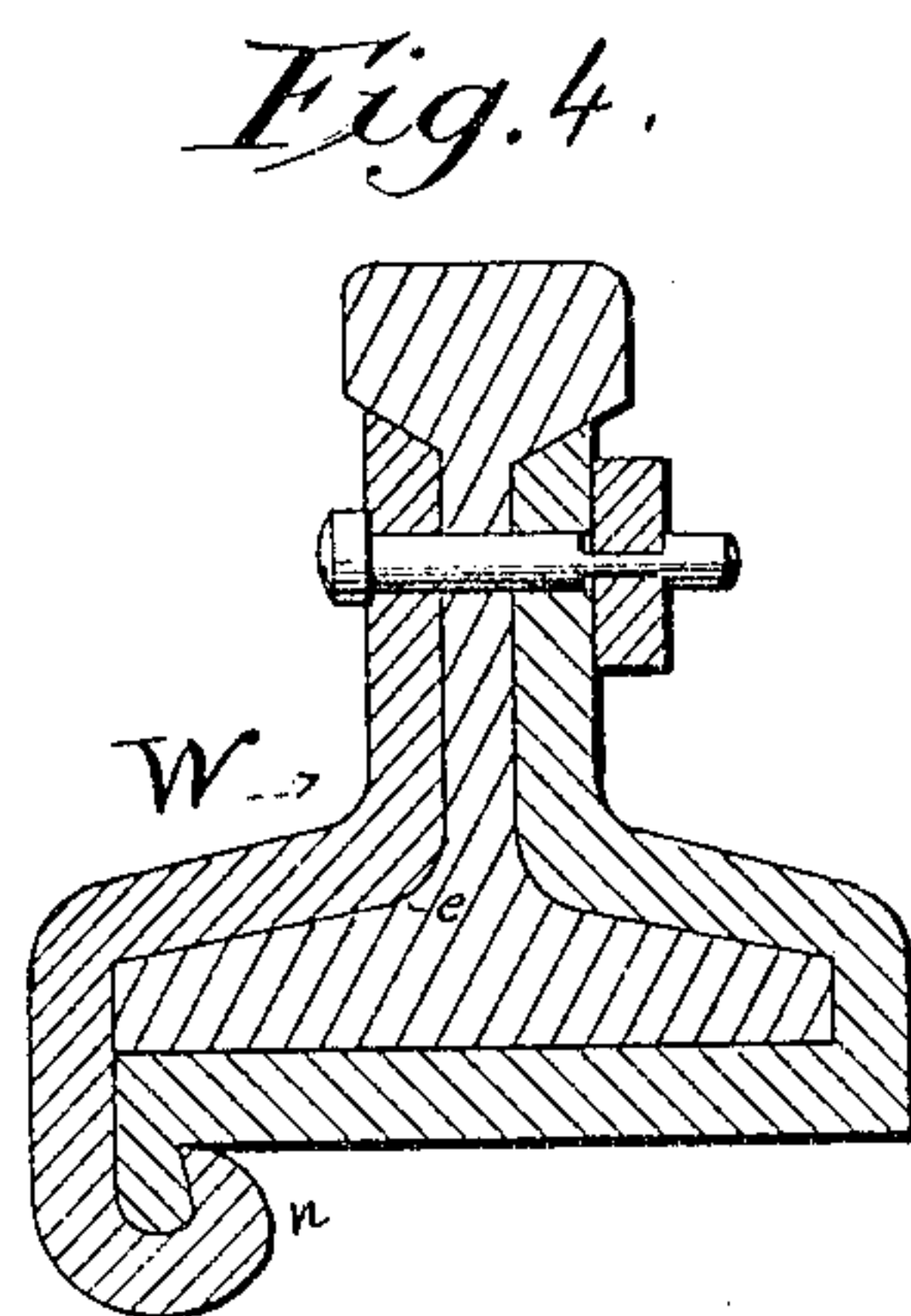
