

T. W. SALING.
DRAFT BEAM FOR CARS.

Patented May 24, 1898.



UNITED STATES PATENT OFFICE.

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DRAFT-BEAM FOR CARS.

SPECIFICATION forming part of Letters Patent No. 604,421, dated May 24, 1898.

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To all whom it may concern:

Be it known that I, THOMAS W. SALING, a citizen of the United States, residing at Marshall, in the county of Harrison and State of Texas, have invented certain new and useful Improvements in Draft-Beams for 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 improvements in draft sills or beams for cars; and it consists in providing such beams with suitable openings or slots whereby the follower-plates may be made to secure the draw-heads of the coupler to the said cars, the said bars and slots being of such a construction that the follower-plates may be inserted after the beams are secured to the body of the car.

It also consists in certain other novel constructions, combinations, and arrangements of parts, as will be hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 represents a plan view of the draft beams or timbers, the parts being shown in section to better show the construction thereof. Fig. 2 is a side elevation of one of the said draft beams or timbers applied to the under beams of a car, and Fig. 3 represents a transverse vertical section through the said draft-beams.

AA in the drawings represent my improved draft bars or timbers; B, a follower-plate; C, a key-plate, and D the draw-head of the coupler.

In applying my draft-beams to the bottoms of cars they are preferably secured to the under side of beams running longitudinally of the car, as E, and are provided with shoulders, as a , which are adapted to abut against a transom or cross-beam, as F, arranged beneath the ends of the car. In order to further secure the position of the beams A with respect to the beams E, lugs, as a' , may be formed upon the upper surface of the said draft-beams. These lugs or projections are adapted to fit in corresponding recesses, as e , formed on the under sides of the beams E.

The beams A A are designed to be used in pairs at each end of the car; but in their construction each member of the pair is exactly like the other, so that they are inter-

changeable and can be used upon either side or either end of the car. The beams A are preferably formed of channel-irons, as illustrated in the drawings, and are provided at intervals with vertical apertures or bolt-holes, as $a^2 a^3$, through which bolts may be passed to firmly secure the said beams in place beneath the car. The rear ends of the draft-beams are preferably connected by means of tie-plates, as $g g$, the upper plate g of which sets into a recess, as a^3 , formed in each of the beams. The lower tie-plate g engages a shoulder, as a^4 , formed upon the under side of each of the beams A.

I am aware that metallic draft-beams have been used heretofore to secure couplers to the car-bodies; but these have employed lugs or projections upon their inner surfaces to secure follower-plates in place. This necessitates the making of the beams as rights and lefts, and they are therefore not interchangeable.

By my construction of beam all the beams may be made exactly alike and one may be used in the place of another interchangeably.

As illustrated in the drawings, the draw-bar D is provided with a reduced end, as d , and this is adapted to engage and extend through an aperture, as b , formed in the central portion of the follower-plate B. The follower-plate B is inserted into apertures $a^5 a^5$, formed in the beams A A. A coil-spring is interposed between the follower and the shoulder d' , formed upon the draw-bar D.

In order to secure the draw-bar to the draft mechanism, so as to receive the pull exerted upon the coupler, a key-plate, as C, is passed through a horizontal slot formed in the draw-head, the ends thereof extending on either side of the draw-head and through longitudinal slots, as a^6 , formed in the beams A A. These slots $a^6 a^6$ are made sufficiently long to permit of the movement of the key upon the compression and expansion of the springs. The outer ends of the key-plate C are engaged by the loops h of the side draft-rods H H and are thereby connected with the ends of a similar key at the opposite ends of the car. It will thus be apparent that the pull upon the coupler at one end of the car transmits its pressure to the spring on the draw-head at the opposite end of the car, whereas a thrust upon the

coupler is received by the spring at the same end of the car.

From the above construction it will be apparent that I am enabled to produce not only
5 a very strong draft-beam, but one which is simple in construction and readily applied in position. Not only are these draft-bars interchangeable, but the follower-plates and key-plates can be readily inserted into position
10 after the beams are secured to the car-body.

In contradistinction to the draft-bars in common use, which employ lugs to engage the follower-plates, I term my draft-beam a
15 "lugless draft-beam."

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

1. A draft-beam for cars provided with
20 transverse slots extending through the said beam, one of said slots being adapted to receive a follower-plate and hold the same rigidly and the other slot being adapted to receive a key-plate for securing a coupler in
25 place, the construction being such that the key-plate may slide in said slot according to the movement of the coupler, substantially as described.

2. In a draft mechanism for cars, the combination with a suitable coupler, of draft-
30 beams secured to the under side of the car, said beams being provided with apertures extending through said beams for receiving follower-plates and key-plates whereby the coupler may be secured to said beams, the construction being such that the said follower-plate may be held rigidly in place and the key-plate may be allowed to slide in its slots to conform to the movement of the coupler, sub-
40 stantially as described.

3. In a draft-gear for cars, the combination

with a suitable coupler, of draft-beams provided with transverse apertures, a follower-plate adapted to engage one set of said apertures and be held rigidly therein, and a key-
45 plate passing through the draw-head and the other set of apertures and adapted to slide therein and connecting draw-rods for joining the outer ends of the said key-plates at the opposite ends of the car, substantially as described.
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4. In a draft-gear for cars, the combination with a suitable coupler, of draft-beams adapted to receive the coupler between them, said beams being made alike whereby they are
55 interchangeable, the said beams being also provided with transverse apertures whereby they are adapted to receive and hold rigidly follower-plates and to receive and movably hold key-plates for securing the coupler in
60 position, substantially as described.

5. A draft-beam for cars provided with a transverse vertical slot for rigidly securing a follower-plate and a transverse longitudinal slot for receiving and movably holding a key-
65 plate, the construction being such that the key-plate is guided in its movement with a coupler, substantially as described.

6. A draft mechanism for cars comprising metallic beams adapted to be secured to the
70 car-sills, the said beams being provided with vertical slots for rigidly securing a follower-plate and being also provided with longitudinal slots for movably holding and guiding a key-plate whereby a coupler may be secured
75 to said beams, substantially as described.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

THOMAS W. SALING.

Witnesses:

BLANCHE H. GWYNNE,
AMORY R. STARR.