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H. C. PRIEBE.

DRAFT RIGGING.

APPLICATION FILED SEPT. 26, 1903.

NO MODEL.

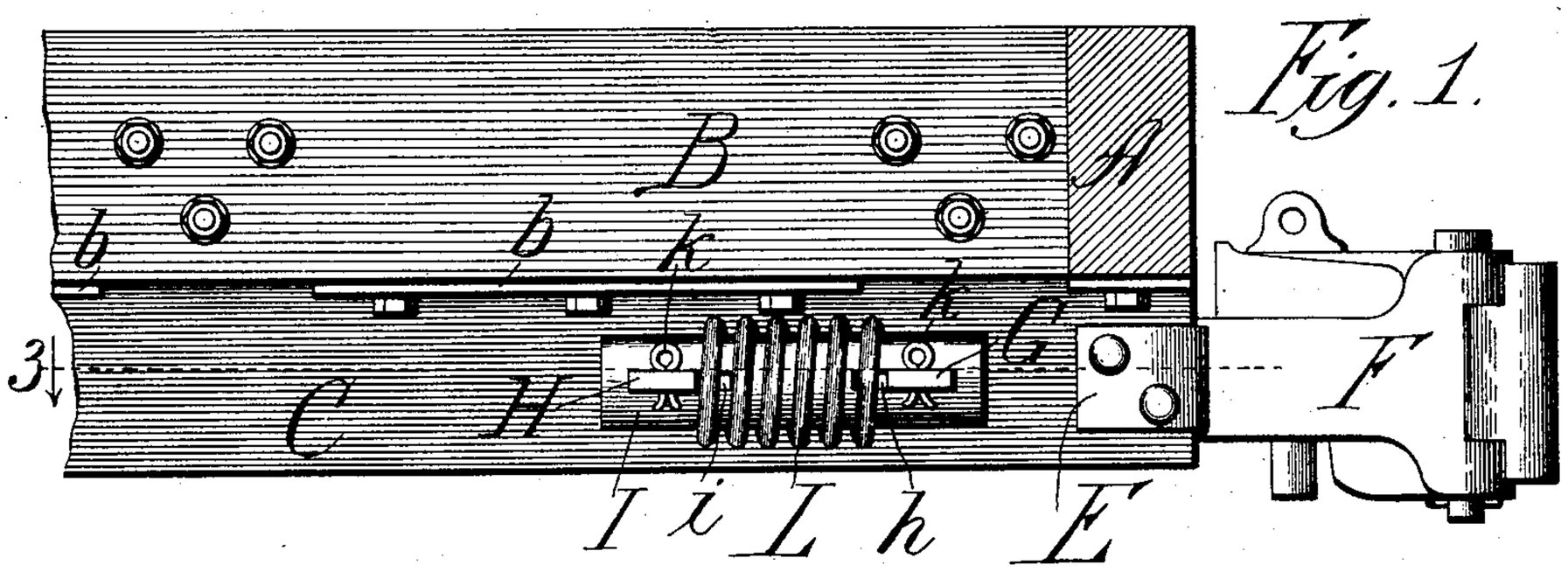

Fig. 1.

