

G. J. WEISENT.

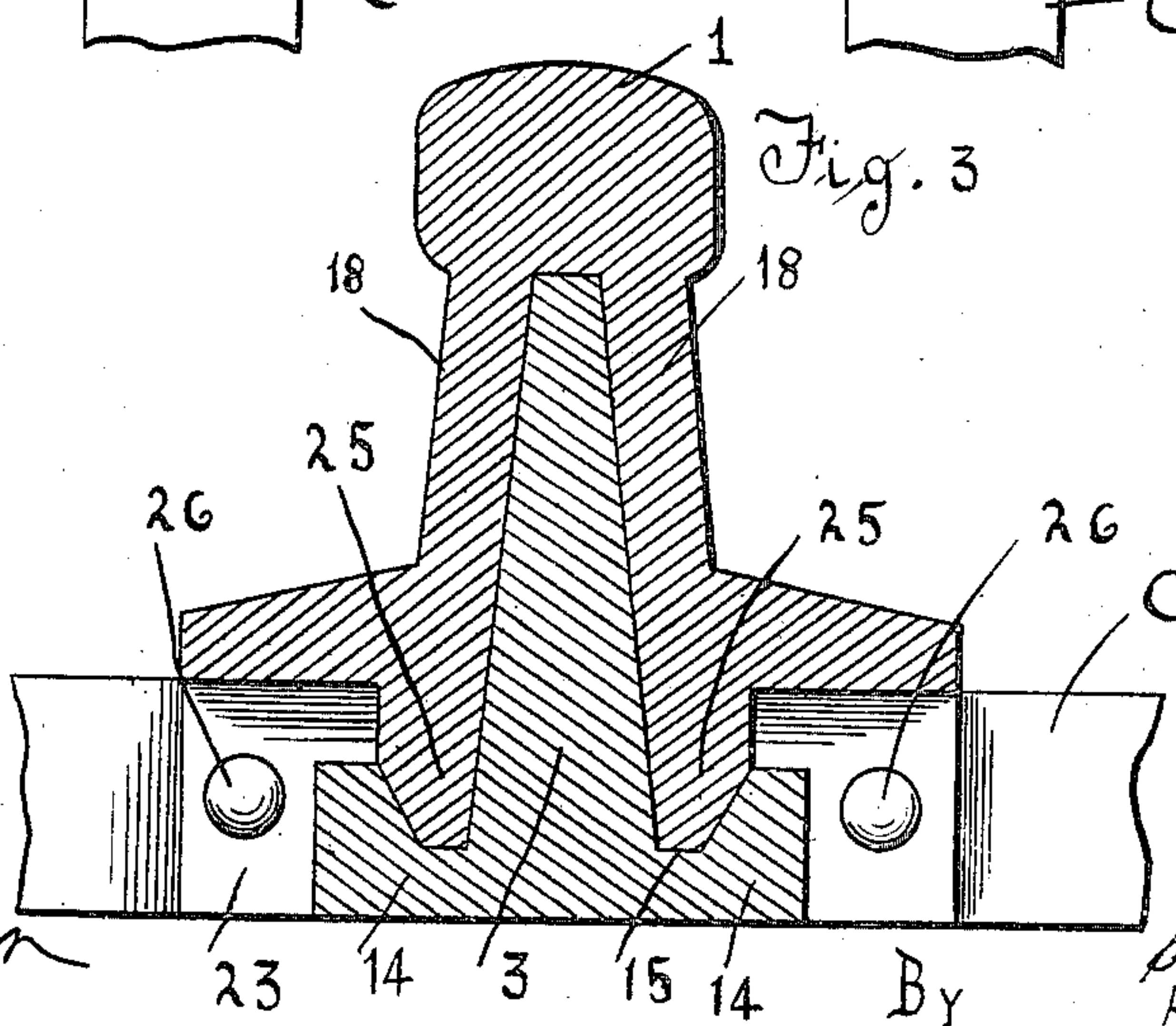
