(No Model.)

J. NEILL.

DRAW BAR FOR RAILWAY CARS.

No. 247,392. Patented Sept. 20, 1881.

Fig. 1.

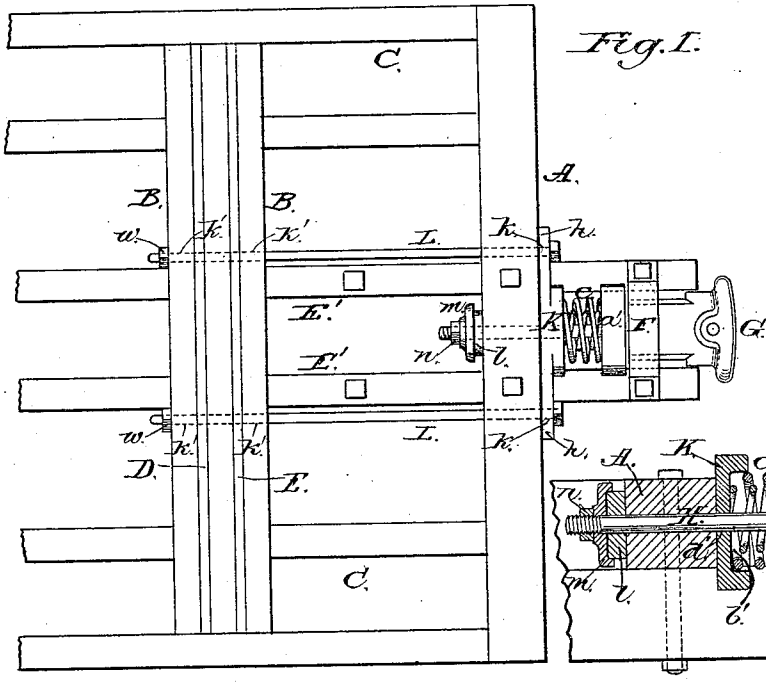


Fig. 3.

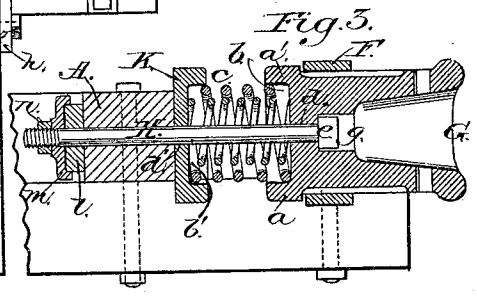


Fig. 2.

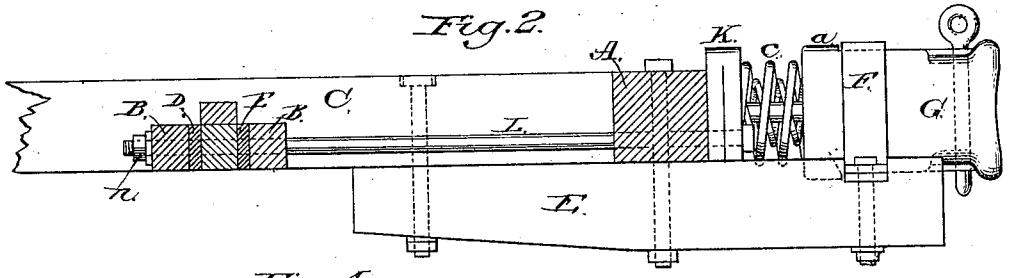


Fig. 4.

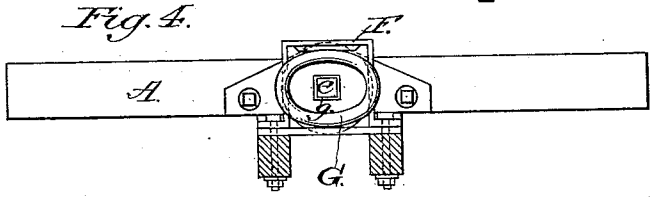
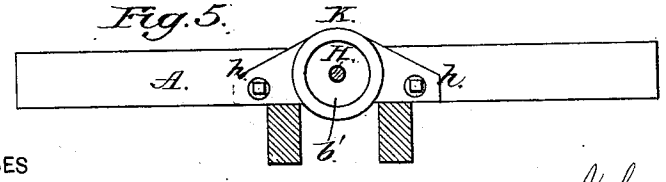


Fig. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN NEILL, OF DENVER, COLORADO.