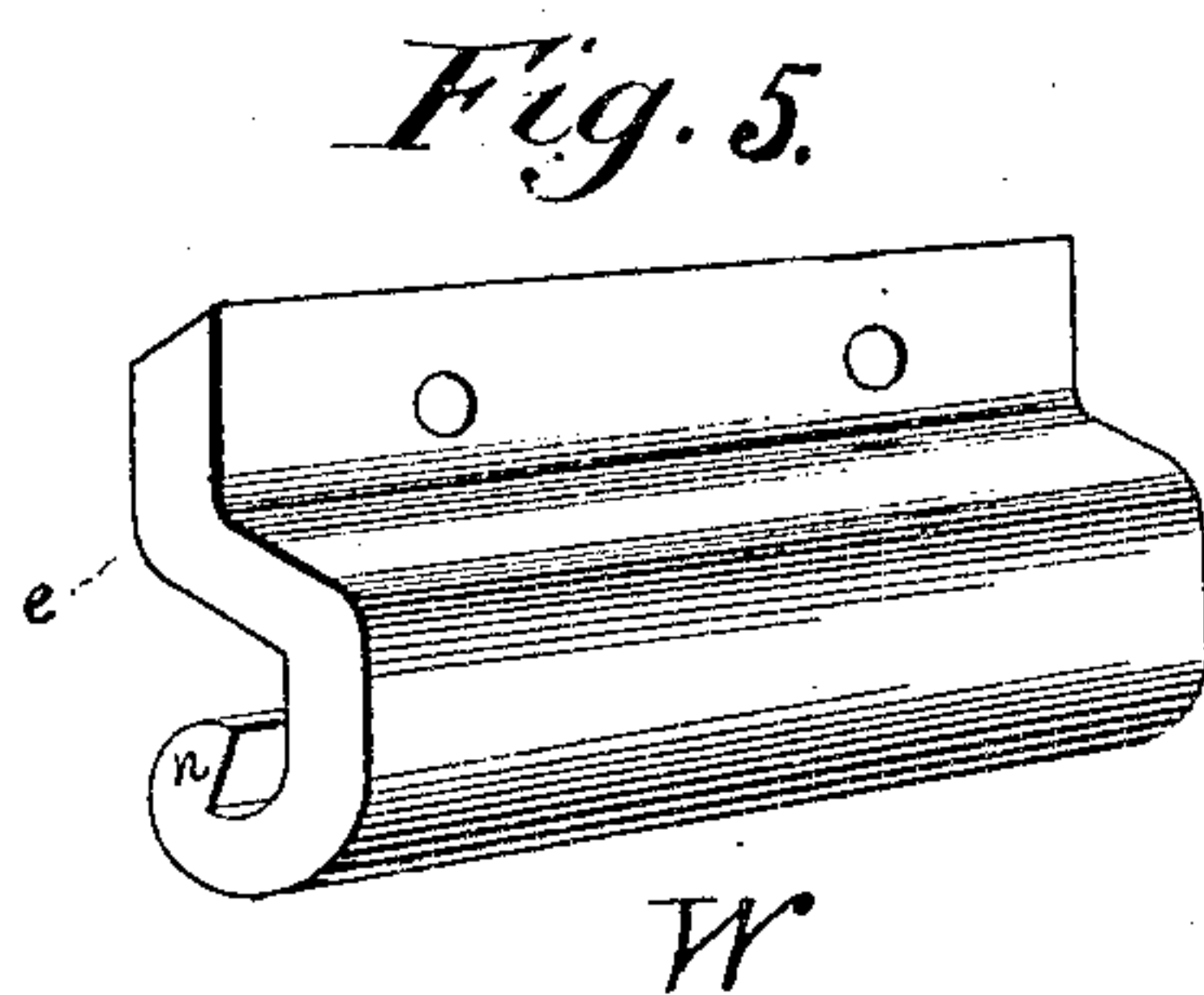
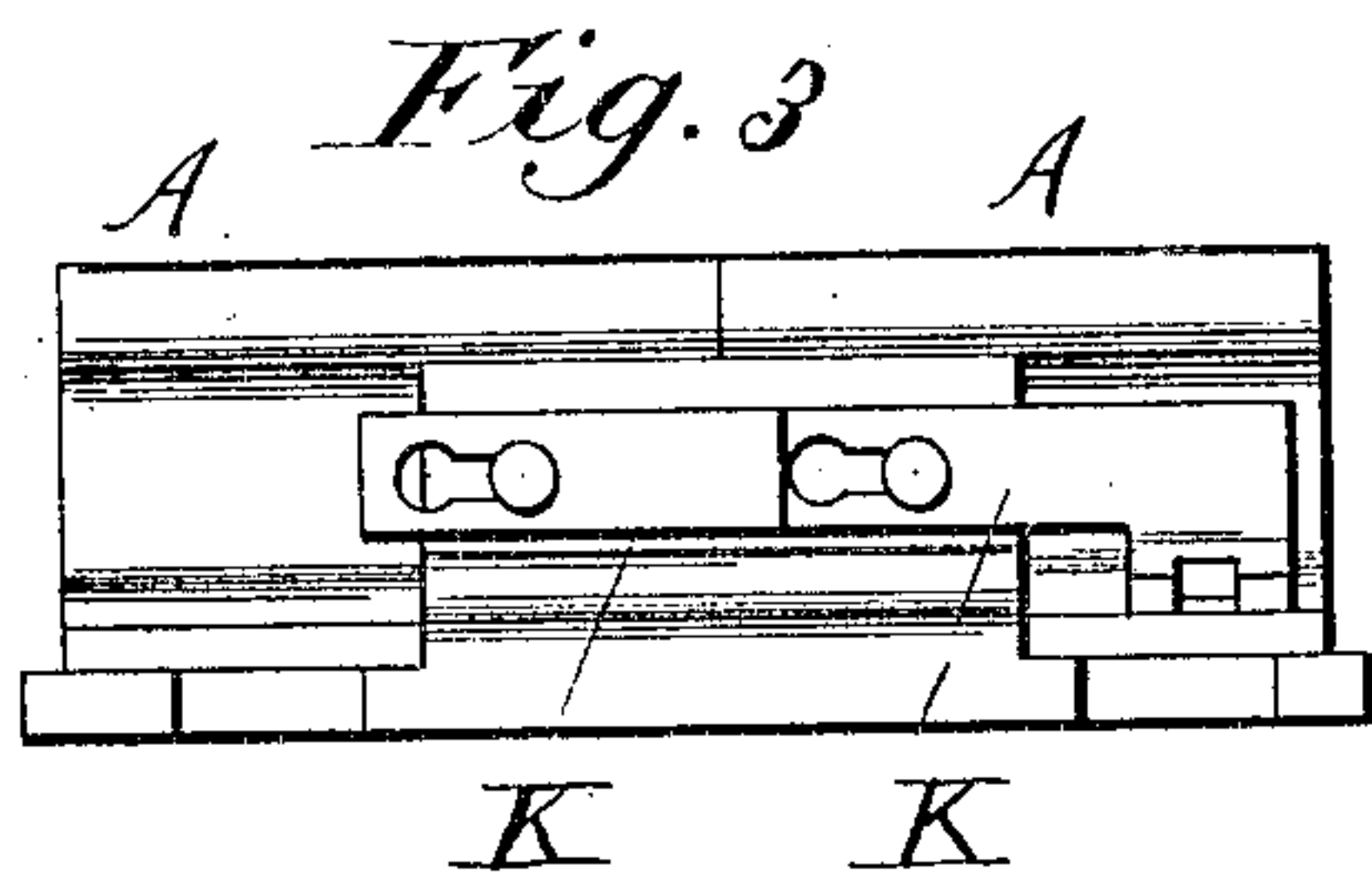
