

(No Model.)

J. R. FISH.
CAR TRUCK.

No. 378,926.

Patented Mar. 6, 1888.

Fig. 1.

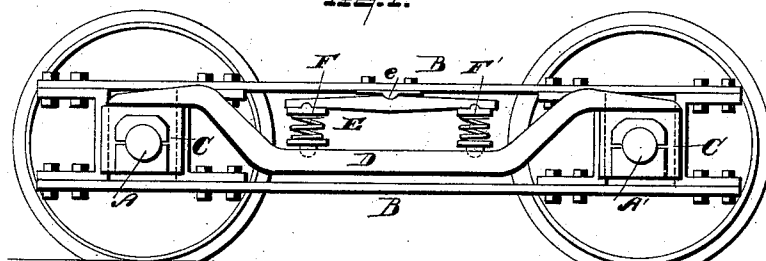


Fig. 2.

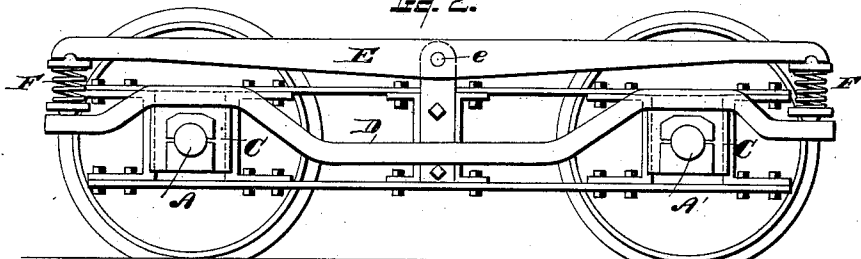
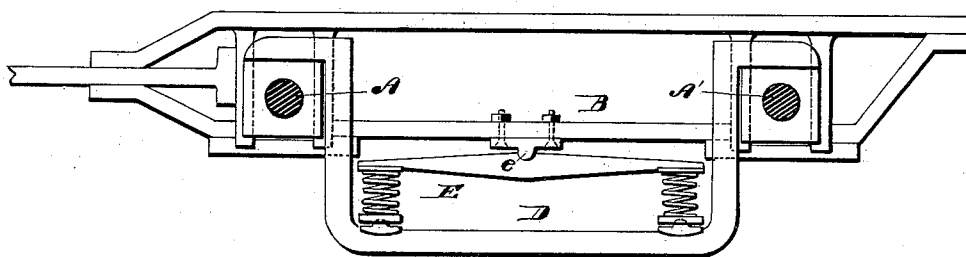


Fig. 3.



WITNESSES-

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CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 378,926, dated March 6, 1888.

Application filed July 19, 1887. Serial No. 244,740. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. FISH, of Grand Rapids, county of Kent, State of Michigan, have invented a new and useful Improvement in Car-Trucks; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form a part of this specification.

The device which is the subject of this invention is designed as an improvement upon that patented to me, No. 355,069, December 28, 1886.

It is the object of my invention to produce a mechanism for neutralizing the vibrations on a car and its truck, such as usually result in not only great wear and strain upon the car, its truck, and the railway-track, but proves a source of great annoyance to passengers and injury to stock and other freight.

In my former patent the equalizing-bar was pivoted at its center, its extremities extended over the journal-bearings, and springs were interposed between its extremities and said bearings.

By my present invention I purpose to connect two adjacent journal-bearings by a bar of metal or by a suitable frame-work of metal or other material which will suffice for this purpose. I then, in any suitable way, locate an equalizing-bar so that the latter shall sustain the weight of the car at a pivot or trunnion between its ends and transmit the weight to springs located between the extremities of the equalizing-bar and the said connecting bar or frame which joins the journal-bearings, said springs being located in a position not above said bearings, but between the said pivot or trunnion and said axles, so that the tension thrown upon either spring at any time by an accidental jar or vibration is not communicated directly to the journal, but is first communicated to said bearing or frame which joins the two journal-bearings, and it is this feature of locating the springs upon a connecting bar or frame at a point to one side of the axle and connecting a pivoted equalizing-bar therewith in contradistinction to a construction which locates the spring beneath the pivoted equalizing-bar, but over the journal-bearings, which,

with accompanying features of special construction, constitutes the essence of my invention.

In the drawings, Figure 1 is a side elevation of a four-wheeled truck embodying my invention. Fig. 2 illustrates a modification of the same where the springs are located beyond both axles instead of between them. Fig. 3 is a variation showing the device as adapted to a locomotive-truck.

A A' are the axles of a four-wheeled truck.

B represents the truck-frame; C, the journal-boxes.

D is a bar or frame resting upon the journal-boxes and spanning the space between them.

E is one of my equalizing-bars pivoted or trunnioned at *e* to the frame.

F F' are springs interposed between the extremities of the equalizing-bar and the said bar or frame D. It will be observed that these springs are not located over the axle-boxes, but are at a point to one side of the said boxes or journal-bearing. In Fig. 1 they are shown between the boxes, while in Fig. 2 they are located with the journal-boxes lying between the pivot or trunnion and the said springs. This enables me to use in the first place a short spring equalizing-bar, which will be quick and effective in its action, while in the latter case I may use a long equalizing-bar, which will necessarily be more elastic and slower to act. I would have it understood that I prefer the construction shown in Fig. 1, wherein the springs are between the two boxes, rather than that shown in Fig. 2.

In the drawings I represent the equalizing-bar E as pivoted directly to the frame-work B; but it will be understood that I do not limit myself in this respect to any particular means for bringing the weight upon my said equalizing-bars. Any construction which will throw the weight of the truck and the car upon the trunnions or pivots of the said equalizing-bar I would have regarded as the equivalent of the particular construction shown in the drawings and comprehended by my patent. So, also, while I show the equalizing-bar connected with the truck by a trunnion-connection, *e*, I would have it understood that this feature of con-

nection may be varied to any extent without departing from my invention. Thus the equalizing-bar might have an orifice through it and the connection be made by a bolt passing through ears which extend down and embrace the bar E. So, also, a lug or post might project down vertically into a corresponding slot in the bar, or straps or other supports might extend from the bar down to a portion of the frame located beneath the latter.

In Fig. 3 the device is shown as adapted to a locomotive-truck. The same principle precisely is here involved, except that the equalizing-bar is brought down beneath the entire truck-frame.

What I claim is—

1. The combination, with a bar or frame which unites the journal-boxes, of an equalizing-bar pivoted or trunnioned to the truck-frame, and springs located beneath the ends of

the said equalizing-bar, said springs supported by the bar or frame which connects the journal boxes or bearings, substantially as described.

2. The combination of a bar or frame connecting the journal-boxes or bearings, and an equalizing-bar pivotally connected with the truck-frame, and springs located beneath the ends of said equalizing-bar, said springs supported by said bar or frame at points either between or beyond the said boxes or bearings and not over the latter, substantially as and for the purposes described.

In testimony whereof I sign this specification in the presence of two witnesses.

JOHN R. FISH.

Witnesses:

M. B. O'DOHERTY,
SAMUEL E. THOMAS.