(No Model.)

D. L. BARNES.

DRAW BAR FOR RAILWAY CARS.

No. 421,651. Patented Feb. 18, 1890.

Fig. 1.

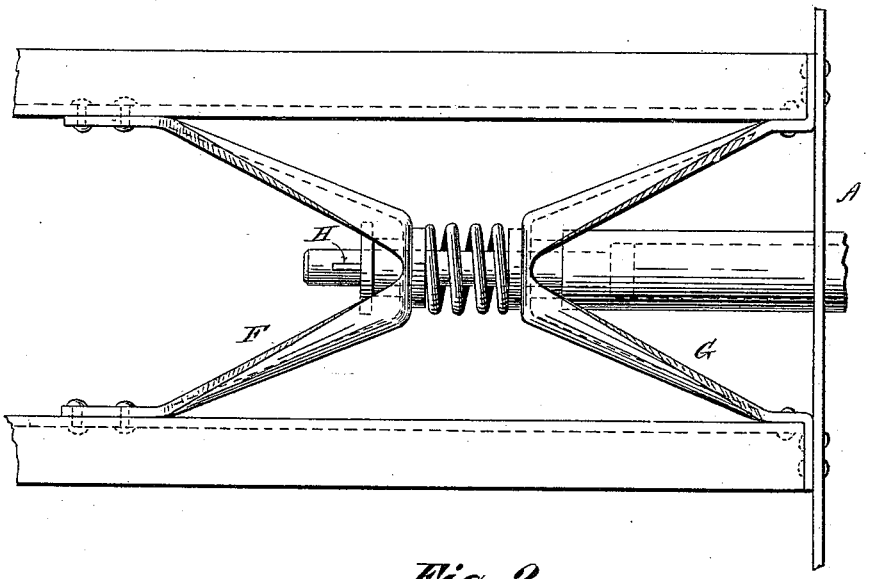


Fig. 2.

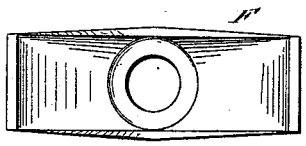


Fig. 4.

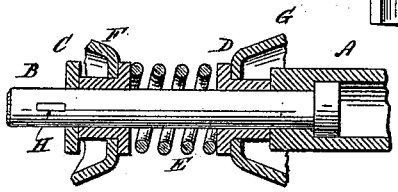
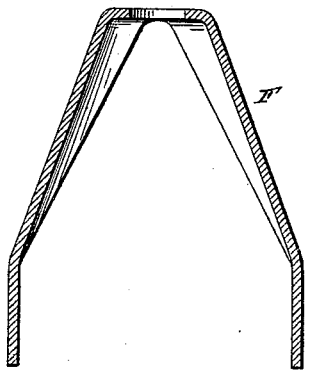


Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

DAVID L. BARNES, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE FOX SOLID PRESSED STEEL COMPANY, OF SAME PLACE.

DRAW-BAR FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 421,651, dated February 18, 1890.

Application filed March 23, 1889. Serial No. 304,451. (No model.)

To all whom it may concern:

Be it known that I, DAVID L. BARNES, of Chicago, Cook county, Illinois, have invented a new and useful Improvement in Draw-Bars, of which the following is a full, true, and exact description, reference being had to the accompanying drawings.

This invention relates to an improvement in draw-bars, supports, and spring-stops for cars, by which a single spring operates upon the draw-bar both in backing and pulling, and in which the entire construction is cheap and effective.

In my drawings, Figure 1 represents a plan view of my draw-bar in position; Fig. 2, a detail of one of the draw-bar stops in vertical elevation; Fig. 3, a section through the same; and Fig. 4, a detailed section through the spring.

A represents the draw-bar proper, which is a tube closed at the end. Into this end a rod B fits, having a head engaging with the closed end of the draw-bar, as shown. Surrounding this rod B are the sliding tubes C D, of which tube C has two flanges, as shown, whereas tube D has but one. Engaging with the flanges of the parts C and D is the coil-spring E, surrounding the rod B. The sliding tubes C D are mounted in the parts F G, preferably made of pressed steel bent into a V shape, as shown, and having extensions by which they are bolted or otherwise suitably fastened to the stationary part of the car. One of the flanges of the tube C is put in position after the same has been fitted into its support, as shown.

In putting the parts together, the parts F and G having been suitably bolted and the parts arranged in the position as shown, the rod B is drawn through sufficiently so as to put a tension upon the spring E when the key H is set in position.

The operation can now be readily understood. In pulling, the spring E is first compressed by the flange of C bearing against the spring. If the tension is so great as to pass the elasticity of the spring, the other flange of C comes in contact with the support F, thereby making a solid draft. In backing, at first the draw-bar A compresses the spring E through the flange of D; but if again the elasticity of the spring is surpassed the draw-bar A comes in contact with the support G.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of a draw-bar an independent rod drawn thereby but independent therefrom, and two independent sliding pieces surrounding said rod and engaging with an intermediate spring, the said sliding pieces being supported in the pressed steel folded supports attached to the stationary part of the car, substantially as described.

2. A support for a railway draw-bar, consisting of two flanged arms folded into a V shape and united in a flat draft-plate, substantially as described.

3. The combination of the draw-bar A, loose sliding tubes C D, spring E, and supports F G, substantially as described.

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

DAVID L. BARNES.

Witnesses:

ANTHONY GREF,

H. COUTANT.