R. L. MOORE.

RAIL JOINT.

APPLICATION FILED MAR. 23, 1911.

1,027,211.

Patented May 21, 1912.

2 SHEETS—SHEET 1.

Fig. 1.

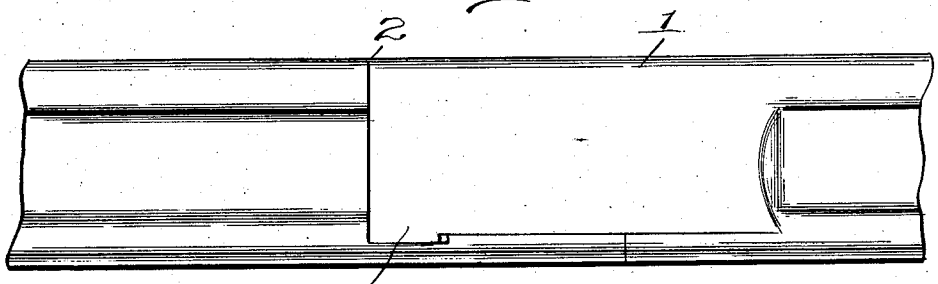


Fig. 2.

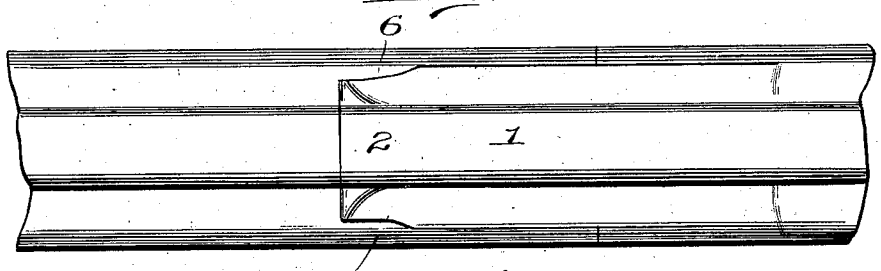


Fig. 3.

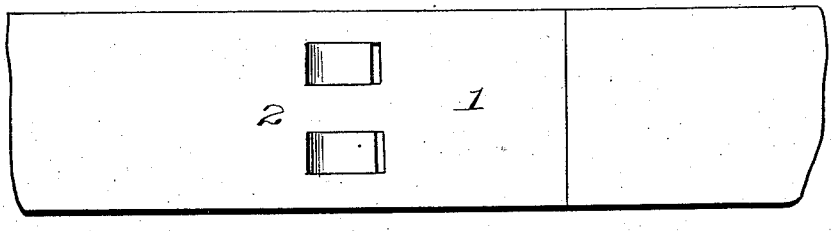
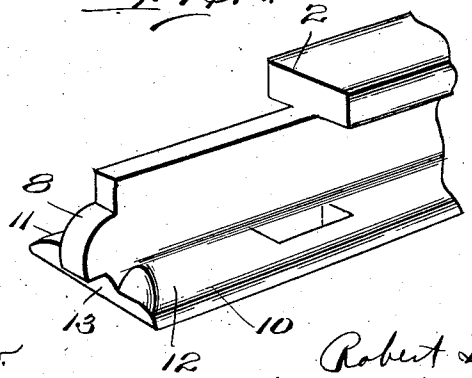


