

No. 848,111.

PATENTED MAR. 26, 1907.

F. F. MARTINS.
RAIL JOINT.

APPLICATION FILED JUNE 21, 1906.

Fig. 1.

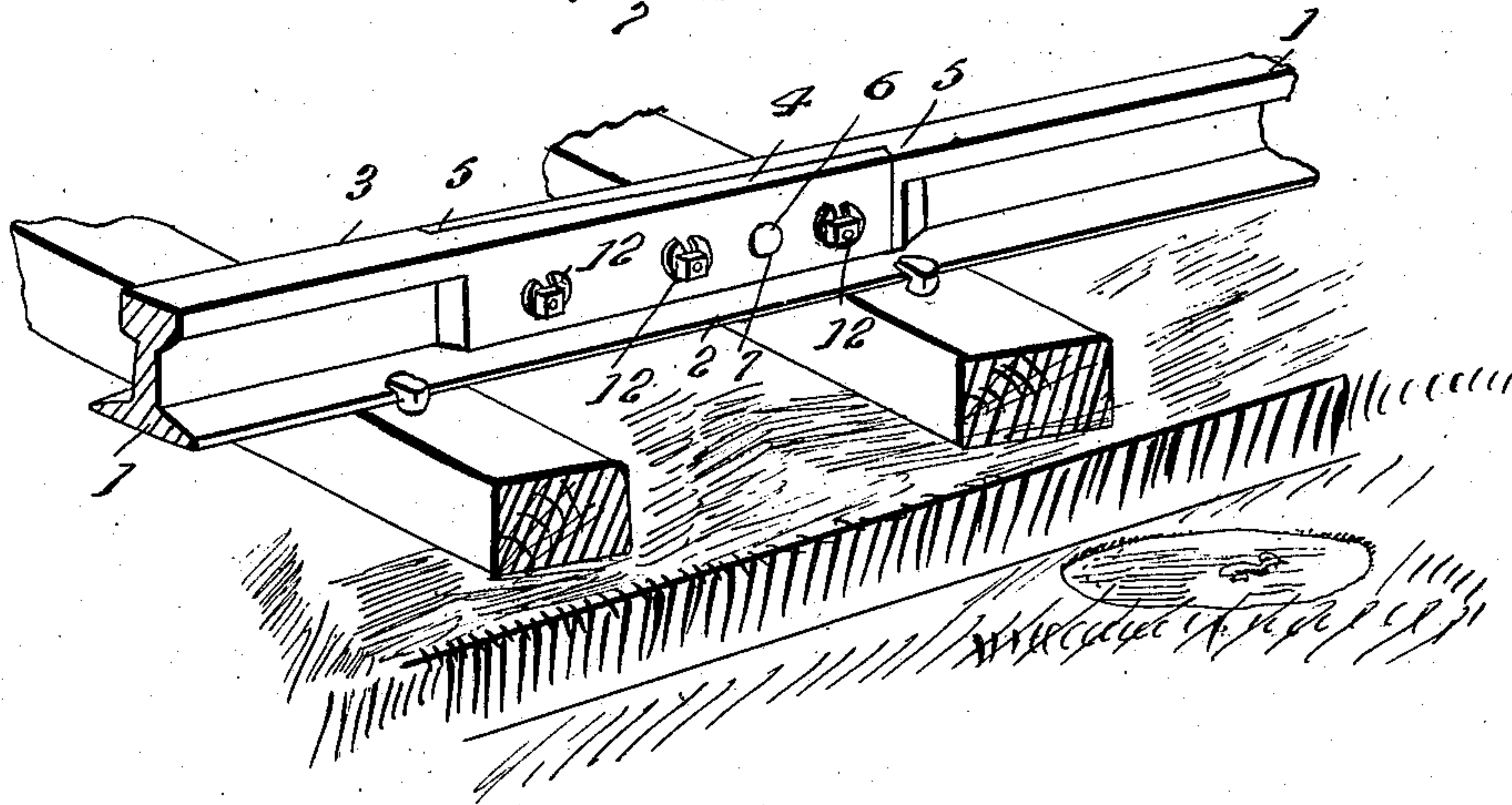


Fig. 2.

