M. F. McINTYRE.

Railroad Rail Joints.

No. 136,530. Patented March 4, 1873.

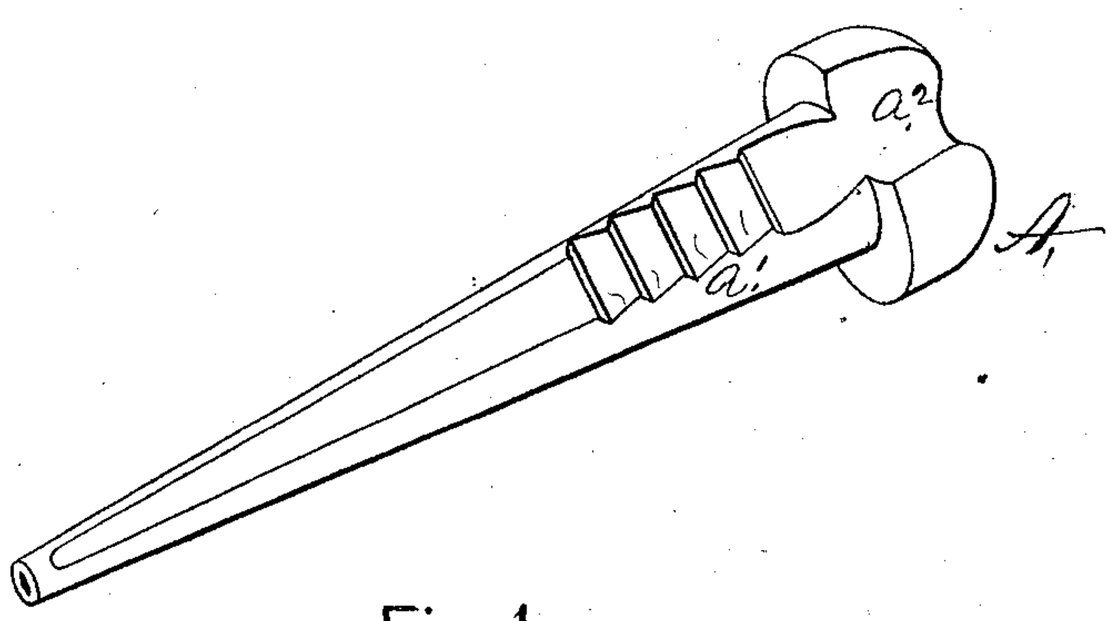
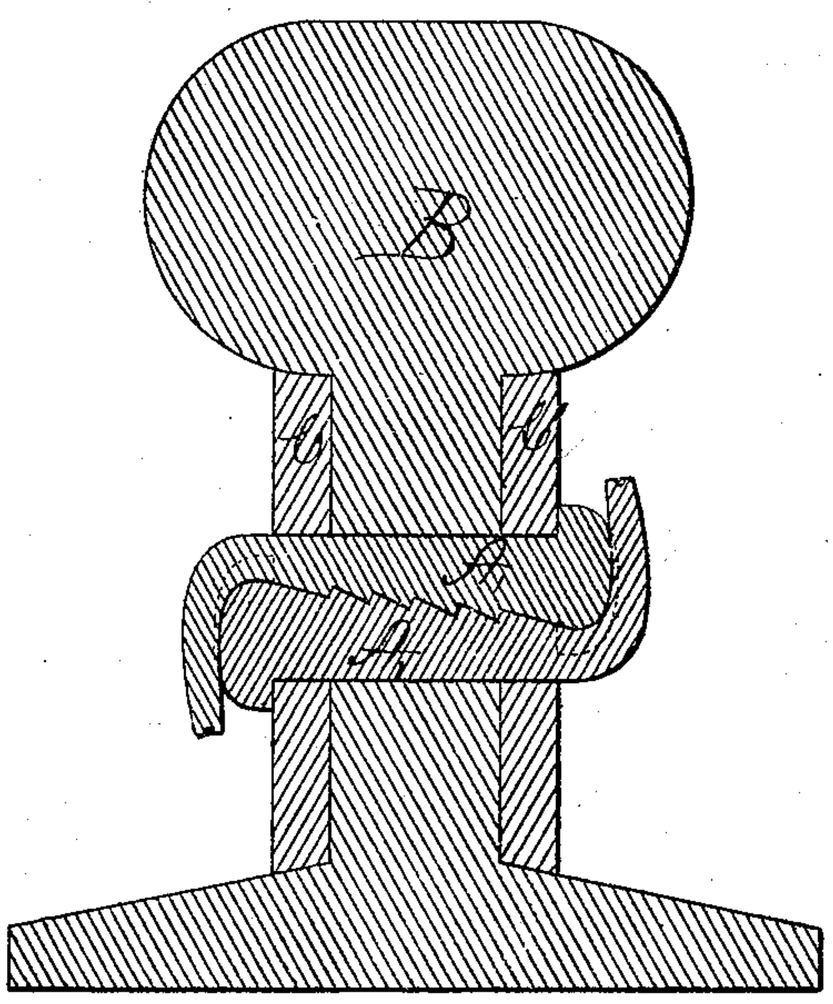


Fig. 1.

Fig. 2.



WITNESSES.

Villette Anderson.

Edw. F. Brown.

M. F. McIntyre
INVENTOR.

UNITED STATES PATENT OFFICE.

MALCOLM F. McINTYRE, OF GIRARD, PENNSYLVANIA.

IMPROVEMENT IN RAILROAD-RAIL JOINTS.

Specification forming part of Letters Patent No. **136,530**, dated March 4, 1873.

To all whom it may concern:

Be it known that I, MALCOLM F. MCINTYRE, of Girard, in the county of Erie and State of Pennsylvania, have invented a new and useful Improved Rail-Joint Fastening; and I do hereby declare that the following is a full, clear, and exact description thereof, sufficient to enable those skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawing making part of this specification, and to the letters and figures marked thereon.

My invention has for its object the fastening of rail-joints without the use of screw-bolts and nuts; and it consists in a headed tapering bolt having ratchet-teeth formed on one side and a depression in the head, and is applied to the fastening of rail-joints by the insertion of two of said bolts in each perforation in the rail and fish-plates from opposite directions, so that the tapering end of each bolt lies in the depression in the head of the opposite bolt, and is bent down against the head, thus holding the fish-plates and rail firmly together.

In the drawing, Figure 1 is a perspective view of my improved bolt. Fig. 2 is a transverse section, showing its application to a rail-joint.

The bolt A is tapering in form, and may be either round or angular. On one side is formed a series of ratchet-teeth, as shown at a^1. The head of the bolt may be of any suitable form, and has on one side a depression, a^2. This device need not be confined to fastening rail-joints, as it is obvious that there are numerous uses to which it may be applied.

Referring to Fig. 2 of the drawing, B represents a rail, and C C two fish-plates, both rail and fish-plates being perforated in the usual way. The bolts A A are passed through from opposite directions and their ends hammered down, as shown, thus holding the parts firmly together. The perforations in the rail are made larger than those in the fish-plates, to allow of contraction and expansion.

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

1. The bolt A, formed with the ratchet-teeth a^1 and depression a^2, substantially as shown and described.

2. The combination of the bolts A A, rail B, and fish-plates C C, substantially as shown and described.

The above specification of my invention signed by me this 21st day of January, 1873.

M. F. MCINTYRE.

Witnesses:

E. R. BROWN,

EDM. F. BROWN.