

No. 629,919.

Patented Aug. 1, 1899.

R. PRICE-WILLIAMS.

RAIL JOINT.

(Application filed Dec. 21, 1898.)

(No Model.)

Fig. 1.

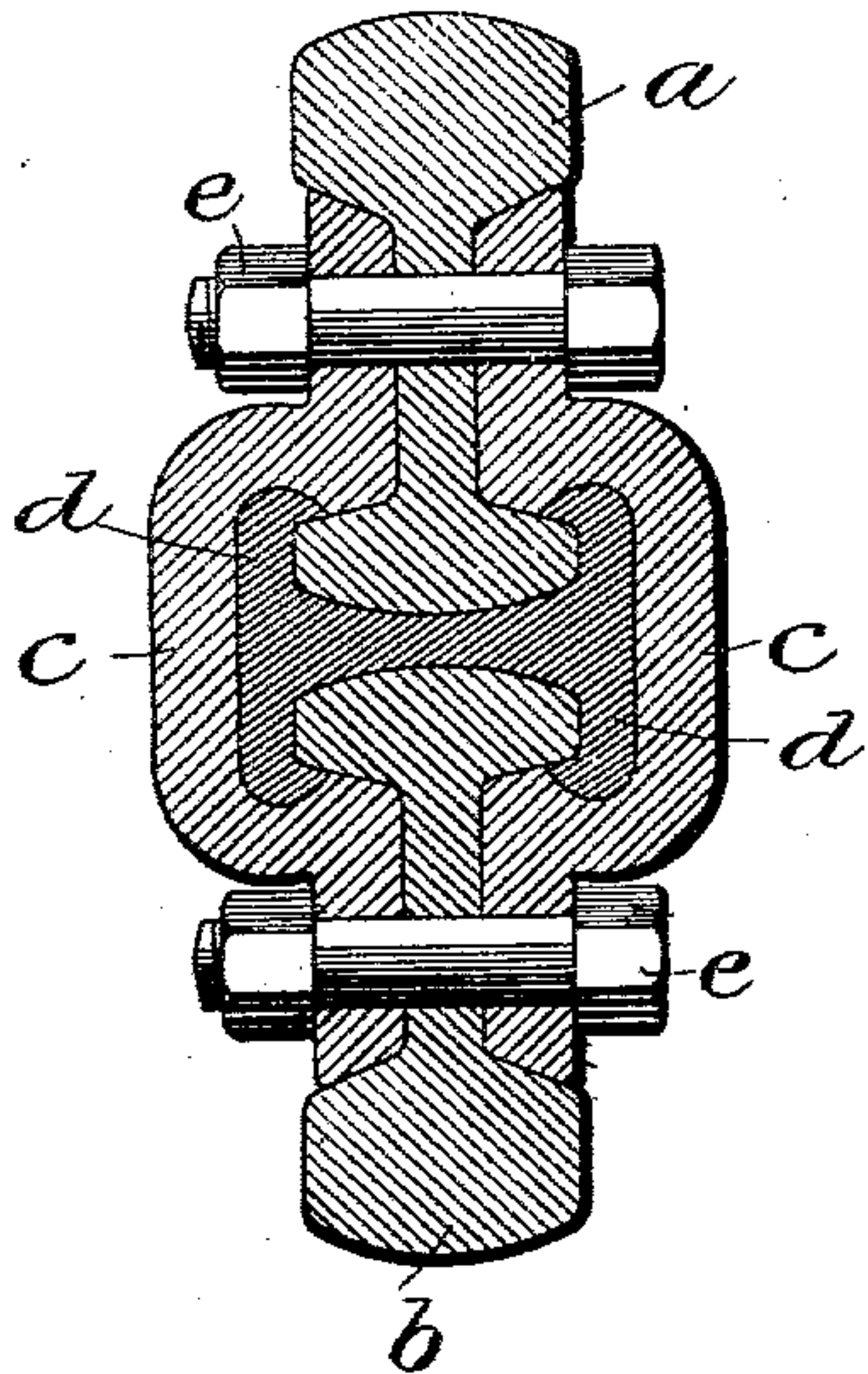


Fig. 2.

