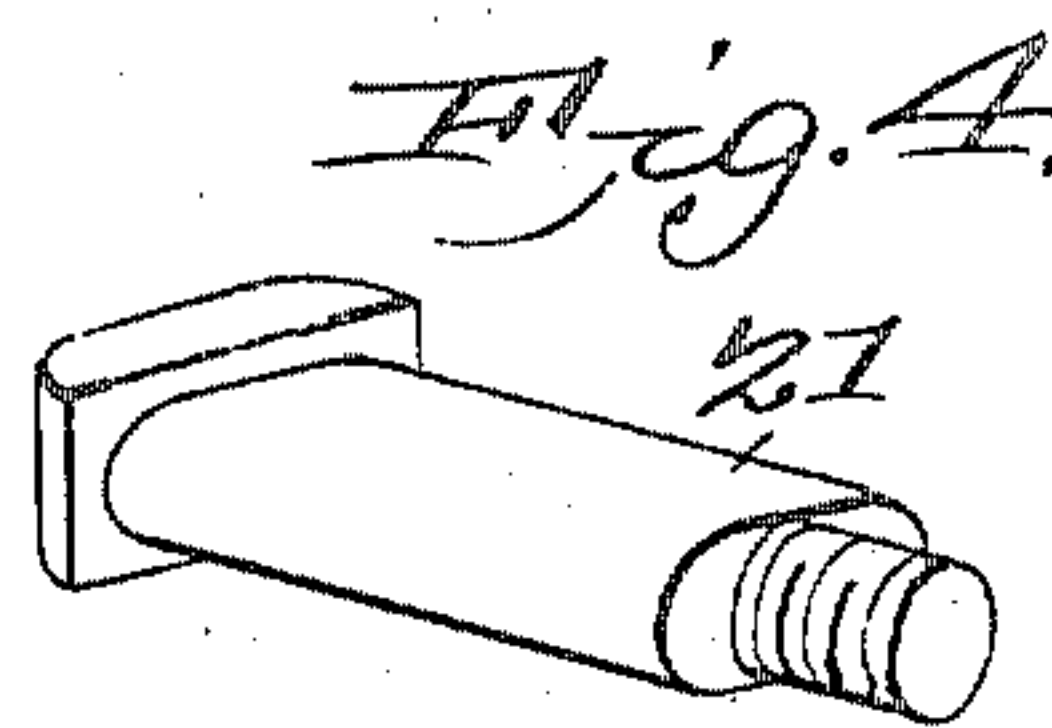
