(No Model.) 2 Sheets—Sheet 1.

J. TIMMS.

DRAFT ATTACHMENT FOR RAILWAY CARS.

No. 532,115. Patented Jan. 8, 1895.

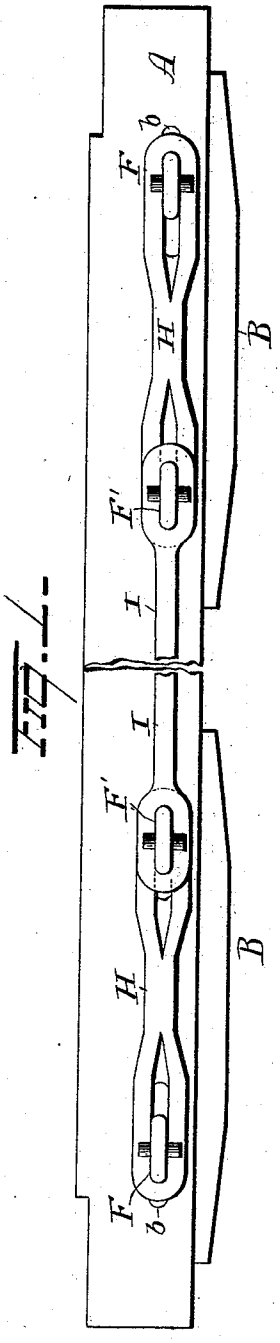

Fig. 1.

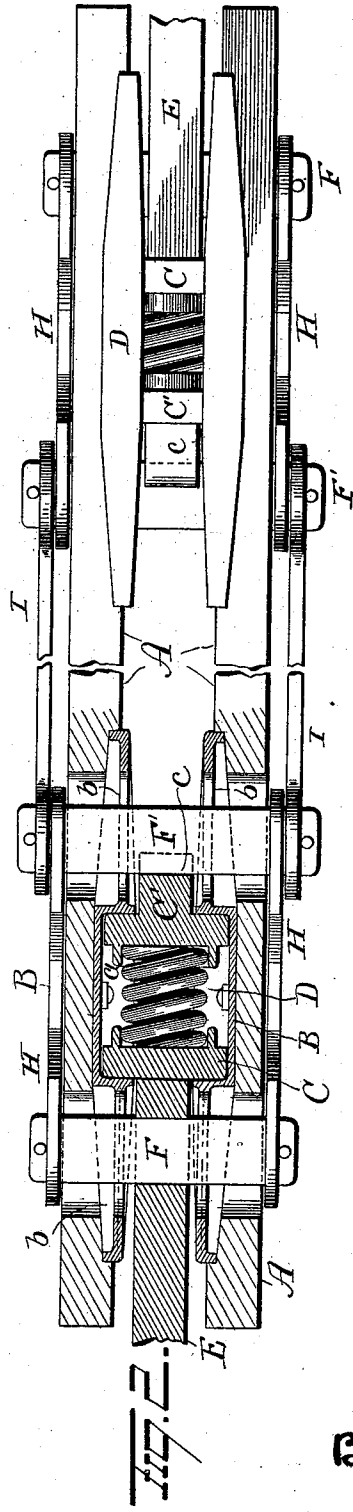

Fig. 2.

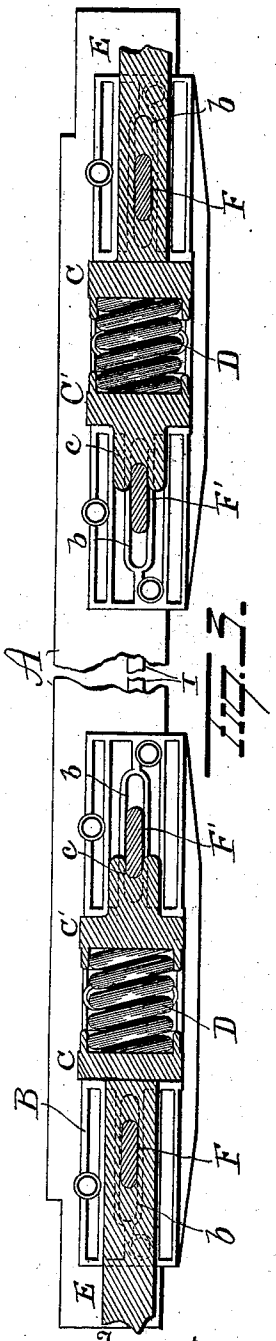

Fig. 3.