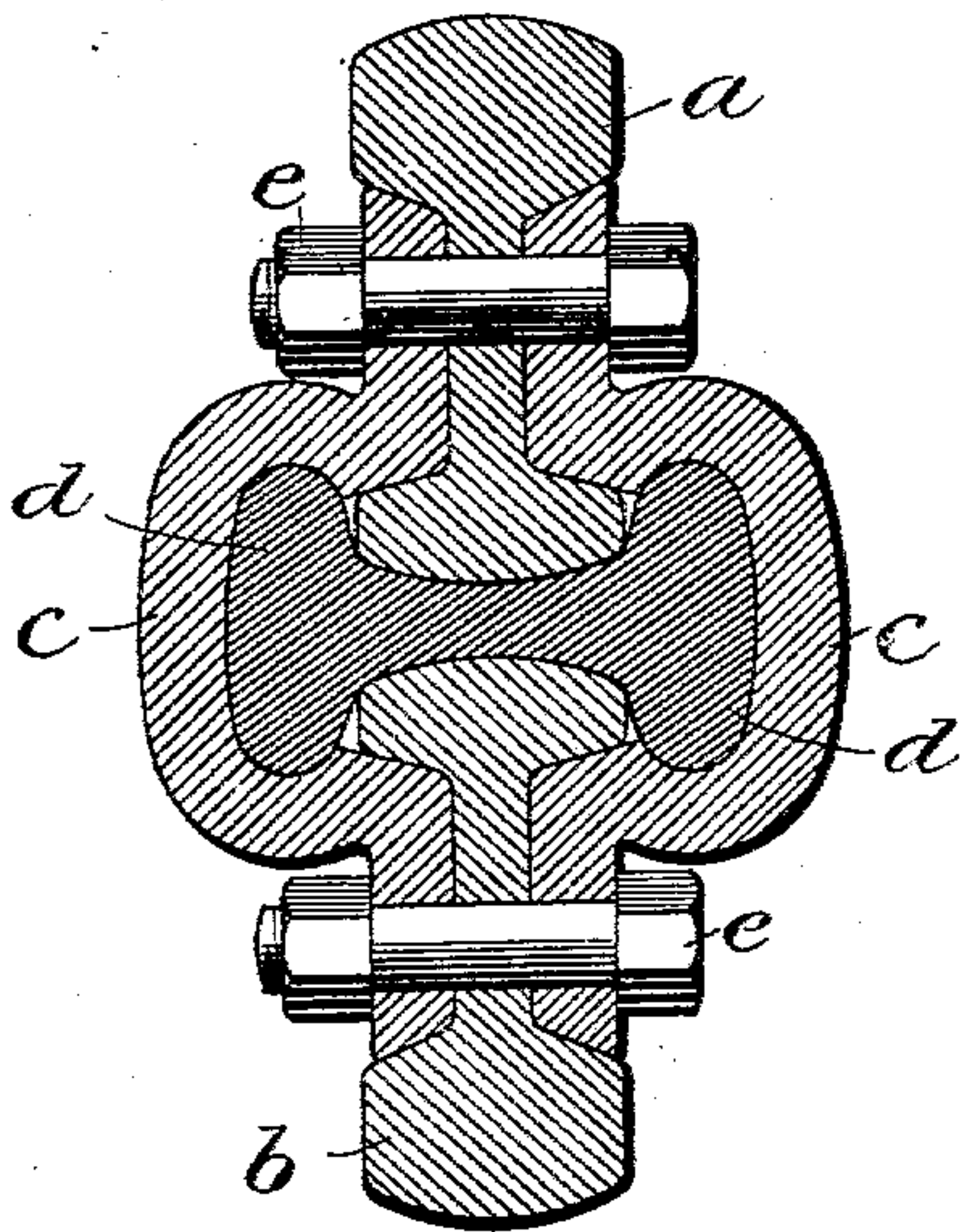


Fig. 3.

