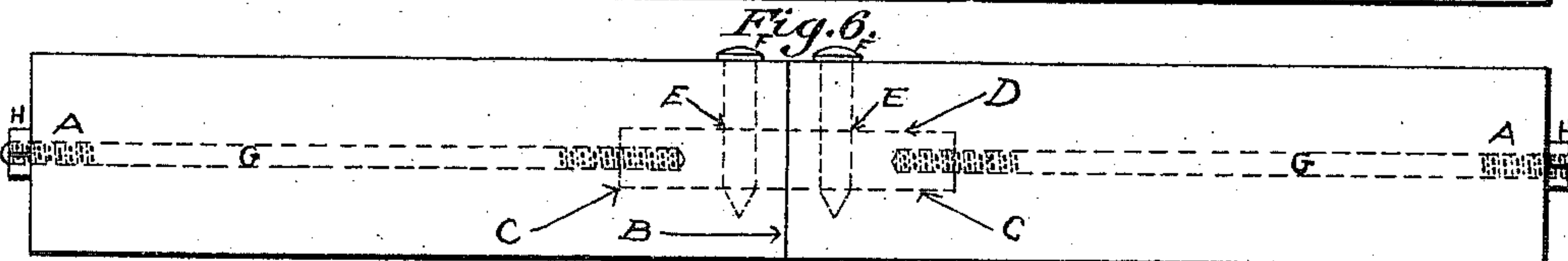
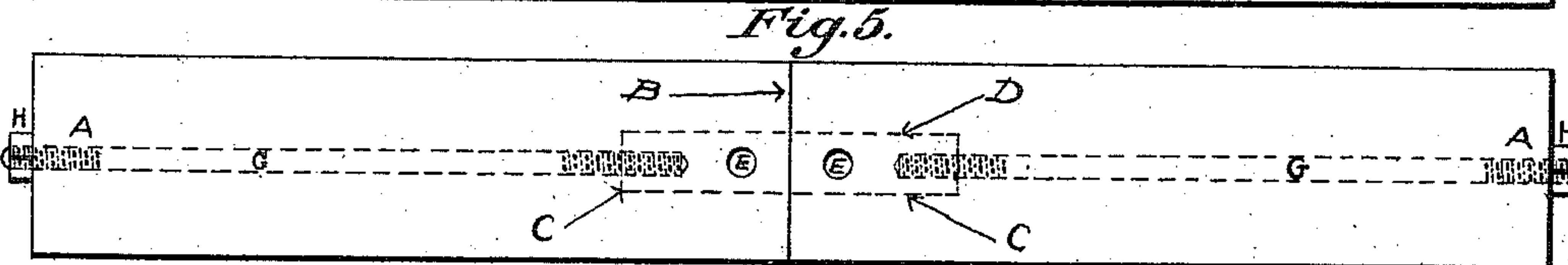
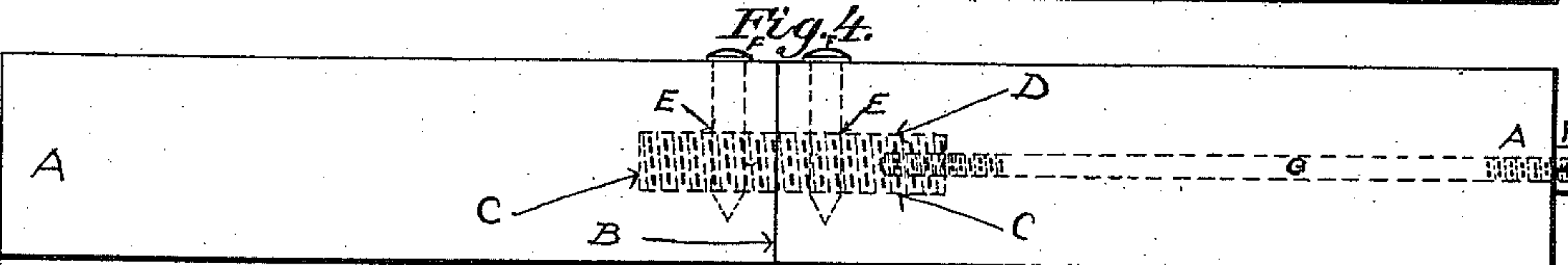