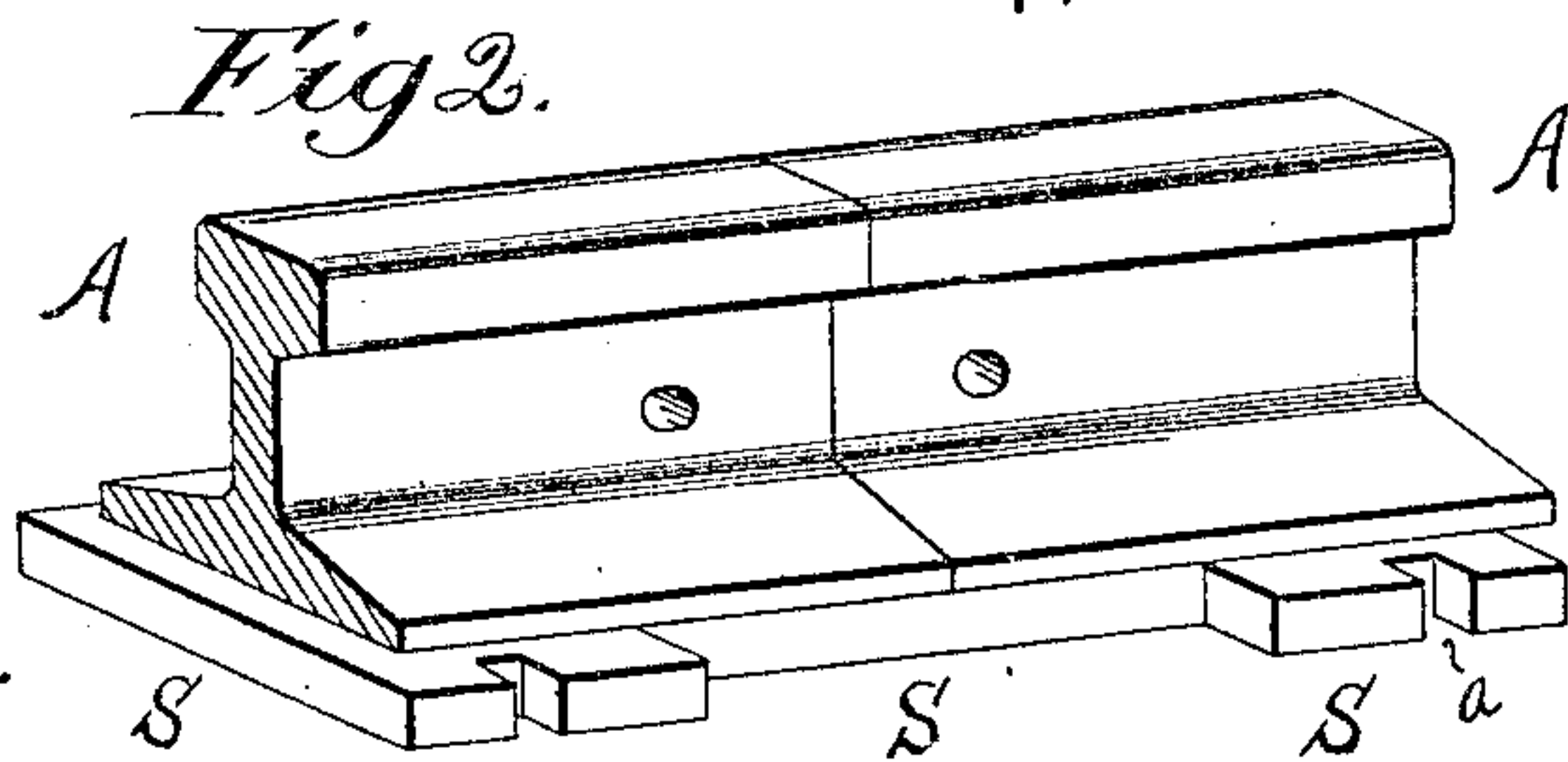