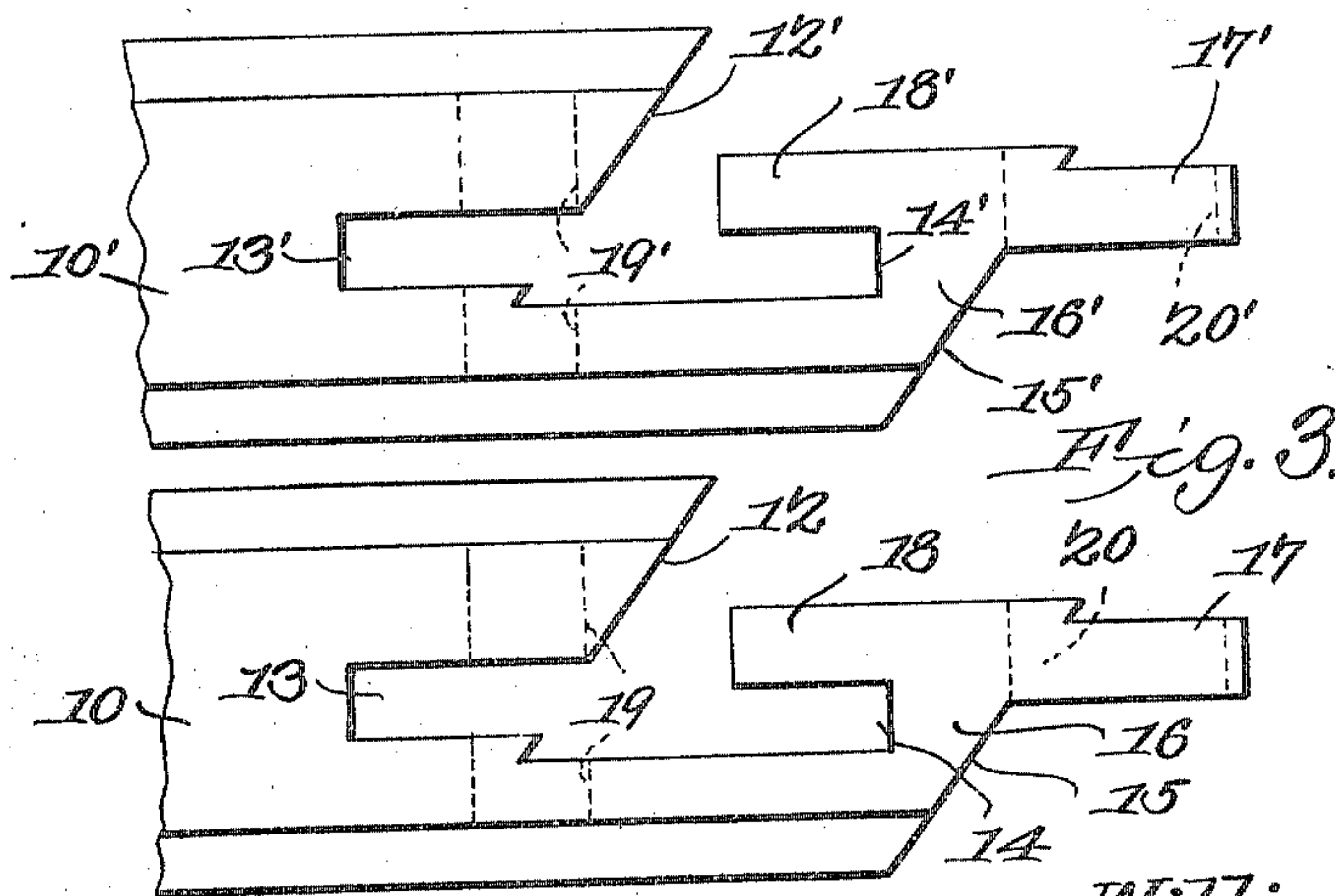
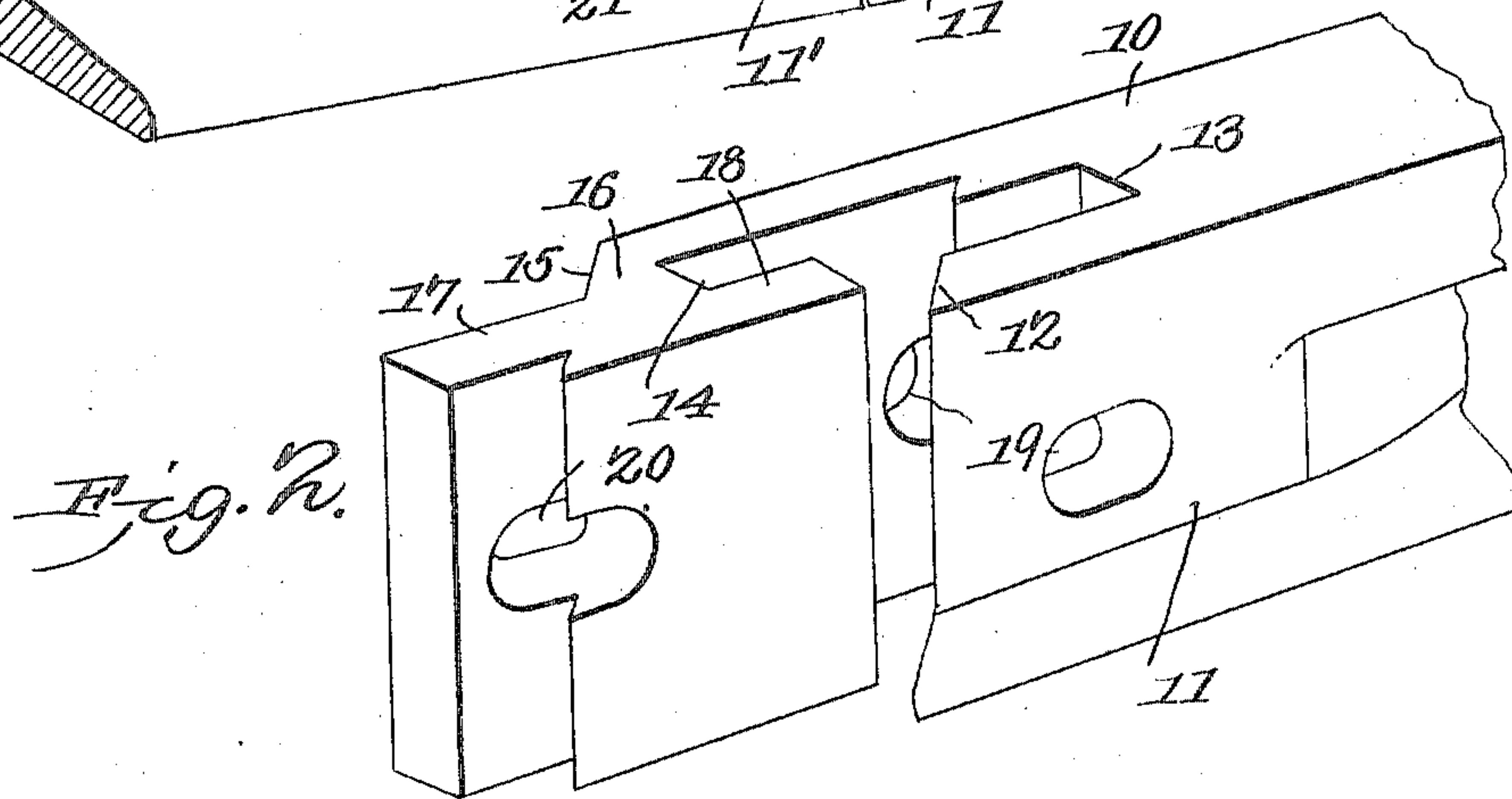