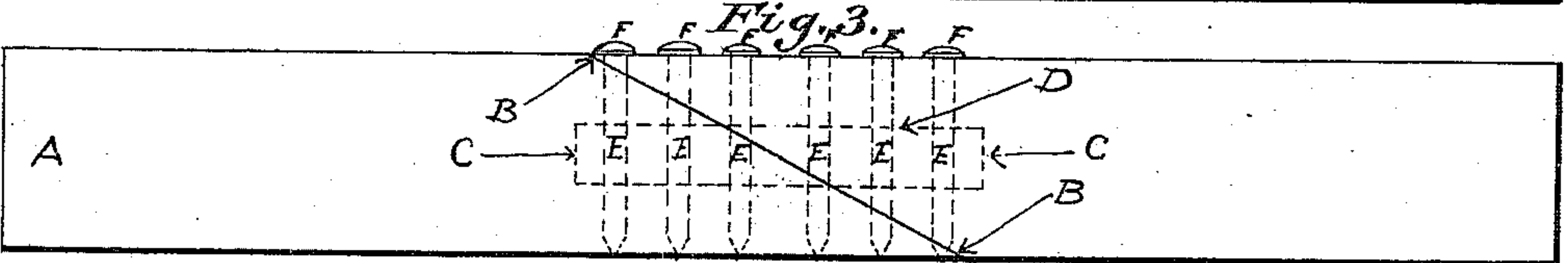
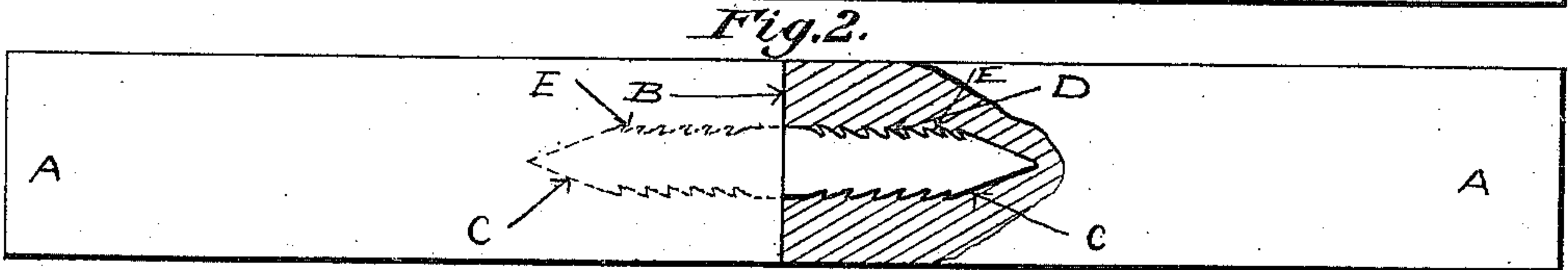
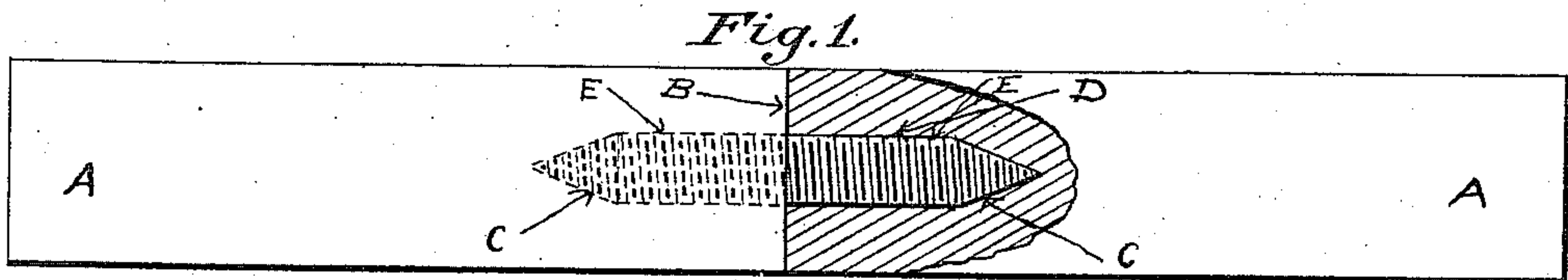


