No. 786,324. PATENTED APR. 4, 1905.

M. STUART.

RAIL JOINT.

APPLICATION FILED APR. 26, 1904.

Fig. 1.

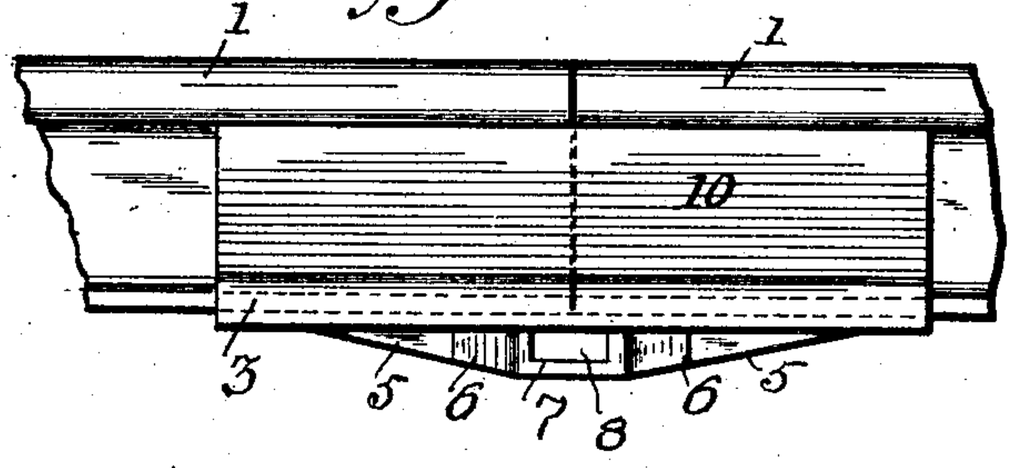
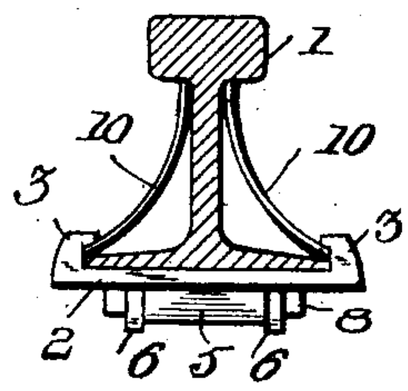


Fig. 2.



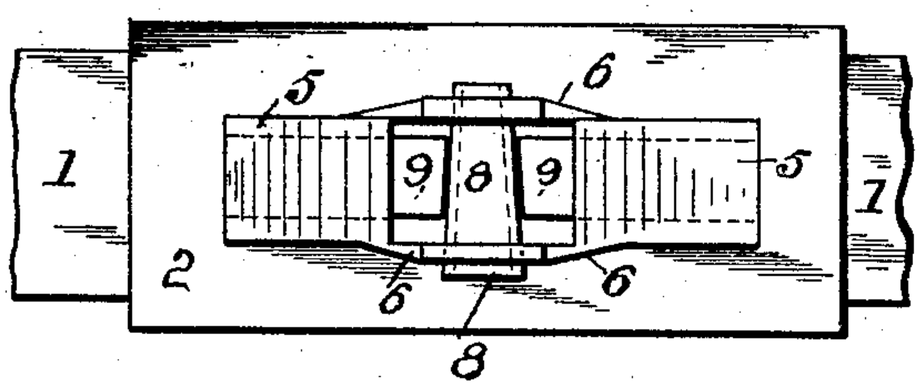
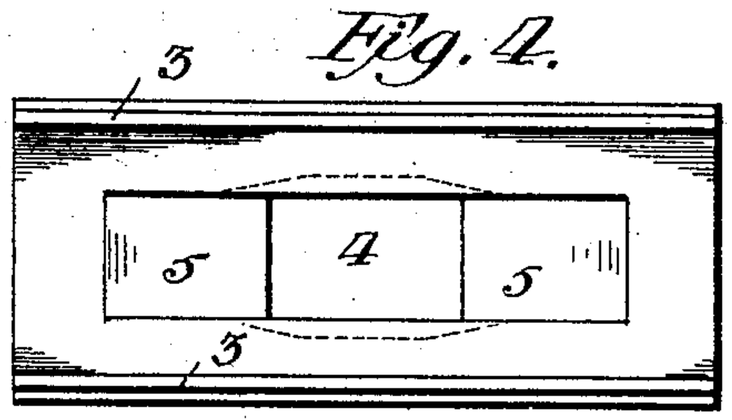


Fig. 5.

