

P. W. AGNELL.
DRAFT ATTACHMENT FOR RAILWAY CARS.

APPLICATION FILED AUG. 10, 1903.

NO MODEL.

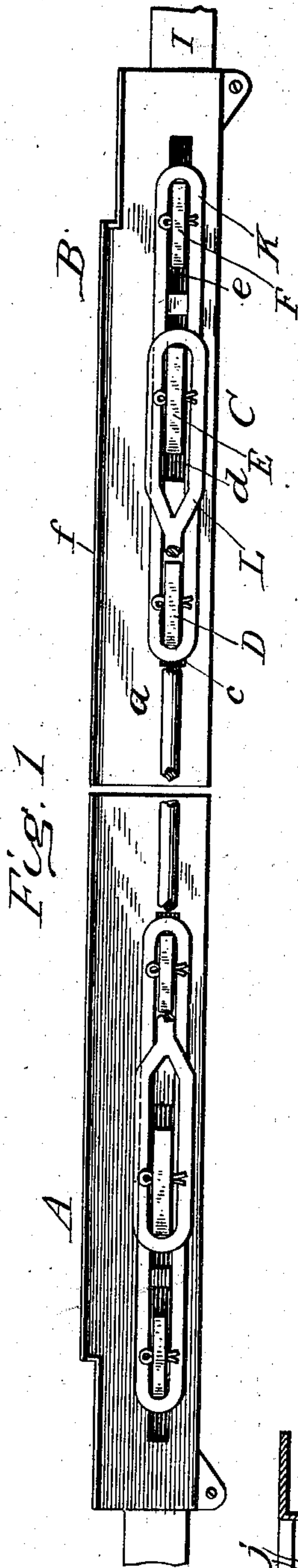


Fig. 1

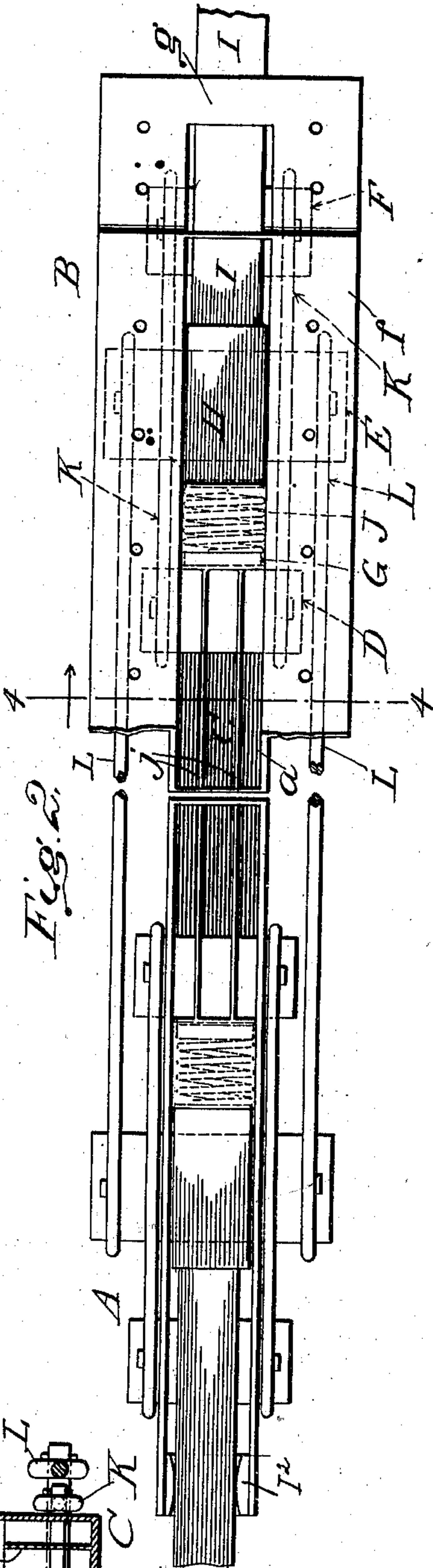


Fig. 2

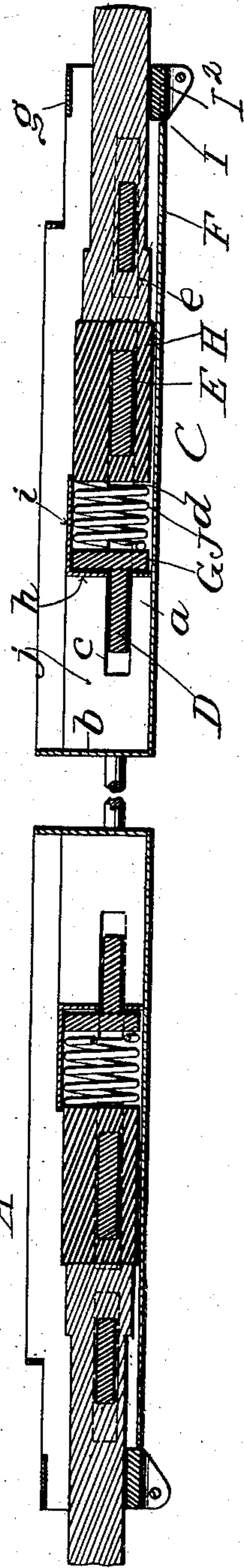
