

(No Model.)

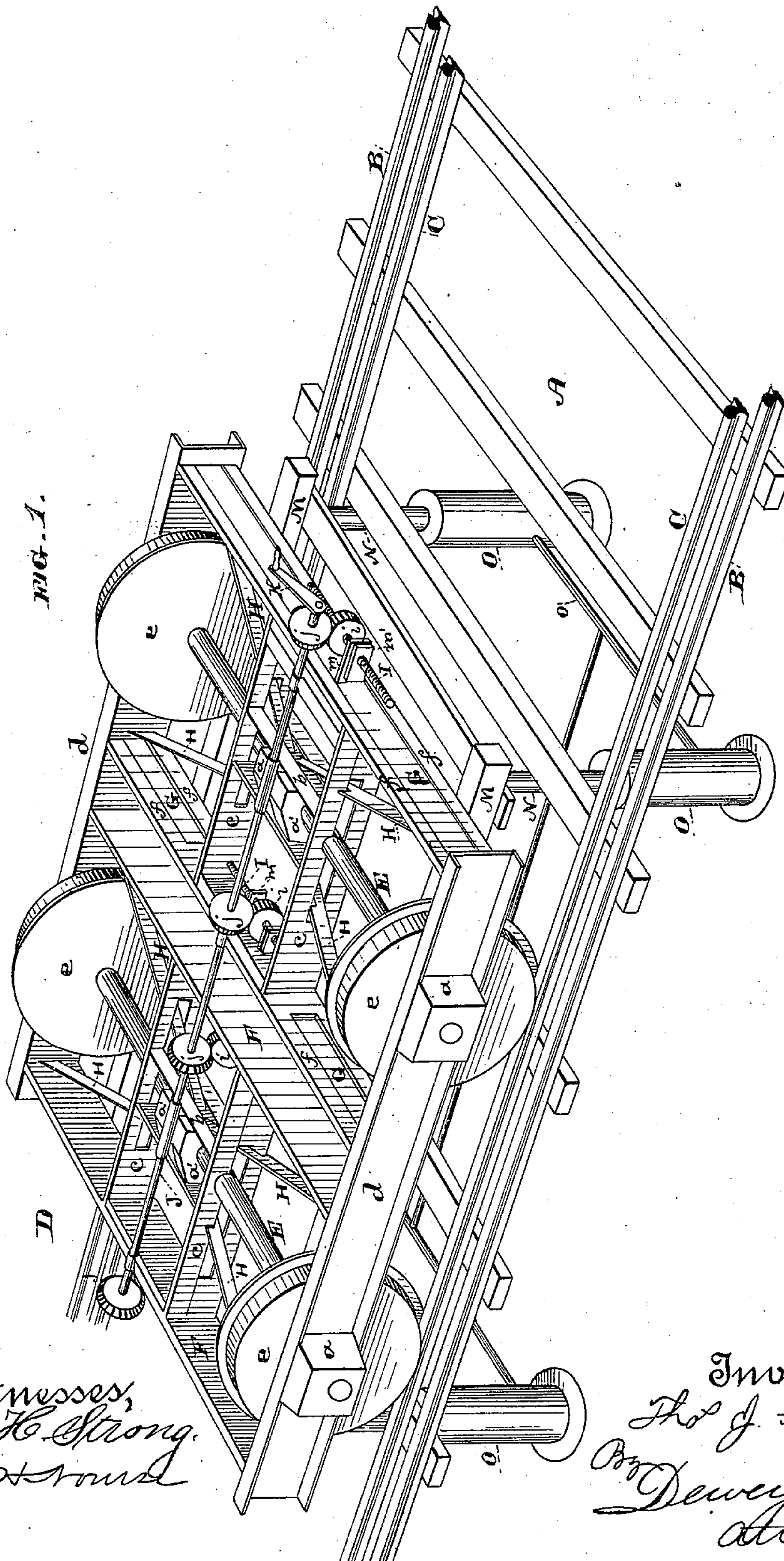
2 Sheets—Sheet 1.

T. J. FURBEE.

CAR TRUCK.

No. 287,374.

Patented Oct. 23, 1883.



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(No Model.)

2 Sheets—Sheet 2.

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FIG. 2.