Fig. 4.



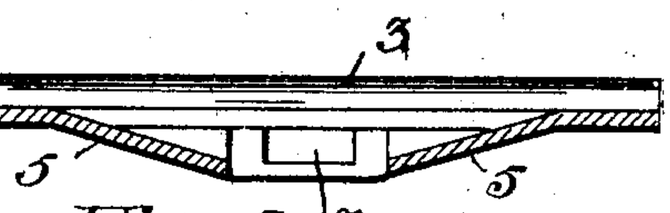


Fig. 5.7

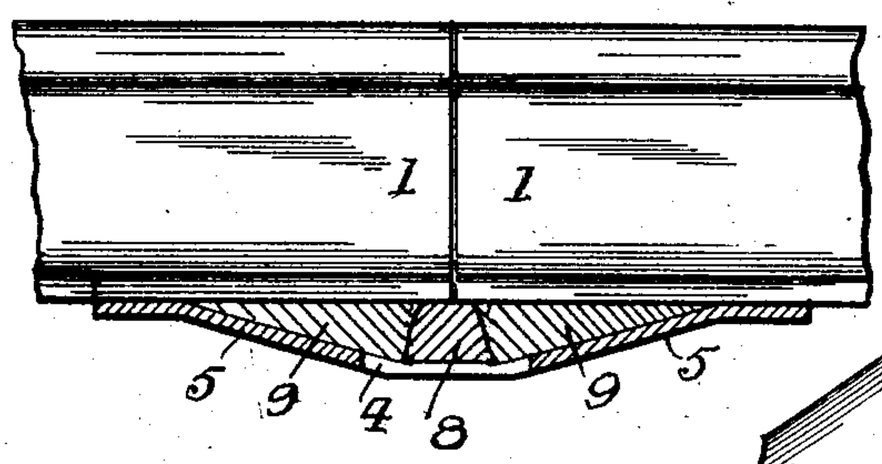


Fig. 6.

