

J. H. DENNIS.

Car Truck.

No. } 2,772. }
33,776. }

Patented Nov. 26, 1861.

Fig. 1.

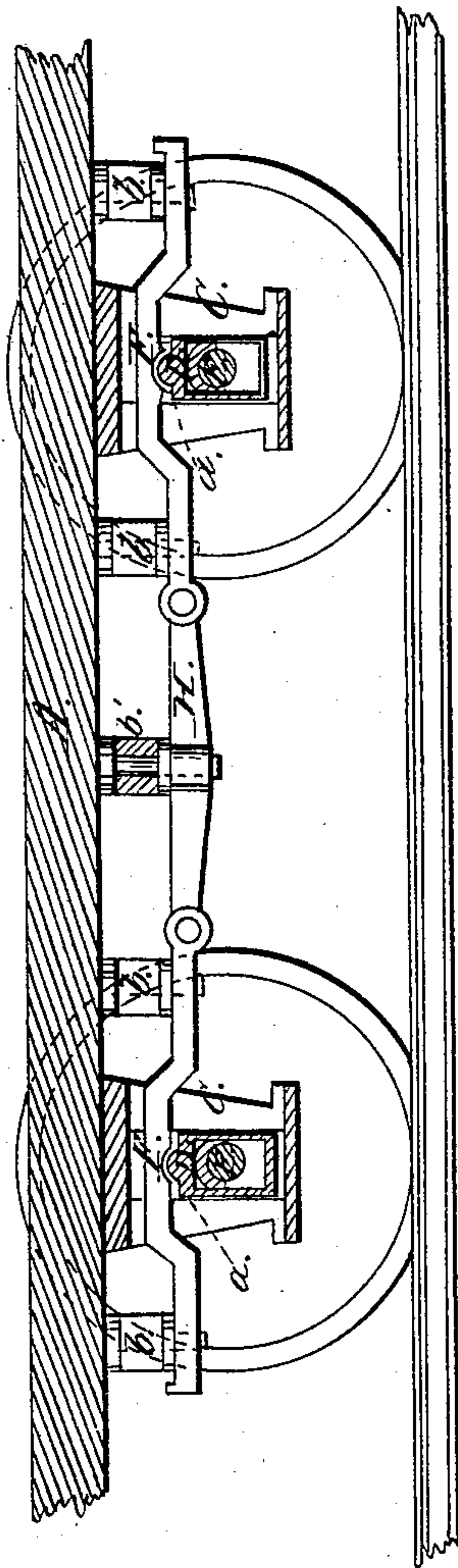


Fig. 2.