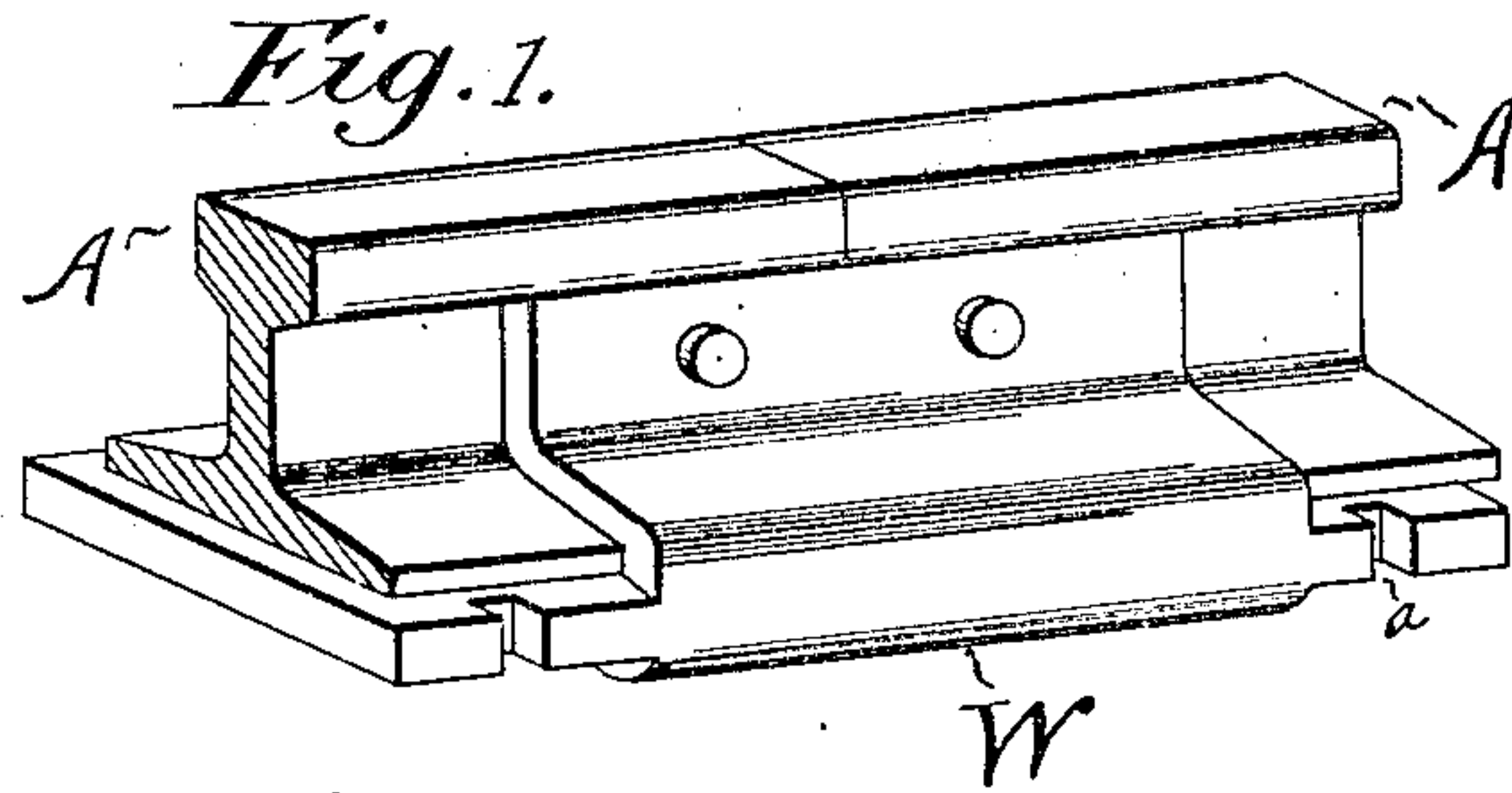