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(No Model.) 2 Sheets—Sheet 2.

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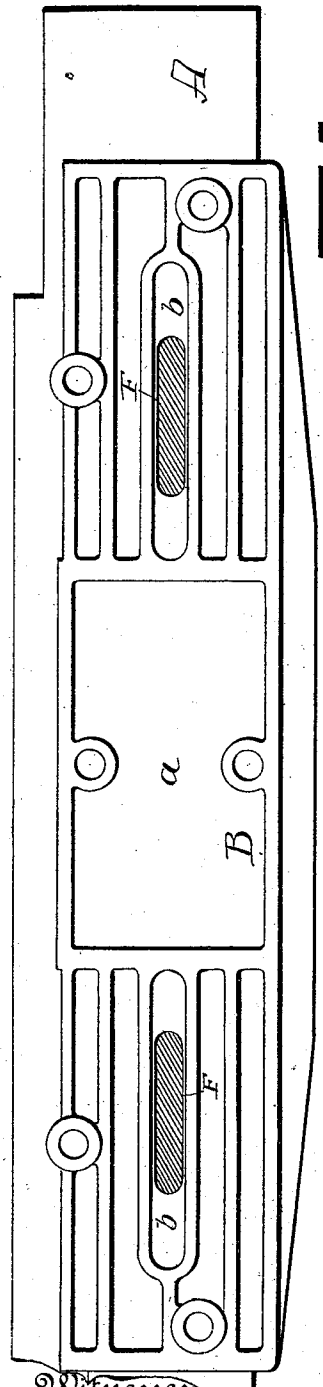

Fig. 4.

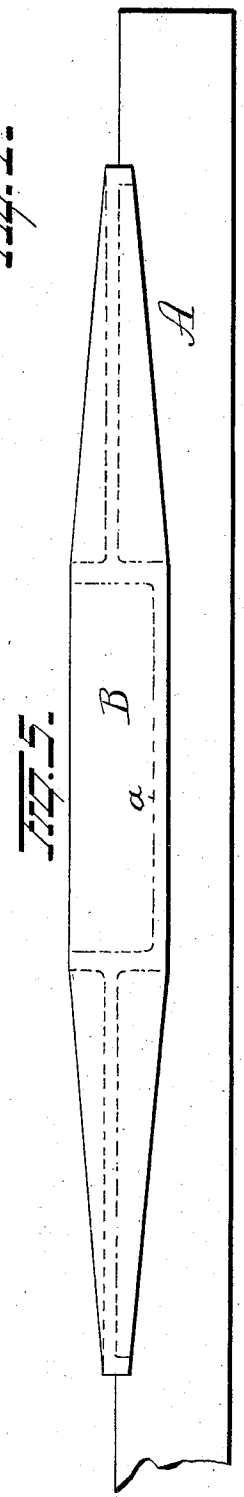

Fig. 5.

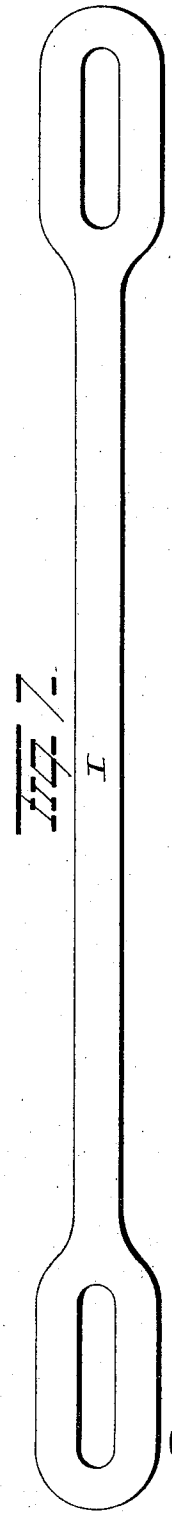

Fig. 7.

