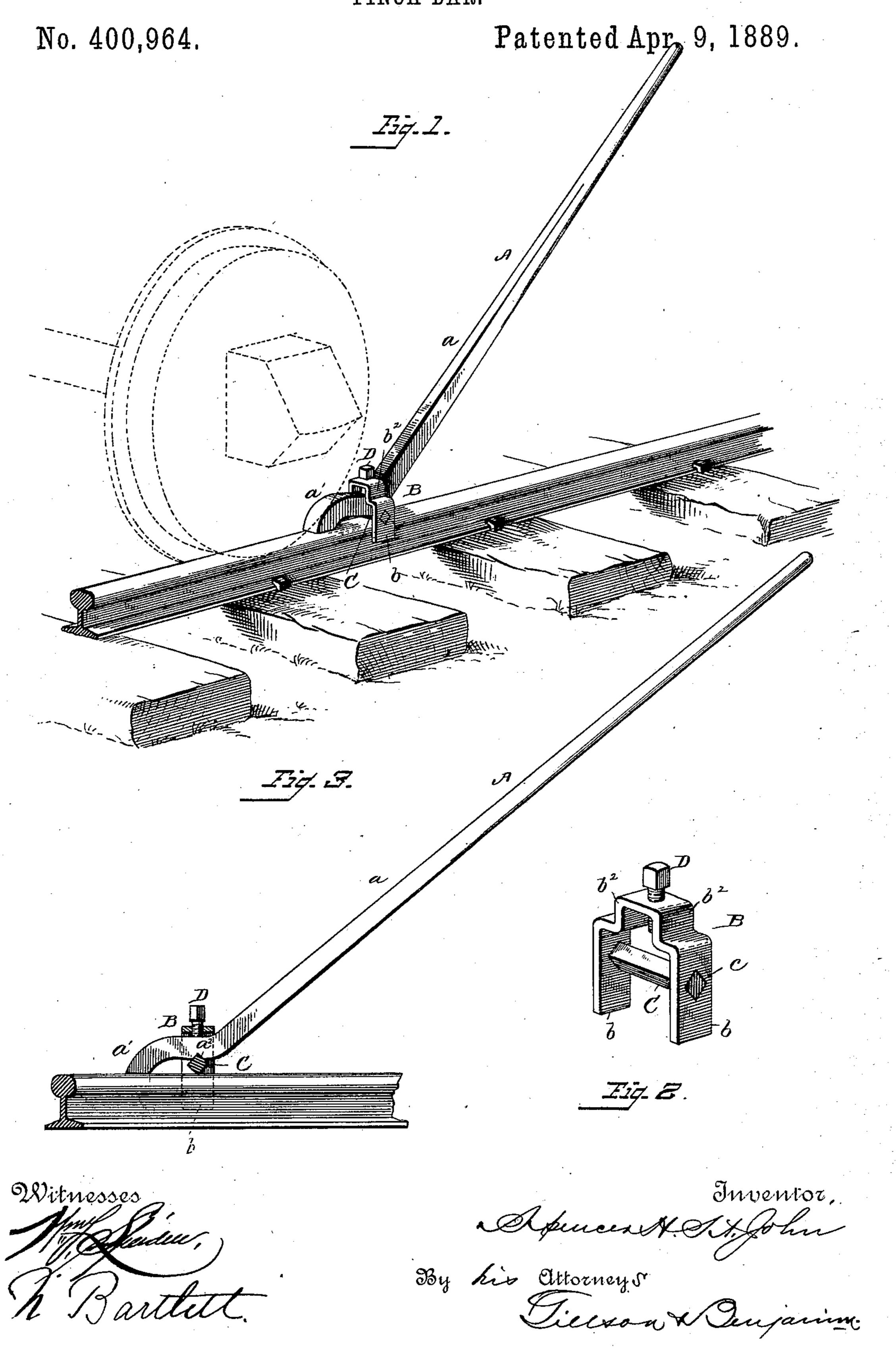
S. H. ST. JOHN.
PINCH BAR.



United States Patent Office.

SPENCER HOWARD ST. JOHN, OF CHICAGO, ILLINOIS.

PINCH-BAR.

SPECIFICATION forming part of Letters Patent No. 400,964, dated April 9, 1889.

Application filed December 19, 1888. Serial No. 294,083. (No model.)

To all whom it may concern:

Be it known that I, Spencer Howard St.
John, a citizen of the United States and resident of Chicago, county of Cook, and State of
Illinois, have invented new and useful Improvements in Pinch-Bars or Car-Movers, of which the following is a full, clear, and exact description.

The object of my invention is to provide a hard-metal fulcrum-bar having a number of sharp edges which may be repeatedly sharp-ened, and a guide-clevis, both to be removably attached to the pinch-bar without weak-ening the same by recessing it.

In the accompanying drawings, which are made a part of this specification, Figure 1 shows a perspective of my improved pinchbar; Fig. 2, a view of the clevis and fulcrumbar removed from the main bar; Fig. 3, a side view of the main bar, with the clevis and fulcrumbar in section.

The main bar A, consisting of the handle a and head a', may be of any desired form. Fitting astride of the bar A is the clevis B, whose arms b b, extending a short distance below the bar, fall upon either side of the rail when the tool is in use, and serve as guides to retain it in place. Extending transversely across this clevis, and fitted within suitable holes, c, in its arms, is the solid fulcrum-bar C, which may in cross-section be in any angular form—as, for example, triangular, rectangular, as shown, pentangular, &c. This fulcrum-bar is so located within the clevis as to fall immediately below the heel of the main bar A when the parts are adjusted.

For the purpose of securely holding the

clevis and fulcrum-bar in position, I place a set-screw, D, in the bow b^2 of the clevis B, which reacts upon the upper surface and 40 draws the fulcrum-bar C against the lower surface of the bar A. In place of the set-screw D may be substituted a simple wedge, to be driven between the clevis-bow b^2 and the bar A, though this I regard as a less de-45 sirable and less secure method than the one shown.

It will be seen that by placing the fulcrumbar C in position so as to present one of its edges to the rail a secure bearing is obtained. 50 As soon as one edge becomes dulled the bar C may be turned by separating the removable parts and another edge brought into use. The several edges of the bar C may be repeatedly sharpened until the bar is worn also most entirely away, as its size is not material, the wear being taken up by the set-screw D.

I am aware that the use of a removable hard-metal fulcrum for pinch-bars is not new, and that such bars have been provided with 60 guides, and I do not broadly claim either device.

I do, however, claim as my invention and desire to secure by Letters Patent—

The combination of a bar, removable ful- 65 crum-piece wholly external thereto, and a clevis fitting upon said bar, having down-wardly-projecting arms adapted to embrace the rail, substantially as described.

SPENCER HOWARD ST. JOHN.

Witnesses:

JOHN C. WEBER, SPENCER WARD.