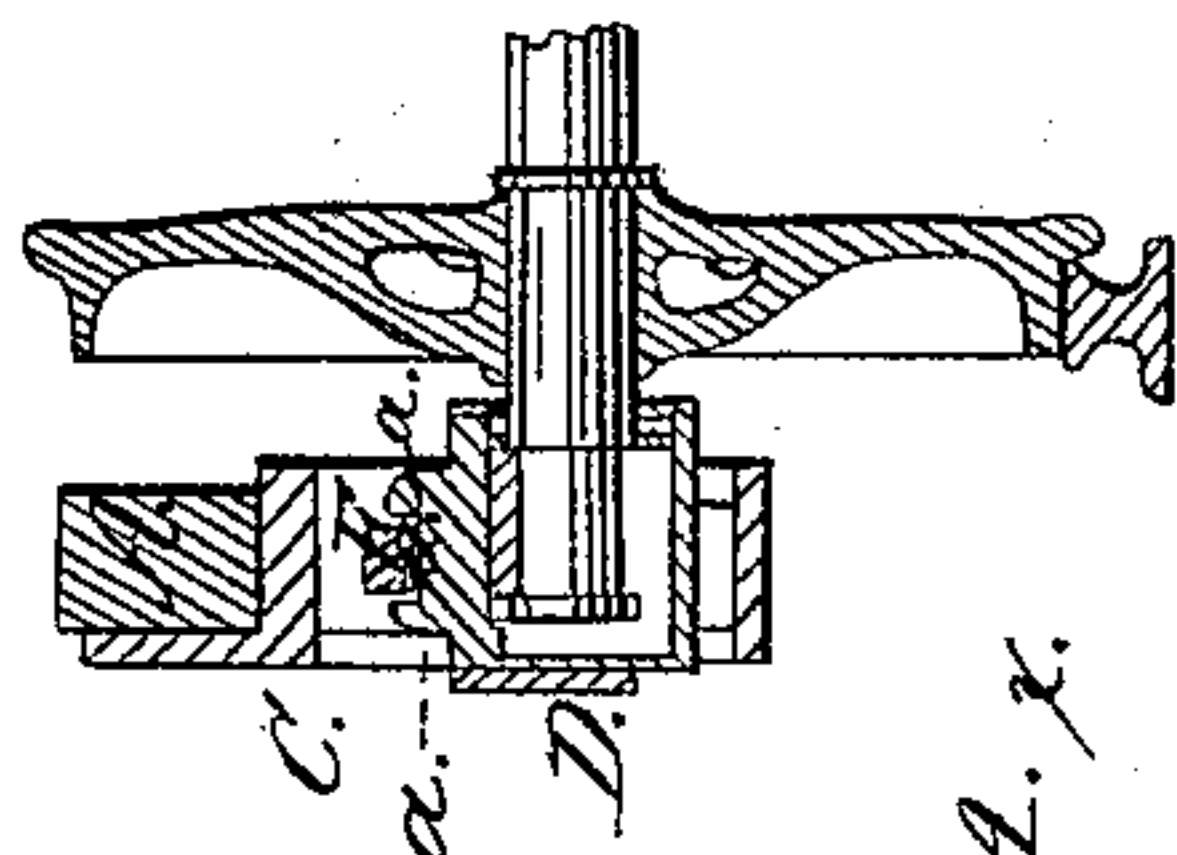
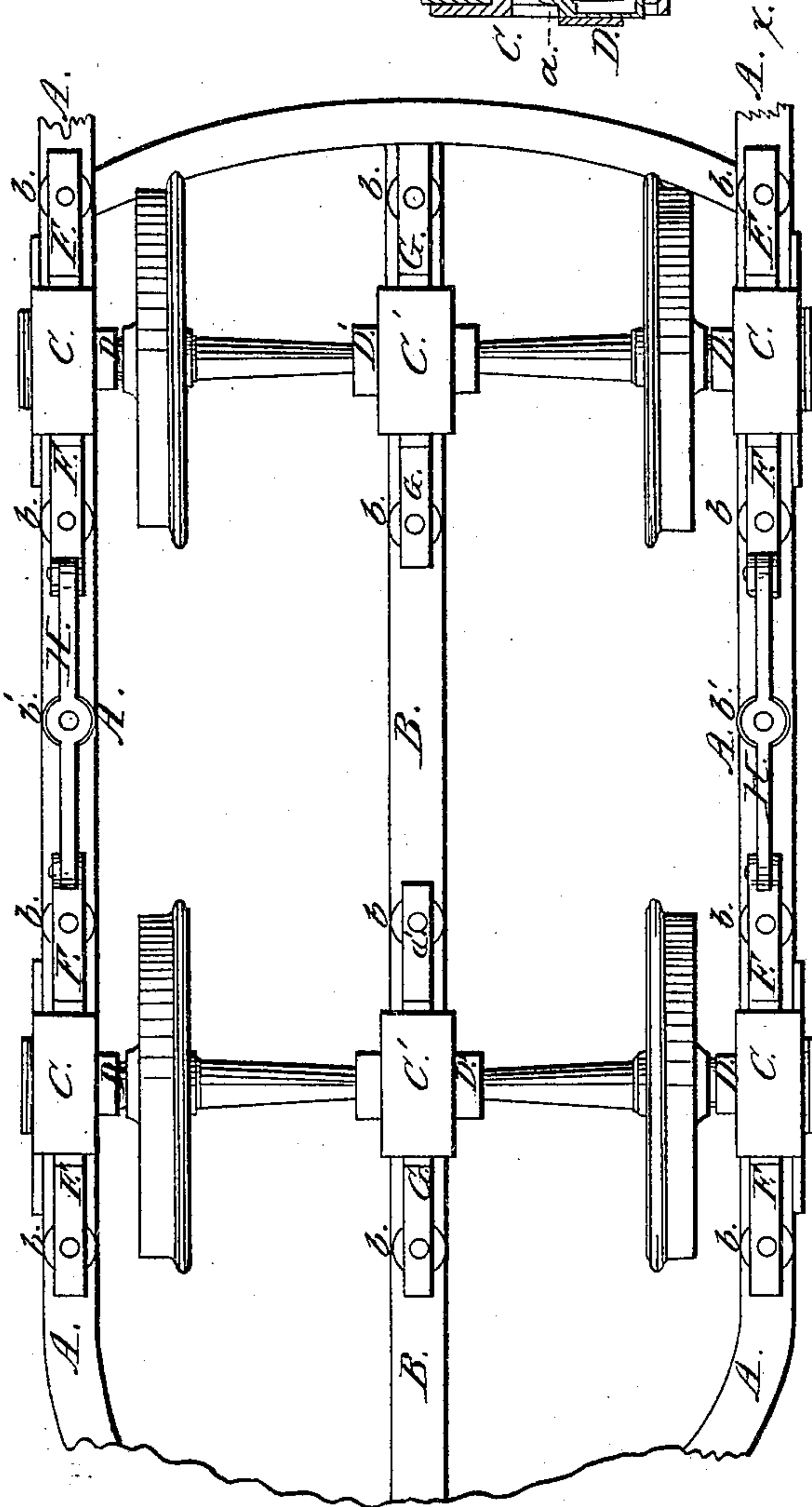