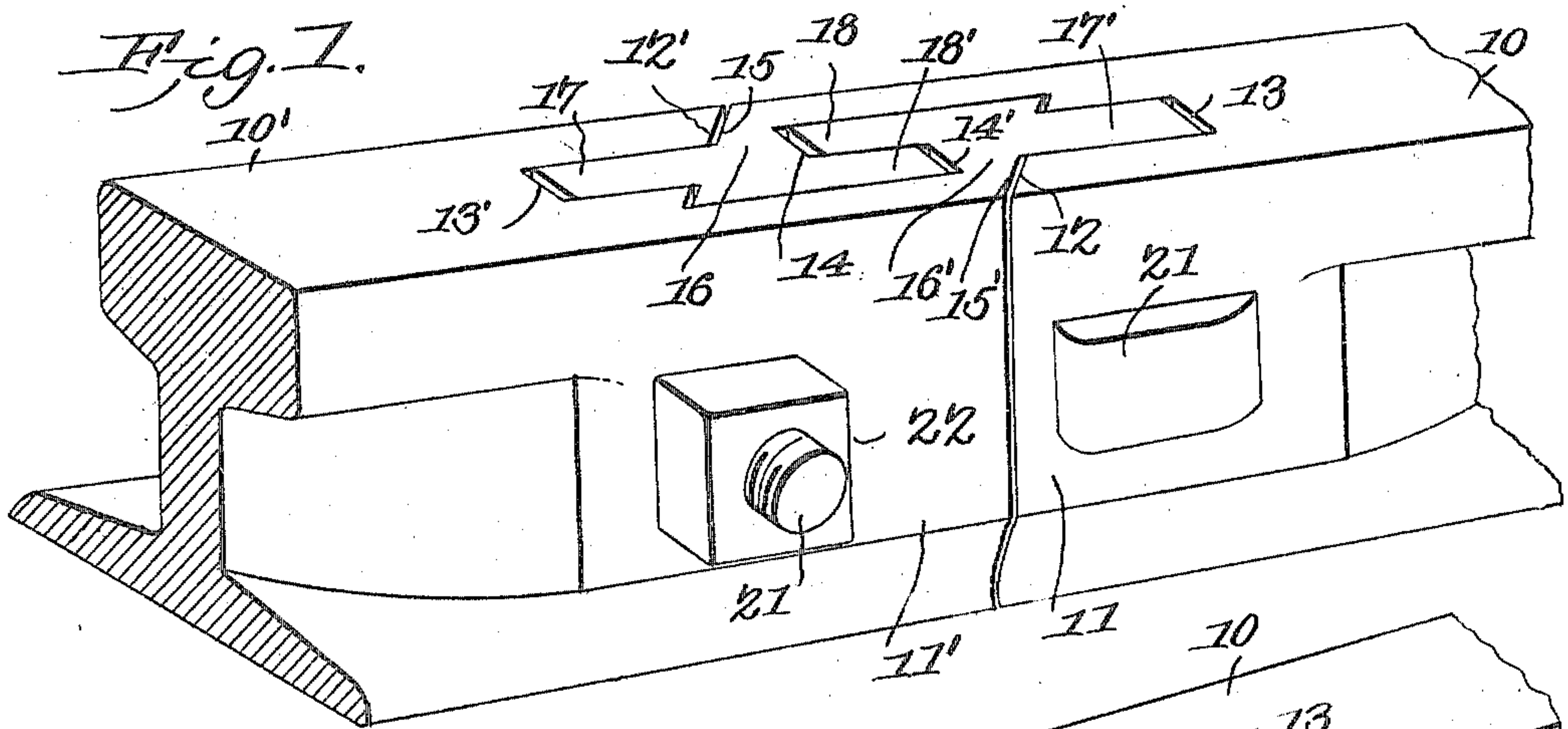


