

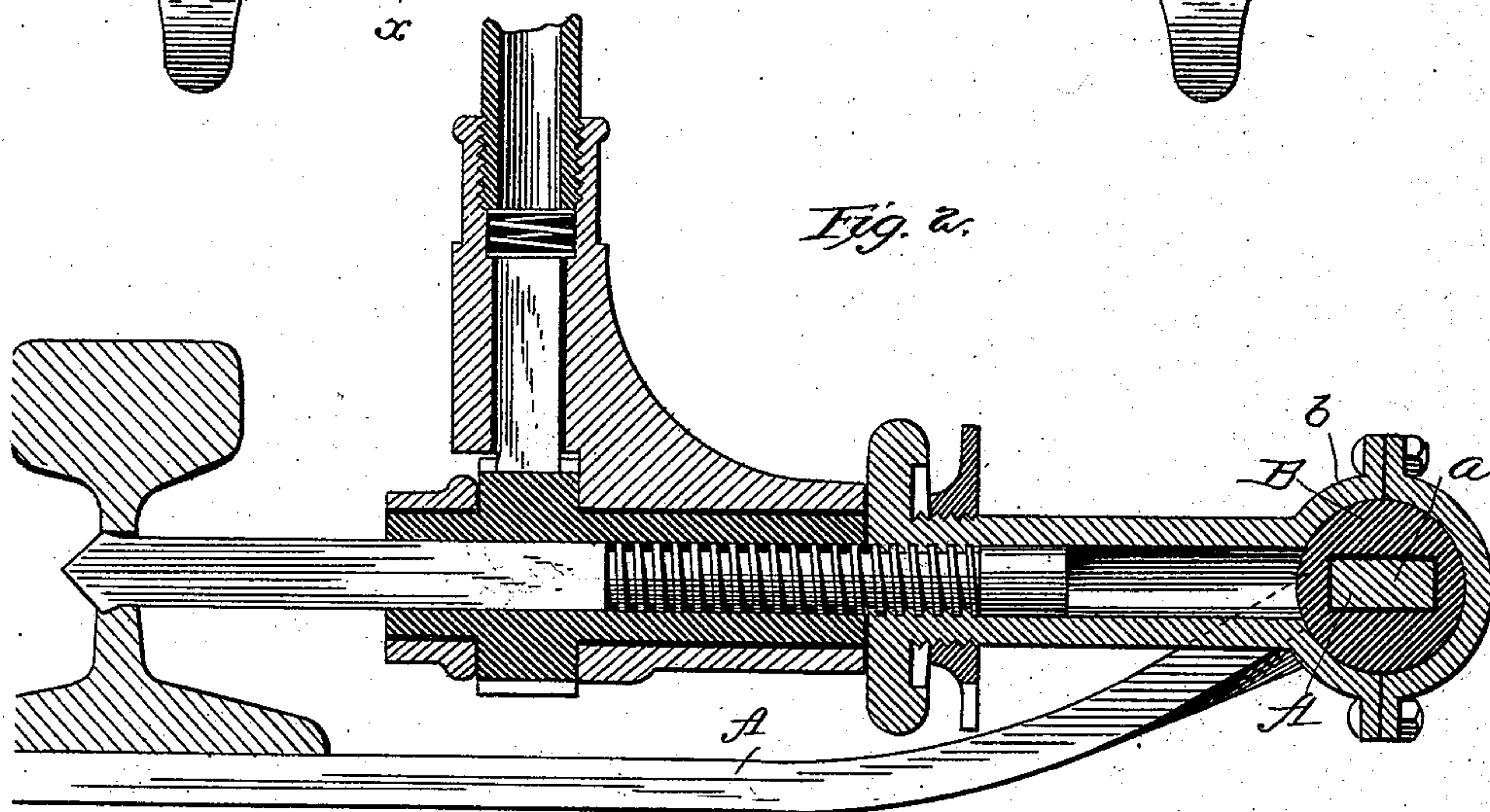
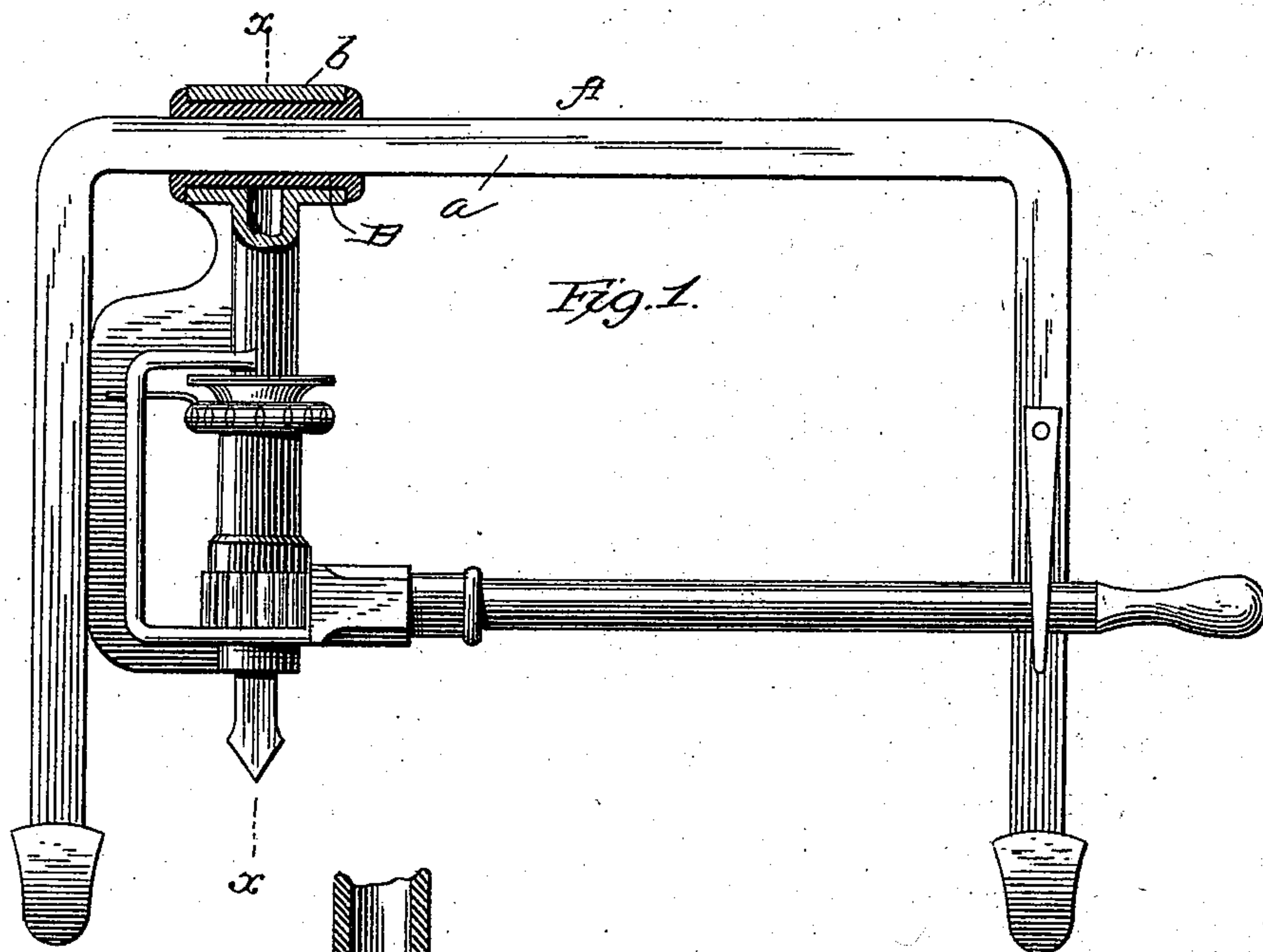
(No Model.)

