No. 819,520. PATENTED MAY 1, 1906.

W. B. COOKE.

MOVABLE POINT RAILWAY CROSSING.

APPLICATION FILED MAR. 9, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

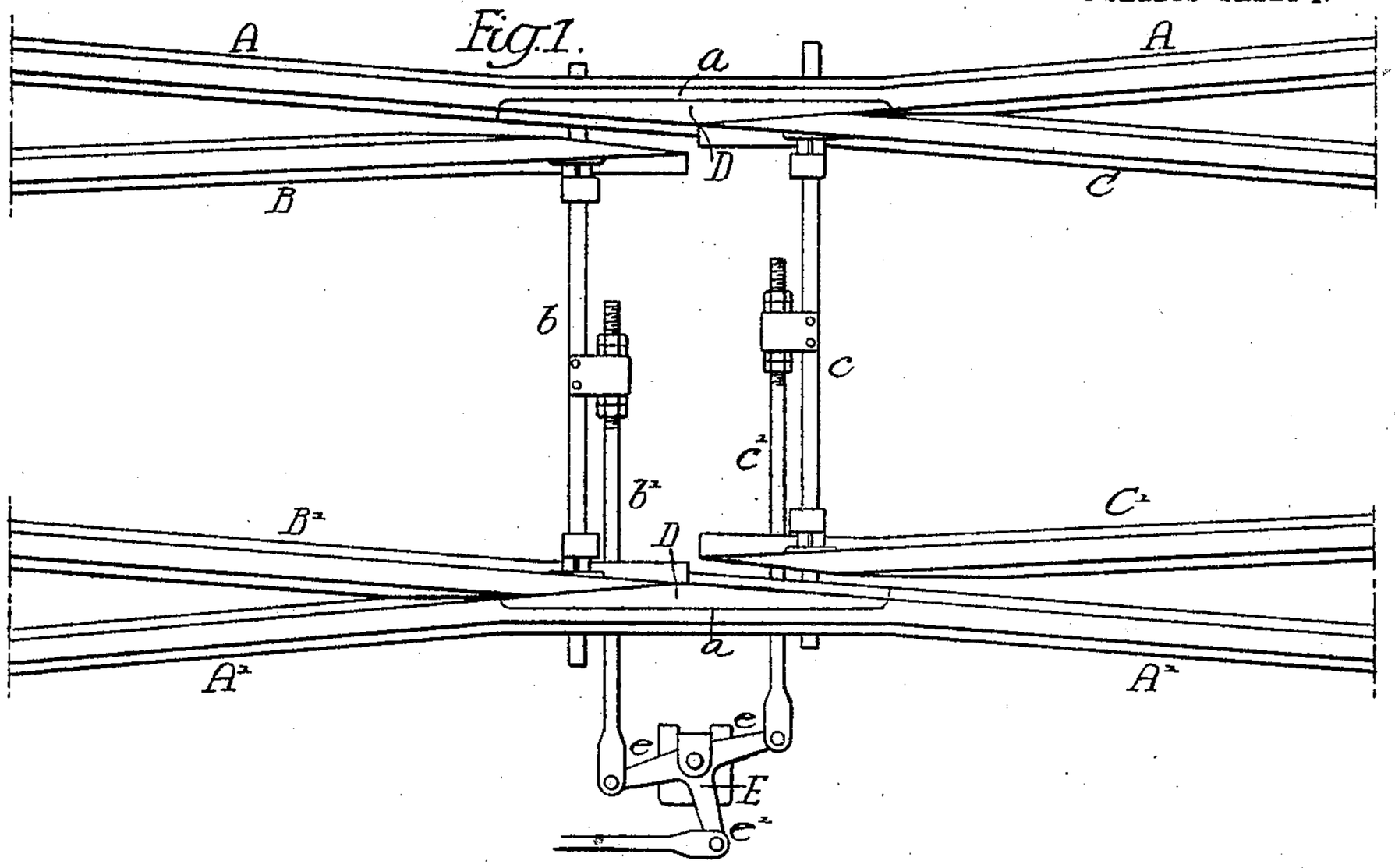


Fig 2

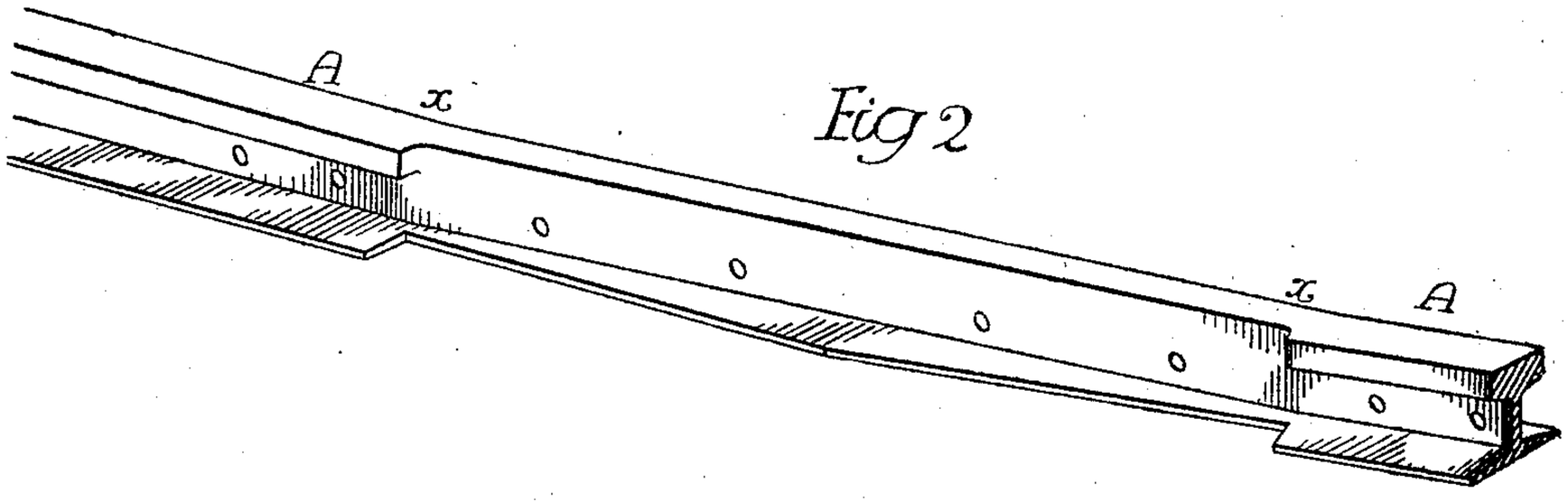
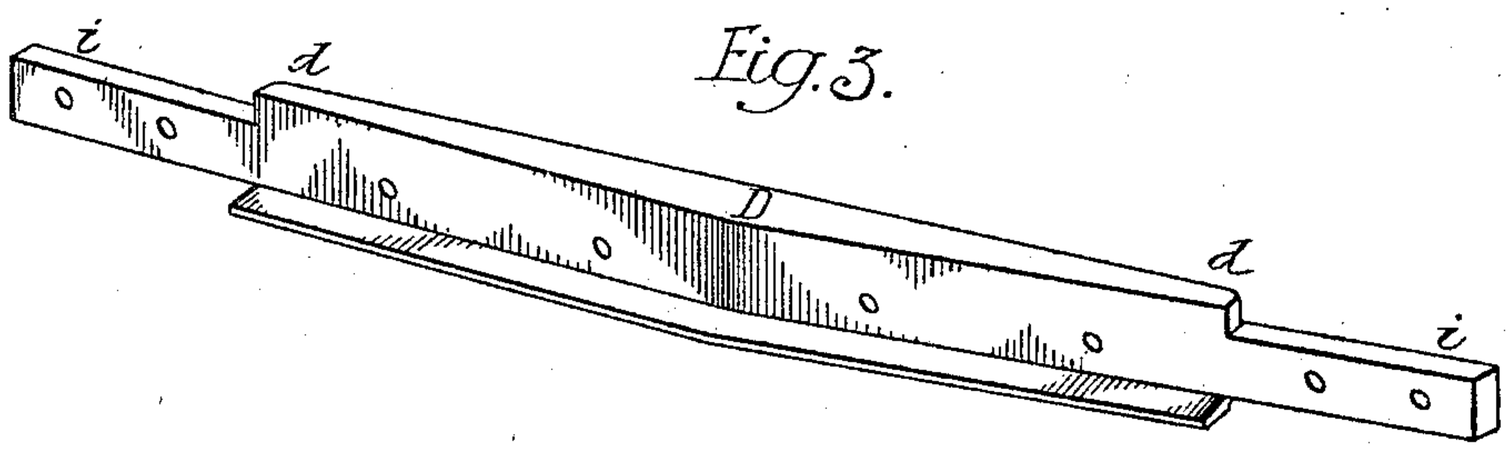