DRAW-BAR FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 247,392, dated September 20, 1881.

Application filed July 23, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHN NEILL, a citizen of the United States, resident of Denver, in the county of Arapahoe and State of Colorado, have invented a new and valuable Improvement in Draw-Heads; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a plan view of my invention. Fig. 2 is a side view, partly in section. Fig. 3 is an enlarged sectional view of the draw-head. Fig. 4 is a front view, partly in section, and Fig. 5 is a cross-section.

This invention has relation to the draft attachments or connections of railway-cars; and it consists in the construction and novel arrangement of the draw-head, the spring and spring-seat in rear of the same, and the central and lateral connecting-rods, all as hereinafter set forth.

In the accompanying drawings, the letter A designates the end sill of the frame of a car; B B, the transverse bars in rear of the same, and C C the longitudinal beams. Between the cross-beams B B are placed the iron plates D E.

E′ represents supporting-timbers for the draw-head, which are bolted to the framing-beams C C, as indicated in the drawings. To these supporting-timbers are secured the stirrup-plates F, forming a rest and guideway for the draw-head.

G indicates the draw-head, which is designed to be located within the stirrup, and has longitudinal play. It is provided, usually, with rear shoulders or stops, *a*, serving to prevent the draw-bar from being disconnected from the stirrup or guide band. In the rear portion of the draw-head is formed a seat, *b*, which is designed to receive one end of a strong spring, *c*, which is usually made in the form of a double spiral spring, as indicated in the drawings. A perforation, *d*, is made centrally through the rear end of the draw-head, for the passage of the central draw rod or bolt, H, having a squared head, *e*, seated in a recess, *g*, of corresponding shape, within the draw-head.

K represents a strong face-plate or spring-seat plate, which is located centrally on the front surface of the end sill, A, of the car-frame. This plate is provided with a central perforation, *d′*, for the draw rod or bolt H, and with a seat, *b′*, around the same, for the reception of the rear end of the spring *c*. Through lateral extensions *h* of this seat-plate are formed perforations *k*, for the passage of the lateral connecting-rods L. The bolt H passes also through the sill or beam A, and, projecting in rear thereof, is provided with a rubber or elastic bearing, *l*, and a cast-iron washer, *m*, having a seat for the reception of the elastic bearing.

On the threaded end of the bolt is placed the nut *n*, and in this manner a strong but somewhat yielding connection is formed between the cross beam or sill A and the draw-head.

Through the transverse beams B B and their intermediate iron plates, D, are made perforations *k′*, for the passage of the rear ends of the connecting-rods L, which are secured in rear of said beams by nuts *w*, and are designed to extend forward therefrom to the face-plate K. In this manner a strong connection is formed between said plate, the sill A, and bolt H, and the transverse beams B and plates C.

This draft attachment is strong, but yielding, and easily repaired. It will preserve the car, preventing jarring to a great extent in coupling. It is designed to avoid the use of continuous draw-rods or dead-wood.

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

1. The combination, with a draw-head and spring in rear thereof, of the face-plate K, draw-rod H, elastic bearing *l*, and cross beam or sill A, substantially as specified.

2. The combination, with the sill A and the transverse bars B, of the draw-head G, its

rear spring, *c*, the face-plate K, elastic bearing *l*, the draw-rod H, and the lateral connecting-rods L, substantially as specified.

3. The combination, with the sill A and the transverse bars B, having the intermediate iron plates, D, of the supporting-timbers E, stirrup F, draw-head G, spring *c*, face-plate K, bearing *l*, and the central and lateral connecting-rods, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN NEILL.

Witnesses:
S. WILLIS FRENCH,
JOSEPH SMITHAM.