No. 817,064.

PATENTED APR. 3, 1906.

W. A. HILL.
RAIL JOINT.

APPLICATION FILED SEPT. 26, 1905.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM A. HILL, OF ST. PAUL, ARKANSAS.

RAIL-JOINT.

No. 817,064.

Specification of Letters Patent.

Patented April 3, 1906.

Application filed September 26, 1905. Serial No. 280,213.

To all whom it may concern:

Be it known that I, WILLIAM A. HILL, a citizen of the United States, residing at St. Paul, in the county of Madison and State of Arkansas, have invented a new and useful Rail-Joint, of which the following is a specification.

This invention relates to rail-joints, and has for an object to provide a device of this class embodying new and improved features of durability, utility, and efficiency.

A further object of the invention is to provide a rail-joint embodying similar interlocking rail ends of improved form.

A further object of the invention is to provide an interlocking rail-joint of such construction and conformation that a bolt may pass through both rail ends and the tightening strain be exerted on only one to permit the rails to move longitudinally relative to each other to compensate for a variation in length, but preventing any other movement.

A further object of the invention is to provide a rail-joint of improved construction offering no obstruction to the passage of car-wheels, and consequently producing no pounding at the joints and eliminating the usual rounding and wearing down of the rail ends.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made without departing from the spirit or sacrificing any of the advantages of this invention.

In the drawings, Figure 1 is a perspective view of the improved rail-joint. Fig. 2 is a perspective view of one of the rail ends disconnected. Fig. 3 is a top plan view of the two rail ends disconnected. Fig. 4 is a detail view of the bolt used in association with the improved joint.

Like characters of reference indicate corresponding parts in all the figures of the drawings.

In its preferred embodiment the improved rail-joint forming the subject-matter of this application comprises similar rail ends 10 and 10', having the webs thickened at the ends, as indicated at 11 11', to a thickness substantially equal to the width of the head of the

rail. Extending vertically through the rail and transsecting the upper and lower surfaces is formed a cut 12 12', oblique to the side of the rail, and at one side thereof is formed a mortise 13 13' in a plane parallel with the rail. Opposite and parallel, but not registering with the mortise 13 13', is formed the mortise 14 14'. The end is formed with an oblique cut 15 15', parallel with the cut 12, and between the mortise 14 14' and the cut 15 15' is a neck 16 16', upon the outer end of which are carried the tenons 17 17' and 18 18', proportioned to and engaging, respectively, within the mortises 13 13' and 14 14'. Transsecting the oblique cut 12 an elongated bolt-opening 19 19' is formed, and through the end of the tenon 17 17' a longitudinally-disposed slot 20 20', longer than the opening 19 19', is formed to register with the openings 19 19' when the parts are assembled. Through the opening 19 19' and the slots 20 20' are inserted bolts 21 21', oval in cross-section and having thereon nuts 22. It will be noted that the tenons are somewhat shorter than the mortises in which they are seated and that the bolts passing through the slots permit a slight longitudinal movement of the rails relative to each other. It will be further noted that the bolt-heads and nuts bear against opposite sides of the same rail and that consequently the nuts may be tightened to hold the bolt without binding the tenons, so as to permit the desired compensatory movement.

It is believed that from the foregoing description the use, operation, and advantages of the joint will be fully and clearly understood.

Having thus described the invention, what is claimed is—

1. A rail-joint comprising similar rail ends provided with similar mortises communicating with the exterior by reduced openings and with similar tenons carried upon reduced necks and proportioned to engage within the mortises, and means for securing the ends together to permit a movement of the tenons within the mortises longitudinally of the rails.

2. A rail-joint comprising similar rail ends provided each with a mortise transsecting the upper and lower surfaces of the rail and communicating with the exterior by a cut oblique to the side of the rail, similar tenons carried by rail ends and engaged within the

mortises, a bolt passing through both rail
ends, and a nut upon the bolt and so ar-
ranged that the bolt-head and nut bear
against opposite sides of the same rail and to
5 permit a movement of the tenons within the
mortises longitudinally of the rails.

In testimony that I claim the foregoing as

my own I have hereto affixed my signature in
the presence of two witnesses.

WILLIAM A. HILL.

Witnesses:

J. H. ANDERSON,

E. F. SHINN.