Fig. 4.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 6

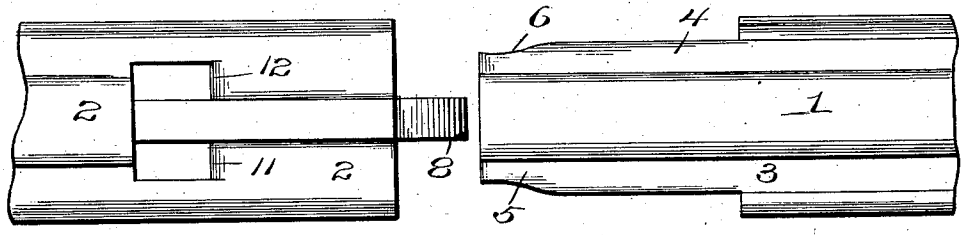


Fig. 7

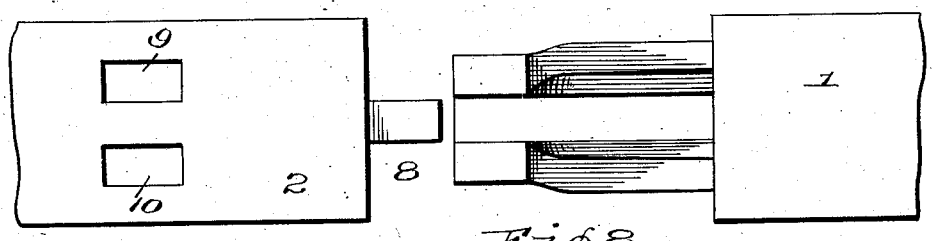


Fig. 8

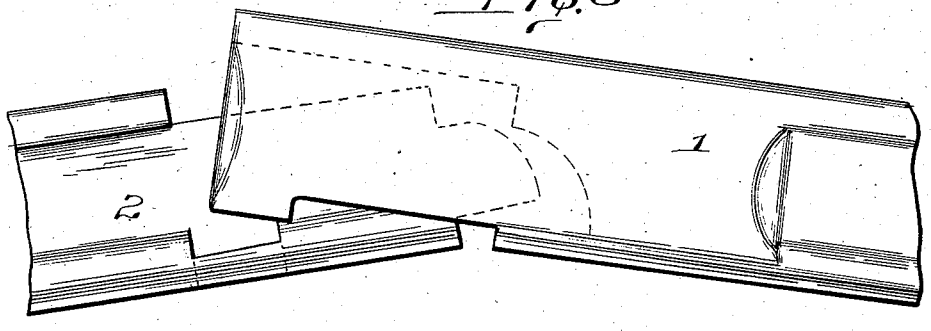
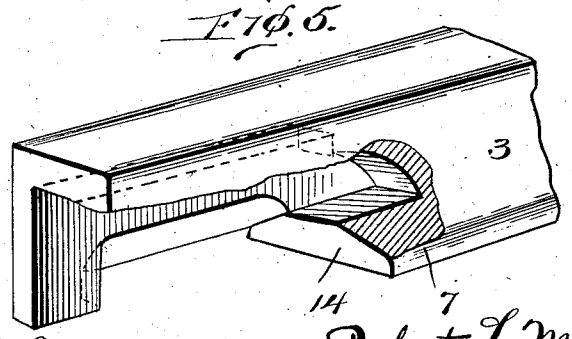


Fig. 5.



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UNITED STATES PATENT OFFICE.

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RAIL-JOINT.

1,027,211. Specification of Letters Patent. Patented May 21, 1912.

Application filed March 23, 1911. Serial No. 616,463.

To all whom it may concern:

Be it known that I, ROBERT L. MOORE, a citizen of the United States, residing on a ranch in the county of Adams, near the town of Byers, in Arapahoe county and State of Colorado, have invented certain new and useful Improvements in Rail-Joints; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in rail joints, and has for an object the arrangement of means on rails for connecting the same together end to end without the use of bolts or other auxiliary securing means.

Another object in view is the arrangement in a rail joint, of hook projections extending from one rail designed to fit into sockets in the adjoining rail, the same being arranged in connection with a socket, and a center bracing member fitting into the socket.

A still further object of the invention is the arrangement in a rail joint, of rails designed to be connected together end to end without the use of bolts or the like, the same comprising side hook members on one rail having a socket formed therebetween, and a pair of apertures or openings in the opposite rail for accommodating said hook members, and an overhanging portion or ledge for fitting into the socket between the hooks, whereby the rails may be held together and the ends of the rails supported.

With these and other objects in view the invention comprises certain novel constructions, combinations, and arrangement of parts as will be hereinafter more fully described and claimed.