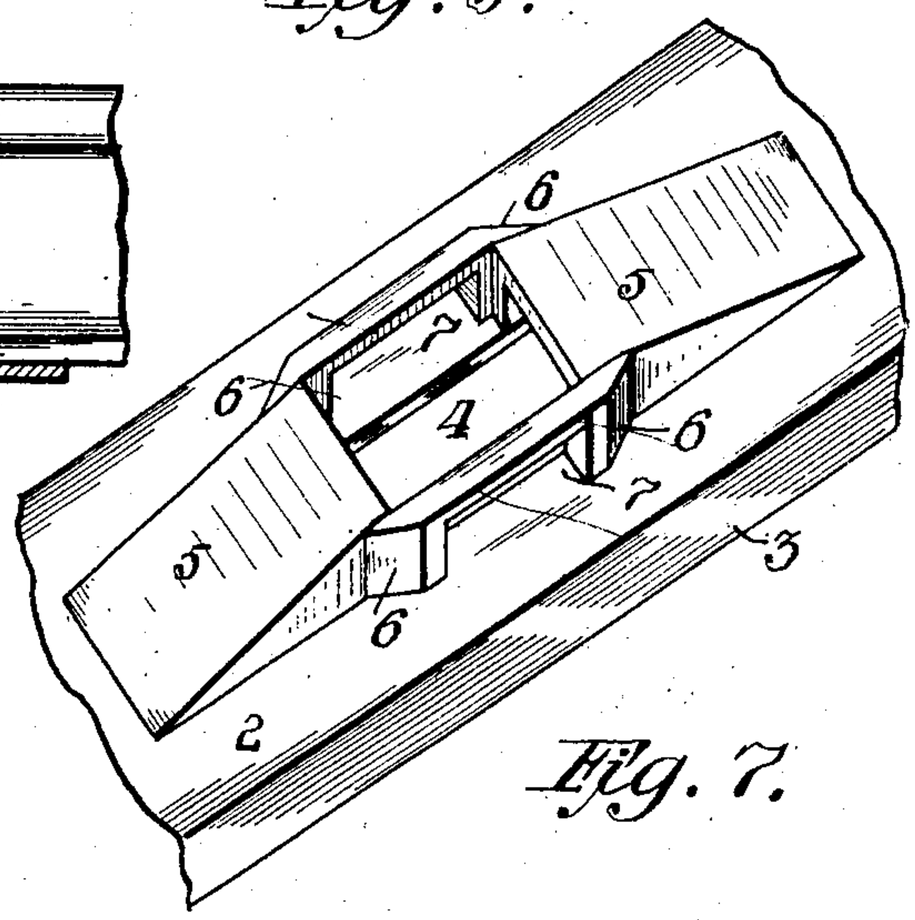


Fig. 7.

Witnesses:
H. C. Butler
H. J. Lewis

Inventor
Metzgar Stuart
By O. W. Lewis
Attorney

PHOTO-LITHOGRAPHED BY SACKETT & WILHELMS LITHO. & PTG. CO. NEW YORK.

No. 786,324. Patented April 4, 1905.

UNITED STATES PATENT OFFICE.

METZGAR STUART, OF SHERIDAN, PENNSYLVANIA.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 786,324, dated April 4, 1905.

Application filed April 25, 1904. Serial No. 204,837.

To all whom it may concern:

Be it known that I, METZGAR STUART, a citizen of the United States, residing at Sheridan, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Rail-Joints, of which improvement the following is a specification.

This invention relates to certain new and useful improvements in rail-joints, and relates more particularly to that class wherein the use of nuts and bolts is entirely dispensed with.

The present invention has for its object the provision of novel means whereby two sections of rails can be easily secured together and readily removed when desired; furthermore, to provide novel means whereby the rail will be permitted to expand and contract, which is due to the changes in the atmosphere.

A still further object of the present invention is to provide a joint which will be extremely simple in construction, strong, durable, comparatively inexpensive to manufacture, and highly efficient in its operation.

With the above and other objects in view the invention consists in the novel construction, combination, and arrangement of parts to be hereinafter more fully described and claimed.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this application, and wherein like numerals of reference indicate like parts throughout the several views, in which—

Figure 1 is a side elevation of my improved rail-joint. Fig. 2 is a vertical sectional view thereof. Fig. 3 is an under plan view. Fig. 4 is a plan view of the base-plate. Fig. 5 is a longitudinal sectional view thereof. Fig. 6 is a vertical longitudinal sectional view of the rail-joint, showing the rails in side elevation. Fig. 7 is an inverted perspective view of the base-plate.

In the drawings the reference-numeral 1 indicates the rail-sections, and 2 the base-plate, carrying side flanges 3. This base-plate has formed therein a central opening 4 and on its under face is provided with an inclined bottom 5 and side walls 6, in which are formed transverse openings 7, through which extends the key 8, engaging wedges 9 9, having beveled sides and operating upon the inclined bottom 5.

The reference-numeral 10 represents fish-plates which engage the under side of the tread of the rail and are secured within the flanges 3 of the base-plate.

The operation of my improved rail-joint is as follows: The sections of rails are placed together in proper position, as shown in the drawings, and by driving the key 8 into position will tend to operate the wedges 9 in opposite directions and will tend to securely lock the rails in position. In order to remove the rails, the key 8 is withdrawn, which will relax the tension of the wedges.

The many advantages obtained by the use of my improved rail-joint will be readily apparent from the foregoing description, taken in connection with the accompanying drawings.

It will be obvious that various slight changes may be made in the details of construction without departing from the general spirit of my invention.

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

1. In a rail-joint, the combination of a base-plate having side flanges, an inclined bottom formed integral with said base-plate, wedges secured in said bottom, and a key operating said wedges.

2. In a rail-joint, the combination with the rails, a base-plate having side flanges formed integral therewith, fish-plates secured between said rail and side flanges, inclined bottoms secured integrally with said base-plate, said bottom having a transverse opening, a key secured in said opening, and wedges having inclined faces arranged in said inclined bottoms, all parts being arranged and operating substantially as described.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

METZGAR STUART.

In presence of—
JOHN GROETZINGER,
M. HUNTER.