

(No Model.)

W. S. SAMPSON.
DRAW BAR FOR RAILWAY CARS.

No. 245,747.

Patented Aug. 16, 1881.

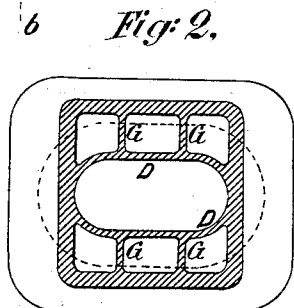
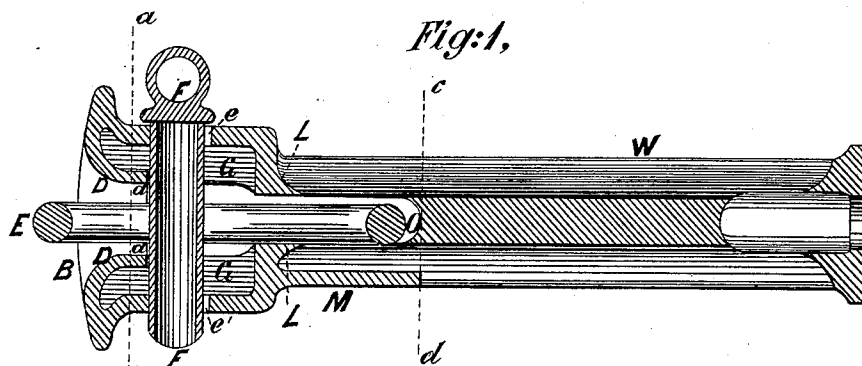
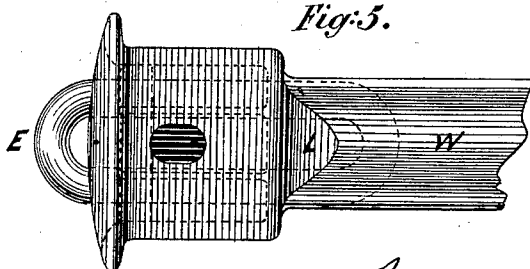
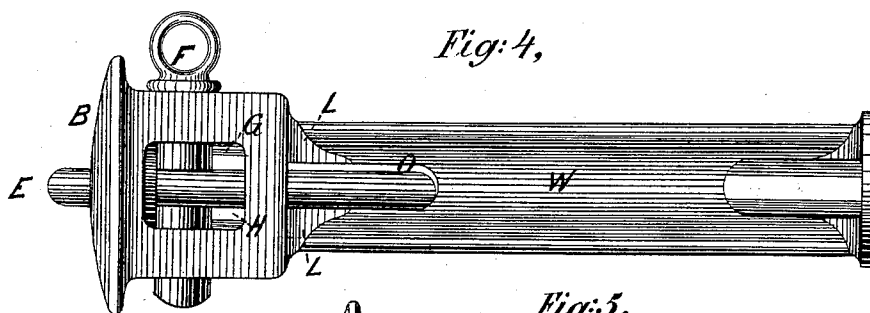


Fig: 3,



Witnesses:
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UNITED STATES PATENT OFFICE.

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DRAW-BAR FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 245,747, dated August 16, 1881.

Application filed June 6, 1881. (No model.)

To all whom it may concern:

Be it known that I, WM. S. SAMPSON, of the city of Brooklyn, county of Kings, State of New York, have invented certain new and useful Improvements in Draw-Bars for Cars, of which the following is a specification.

My invention relates to improvements in railroad draw-bars, wherein the inward extension of the mouth-piece forms an additional support for the pin, in conjunction with a system of abutments sustaining the front of the bar; also, in conjunction with the head of the bar, side openings for the safe elevation or depression of the link for the purpose of coupling; also, in conjunction with the head, a winged stem running from the rear of the head to the end of the bar, and, in conjunction with the winged stem, a wearing surface or plate running out a short distance from the head toward the heel of the bar.

The purpose of my improvements is, first, to prevent the bending and breaking of pins by the mouth-extension; second, to give great strength to the head of the bar by the system of abutments; third, to be safe from crushing or maiming the head by handling the link through the side openings; fourth, to strengthen the stem of a bar by giving it a form wherein the metal is concentrated, and, fifth, to be able to chill the wearing-surface of the bar without affecting other parts of the casting. I accomplish these ends by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 represents a longitudinal vertical section of my draw-bar; Fig. 2, a cross-section at *a b* of Fig. 1; Fig. 3, a cross-section of Fig. 1 at *c d*. Fig. 4 represents the external side view, and Fig. 5 the external top view, of my bar.

Similar letters refer to similar parts through the several views.

In Fig. 1 the mouth-piece *D* extends inward to a line at *a a*, this line being where the pin enters and traverses the head through the two

pin-holes *e e*. In the same figure are seen the abutments *G G*, which lead from the front to the rear of the head—the whole system of abutments better seen in cross-section of Fig. 2.

In Figs. 1, 3, 4, and 5 the wings of this bar are seen at *W*. In Figs. 1 and 3 the wearing-surface of the wings is seen at *M*.

In Figs. 1 and 4 the pin is seen at *F*, and the link at *E*, also an opening through the rear of the head and continuing along the wings a short distance at *O*.

In Figs. 1 and 4 the front face of the bar is seen at *B*. In Figs. 1, 4, and 5 fillets of metal joining the head and wings are seen at *L*, and in Fig. 4 the side openings in the head of the bar are seen at *H*.

It is obvious that the express meaning of these changes in the make of a draw-bar have each a distinct value, and, alone or combined, aim to increase the efficiency of this class of mechanism.

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

1. In a draw-bar for cars, the inwardly-extended mouth-opening, in combination with the head *B* and abutments *G*, all for the purpose and substantially as herein set forth and described.

2. In a draw-bar, the abutments *G*, substantially as herein described.

3. In a draw-bar of cast or malleable metal, the winged stem, for the purpose and substantially as herein described.

4. In a draw-bar of cast or malleable metal, a wearing-surface, *M*, spanning from wing to wing of the lower side of the stem of a wing-shaped draw-bar, substantially as herein shown and described.

WM. S. SAMPSON.

Witnesses:

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