A. B. WETHERELL.  
RAILWAY CROSS TIE.  
APPLICATION FILED JULY 10, 1908.

985,483.

Patented Feb. 28, 1911.



Witnesses:

*S. J. Tolle*  
*James Torrance*

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# UNITED STATES PATENT OFFICE.

ANSON B. WETHERELL, OF PITTSBURG, PENNSYLVANIA.

RAILWAY CROSS-TIE.

985,483.

Specification of Letters Patent.

Patented Feb. 28, 1911.

Application filed July 10, 1908. Serial No. 442,983.

*To all whom it may concern:*

Be it known that I, ANSON B. WETHERELL, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Railway Cross-Ties, of which the following is a specification.

My invention has relation particularly to wooden railway cross ties and has for its primary object: the provision of an improved form of cross tie, wherein not only short lengths of tie lumber may be utilized, but also the sound portions of old and damaged wooden ties to form new ties, thereby lessening the present loss of valuable material and reducing the maintenance cost of railroads. The invention is illustrated in the accompanying drawing, wherein Figures 1 to 8 inclusive are views of ties showing various embodiments of my invention, certain of the parts being broken away to more clearly illustrate the construction employed.

In carrying out my invention I employ short lengths of lumber, or the sound portions of damaged ties, using two or more of such portions A—A to form a new tie. The abutting ends B of the portions A—A are suitably cut to have neat engagement with one another and are protected from the effects of the weather and elements by means of a coating of tar, cement, asphalt, concrete or other suitable material. The opposing tie portions are held in position by means of a central longitudinal holding member D embedded in the abutting ends. In Figure 1 the holding member D consists of a piece of metal having pointed ends C—C and provided with screw threads E adapted to draw and hold the opposing members firmly together. In Figure 2 the holding member is shown provided with oppositely directed barbs adapted to be embedded in the meeting end portions. In Figure 3 the opposing members are shown with their abutting ends beveled, spikes F being provided for positioning the parts on the holding member D.

In Figure 4 in addition to the holding member D and spikes F, a rod G is provided, which rod extends from the holding member to the end of the opposing tie member A

where it is secured by the nut H, thus constituting an additional drawing and holding means. The device of Figure 5 is similar to that of Figure 4, save that a pair of longitudinal rods G are employed. Figure 6 is another view of the device of Figure 5. In Figure 7 the threaded holding member D is provided with openings to receive draw spikes F, adapted to draw the parts together. In the construction of Figure 8, the holding member D is provided with an opening to receive a single longitudinally extending rod G, which is secured to both ends of the tie by means of nuts H.

It is to be observed that when the parts are drawn together the tar, cement, or other material used on the ends of the abutting tie portions assists greatly in securing solidity of the tie as a whole. The abutting ends, if so desired, may be roughened, scored, or grooved to form crevices into which the coating material employed may enter to secure greater strength and solidity.

By this construction a very strong and practical tie is secured. The foregoing advantages and others incident to my construction will readily occur to those familiar with the art.

Having thus described my invention and illustrated its use, what I claim as new and desire to secure by Letters Patent, is the following:—

1. A wooden railway cross tie comprising in combination, a pair of opposing tie members having abutting ends and a substantially central longitudinal holding member provided with outstanding projections for engaging the opposing tie members.

2. A wooden railway cross tie comprising in combination, opposing tie members, a substantially central longitudinal holding member and means extending from the central longitudinal holding member to an end of the tie for drawing and holding the members together.

3. A wooden railway cross tie comprising in combination opposing tie members having abutting ends, a substantially central longitudinal holding member for holding the opposing tie members and additional securing means for holding the opposing tie members

and the central longitudinal member in position.

4. A wooden railway cross tie comprising in combination opposing tie members, a substantially central longitudinal holding member embedded in the ends of the opposing tie members for holding them in position, and

additional means for holding the opposing tie members and the central longitudinal holding member in position.

A. B. WETHERELL.

Witnesses:

S. J. TOOLE,

JAMES TORRENCE.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."

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