Fig. 3.



Witnesses:

Chas Hughes
J W Coombs-

Inventor:

J. H. Dennis.
per Murray & Co.

UNITED STATES PATENT OFFICE.

J. H. DENNIS, OF LOUISVILLE, KENTUCKY.

IMPROVEMENT IN EQUALIZING BEAMS AND LEVERS IN RAILROAD-CARS.

Specification forming part of Letters Patent No. 33,776, dated November 26, 1861.

To all whom it may concern:

Be it known that I, J. H. DENNIS, of Louisville, in the county of Jefferson and State of Kentucky, have invented a novel and useful Arrangement of Equalizing-Beams for Railway-Cars; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a vertical longitudinal section taken through a portion of a platform of a car-body, through the pedestals, and through the middle of the axle-boxes. Fig. 2 is a sectional view of one wheel, showing an axle, axle-box, and the formation of the top of the axle-box to receive the distributing-beam. Fig. 3 is a bottom view of the car.

Similar letters indicate corresponding parts in all the figures.

My invention refers especially to that class of cars known as "street-railroad cars" where both the running-gear and the car-body are subjected to great strain, and consequently constant and rapid wear and tear, and where there is great liability to be thrown from the track by reason of the non-use of trucks.

My invention for remedying the present objections consists in a novel arrangement of equalizing and distributing beams arranged in such a manner that the wheels will be kept down to the rails however ununiform may be their surface, and so that while trucks are dispensed with all their advantages are secured.

To enable those skilled in the art to fully understand my invention, I will proceed to describe its construction and operation.

In the drawings, A, Fig. 1, represents one of the longitudinal bottom timbers that extend from the front to the rear of the car, and which are secured, braced, and bolted, in a strong and substantial manner.

C C are pedestals, of the usual shape and construction, which are bolted to the side timbers, and in these pedestals are placed the axle-boxes D. These boxes have suitable saddles *a* formed on their tops, which serve to receive and retain in place the distributing-beams F F and to allow the beams to vibrate. These beams pass longitudinally

through the pedestals, and are shaped, as represented by Fig. 1, so as to admit of the interposition of rubber, steel, or other suitable springs *b* between their ends and the longitudinal timber A, without the necessity for any additional elevation of the car-body. These springs are applied in such a way that the weight put upon the car will be equally distributed and received by the two springs of each distributing-beam, whatever be the condition of the track.

The two distributing-beams F F on each side of the car are respectively connected together by equalizing-beams H H, which have their fulcras at middle points between the distributing-beams F F. Each end of the equalizing-beams is suitably jointed to the inner ends of the distributing-beams in such a manner as to allow the beams to freely vibrate. Springs *b'* may be interposed to great advantage over the fulcras of the equalizing-beams and between them and the longitudinal timbers, so as to give the beams an elastic yielding action.

The arrangement for hanging the equalizing and distributing beams below the longitudinal timbers are not essential, but they may be hung above or otherwise.

Now it will be seen from this general description that I gain by the use of the equalizing-beams all the advantages of a truck, the car being kept steady and both the running-gear and car-body kept free from strain and the wheels being kept down on the rails, and consequently rendered far less liable to be thrown from the track, while I avoid its disadvantages, such as its cost, its weight and cumbersomeness, its necessitating an inconvenient elevation of the car-body, &c.

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

The equalizing-beams H, connecting the distributing-beams F F and operating in combination therewith, in the manner and for the purposes herein shown and explained.

J. H. DENNIS.

Witnesses:

WM. D. CLARKE,
THOS. D. HOWARD.