No. 843,120.

PATENTED FEB. 5, 1907.

R. B. SWANK.
RAILWAY JOINT.
APPLICATION FILED DEC. 21, 1905.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 6.

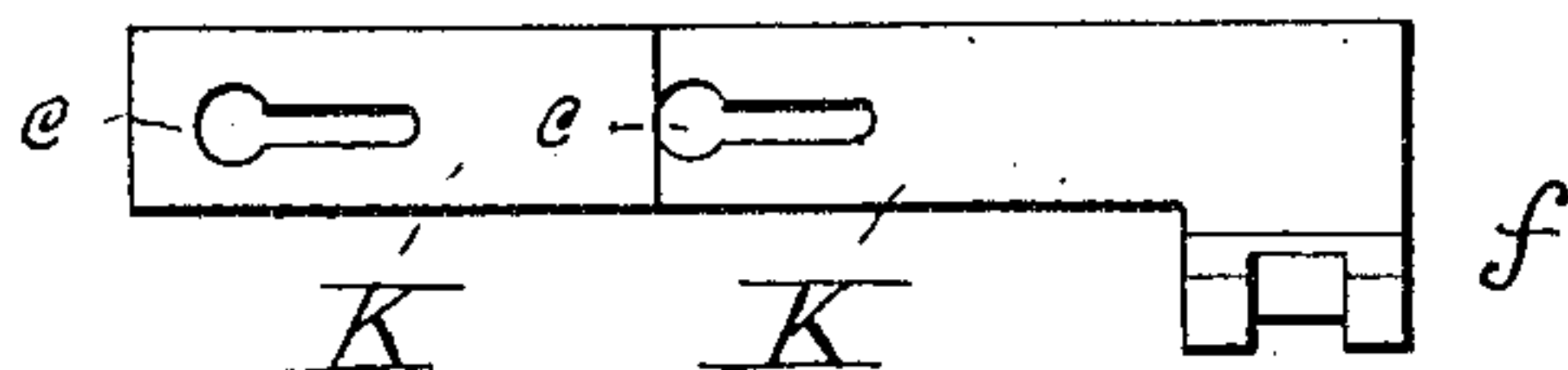


Fig. 7.

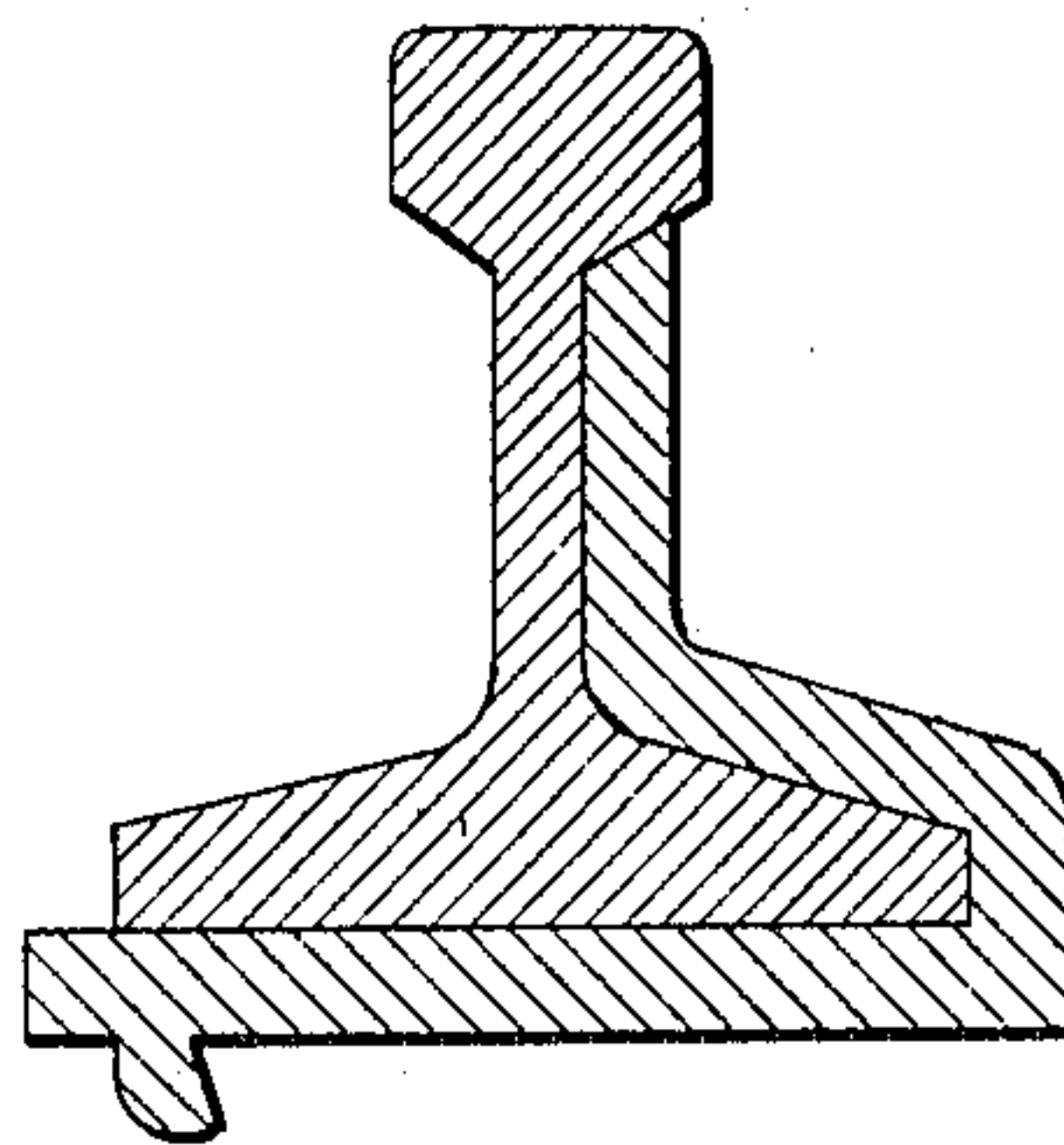


Fig. 8.