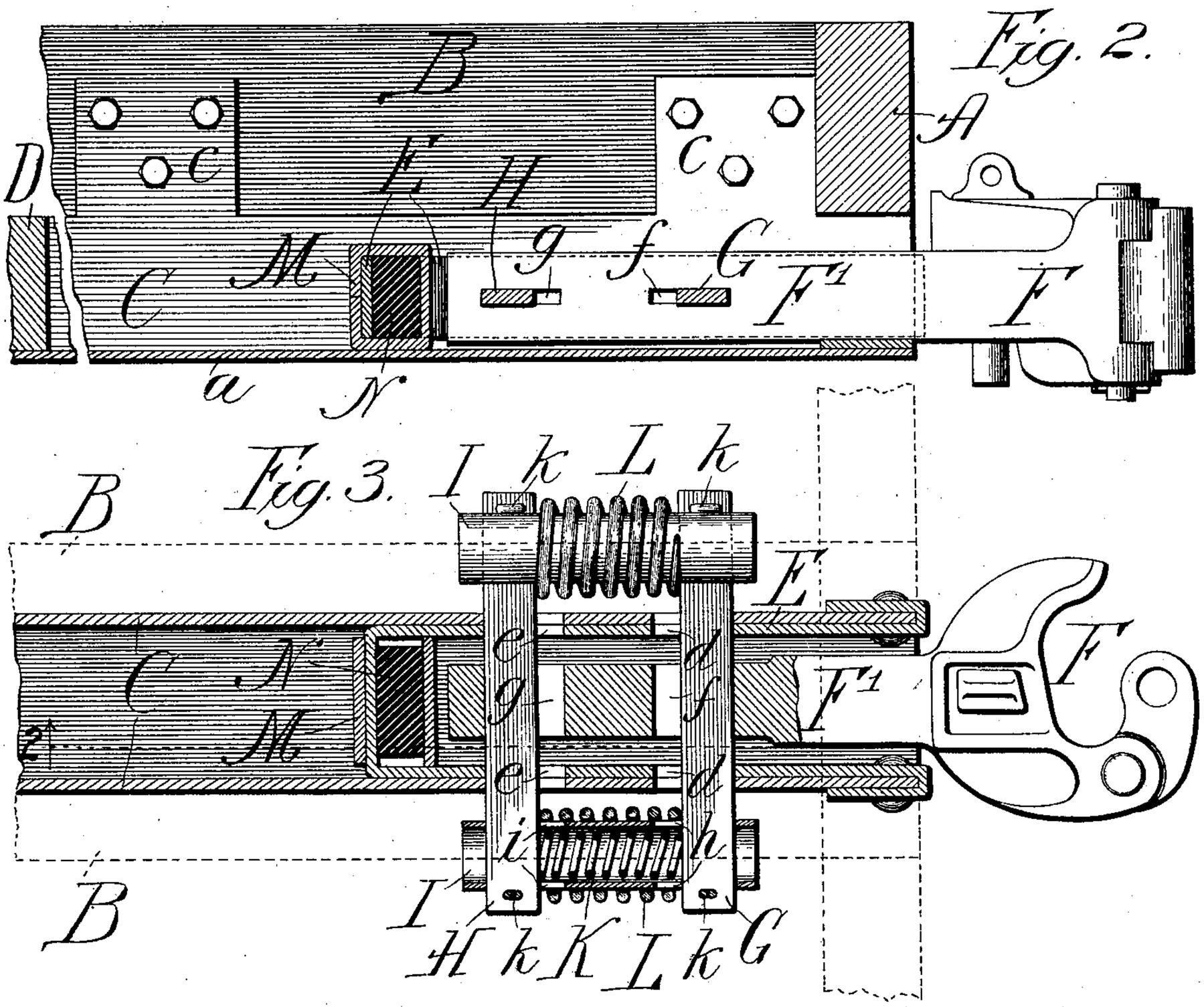

Fig. 2.

Fig. 3.

Witnesses:
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No. 747,637. Patented December 22, 1903.

UNITED STATES PATENT OFFICE.

HERMAN C. PRIEBE, OF BRADFORD, ILLINOIS.

DRAFT-RIGGING.

SPECIFICATION forming part of Letters Patent No. 747,637, dated December 22, 1903.

Application filed September 26, 1903. Serial No. 174,740. (No model.)

To all whom it may concern:

Be it known that I, HERMAN C. PRIEBE, a citizen of the United States, residing at Bradford, in the county of Stark and State of Illinois, have invented a new and useful Improvement in Draft-Rigging, of which the following is a specification.

My invention relates to improvements in draft-riggings for railway-cars.

My object is to provide such a draft-rigging adapted more especially for cars the sills of which are in a plane above that of the draw-bars and of an improved construction rendering it particularly strong, durable, and easy of access for repair when necessary and whereby the travel of the draw-bar against the resistance of its springs may be reduced to the lowest limit consistent with safety.

In the drawings, Figure 1 is a broken partly-sectional view of the end portion of the underframe of a freight-car and showing my improved draft-rigging in side elevation; Fig. 2, a vertical section on line 2 in Fig. 3; and Fig. 3, a plan section on line 3 in Fig. 1, the springs at one side being shown in elevation and those at the opposite side in section.

A is the end sill of a car-frame, and B B the center sills.

C is a draft-plate formed in one piece and of channel shape in cross-section to present the base or web *a* and parallel sides.

The sides of the draft-plate are cut as indicated, alternate sections *b* thereof being bent to extend horizontally and fit against the under faces of the center sills B, while the intermediate sections *c* fit against the inner faces of the center sills. Two draft-plates C may be provided, one at each end of the car and each of a length to abut against or be secured to the body-bolster D toward that end of the car, or a single draft-plate may be provided to extend the full length of the car, with recesses cut in its sides to receive and fit closely around the bolsters, as indicated in Fig. 2. The sections or plate portions *b c* are bolted securely to the center sills, as shown. This construction not only provides a particularly strong and durable draft-plate, but serves very materially to strengthen the underframing of the car. Mounted in the draft-plate is a stirrup-shaped bar E, fitting at its sides closely against the sides of the draft-plate and flanged at its end portions over the ends of said sides and riveted thereto. Extending through the bar E and draft-plate at opposite sides are coincident forward elongated openings *d* and rear elongated openings *e*.

