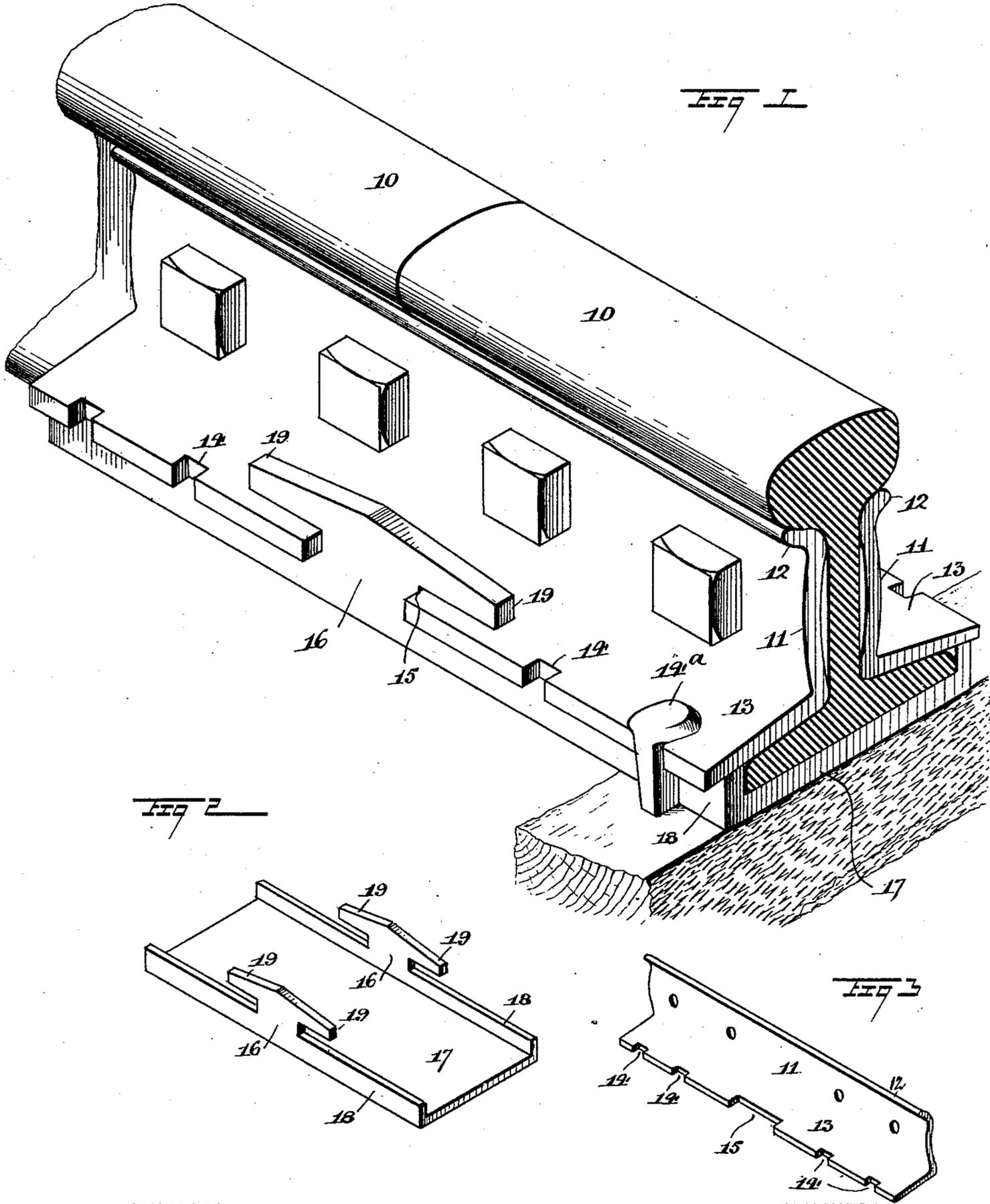


(No Model.)