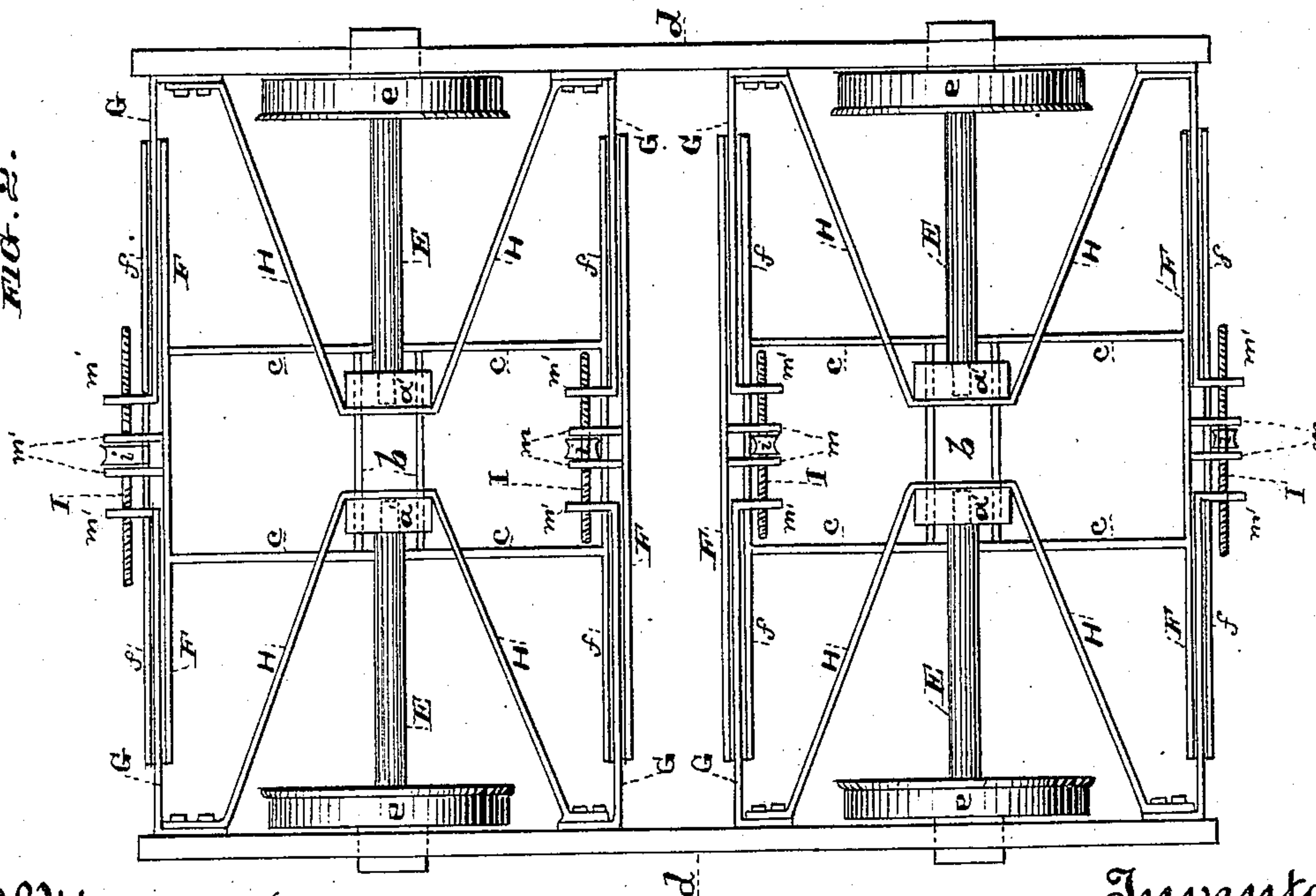