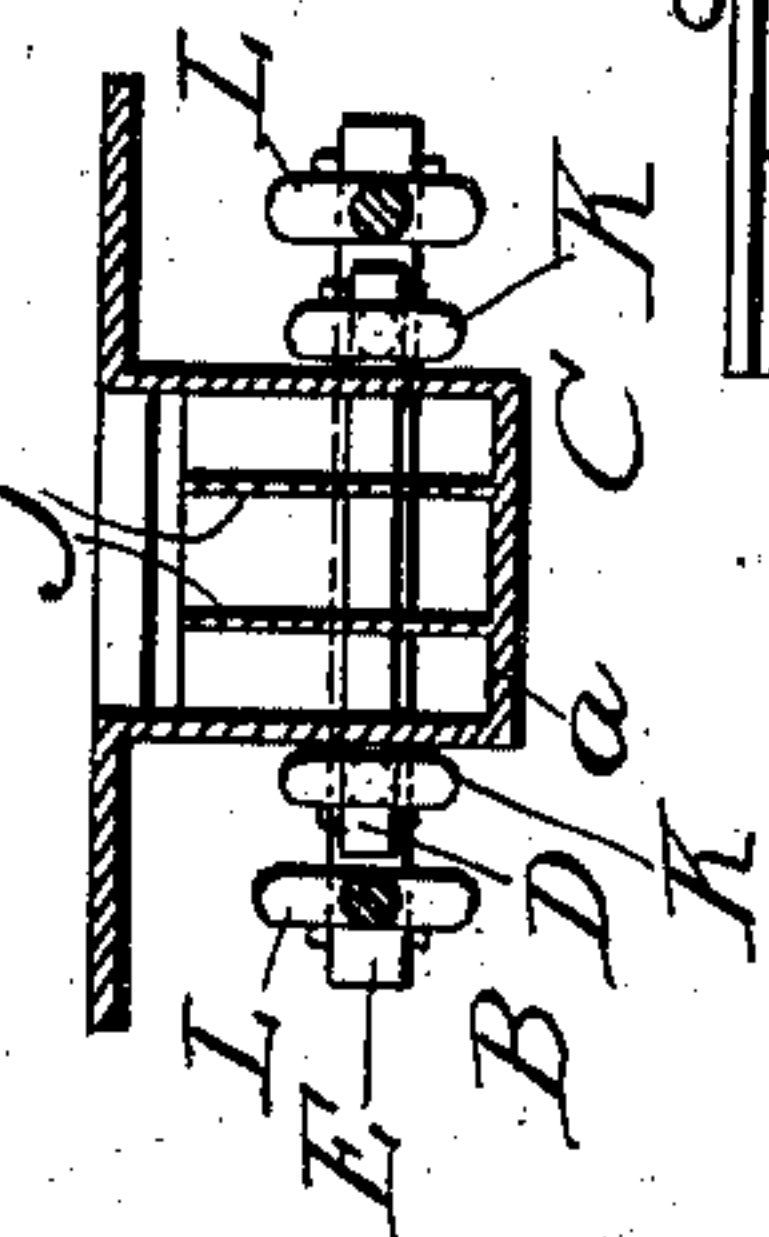


Fig. 3

Witnesses
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Fig. 4



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UNITED STATES PATENT OFFICE.