In the accompanying drawings: Figure 1 is a side view of an embodiment of the invention. Fig. 2 is a top plan view of the structure shown in Fig. 1. Fig. 3 is a bottom plan view of the structure shown in Fig. 1. Fig. 4 is a detail perspective view of one end of a rail. Fig. 5 is a detail fragmentary perspective view of the opposite end of the rail to that shown in Fig. 4. Fig. 6 is a view similar to Fig. 2, except that the abutting ends of the rails are moved apart. Fig. 7 is a bottom plan view of the structure shown in Fig. 6. Fig. 8 is a fragmentary side view of the abutting ends of two rails, showing the same partially engaged.

In constructing an embodiment of the invention the same is designed to be formed so as to have the abutting ends of rails connected together without the use of bolts, fish plates, and the like. The rails are designed to be each made with a pair of hooks at one end and a pair of sockets at the other end. The hook end of the rail is also formed with a socket or shouldered portion, while the apertured end of the rail is formed with an overhanging member designed to fit into the socket between the hooks for firmly supporting the ends of the rails.

In order that the invention may be more clearly understood an embodiment of the same is shown in the accompanying drawings, in which 1 and 2 indicate the abutting ends of rails. End 1 is provided with enlarged or thickened portions 3 and 4 which extend beyond the end of the rail, and are formed into hooks 5 and 6. Hooks 5 and 6 are spaced apart and have provided therebetween beneath the ball of the rail a socket 7, which socket accommodates the overhanging portion 8 of end 2.

The hooks 5 and 6 extend a considerable distance forward from the base of the rail for accommodating the abutting rail which has a considerable portion of the ball removed in order to, in a certain sense, break the joint or have the joint of the ball at one point and the joint of the base at another point. End 2 is formed with apertures 9 and 10 which accommodate the lower ends of hooks 5 and 6 which are made to snugly fit into the apertures and to come flush with the bottom of the rails when the rails are hooked together, as shown in Fig. 1. The apertures 9 and 10, as well as socket 7, are made sufficiently large for permitting the longitudinal movement of the members coacting therewith so as to freely permit a proper expansion and contraction. In order to permit hooks 5 and 6 to more easily enter apertures 9 and 10, the lower part of the base of the rail is slightly rounded at 11 and 12.

By the construction and arrangement of the hooks 5 and 6, overhanging portion 8 and associated parts, the ends of the rails are positively held together both in respect to a longitudinal movement and a lateral movement, while any weight brought to

bear on the ends of the rails will tend to hold the joint tighter together rather than loosen the same. By the construction and arrangement of the end 2 with the ball cut off for a considerable distance back, and by the construction of the end 1 with the overhanging ball portion, the ends of the rails are properly supported for minimizing the usual pounding at this point. It will be observed that the ball of the rail will be continuously supported and that the line of division between the two rails is so arranged that the strain on the rail is caused to be evenly distributed for preventing any injury to any of the parts.

What I claim is:

1. In a rail joint, the combination with abutting rails, one of said rails being formed with a pair of apertures therein, a hook projecting from the end of the web and the ball of the rail cut away as far back as said apertures, and the other of said rails being formed with a notch in the web portion for engaging said hook on said first mentioned rail, and a pair of hook members designed to fit into said apertures, said hook members being connected together at the top by the ball of the rail which fits over said first mentioned rail and acts as the ball of said first mentioned rail for the part that has been cut away.

2. In a rail joint, the combination with abutting rails, one of said rails being formed with a pair of hook members extending from the base to the ball and with a socket arranged in the web, and the other rail being formed with a projecting hook extending from the web of said last mentioned rail, and a pair of apertures arranged in the base, said apertures being positioned on opposite sides of the web, said apertures being adapted to receive said hook members.

3. In a rail joint, the combination with abutting ends of rails formed with interlocking members, one of said rails being formed with hook members merging into webs which are spaced apart and which merge into the web of the rail and which merge also into the ball of the rail, said rails being formed also with a socket between said webs in the ordinary web of the rail, and the other rail being formed with a hook shaped extension projecting into the socket in said web, and with a pair of sockets for accommodating said hook shaped members, said second mentioned rail being also formed with the ball thereof removed from the end back to a position opposite said apertures for permitting the ball of the first mentioned rail which merges into said hook members to act as a ball for said second mentioned rail.

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

ROBERT L. MOORE.

Witnesses:

CARLE WHITEHEAD,

FRED ECKSTEIN.