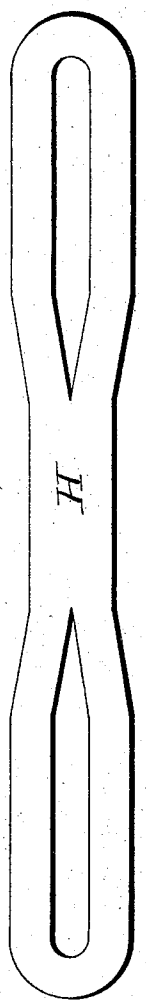

Fig. 6.

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UNITED STATES PATENT OFFICE.

JAMES TIMMS, OF COLUMBUS, OHIO, ASSIGNOR TO THE BUCKEYE MALLEABLE IRON AND COUPLER COMPANY, OF SAME PLACE.

DRAFT ATTACHMENT FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 532,115, dated January 8, 1895.

Application filed March 1, 1894. Serial No. 501,963. (No model.)

To all whom it may concern:

Be it known that I, JAMES TIMMS, of Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Draft Attachments for Railway-Cars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in draft attachments for railway cars, and it consists in the parts and combinations of parts as will be hereinafter more fully described and pointed out in the claims.

In the accompanying drawings Figure 1 is a view in side elevation of the lower section of a car showing my invention applied thereto. Fig. 2 is a bottom plan view of same. Fig. 3 is a view in longitudinal section. Fig. 4 is a view in side elevation of one of the draft timbers having the draft iron secured thereto. Fig. 5 is a plan view of same. Fig. 6 is a view of one of the coupling links, and Fig. 7 is a view of one of the coupling rods.

In one of the best known type of draft apparatus for railway cars the yielding draw head of each end of the car is connected with that of the opposite end by draw bars, the connection being such that the pulling strain on the front coupling effects the compression of the spring of the rear coupling only, while when a compressive force is exerted as in buffing the spring of each coupling is independently compressed.

In my device the construction is such that a pulling strain on either coupling is borne by the springs of both couplings, while in buffing each spring is independently compressed.

A represents the longitudinal sills or draft timbers, separated sufficiently to permit of the introduction of a draw bar or coupling between them. As the construction is alike at both ends of the car, a description of the manner of mounting one coupling will suffice for both.

Secured to the inner faces of the timbers A, are the draft irons B, each of which is enlarged centrally or approximately so, and provided at such enlarged portions with recesses *a* adapted to receive the ends of the front and rear followers C C′. Between the followers C and C′ is interposed the spiral spring D which latter tends to force the followers C C′ against their respective seats at the ends of recesses *a*. These irons are ribbed as shown to increase their strength, and are provided in front and behind the recesses *a* with the elongated slots *b* the timbers A, being also provided with slots *b*.

The draw head or coupling E rests with its rear end against follower C and is provided near its rear end with a slot adapted to rest in line with the slots *b*, for the reception of cross head F. The slot in the coupling is adapted to snugly receive the cross head F so that there will be no lost movement of the coupling on the cross head, while the slots in the irons and timbers A are considerably longer than the width of the cross head to permit the latter to have a limited movement in the direction of the length of the coupling.

The rear follower C′ is provided with a rearwardly extending section *c* which latter is bifurcated at its rear end to receive the cross head F′. This cross head also passes through slots in the timbers A and draft irons and is connected to the cross head F by the links H.

Both followers C and C′ are ribbed on their inner faces to form seats for the spring D.