Fig. 3.



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Howson & Howson

ANDREW. B. GRAHAM CO., PHOTO-LITHOGRAPHERS, WASHINGTON, D. C.

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2 SHEETS—SHEET 2.

Fig. 4.

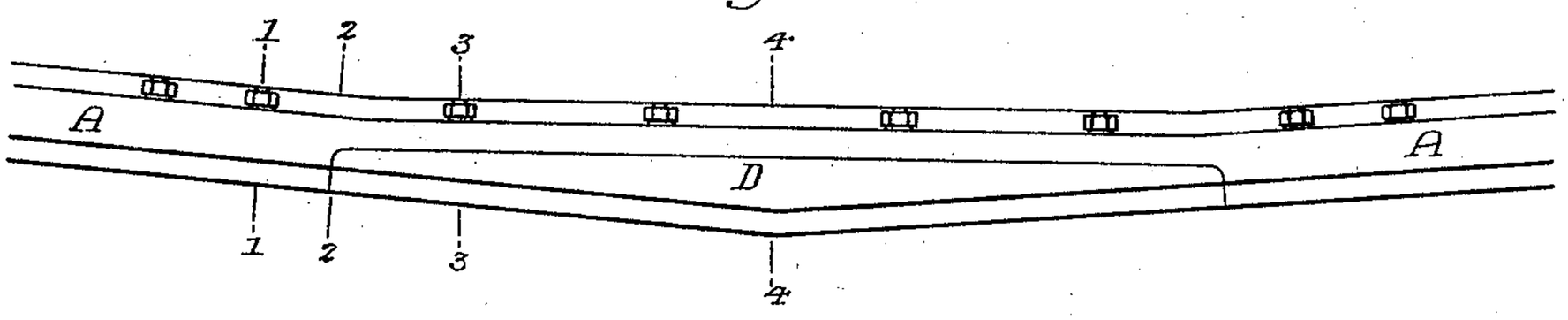


Fig. 5.