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DRAFT ATTACHMENT FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 743,411, dated November 10, 1903.

Application filed August 10, 1903. Serial No. 168,970. (No model.)

To all whom it may concern:

Be it known that I, PETER W. AGNELL, a citizen of the United States, residing at Bigspring, in the county of Howard and State of Texas, have invented new and useful Improvements in Draft Attachments for Railway-Cars, of which the following is a specification.

My invention pertains to draft attachments for railway-cars; and it consists in the peculiar and advantageous attachment hereinafter described, and particularly pointed out in the claims appended.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation, Fig. 2 a plan view partly broken away, and Fig. 3 a longitudinal central section, of the attachment constituting the preferred embodiment of my invention, the same being shown with the draft-rods connecting the couplings thereof broken. Fig. 4 is a transverse section taken in the plane indicated by line 4 4 of Fig. 2.

Similar letters designate corresponding parts in all of the views of the drawings, referring to which—

A B are the couplings of my novel attachment. These couplings are similar in construction, and for this reason a detailed description of the coupling B at the right of the drawings will suffice to impart an understanding of both. Referring therefore to the coupling B, C is the body or draw-bar of the coupling, which is cast in one piece and is designed to take the place of the draft-timbers usually employed. The said body comprises a longitudinal central portion *a* of U shape in cross-section, closed at its inner end by a transverse wall *b* and having slots *c*, *d*, and *e* in its side walls, flanges *f* extending outwardly from the upper edges of the U-shaped or channel portion *a* and designed for connection to the bottom of a car-body, a bridge-bar *g*, connecting the outer ends of the flanges *f* and resting above the outer end of the portion *a*, an abutment *h*, located in the portion *a* at an intermediate point in the length thereof and having an outwardly-extending flange *i* and longitudinal vertical strengthening-ribs *j*, arranged in the portion *a* between the wall *b* and the abutment *h*.

D, E, and F are cross-heads extending

through and movable longitudinally of the body C in the slots *c*, *d*, and *e*, respectively, thereof.

G is a follower arranged in the portion *a* of the body at the outer side of the abutment *h* and in engagement with the outer edge of the cross-head D; H, a slide-block movable longitudinally in the portion *a* of body C and having a transverse slot snugly receiving the cross-head E; I, a draw-head abutting at its inner end against the outer end of the slide-block H, bearing on a carrier-iron *I*² and having a transverse slot snugly receiving the cross-head F; J, a coiled spring arranged in the body below the flange *i* and interposed between the follower G and the inner end of the slide-block H; and K K, links arranged alongside of and close to the portion *a* of the body C and connecting the cross-heads D and F.

The two couplings are arranged in the relation shown at opposite ends of a car-body, and their cross-heads are connected through the medium of longitudinal draft-rods L.

With the couplings applied and connected as above stated it will be observed that when the draw-head of either coupling is drawn outwardly the pull will be placed on the spring of said coupling through the medium of the cross-head F, links K, cross-head D, and follower G, and on the spring of the other coupling through the medium of the parts just mentioned, the slide-block H of the first-mentioned coupling, the cross-head E thereof, the draft-rods L, the cross-head E of said other coupling, and the slide-block H thereof. It follows from this that the attachment is elastic and at the same time strong and well calculated to withstand the shocks and strains to which draft attachments are ordinarily subjected.

When the draw-head of either coupling is pressed inwardly, the spring J thereof will serve to cushion the thrust and prevent in large measure the transmission of shock and jar to the other parts of the coupling and the car-body.