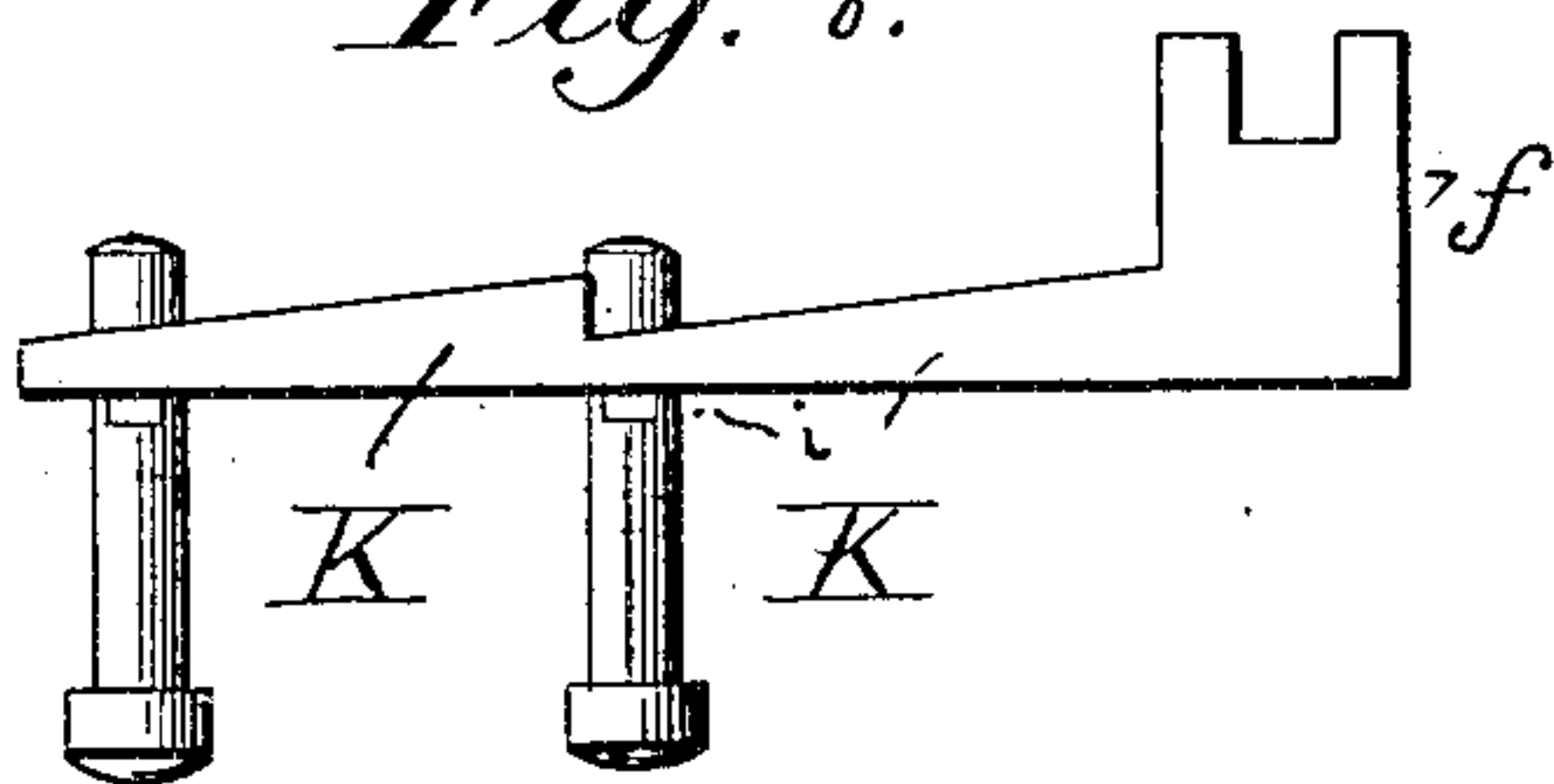


Fig. 9.