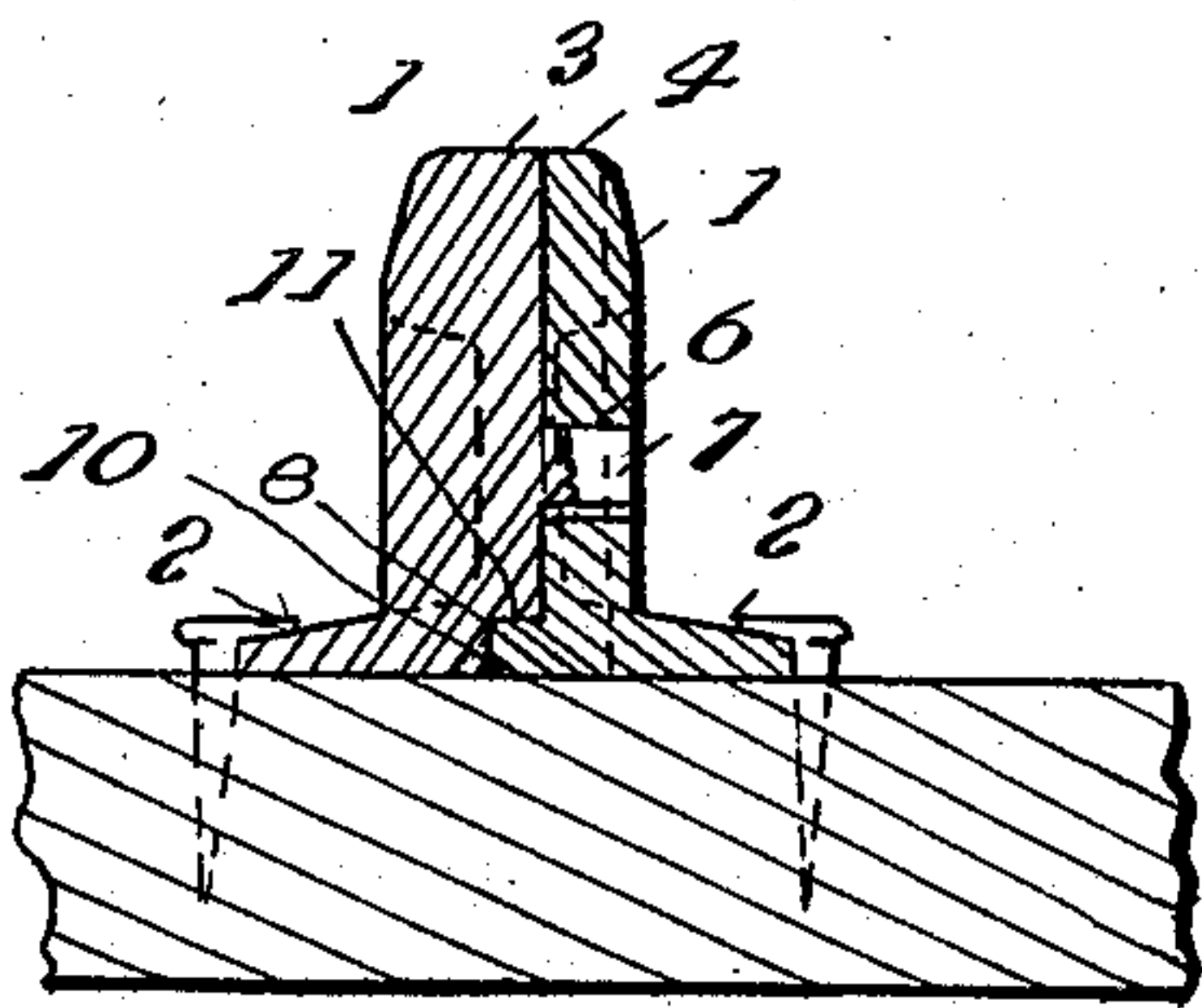