A. WARREN.

RAILWAY RATCHET DRILL.

No. 380,152.

Patented Mar. 27, 1888.



Attest.
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Atty.

UNITED STATES PATENT OFFICE.

ANDREW WARREN, OF ST. LOUIS, MISSOURI.

RAILWAY RATCHET-DRILL.

SPECIFICATION forming part of Letters Patent No. 380,152, dated March 27, 1888.

Application filed November 29, 1887. Serial No. 256,442. (No model.)

To all whom it may concern:

Be it known that I, ANDREW WARREN, of the city of St. Louis, in the State of Missouri, have invented a new and useful Improvement in a Railway Ratchet-Drill; and I do hereby declare that the following is a full, clear, and exact description of the same.

This improvement, which is the subject of the foregoing petition, is upon the railway ratchet-drill shown in an application of Louis J. Crecelius, filed in the United States Patent Office on the 5th day of May, 1887. In the form of drill therein shown the frame is made of gas-pipe, and forms a round bearing for the sleeve end of the swinging ratchet-holder. It is not, however, desirable to be confined to the use of the gas-pipe in the construction of these frames, and is desirable sometimes to use solid iron bar of rectangular cross-section. In order to accommodate the swinging ratchet to this form of iron in the frame and to permit the ratchet-holder to swing freely, while at the same time fitting snugly, and to stiffen the frame, is the object of my invention.

It consists of a re-enforcing-sleeve having an exterior cylindrical form to receive the socket of the ratchet and allow it to turn freely thereon and an interior form adapted to the rectangular bar of the frame.

In the accompanying drawings, Figure 1 shows the ratchet and frame in plan view, a portion being shown broken away to illustrate the supporting-sleeve. Fig. 2 represents a cross-section on line *xx* of Fig. 1.

In the figures, A represents the frame of the ratchet-drill. It is shown as square in cross-section, and is bent at right angles to form the

arms, the ends of which engage with the flanges of the rail. On the part *a*, parallel with the rail, is the sleeve B. This has a central longitudinal aperture fitting the bar *a* of the frame, so as to slide freely thereon. The exterior is cylindrical in form, and has centrally a turned-down or smaller cylindrical portion adapted to receive the sleeve *b* on the end of the ratchet-holder. This may be made conveniently in two parts, so that it may be attached to the sleeve B and secured thereon. Thus the sleeve of the holder turns on the sleeve B on the frames, while the sleeve B slides the length of the frames to adjust the drill to any desired point on the rail. The sleeve B serves also to give a broader grip on the bar *a* of the frame, and there is less tendency to bend.

The bar of the frame may of course be square or flat or of any angular form, and the ratchet-holder is journaled on the sleeve to turn, but not to slide, on the sleeve, but with it on the bar.

I claim—

In combination with the frame of a railway, ratchet-drill formed of bar of angular section, the sleeve B fitting said bar and the ratchet-holder journaled thereon, all substantially as described.

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

ANDREW WARREN.

Witnesses:

L. J. CRECELIUS,
C. D. GREENE, Jr.