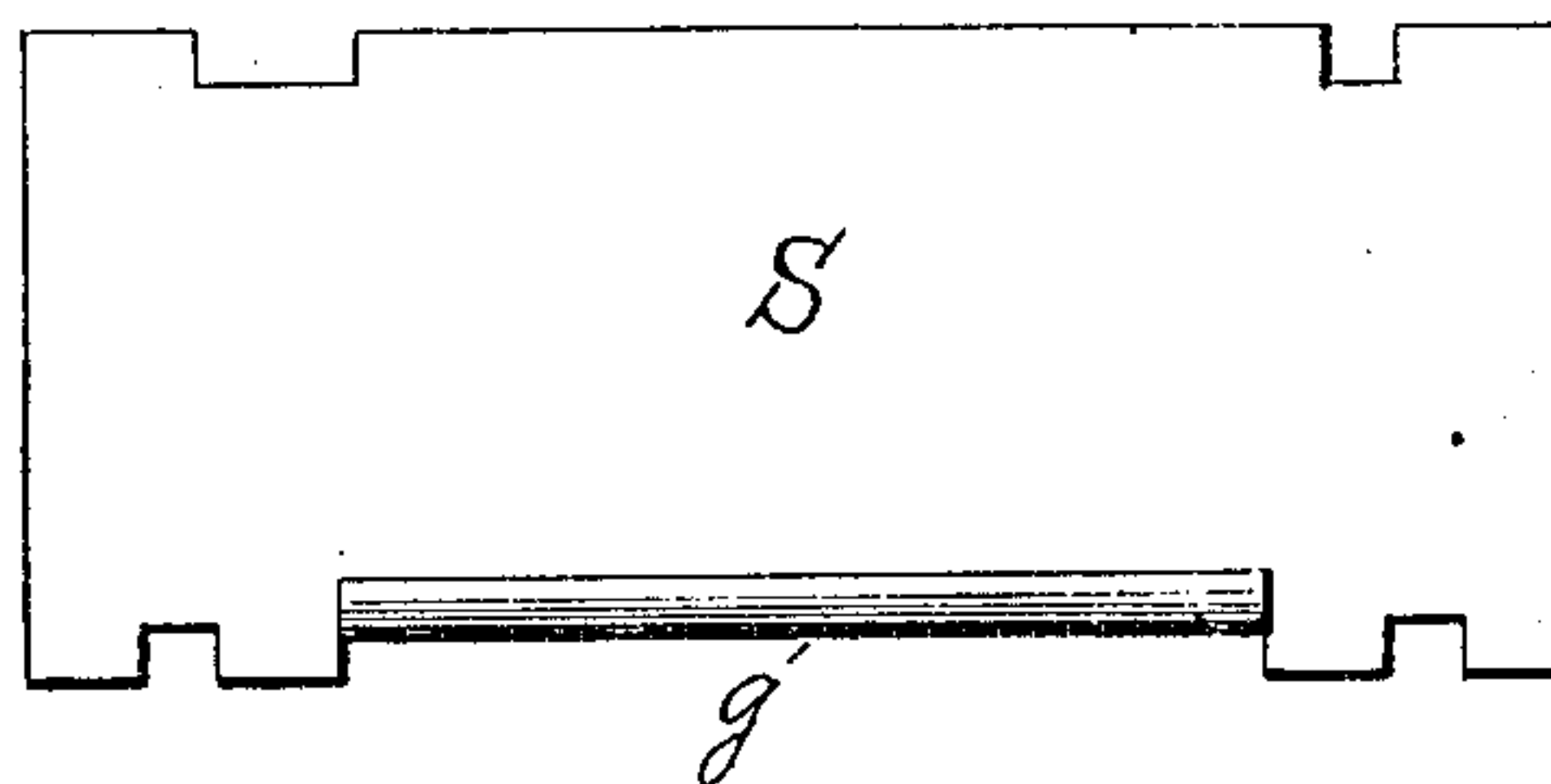
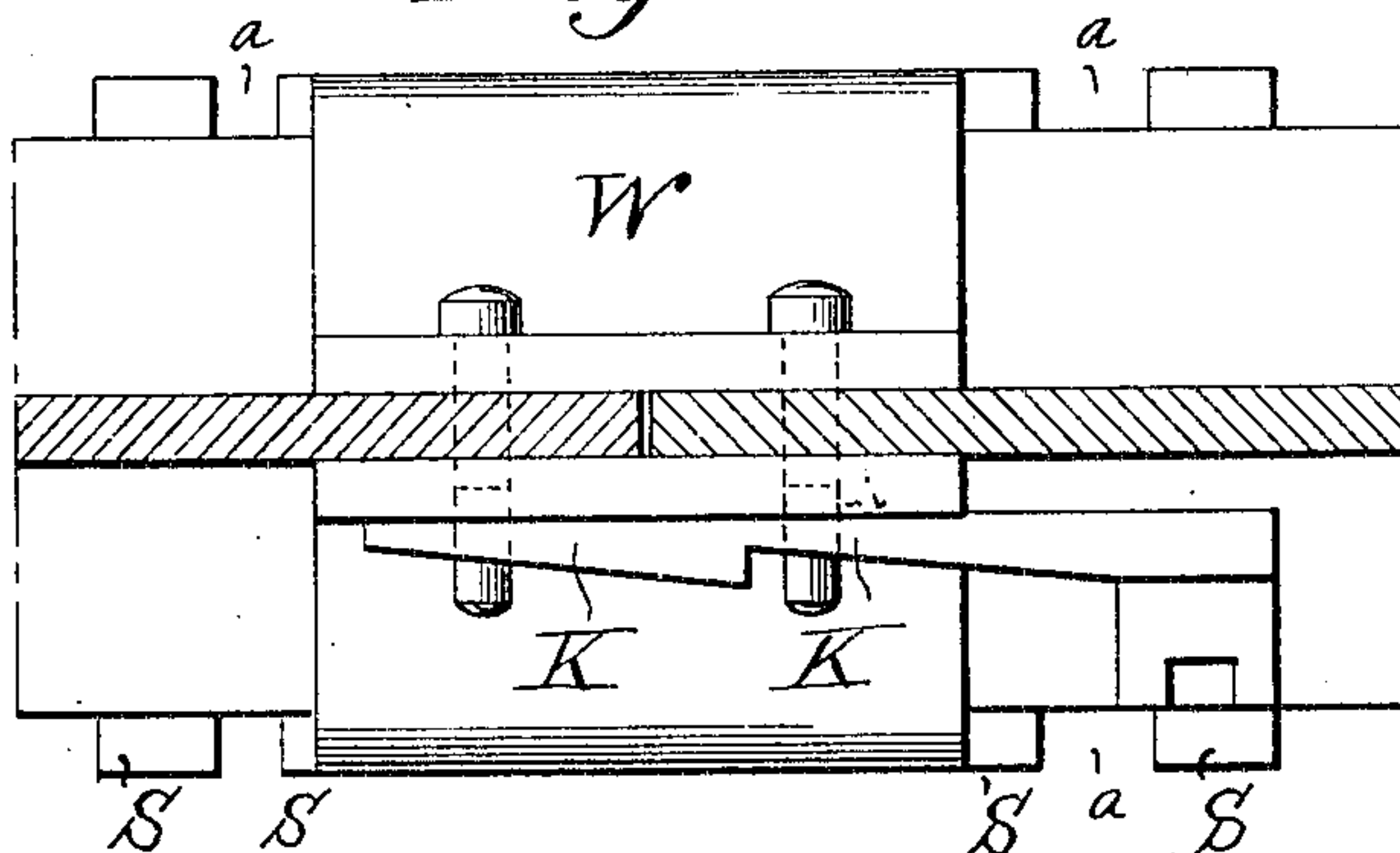