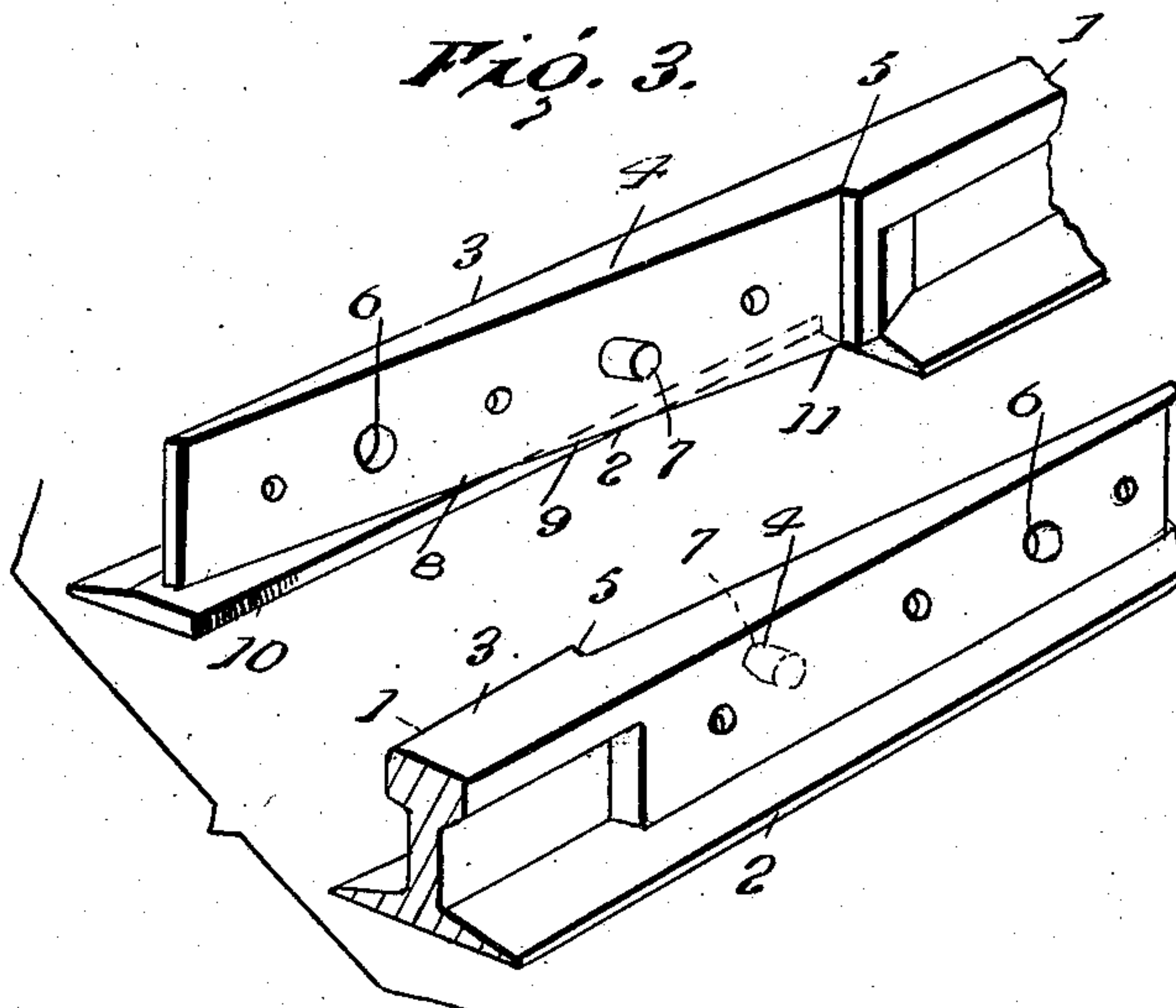