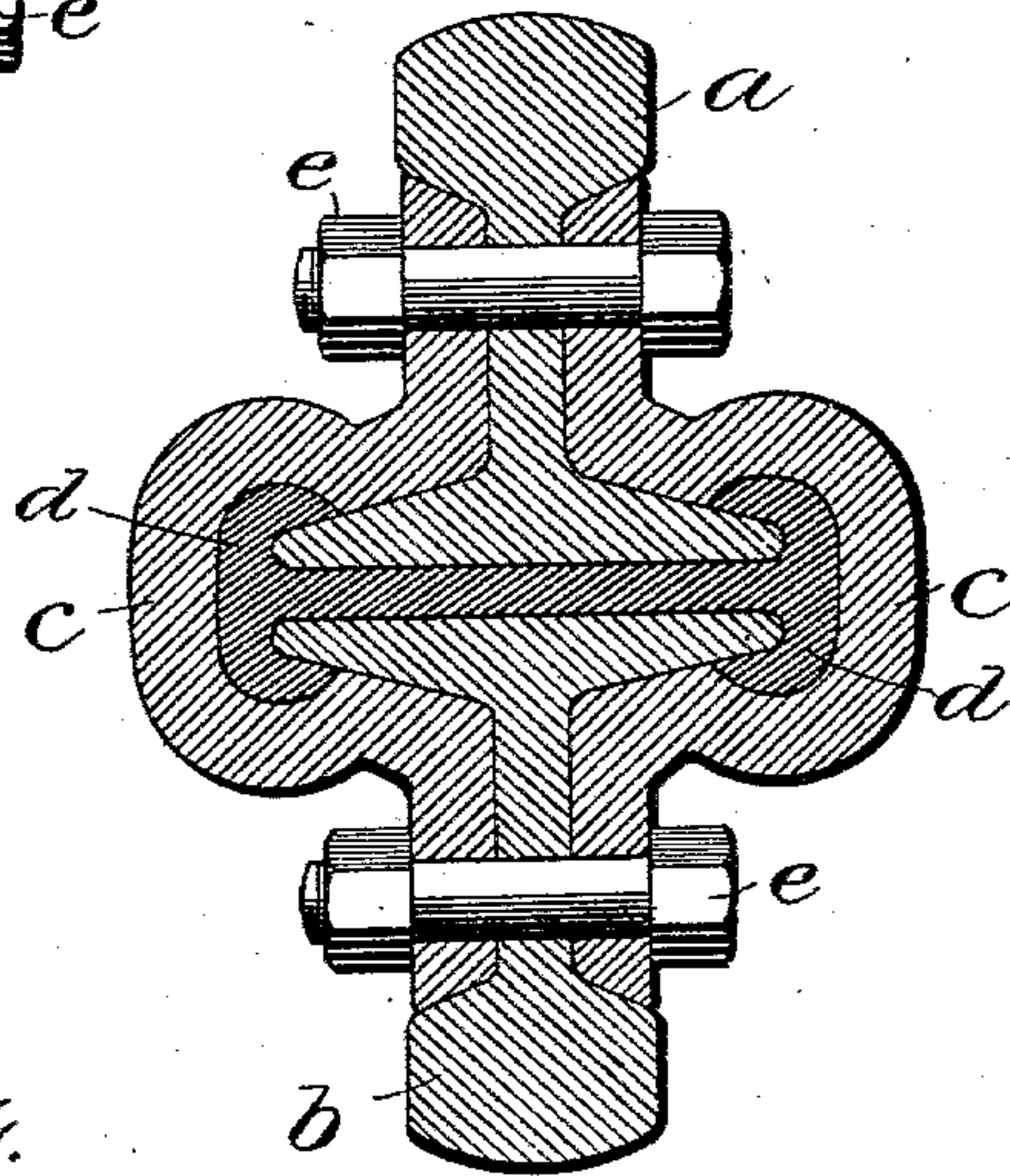
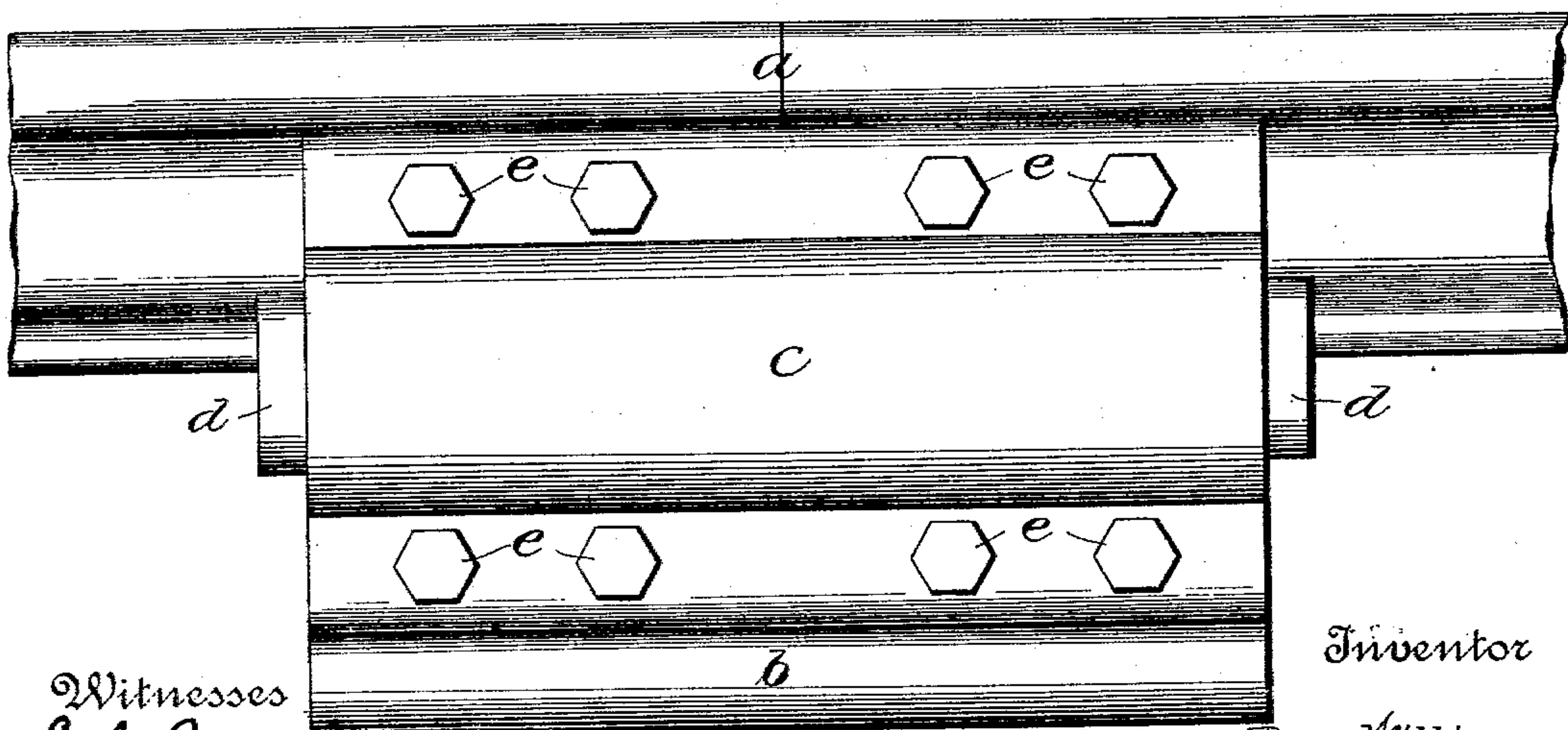