The arrangement of the draw-heads, springs, and other working parts of the couplings in the solid castings forming the bodies or draw-bars C contributes materially to the strength and compactness of the attachment

and at the same time admits of the links K and draft-rods L resting close to the bodies, which is advantageous, since it lessens the liability of the keys used to secure the links 5 and draft-rods on the cross-heads being bent.

I have entered into a detailed description of the construction and relative arrangement of the parts embraced in the present and preferred embodiment of my invention in order 10 to impart a full, clear, and exact understanding of the same. I do not desire, however, to be understood as confining myself to such specific construction and relative arrangement of parts, as such changes or modifications may be made in practice as fairly fall 15 within the scope of my invention as claimed.

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

20 1. In a car-coupling, a body or draw-bar, cast in one piece, and comprising a longitudinal portion of channel form, an abutment in said longitudinal portion, and flanges at the upper edges of the side walls thereof for 25 connection to a car-body.

2. In a car-coupling, a body or draw-bar, cast in one piece, and comprising a longitudinal portion of channel form, closed at its inner end, an abutment in said longitudinal 30 portion at an intermediate point in the length thereof, one or more longitudinal strengthening-ribs arranged in the longitudinal portion, and interposed between the closed end thereof and the abutment, and flanges at the upper 35 edges of the side walls of the longitudinal portion for connection to a car-body.

3. In a car-coupling, the combination of a draw-bar having an abutment, a slide-block movable in the draw-bar, at the outer side of 40 the abutment, a spring arranged in the draw-bar between the abutment thereof and the slide-block, a cross-head carried by the slide-block and adapted to be connected to the corresponding cross-head of a complementary 45 coupling, a draw-head movable in the draw-bar at the outer end of the slide-block, a cross-head carried by said draw-head, a cross-head movable in the draw-bar, at the opposite side of the abutment and spring, with 50 reference to the slide-block, and subject to the action of said spring, and links connecting the latter cross-head and the cross-head of the draw-head.

4. In a car-coupling, the combination of a 55 draw-bar having a longitudinal portion of channel form, an abutment in said longitudinal

portion, and longitudinal slots in the side walls thereof, a slide-block movable in the longitudinal portion of the draw-bar, at the outer side of the abutment, a spring arranged 60 in the longitudinal portion between the abutment and the slide-block, a cross-head carried by the slide-block, and extending through slots of the draw-bar, a draw-head movable in the longitudinal portion of the draw-bar, 65 at the outer end of the slide-block, a cross-head carried by said draw-head, and extending through slots of the draw-bar, a cross-head movable in slots of the draw-bar at the opposite side of the abutment and spring, 70 with reference to the slide-block, and subject to the action of said spring, and links connecting the latter cross-head and the cross-head of the draw-head.

5. In a draft attachment, the combination 75 of couplings respectively comprising a draw-bar having an abutment, a slide-block movable in the draw-bar, at the outer side of the abutment, a spring arranged in the draw-bar between the abutment thereof and the slide- 80 block, a cross-head carried by the slide-block, a draw-head movable in the draw-bar, at the outer end of the slide-block, a cross-head carried by said draw-head, a cross-head movable in the draw-bar at the opposite side of the 85 abutment and spring, with reference to the slide-block, and subject to the action of said spring, and links connecting the latter cross-head and the cross-head of the draw-head, and draft-rods connecting the cross-heads of 90 the slide-blocks of the couplings.

6. In a car-coupling, the combination of a draw-bar having an abutment, a slide-block movable in the draw-bar, at the outer side of the abutment, a spring arranged between the 95 abutment and slide-block, and adapted to be connected with the slide-block of a complementary coupling, a draw-head movable at the outer end of the slide-block, a device movable at the opposite side of the abutment 100 and spring, with reference to the slide-block, and subject to the action of said spring, and a connection between said device and the draw-head.

In testimony whereof I have hereunto set 105 my hand in presence of two subscribing witnesses.

PETER W. AGNELL.

Witnesses:

J. M. BATES,
F. J. BROWN.