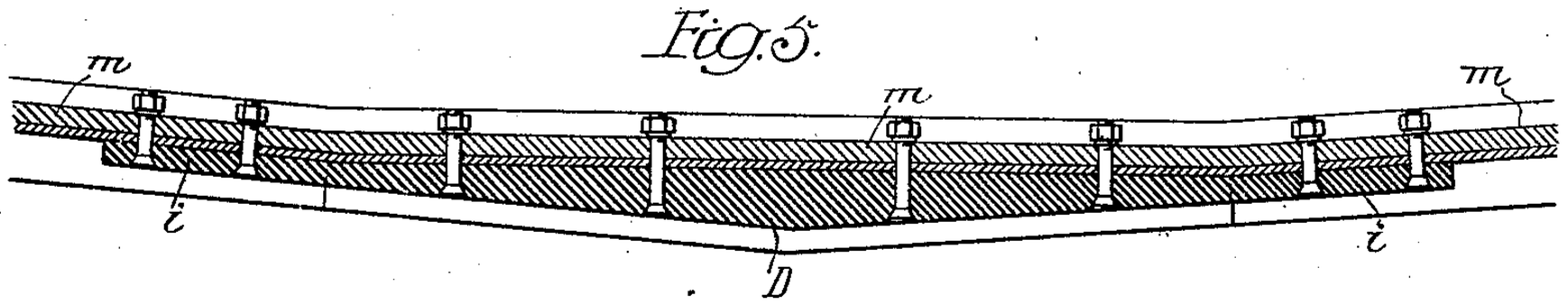


Fig. 6.

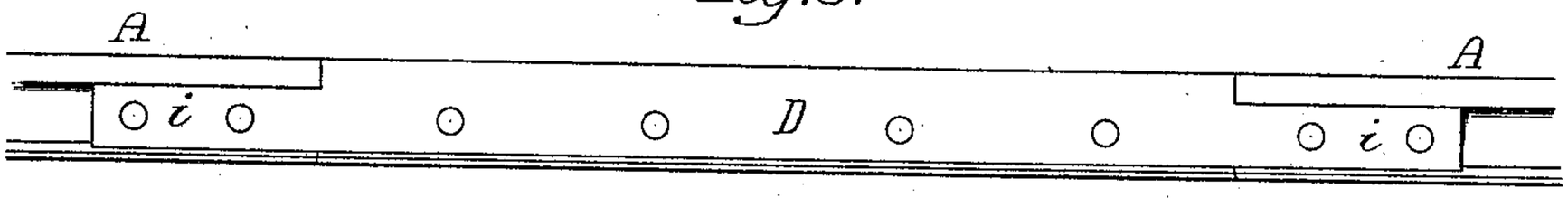


Fig. 7.

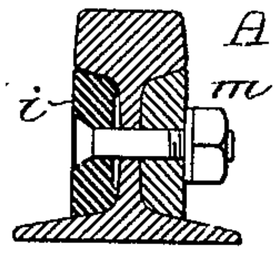


Fig. 8.

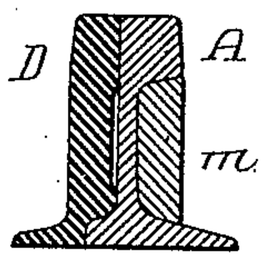


Fig. 9.

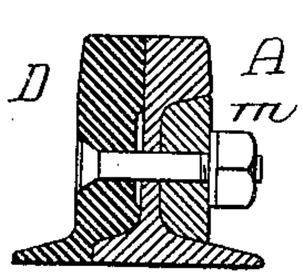
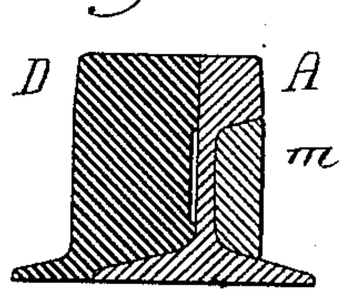


Fig. 10.



Witnesses:
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Inventor.
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UNITED STATES PATENT OFFICE.

WARNER B. COOKE, OF JENKINTOWN, PENNSYLVANIA, ASSIGNOR TO WILLIAM WHARTON, JR., & COMPANY, INCORPORATED, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

MOVABLE-POINT RAILWAY-CROSSING.

No. 819,520. Specification of Letters Patent. Patented May 1, 1906.

Application filed March 9, 1906. Serial No. 305,057.

To all whom it may concern:

Be it known that I, WARNER B. COOKE, a citizen of the United States, residing at Jenkintown, Pennsylvania, have invented certain Improvements in Movable-Point Railway-Crossings, of which the following is a specification.

The object of my invention is to prevent the rapid wearing away or grooving of the stock-rails of this type of crossing. This object I attain by inserting a hard-metal section in the stock-rail at the place where the two lines of track cross each other.