Fig. 4.



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# UNITED STATES PATENT OFFICE.

RICHARD PRICE-WILLIAMS, OF LONDON, ENGLAND.

## RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 629,919, dated August 1, 1899.

Application filed December 21, 1898. Serial No. 699,928. (No model.)

*To all whom it may concern:*

Be it known that I, RICHARD PRICE-WILLIAMS, engineer, a subject of the Queen of Great Britain, residing at 32 Victoria street, Westminster, London, in the county of Middlesex, England, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification.

The object of this invention is largely to add to the strength of the rails at the rail-joints and to dispense with entirely depending upon bolts and nuts for holding the fish-plates to the sides of the rails.

According to this invention I form a rail-joint by means of a short length of rail, a pair of double fish-plates, and a double dovetail key. The short length of rail is parallel to the main rails and a short distance below them. The double fish-plates fit the hollows of the main rails and of the short length, one on each side, and each has at its middle a dovetail groove to receive one of the large ends of the double dovetail key, the smaller part or web of which lies between the main rails and the short length. The dovetail key may itself be a short piece of rail, and in any case may be in two or more lengths.

The accompanying drawings show transverse sections of three joints made in accordance with this invention.

In Figure 1 the double dovetail key is formed specially for the purpose. In Fig. 2 the dovetail is itself a short piece of rail. Fig. 3 shows the invention applied to flat-footed rails, and Fig. 4 is a side elevation of the joint.

In all the figures the same reference-letters apply.

*a* is the main rail, and *b* is the short piece of rail below it.

*c c* are the fish-plates, fitting into the hollows of the rails *a* and *b*.

*d* is the double dovetail key.

*e e* are bolts and nuts.

Preferably the double dovetail key is in two lengths, and these are driven in from the two ends of the joint—one from one end, the other from the other—and when driven in they hold the fish-plates firmly against the sides of the rails. The bolts may be put in place either before or after the driving in of the double dovetail key. The faces of the main rail and the short length of rail beneath it may be upset or roughened by the use of a cold-chisel or otherwise to prevent creeping of the double dovetailed key should it be found necessary.

I claim as my invention—

A rail-joint formed by two fish-plates which fit the hollows of the main rails and of a short length of rail beneath them and each having a dovetail groove to receive one of the correspondingly formed large ends of a double dovetail key the smaller part or web of which lies between the main rails and the short length of rail.

In testimony whereof I have hereunto subscribed my name.

RICHARD PRICE-WILLIAMS.

Witnesses:

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