G. G. STACY.  
RAIL JOINT.

No. 481,433.

Patented Aug. 23, 1892.



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

GEORGE G. STACY, OF NEW YORK, N. Y.

## RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 481,433, dated August 23, 1892.

Application filed December 31, 1891. Serial No. 416,685. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE G. STACY, of the city, county, and State of New York, have invented a new and Improved Rail-Joint, of which the following is a full, clear, and exact description.

My invention relates to improvements in rail-joints and is an improvement on the rail-joint for which I applied for Letters Patent of the United States July 6, 1891, said application being serially numbered 398,513 and patented February 16, 1892, No. 469,178.

The object of my invention in this, as in the former case, is to produce a cheap, strong, and simple joint which may be easily applied to the meeting ends of rails and will hold them so that they cannot move longitudinally or laterally.

A further object of the invention is to produce a joint which will practically make the rails continuous and will hold their meeting ends together, even though the sleepers beneath the joints should wash away or the joint should come between sleepers.

To this end my invention consists in a rail-joint the construction of which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of a joint embodying my invention. Fig. 2 is a detail perspective view of the base-plate on a reduced scale, and Fig. 3 is a detail perspective view of one of the improved fish-plates.

The rails 10 are of the usual kind, and they are united by the outwardly-bent angle-plates 11, which are bolted to the rails and which have outwardly-bent upper ends 12, which fit between the rail-shoulders, the upper portion of the said plates being substantially as shown in my former patent, above referred to. The angle-plates have outwardly-extending base-flanges 13, which overlap the flanges of the rails 10 and which have at their outer edges notches 14 to receive the spikes 14<sup>a</sup>, by which the parts are secured to the railroad-sleepers and which have, also, near the center a wider

notch 15, adapted to receive the uprights 16 of the base-plate 17. The base-plate is adapted to extend beneath the meeting ends of the rails and to rest upon the sleepers, as shown in Fig. 1, and it has side flanges 18, adapted to prevent the rails from slipping laterally, and the flanges are of a length to be about flush with the top surface of the rail-flanges. The uprights 16 are adapted to fit snugly in the notches or recesses 15 in the outer edges of the angle-plate flanges, and the upper ends of the uprights 16 terminate in laterally-extending arms 19, which are adapted to overlap the top surfaces of the flanges 13 of the angle-plates and which thus lock the parts together.

To apply the parts of the joint to the rails, the rails are first placed in the base-plate between the flanges 18 thereof. The angle-plates are then slipped downward on the sides of the rails, so that the flanges 13 will project outward and so that the notches or recesses 15 will embrace the uprights 16, and the angle-plates are then firmly bolted to the webs of the rails. It will thus be seen that the rails will be so firmly united that they cannot separate laterally, longitudinally, or vertically, as the overlapping arms 19 will prevent the angle-plates from separating from the base-plate.

It will be understood that any of the usual provisions may be made for the expansion and contraction of the rails longitudinally, and my invention consists in the connection between the angle-plates and the base-plate.

It will be seen that, if desired, the flanges 18 may be dispensed with, as the uprights 16 would prevent the lateral displacement of the rails; but the flanges 18 are preferably employed, as they make the joint stronger.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A rail-joint comprising angle-plates having vertical portions to fit the rail-webs and outwardly-extending base-flanges with notches therein and a base-plate adapted to receive the rails, said plate having uprights on opposite sides to fit the notches in the angle-plate flanges, the uprights terminating at

their upper ends in laterally-extending arms to overlap the flanges of the angle-plates, substantially as described.

2. The combination, with the base-plate  
5 adapted to receive the rails and having side flanges with vertical uprights terminating in laterally-extending arms, of the angle-plates adapted to be secured to the rails, said plates

having outwardly-extending base-flanges with notches therein to receive the uprights, substantially as shown and described. 10

GEORGE G. STACY.

Witnesses:

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