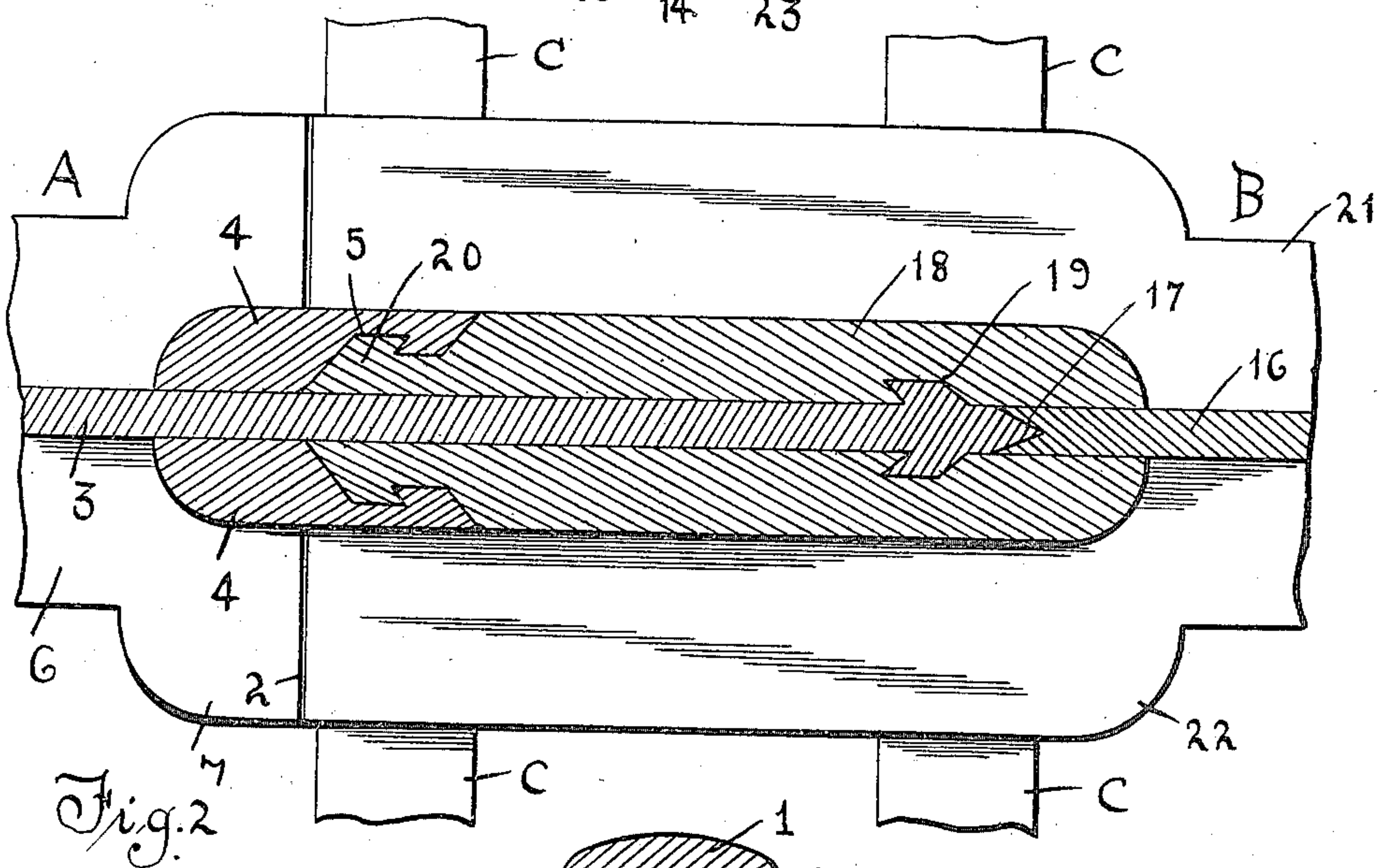
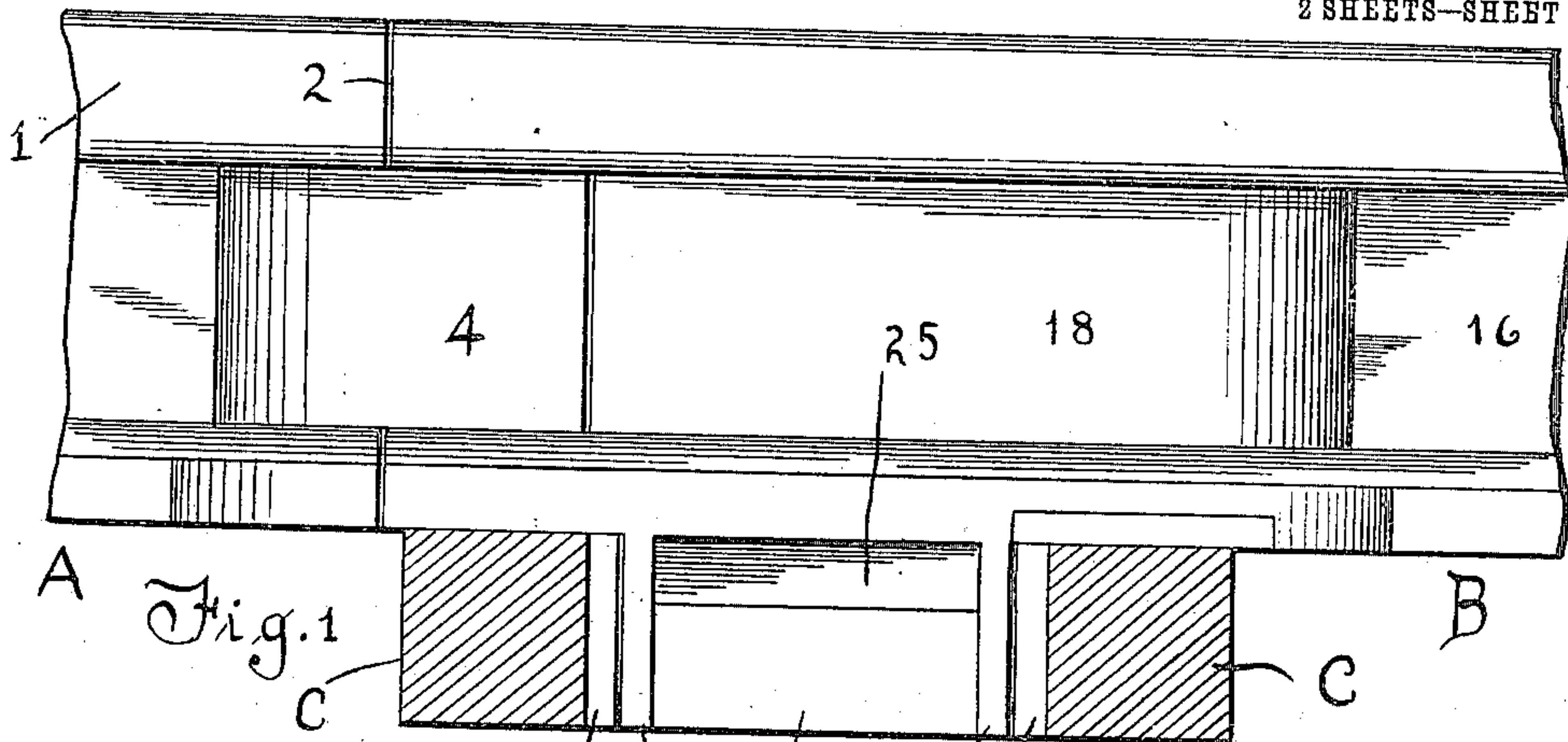
RAIL JOINT.