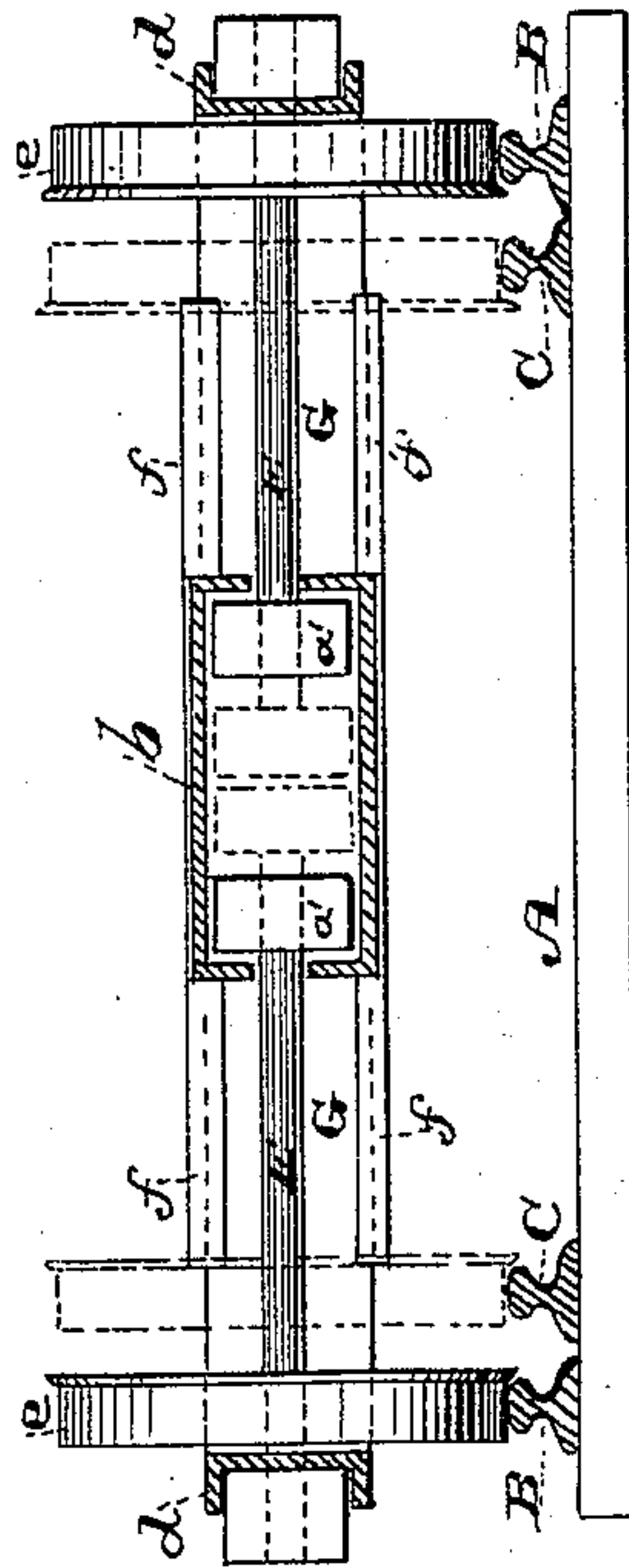