From the foregoing it will be seen that a pulling strain on the coupling is transmitted through cross head F through links H to cross head F′ and from follower C′ to the spring D.

The coupling on the opposite end of the car is like the one described and the inner or rear cross heads F′ of the two couplings are connected by the draw bars I. Hence a pulling strain on either coupling is transmitted to its cross head F, links H cross head F′ follower C to spring D and from cross head F′ through bars I to the opposite cross head F′ through links H to the front cross head F and through the coupling to the follower C and from thence to the spring D. Thus it will be seen that the springs at both ends of the car are compressed when a pulling force is exerted on either coupling. Thus if the pulling strain is exerted on the left hand coupling the rear follower C′ of said coupling, and the follower

C of the coupling on the other end of the car are compressed against their respective springs.

The draw bars I are provided with elongated slots in their ends, which permit the cross heads F′ to have a limited rearward or inward movement therein so that in buffing, when both couplings would be forced inwardly, the cross head can move in said slots without bending, straining or otherwise injuring the draw bars. By this arrangement the strain on the couplings is distributed throughout the entire framework of the car, thus greatly reducing the liability to accidents caused by couplings pulling out.

If desired I can dispense with the draw bars I, thus making the draft gear at the two ends independent of each other.

It is evident that many slight changes might be resorted to in the relative arrangement of parts herein shown and described without departing from the spirit and scope of my invention. Hence I would have it understood that I do not wish to confine myself to the exact construction of parts herein shown; but,

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

1. In a car coupling, the combination with two draft irons, each having a recess therein, followers located between said irons and confined in their outer movement by them, and a spring interposed between the followers and bearing outwardly against them, of a draw head or coupling having a slot in its rear end, said draw head or coupling resting normally at its rear end against one of the followers, a cross head passed transversely through the slot, a second cross head passed transversely in rear of the other follower, and links having elongated slots in their ends to receive the cross heads, the arrangement being such as to limit the separation of the cross heads and admit of their being forced toward each other, substantially as set forth.

2. The combination with two draft irons each having a recess therein, followers the ends of which rest within said recesses, and a spring interposed between the followers, of a draw bar or coupling bearing against the front follower, a cross head passing through said draw bar or coupling, a cross head bearing against the rear follower, and links connecting said cross heads, substantially as set forth.

3. The combination with draft irons having recessed portions followers the ends of which rest in said recesses and a spring interposed between said followers, of a draw bar or coupling having a transverse slot therein, the said draw bar resting with its rear end against the adjacent follower, a cross head passing through the slot in said draw bar or coupling, a cross head bearing against the rear face of the rear follower, and links connecting said cross heads, substantially as set forth.

4. In a railway car the combination with two draw bars or couplings, each carrying a cross head, two followers located behind said cross head, a spring between the followers, a second cross head located behind and adapted to engage the rear follower and links connecting the two cross heads, of draft rods connecting the inner or rear cross heads of the two couplings, substantially as set forth.

5. In a railway car the combination with two draw bars or couplings, each carrying a cross head, two followers located behind each cross head a spring between each pair of followers, cross-heads located between the inner followers and each adapted to engage one of said inner followers, and links connecting the two cross heads, of draft rods connecting the inner or rear cross heads of the two couplings the said rods having elongated slots whereby either draw head or coupling can be forced inwardly as in buffing, without moving the other draw head or coupling, substantially as set forth.

6. In a railway car the combination with timbers A and draft irons secured thereto near the opposite ends of the car, of the draw bars or couplings each carrying a cross head, a pair of followers behind each draw bar or coupling the latter resting against one of the followers, a spring interposed between the followers of each pair, a cross head carried by each draw bar, a cross head behind the rear follower of each pair, links connecting the two cross heads of each draw bar or coupling, and draft irons connecting the inner cross heads of both draw bars or couplings, substantially as set forth.

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

JAMES TIMMS.

Witnesses:
E. P. SNIVELY,
C. C. KING.