APPLICATION FILED APR. 21, 1910.

964,349.

Patented July 12, 1910.

2 SHEETS—SHEET 1.



WITNESSES

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2 SHEETS—SHEET 2.

Fig. 4

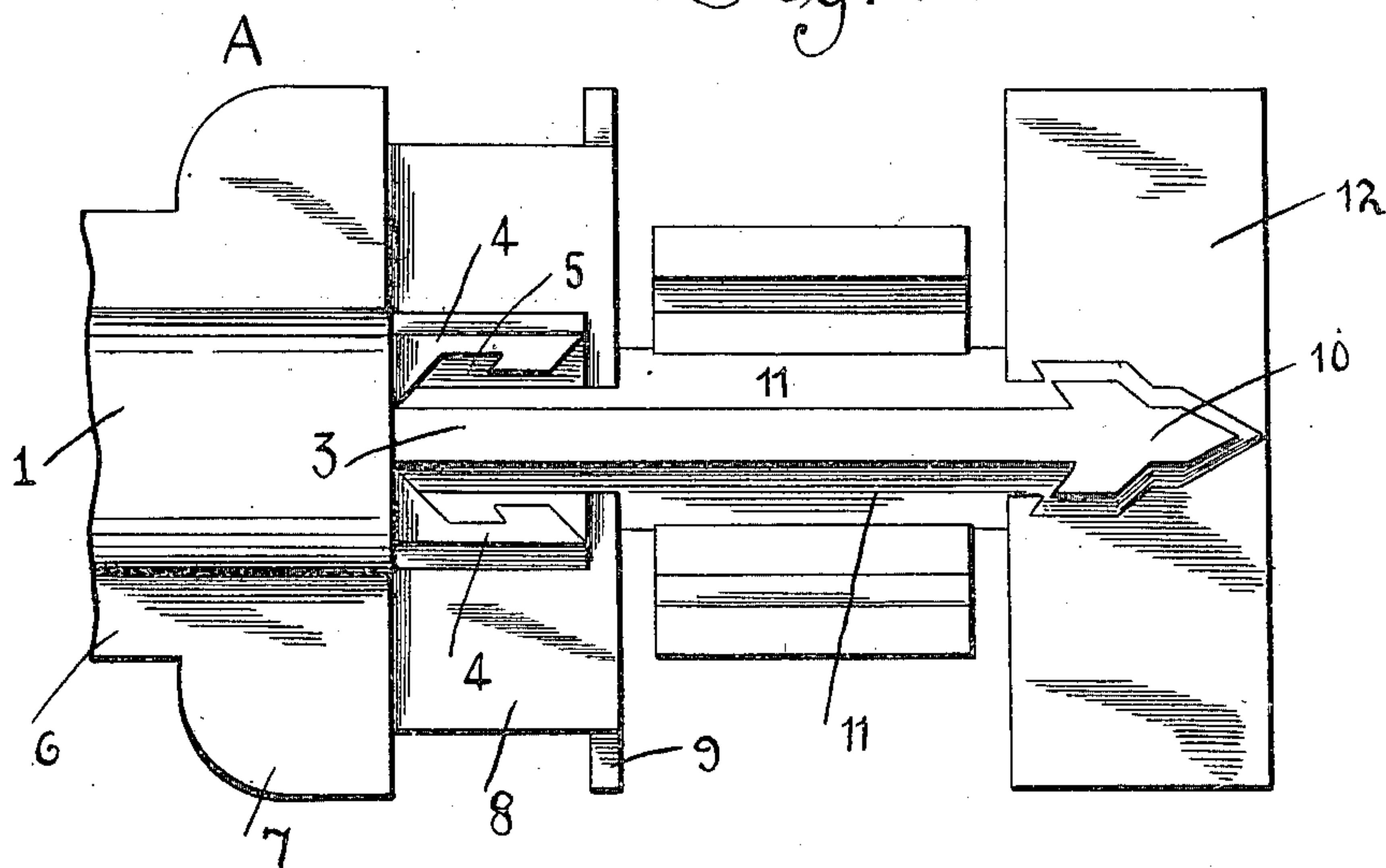
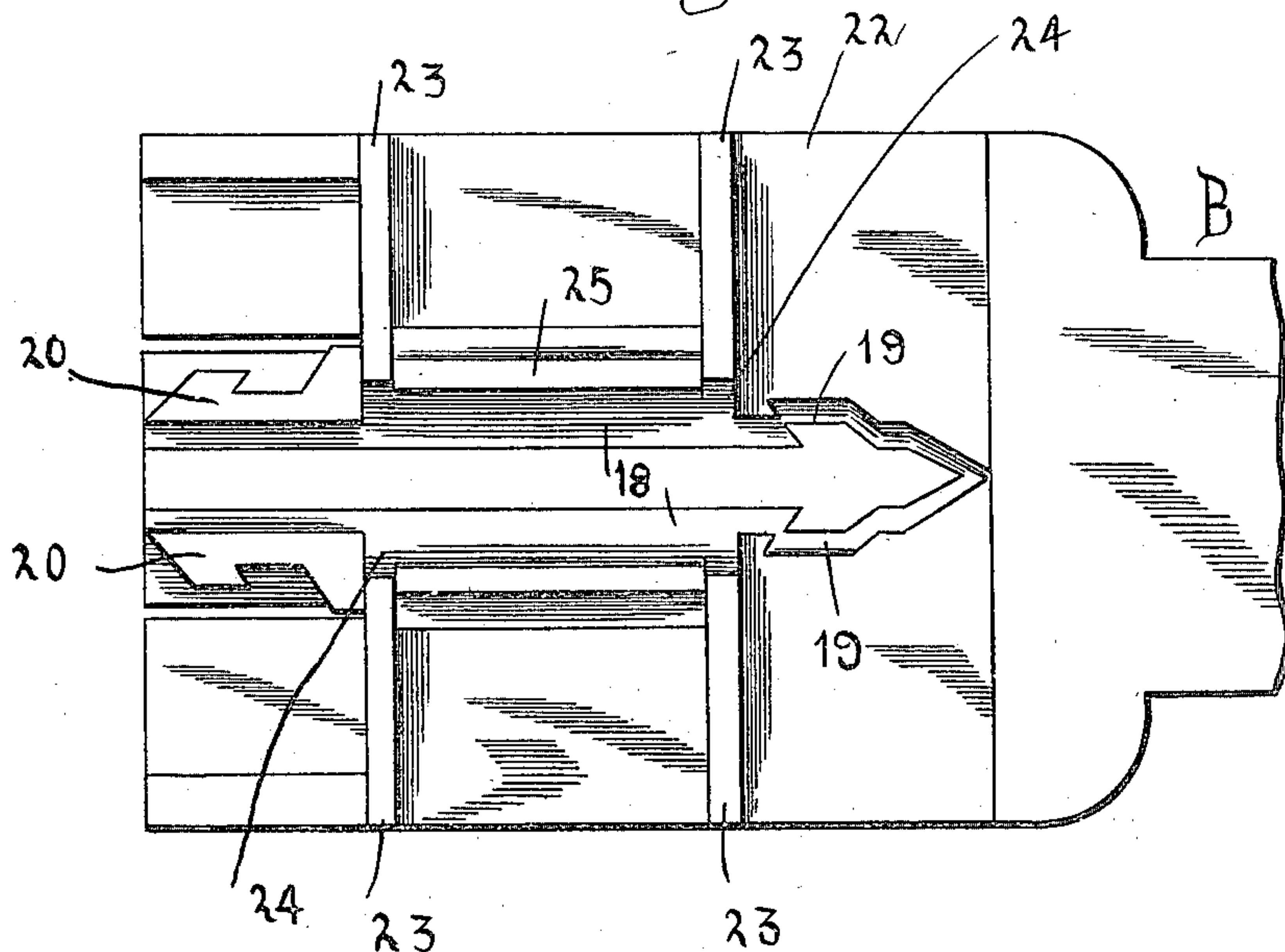