F is a draw-bar resting in the draft-plate C and provided in its stem portion F′ with forward and rear elongated openings *f g*, corresponding in size and relative positions with the openings *d e*.

Extending loosely through the openings *d f* is a forward bar or follower G, and extending through the openings *e g* is a rear bar or follower H.

I I are tubes provided with forward and rear openings *h i*, coincident in size and position with the openings *d e*. The tubes fit loosely over the end portions of the bars G H and are held by cotters *k* or the like. In each tube is a cushioning-spring K, and around each tube is a cushioning-spring L, the springs bearing at opposite ends, respectively, against the bars G H, operating to press the bar G against the forward ends of the slots *d f* and the bar H against the rear ends of the slots *e g*.

Pressure of the draw-bar in the backward direction causes it to slide the bar G and compress the springs K L against the stationary bar H, while a pull upon the draw-bar causes it to slide the bar H and compress the springs K L against the stationary bar G. Thus the same set of springs operates against both the forward and rear movement of the draw-bar and permits the same to have the limited movement desired.

The greatest strain upon a draft-rigging in practice takes places usually under the shocks of cars bumping together. To relieve the bars G H from this strain, I provide a buffer in the rear end of the stirrup-bar E for the rear end of the draw-bar to impact against. This buffer may consist of a plate M, looped around the rear end of the stirrup-bar and forming a housing for a spring or rubber or other cushioning-block N. In practice just before the draw-bar reaches the backward limit of its movement it strikes the plate M and compresses the rubber block between the said plate and end of the stirrup-frame.

The tubes I I form convenient supports for the springs and maintain them against dan-

ger of buckling or interference with each other. All parts of the draft-rigging are readily accessible and may be easily and quickly replaced in case that repairs are necessary.

As shown and described, my improved draft-rigging is particularly strong, durable, and well adapted for its purpose; but I do not wish to be limited to details of construction, which may be variously modified without departing from the spirit of my invention as defined by the claims.

What I regard as new, and desire to secure by Letters Patent, is—

1. The combination with longitudinally-extending sills, forming part of the underframing of a car, of a channel-shaped draft-plate fastened against the sills, a draw-bar movable in the draft-plate, follower-bars extending through openings in the draw-bar and draft-plate, and cushioning-springs for the follower-bars at the outer sides of the draft-plate.

2. The combination with longitudinally-extending sills forming part of the underframing of a car, of a channel-shaped draft-plate having vertical plate portions fastened against the inner faces of the sills, and horizontal plate portions fastened against the under faces of the sills, a draw-bar movable in the draft-plate, follower-bars extending through openings in the draw-bar and draft-plate, and cushioning-springs for said follower-bars at the outer sides of the draft-plate.

3. The combination with the center sills and body-bolster of a car, of a channel-shaped draft-plate having parts fastened against the sills and parts abutting against the body-bolster, a draw-bar movable in the draft-plate, follower-bars extending through openings in the draw-bar and draft-plate, and cushioning-springs for said follower-bars at the outer sides of the draft-plate.

4. In a draft-rigging, the combination of a draft-plate having elongated forward and rear openings, a draw-bar provided with forward and rear openings corresponding with the draft-plate openings, forward and rear follower-bars extending through the said forward and rear draw-bar and draft-plate openings to slide therein in the direction longitudinally of the car, removable tubes at the outer sides of the draft-plate having openings receiving the follower-bars, and springs supported by said tubes and confined between the follower-bars.

5. In a draft-rigging, the combination of a draft-plate having elongated forward and rear openings, a draw-bar provided with forward and rear openings corresponding with said openings in the draft-plate, forward and rear follower-bars extending through said draw-bar and draft-plate openings to slide therein in the direction longitudinally of the car, removable tubes at the outer sides of the draft-plate having openings receiving the follower-bars, and springs within said tubes, and springs surrounding said tubes, all bearing at opposite ends against said follower-bars.

6. In a draft-rigging, the combination of a draft-plate having elongated forward and rear openings, a draw-bar having forward and rear openings corresponding with said openings in the draft-plates, forward and rear follower-bars extending through said forward and rear openings in the draw-bar and draft-plate to slide therein in the direction longitudinally of the car, cushioning-springs for said follower-bars at the outer sides of the draft-plate, and a buffer in the path of the rear end of the draw-bar, substantially as and for the purpose set forth.

HERMAN C. PRIEBE.

In presence of—
WALTER N. WINBERG,
SAML. G. PRINCE.