Fig. 3.



Inventor

F. F. Martins

Witnesses

M. J. J. J.
W. H. H. H.

By

H. A. H. H. Attorneys

UNITED STATES PATENT OFFICE.

FRANCISCO F. MARTINS, OF GLOUCESTER, MASSACHUSETTS.

RAIL-JOINT.

No. 848,111.

Specification of Letters Patent.

Patented March 26, 1907.

Application filed June 21, 1906. Serial No. 322,795.

To all whom it may concern:

Be it known that I, FRANCISCO F. MARTINS, a citizen of the United States, residing at Gloucester, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification.

This invention embodies improvements in rail-joints of that type in which the rails are scarfed at the ends to form joint or abutting portions which are attached together in a substantial way and which afford a continuous bearing for the wheels of the rolling-stock traveling over said rails.

The essential feature of the invention is to subserve the rigidity of the joint means as much as possible, to construct the rails at the ends so that they will mutually reinforce one another, and to simplify the general form of the rails in such a way as to admit of quickly placing the same in position or removing them under actual conditions of service.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings, in which—

Figure 1 is a perspective view showing the meeting ends of rails joined in accordance with this invention. Fig. 2 is a transverse sectional view through the rails. Fig. 3 is a perspective view showing the end portions of the rails separated and bringing out clearly the exact construction thereof.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The rail ends are formed in exactly the same manner, and specifically describing the construction shown the numeral 1 designates the rail end, which has its web portion widened or broadened, preferably, near the extremity and at the point where said rail end is scarfed to form the point. The rail end 1 has the web portion 2 and the top or head 3 scarfed or cut away on a diagonal line, (indicated at 4.) The inner extremity of the scarfed portion 4 of the rail end terminates in a shoulder 5, against which the outer extremity of the head and web portion of the opposite rail is adapted to abut when two of the rail ends are joined together in the actual practice of the invention. It will be observed that the scarfing of the rail end on

the line 4 will when two rail ends are joined together afford a continuous bearing at the point of jointure, so that the wheels of the rolling-stock will not cause rounding of the rails at the ends and, furthermore, will not give rise to the click or noise incident to the passage of the wheels over the rails most commonly in use. Each rail end 1 is formed with a large opening 6 near its outer end portion and with a lug or projection 7 a short distance from said opening 6. The lug or projection 7 of one rail end is adapted to fit in the opening 6 of the other rail end to afford an interlocking connection, which materially increases the rigidity of the joint, particularly with reference to vertical strain.

The base portion 8 of each rail end 1 is also scarfed, but in a somewhat different way to the manner of forming the scarfed portions of the head and web portions of such rail end. In this instance the base 8 of the rail end is cut away on a central line parallel with its outer edge, as indicated at 9, and this manner of scarfing the rail ends at the base forms a lateral flange 10, projecting from the inner side of the scarfed end of the rail, which flange is adapted to be received in a recess 11 in the opposite rail end. The recess 11 is located beneath the head and web portions of each rail end, while the flange 10 is located near the outer extremity of such rail end. The outer extremity of the head and web portions of one rail end terminates a short distance from the outer extremity of the base 8 of each rail end, said base therefore projecting a slight distance beyond the upper or body portion of the rail at the extremity.

It is designed to secure the rail ends together by means of transverse bolts or fastenings 12 passing therethrough.

The various advantages incident to the use of the joints such as above described will be apparent and therefore not recited.

Having thus described the invention, what is claimed as new is—

1. In combination, rail ends having the head and web portions thereof cut away and scarfed on a diagonal line longitudinally of the same, each rail end being formed with a recess below the head and web portions thereof and with a flange projecting from the outer extremity thereof, the flange of one rail end being adapted to enter the recess of the other rail end, and the diagonally-scarfed portions being in abutting relation, means connecting said rail ends together, each rail end being

provided with an opening adjacent to its outer extremity, and a projection or lug located near said opening, the projection or lug of one rail end being adapted to enter the opening of the other end.

2. In combination, rail ends embodying head and web portions cut away or scarfed on a diagonal line longitudinally thereof, such scarfed portion terminating at its inner end in a shoulder, each rail end being provided with an opening, a projection or lug located adjacent to said opening and adapted to enter the opening of the abutting rail end, the base of each rail end being scarfed or cut away on a line parallel with the outer edge

portion of said base, whereby to form a recess adjacent to the inner extremity of the scarfed base, and a flange at the outer extremity of said base, the flange of the base of one rail end entering the recess of the other rail end, and fastenings passing through the abutting portions of the rail ends and securing the same together.

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

FRANCISCO F. MARTINS. [L. s.]

Witnesses:

MARY CUDDY,
MARION W. SMITH.