Fig. 5



WITNESSES

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UNITED STATES PATENT OFFICE.

GEORGE J. WEISENT, OF LOWELL, OHIO.

RAIL-JOINT.

964,349.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE J. WEISENT, a citizen of the United States of America, residing at Lowell, in the county of Washington and State of Ohio, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to rail joints, and the objects of my invention are to provide positive and reliable means for connecting the confronting ends of two rails, and to furnish rails with a connection that will provide practically a continuous tread for rolling stock, thereby eliminating all jarring and bumping of rolling stock when passing over the joint.

Other objects of my invention are to dispense with the use of nuts and bolts as a fastening means for connecting the confronting ends of two rails, and to provide a rail joint that can be easily and quickly installed without the use of skilled labor.

Further objects of my invention are to provide rails with a novel connection that will prevent lateral and vertical displacement of rails and at the same time allow expansion and contraction of the rails, and to accomplish the above results by a rail joint that is simple, durable and highly efficient for the purposes for which it is intended.

These and such other objects as may hereinafter appear are attained by the novel construction, combination and arrangement of parts to be hereinafter specifically described and then claimed.

Reference will now be had to the drawing forming a part of this specification, wherein:—

Figure 1 is a side elevation of a rail joint in accordance with my invention, Fig. 2 is a horizontal sectional view of the same, Fig. 3 is a cross sectional view of the rail joint, Fig. 4 is a plan of a portion of one of the rails, and Fig. 5 is a bottom plan of a portion of another rail adapted to be connected to the rail shown in Fig. 4.