Fig. 10.



Fig. 11.



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UNITED STATES PATENT OFFICE.

REUBEN B. SWANK, OF DAYTON, OHIO.

RAILWAY-JOINT.

No. 843,120.

Specification of Letters Patent.

Patented Feb. 5, 1907.

Application filed December 21, 1905. Serial No. 292,860.

To all whom it may concern:

Be it known that I, REUBEN B. SWANK, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented new and useful Improvements in Railway-Joints, of which the following is a specification.

My invention is especially adapted to railway-joints, which is hereby fully described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of my invention, showing it applied to two abutting rail ends. Fig. 2 is a similar view with the fish-plate removed. Fig. 3 is a side elevation of the invention, taken from the opposite side to the one shown in Fig. 1, the parts being in locked position. Fig. 4 is a transverse sectional view of the joint. Fig. 5 is a detail perspective view of the fish-plate. Fig. 6 is a detail view of the locking-key in side elevation. Fig. 7 is a sectional view through the rail and chair. Fig. 8 is a plan view of the locking-key and locking-bolts. Fig. 9 is a bottom plan view of the rail-chair. Fig. 10 is a detail view of one of the securing-bolts in elevation. Fig. 11 is a longitudinal sectional view of the joint, taken through the web of the rail.

The invention permits transverse application and removal. First, the chair *S* is placed under the two abutting rail ends, as shown in the perspective view, Fig. 2, and the transverse sectional view, Fig. 7. Then the interlocking side plate *W* (shown in Fig. 5) is placed in position, as shown in Fig. 1, so that the beveled plane *n*, Fig. 5, interlocks with the flange *g*, Fig. 9. Then bolts are inserted through the openings in the plate and through the openings provided in the rail and side of the chair. The key *K* is then placed in position, as shown in Figs. 8 and 11. This key (illustrated in Fig. 6) is a double inclined plane provided with openings *c c*, Fig. 6, large enough

to admit the bolts. It is also provided with longitudinal slots which engage the necks of the recessed ends of the bolts *i*, Fig. 10. Fig. 11 illustrates inserted bolts ready for the key to be driven into permanent position, which position is shown in Fig. 3. The notch in the foot of the key is then in line with the notch in the chair. It may then be locked with a railway-spike driven through the notches of the key and chair into the cross-tie. There is an angle or bend *e* in the fish-plate, as shown in Fig. 5, which performs the function of a fulcrum as the bolts are tightened by the key. The shoulders of the bolts *i*, Fig. 8, and *i*, Fig. 11, are cut back far enough to secure drawing power to the key.

Having thus described my invention, I hereby ask for Letters Patent.

I claim—

1. In a rail-joint, the combination with a rail-chair having an extension adapted to embrace one side of the rail and provided with a rib on its under face, of a fish-plate adapted to embrace the opposite side of the rail and having a flange to engage the rib on the base of the chair, bolts passing through the members, and a key for locking the bolts adapted to be locked in position by means of a spike.

2. A joint for rails or the like, comprising a chair adapted to embrace one side of the rails and formed with a rib on its lower face, a side plate having a flange to engage the rib on the chair and adapted to bind against the rails, bolts passing through the members, a key adapted to lock the bolts and clamp the members together, said key having a recess adapted to register with a complementary recess in the chair to receive a spike or other locking means.

REUBEN B. SWANK.

Witnesses:

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