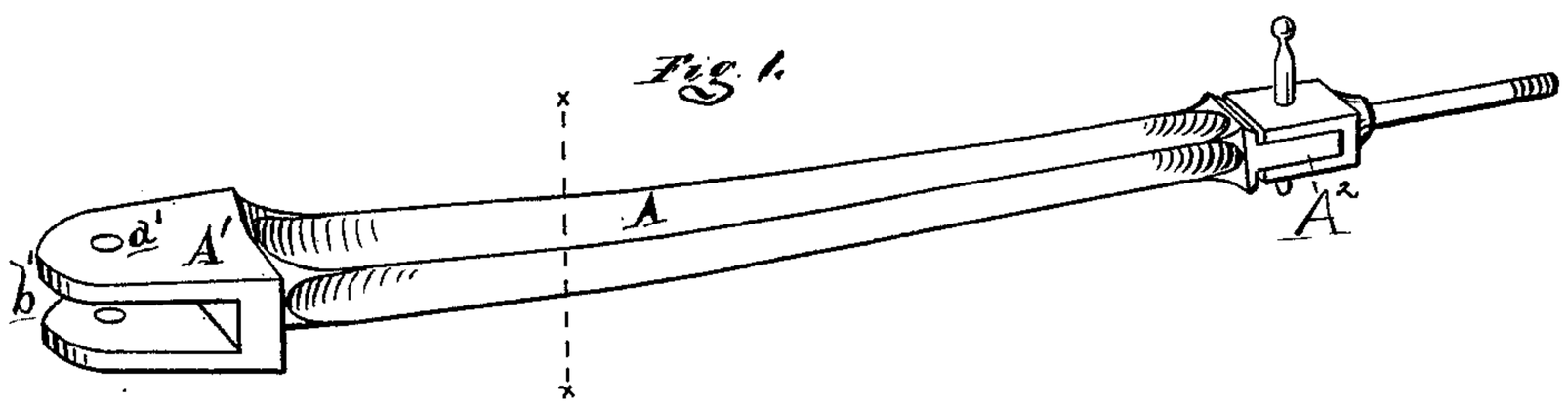
J. B. BAUGH.

Draw-Bar for Railway-Cars.

No. 195,971. Patented Oct. 9, 1877.

Fig. 1.



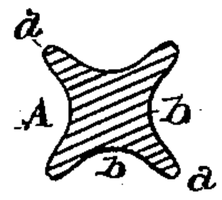


Fig. 2.

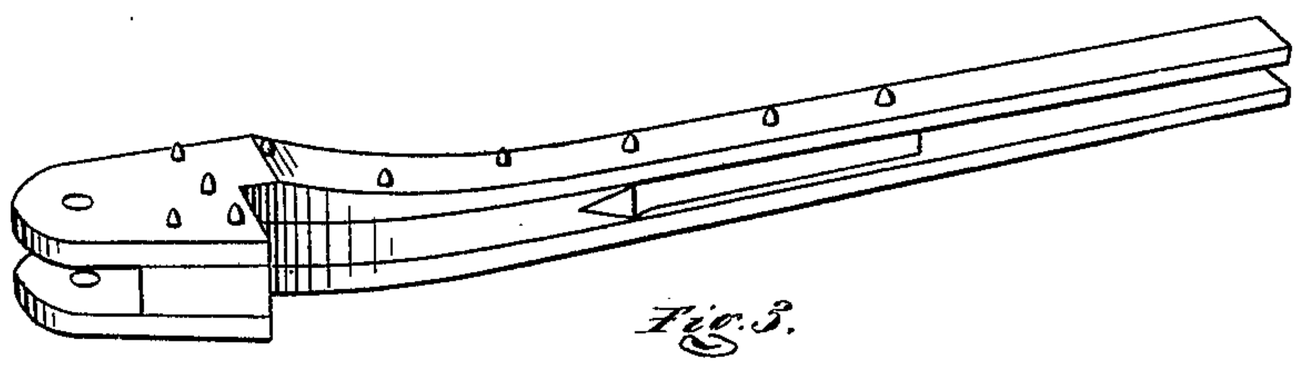


Fig. 3.

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UNITED STATES PATENT OFFICE.

JOHN B. BAUGH, OF DETROIT, MICHIGAN.

IMPROVEMENT IN DRAW-BARS FOR RAILWAY-CARS.

Specification forming part of Letters Patent No. **195,971**, dated October 9, 1877; application filed July 11, 1873.

To all whom it may concern:

Be it known that I, JOHN B. BAUGH, of Detroit, in the county of Wayne and State of Michigan, have invented an Improved Process for Manufacturing Miller's Self-Coupling Draw-Bars, of which the following is a specification:

The object I have in view is an improved form or construction of the Miller draw-bar, whereby its weight and cost are lessened, and at the same time a draw-bar is produced having greater strength and more durability than those heretofore manufactured; and my invention therein consists in a solid forged Miller draw-bar of peculiar form, as more fully hereinafter explained.

To enable others skilled in the art to manufacture my device, I now describe the same in connection with the drawings, in which—

Figure 1 is a perspective view of my improved Miller draw-bar; Fig. 2, a cross-section of the same on the line *x x* of Fig. 1; and Fig. 3, a perspective view of the Miller draw-bar, as heretofore made.

In the drawing, A represents the shank of the draw-bar, which is forged cruciform in cross-section, as shown in Fig. 2, and has the longitudinal ribs *a* and intervening depressions *b* extending from the head A^1 to the tail A^2 of the same. The head A^1 is forged with the shank, and is laterally hooked and provided with the slot *b'*, having a pin-hole, *a'*, to couple with the old style of link-and-pin draw-head. The tail A^2 is flattened, and a pivot-hole punched through the same.

The manner in which I prefer to manufacture my draw-bar is as follows: I pile a fagot of scrap-iron, which, after heating, I hammer into a bloom, first shaping the head A^1 and punching out the slot *b'*; then, after reheating, if necessary, the shank A is drawn out under the hammer, using the proper dies to give it the cruciform section shown in Fig. 2, when, after drilling the pin-hole *a'* and the hole for the pivot in the tail end, the article is complete, and weighs from two hundred and fifty to two hundred and sixty pounds.

Fig. 3 shows the Miller draw-bar, as heretofore constructed of wrought-iron bars riveted together with ten rivets, the whole weighing from three hundred and ten to three hundred and fifteen pounds.

By making my draw-bar solid the cost of manufacture is very much lessened, and greater strength and a better finish obtained.

By constructing the shank cruciform in cross-section by means of the longitudinal ribs and depressions greater strength is obtained with a much less weight of material.

It will be observed that these draw-bars being held quite securely at the end without freedom of rotation to any extent, and the strain upon such bars occurring chiefly at the curves of the railroad, the strain comes upon the draw-bar in a diagonal direction, and in such directions this bar is immediately and greatly strengthened by the longitudinal ribs.

The construction of my device enables me to produce a Miller draw-bar at a much less cost, and with a great reduction in weight, a stronger and more durable draw-bar than those heretofore manufactured.

Having thus fully described my device and explained some of its advantages, what I claim as new, and desire to secure by Letters Patent, is—

A solid forged draw-bar, having the slotted hook-head A^1, the shank A, provided with the longitudinal ribs *a a* and depressions *b b*, and cruciform in cross-section, and the flattened tail-piece A^2, substantially as described.

JOHN B. BAUGH.

Witnesses:
H. F. EBERTS,
C. E. HUESTIS.