In the accompanying drawings A denotes a rail adapted to be connected to the rail B and both of said rails supported upon ties or sleepers C. The rail A has the head 1 thereof cut away, as at 2 with the web 3 extending beyond the head 1. The web 3 adjacent to the cut away end of the head 1

has the sides thereof provided with side plates 4 and these side plates have the forward ends cut away to provide vertical pockets 5 which are bayonet shaped in plan. The base flanges 6 of the rail A are enlarged, as at 7 and cut away adjacent to the forward ends of the side plates 4 to provide seats 8. The forward edges of the seats 8 terminate at a depending tie plate 9 adapted to engage one of the ties C. The extreme end of the web 3 is provided with an arrow-shaped head 10, and that portion of the web 3 extending from the inner ends of the bayonet shaped pockets 5 to the outer end of the head 10 is of an inverted V-shape in cross section, thereby providing slanting sides 11.

Formed integral with the lower edge of the web 3 at the outer end thereof is a plate 12 representing a continuation of the enlarged end 7 of the base flanges 6, and the plate 12 is provided at its rear edge with a depending plate 13 adapted to confront the tie plate 9 and engage the other of the ties C, these two tie plates spacing the ties and correctly positioning the rails upon the ties, whereby they can be secured by spikes or other fastening means (not shown).

The web 3 between the tie plates 9 and 13 extends downwardly between said plates to the lower edges thereof, and the lower edge of the web is provided with side extensions 14 forming pockets 15, said side extensions and pockets being of a less length than the distance between the plates 9 and 13.

The rail B has the web 16 thereof cut away, as at 17 to receive the end of the head 10 of the rail A, and connected to the sides of the web 16 are side plates 18, these side plates extending beyond the web 16 and adjacent to said web having the confronting faces thereof provided with pockets 19 adapted to receive the arrow-shaped head 10 of the web 3. The outer ends of the plates 18 are shaped whereby they will cooperate to produce an arrow-shaped head 20 adapted to engage in the bayonet shaped pockets 5 of the plates 4 of the rail A.

The base flanges 21 of the rail B are enlarged, as at 22 and are adapted to extend over the plate 12 and engage the seat 8 of the rail A. The enlarged ends 22 of the base flanges 21 intermediate the ends thereof are provided with depending tie plates 23, these plates being cut away, as at 24 to provide clearance for the web 3 of the rail A, and the tie plates 23 are connected by longi-

tudinal ribs 25 adapted to engage in the pockets 15 of the side extensions 14 of the web 3. The tie plates 23 fit between the tie plates 9 and 13 and all of the tie plates 5 are secured to the ties by transversely-extending spikes 26 or other fastening means.

It is obvious that the joint is made of metal throughout and that when the rails are connected in accordance with my invention, a continuous and durable tread is provided for the rolling stock of railroads.

Having now described my invention what I claim as new, is:—

In a rail joint, the combination with ties, 15 of rails A and B, the rail A having the head thereof cut away with the web of said rail extending beyond said head and the outer end thereof provided with an arrow-shaped head, side plates connecting with the web 20 of said rail and providing bayonet shaped pockets, the base of said rail having the end thereof enlarged and cut away to provide seats, a depending tie plate carried by the enlarged end of said rail, a plate connecting with the lower edge of the web of said 25 rail at the outer end thereof, a depending tie plate carried by said plate and adapted to confront the first mentioned tie plate,

said web between said tie plates being extended to the lower edges of said tie plates 30 and having the sides thereof provided with extensions with pockets in said extensions, the rail B having the web thereof cut away to receive a portion of the arrow-shaped head of the rail A, side plates carried by the 35 web of the rail B and provided with pockets to receive the remaining portion of the arrow-shaped head of the rail A, said plates having the outer ends thereof shaped to cooperate in forming an arrow-shaped head 40 adapted to fit in the bayonet shaped pockets of the rail A, the rail B having the base thereof cut away to engage in the seats of the rail A, depending tie plates carried by the base of the rail B, ribs connecting said 45 tie plates and adapted to engage in the pockets of the extensions of the rail A, and means adapted to connect the tie plates of both of said ties, substantially as described.

In testimony whereof I affix my signature 50 in the presence of two witnesses.

GEORGE J. WEISENT.

Witnesses:

CHAS. SCHIMMEL,
A. W. SCHIMMEL.