FIG. 3.



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UNITED STATES PATENT OFFICE.

THOMAS J. FURBEE, OF BISHOP CREEK, CALIFORNIA.

CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 287,574, dated October 23, 1882.

Application filed July 28, 1883. (No model.)

To all whom it may concern:

Be it known that I, THOS. J. FURBEE, of Bishop Creek, Inyo county, and State of California, have invented an Improvement in Adjustable Railway-Trucks; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to a new and useful railway-truck adapted to be adjusted to narrow or wide gage track; and it consists in a truck the sides of which are connected by telescoping plates, to which suitable power is applied to force the sides apart or draw them closer together. The wheeled axles are centrally divided, their inner ends being mounted in sliding boxes which are connected with the sides of the truck, whereby their expansion or contraction affects the wheels similarly, to fit them to broad or narrow gage track.

It further consists in the means by which the truck is elevated to enable its adjustment to take place.

Referring to the accompanying drawings, Figure 1 is a perspective view of my invention. Fig. 2 is a top view of the truck. Fig. 3 is an end section of the same.

A is the road-bed, having thereon the rails B, forming the wide gage, and the rails C, forming a narrow gage.

D is the truck, having the equalizer or side bars, *d*.

E are the axles, and *e* the wheels. These axles do not extend across the truck, but are divided in the center, thus having a separate and independent axle for each wheel. The outer ends of the axles are journaled, as usual, in the boxes *a*, and their inner ends are journaled in boxes *a'* in the center. These boxes are supported and are adapted to slide within a box, *b*, supported by a frame, *c*, as shown, the ends of which are bolted to cross-plates F. These cross-plates have their edges formed into guides *f*, in which slide bars or plates G, connected with the equalizer-bars *d*. These plates are not connected with each other, and thus the sides of the truck may be drawn farther apart or forced closer together.

H are braces connected with the sides *d*, and with the inner boxes, *a'*, of the axles, whereby when said sides are expanded or contracted, as described, the boxes *a'* and axles E and wheels

will move with them. Thus the wheels may be set farther out to fit a wide gage and closer in to fit a narrow gage. The axles being divided permit this movement, as well as serving the further advantage of allowing one wheel to revolve faster than another on a curve, and thus prevent sliding. The means by which this expansion and contraction of the sides of the truck are accomplished are as follows: Secured to the cross or guides plates F are bearings *m*, and secured to the inner ends of the plates G are nuts *m'*. In the bearings *m* are mounted shafts I, the ends of which are screw-threaded, the thread of one end being left-hand and that of the other end being right-hand. These screws pass through nuts *m'*, which correspond with their threads, and thus by the revolution of the screw-shafts I the nuts are separated or drawn together to telescope the plates G F. The screw-shafts carry bevel-pinions *i*, which mesh with pinions *j* on a main shaft, J, mounted longitudinally on the truck. A crank, K, is secured on the end of shaft J, and by its movement operates the parts described. This action of the truck could not, of course, take place unless it were raised from the track. To accomplish this I have the bars M in the road-bed. These are supported upon top of pistons N, operating in cylinders O, with which a pipe, *o*, connects. These pistons may be operated by water or steam, and their upward movement raises bars M under the truck and elevates it.

I am aware that a laterally contractible or expansible truck adapted to run on either wide or narrow gage railways, and also hydraulic means for elevating tables for raising the car-body proper, so that different-gaged trucks may be run under the car-body for transferring to different-gaged railways, are old, and such I do not wish to be understood as claiming, broadly, as of my invention.

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

1. The truck D, having side or equalizing bars, *d*, the axles E, having wheels *e*, said axles being centrally divided and mounted in boxes *a a'*, and the braces H, connecting the boxes *a'* with the side bars, *d*, in combination with telescoping cross bars or plates joining the side bars, and means for operating said telescoping

cross-bars to force the side bars and wheels farther apart or closer together, substantially as and for the purpose herein described.

2. The truck D, having side or equalizing bars, *d*, the centrally-divided axles E, having wheels *e*, the central sliding boxes, *a'*, in which the inner ends of the divided axles are mounted, and the braces H, connecting boxes, *a'*, and side bars, *d*, in combination with the cross guide-plates F, having bearings *m*, the plates G, secured to the side bars and sliding in guides F, the nuts *m'* on said plates, the shafts I, having right and left hand screw ends, and means for rotating said shafts, substantially as and for the purpose herein described.

3. The truck D, having side or equalizing bars, *d*, the centrally-divided axles E, having wheels *e*, the central sliding boxes, *a'*, in which the inner ends of the divided axles are mounted, and the braces H, connecting boxes *a'* and side bars, *d*, in combination with the telescoping cross bars or plates F G, connecting the side

bars, the frame *c*, connecting cross-plates F, and having the box *b*, in which the axle-boxes *a'* slide, the bearings *m'* on plates G, the shafts I, having right and left hand screw ends passing through nuts *m'*, and having bevel-pinions *i*, and the shaft J, having bevel-pinions *j*, and crank K, all arranged and operating substantially as and for the purpose herein described.

4. The car-truck D, having sides *d* and wheels *e*, adapted to be forced apart or brought closer together, in combination with the vertically-moving bars M under said truck, and the means for raising the bars, consisting of the pistons N, cylinders O, induction-pipe *o*, and a suitable power device, substantially as herein described.

In witness whereof I have hereunto set my hand.

THOMAS J. FURBEE.

Witnesses:

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J. H. STOUTENBOROUGH, Jr.