In the accompanying drawings, Figure 1 is a plan view of my improved movable-point crossing. Fig. 2 is an enlarged perspective view of a portion of one of the stock-rails. Fig. 3 is an enlarged perspective view of the hard-metal section. Fig. 4 is an enlarged plan view of a portion of Fig. 1. Fig. 5 is a longitudinal sectional plan view of Fig. 4. Fig. 6 is a longitudinal side view of Fig. 4. Fig. 7 is a transverse sectional view on the line 1 1, Fig. 4. Fig. 8 is a transverse sectional view on the line 2 2, Fig. 4. Fig. 9 is a transverse sectional view on the line 3 3, Fig. 4. Fig. 10 is a transverse sectional view on the line 4 4, Fig. 4.

A A′ are the two stock-rails of the crossing bent to the shape desired, as illustrated in Fig. 1. B B′ and C C′ are the movable point-rails, the rails B B′ being connected together by tie-rod *b* and the rails C C′ being connected together by tie-rod *c*.

The point-rails are moved by a lever E, in the present instance having arms *e e*, connected by rods *b′* and *c′* to the rods *b* and *c*, respectively. The lever E has an arm *e′*, which is connected to any suitable actuating mechanism.

The stock-rails A A′ are recessed at *a*, as shown in Fig. 1, for the reception of a hard-metal insert D, which is shaped as clearly shown in Fig. 3, being wide at the middle and tapering toward each end. The recess in the stock-rail is of such a depth that the ends *d d* of the insert D will aline with the head of the stock-rail, as clearly illustrated in Figs. 1 and 4.

The back of the insert D is preferably straight, and the stock-rail is straight, in the present instance, between the points *x x*, Fig. 2, and as each arm of the stock-rail is bent so as to aline with its adjoining rail of the crossing the insert D is made so that its inner edge will be in line with the inner edge of the head of the stock-rail, thus making it broad at the center and narrow at each end, giving strength to the structure at the place where it is most needed.

I preferably do not cut away all of the base of the stock-rail at the place where the recess is made for the reception of the hard-metal insert, thus leaving a portion of the base of the stock-rail upon which the bottom of the insert may rest and be supported. This is clearly shown in Figs. 2, 8, 9, and 10.

The hard-metal insert is preferably made of manganese steel, and in some instances the movable-point sections may also be made of hard metal, such as manganese steel.

At each end of the hard-metal insert D there is an extension *i*, which fits into the space between the head and the base of the stock-rail, as shown in Figs. 2, 3, 6, and 7.

On the outside of the stock-rail fitting between the head and base thereof and extending a suitable distance beyond each end of the hard-metal insert I prefer to use a reinforcing bar or plate *m*, Figs. 5, 7, 8, 9, 10, thus greatly strengthening the structure.

The hard-metal insert is held in its place and secured to the stock-rail by means of bolts, as shown, which when the reinforcing-bar *m* is used may extend through it also, binding the parts firmly together.

I claim—

1. In a movable-point railway-crossing, the combination of a bent stock-rail recessed at the angle, with an insert mounted in the recess, substantially as described.

2. In a movable-point railway-crossing, the combination of a bent stock-rail recessed at the angle, with an insert mounted in the recess, the inner edge of the insert alining with the inner edge of the rail, substantially as described.

3. In a movable-point railway-crossing, the combination of a stock-rail recessed at the angle and bent to aline with the adjoining rails of the crossing, with an insert tapered at each side of the center and secured to the stock-rail, substantially as described.

4. In a movable-point railway-crossing,

the combination of a bent stock-rail recessed at the angle, an insert mounted in the recess, and movable-point rails arranged to be moved toward and away from the said insert, substantially as described.

5. In a movable-point railway-crossing, the combination of a recessed stock-rail bent to the desired angle, an insert mounted in the recess and resting upon the base-flange of the stock-rail, and means for securing the insert to the stock-rail, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WARNER B. COOKE.

Witnesses:

WILL. A. BARR,

JOS. H. KLEIN.