

(No Model.)

2 Sheets—Sheet 1.

E. PECKHAM.
CAR TRUCK.

No. 471,061.

Patented Mar. 15, 1892.

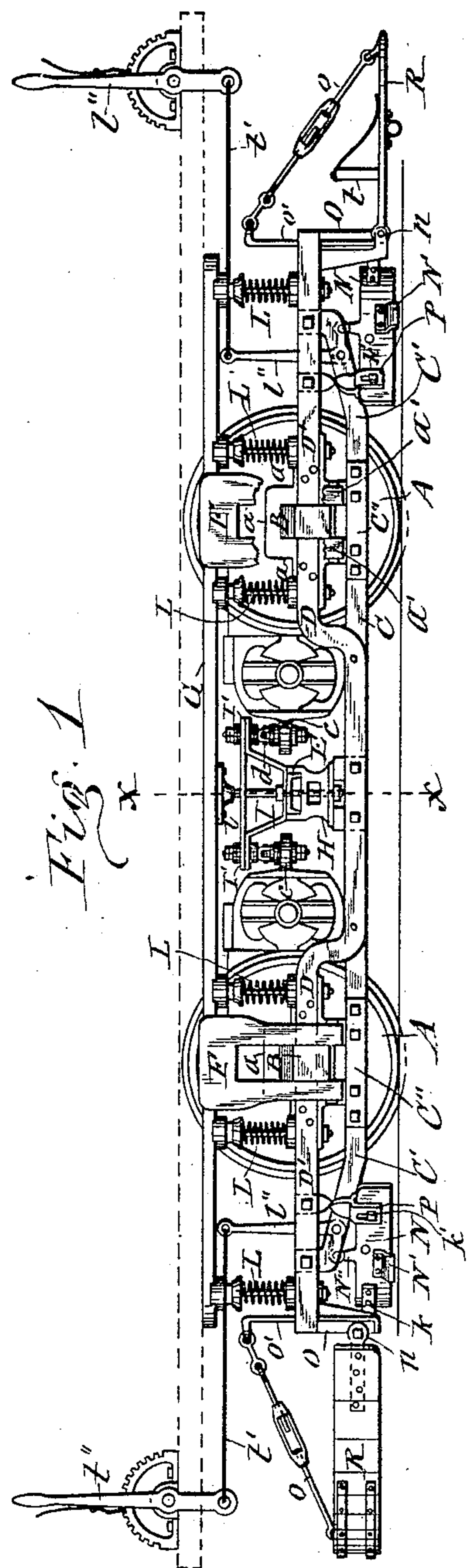


Fig. 1

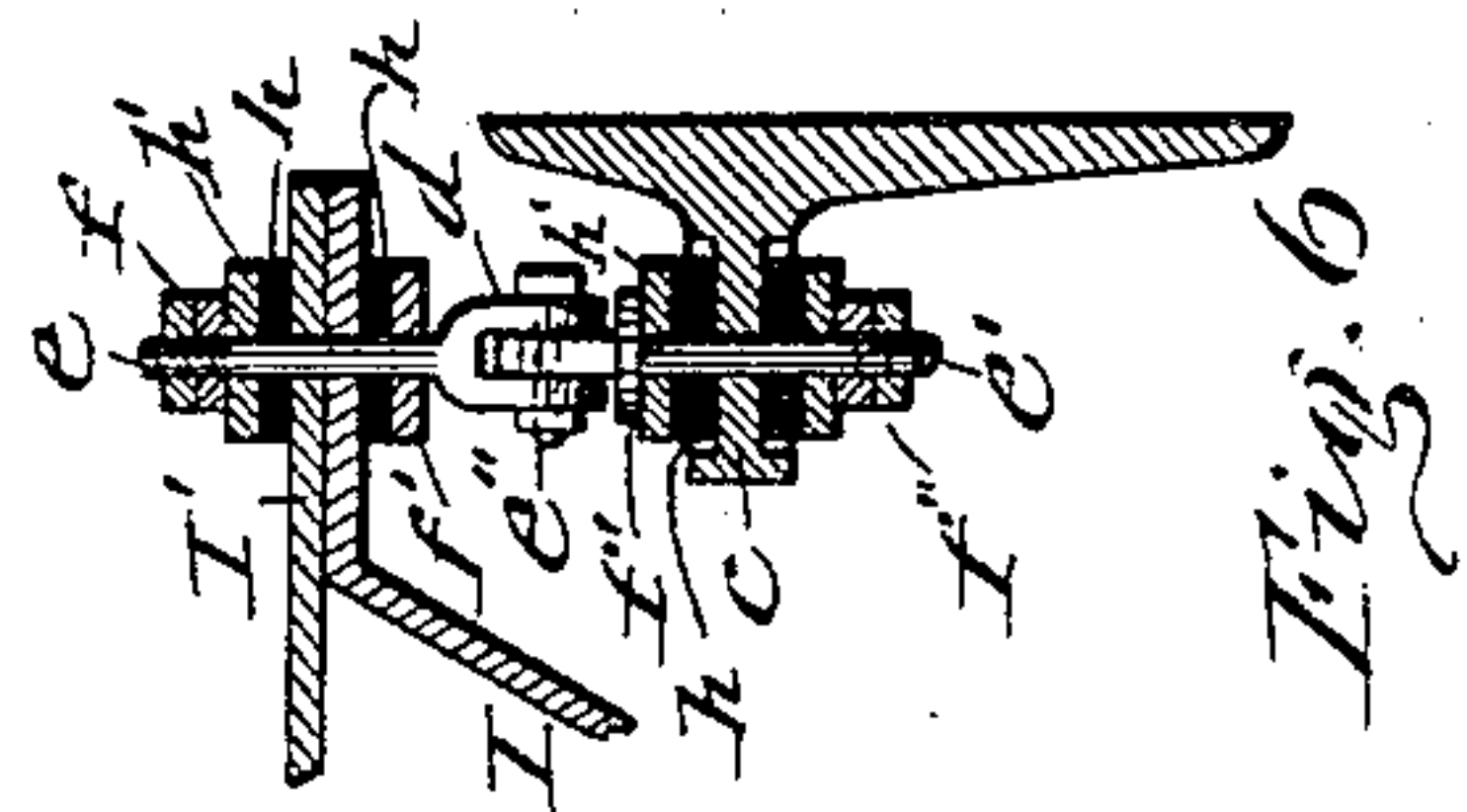


Fig. 6

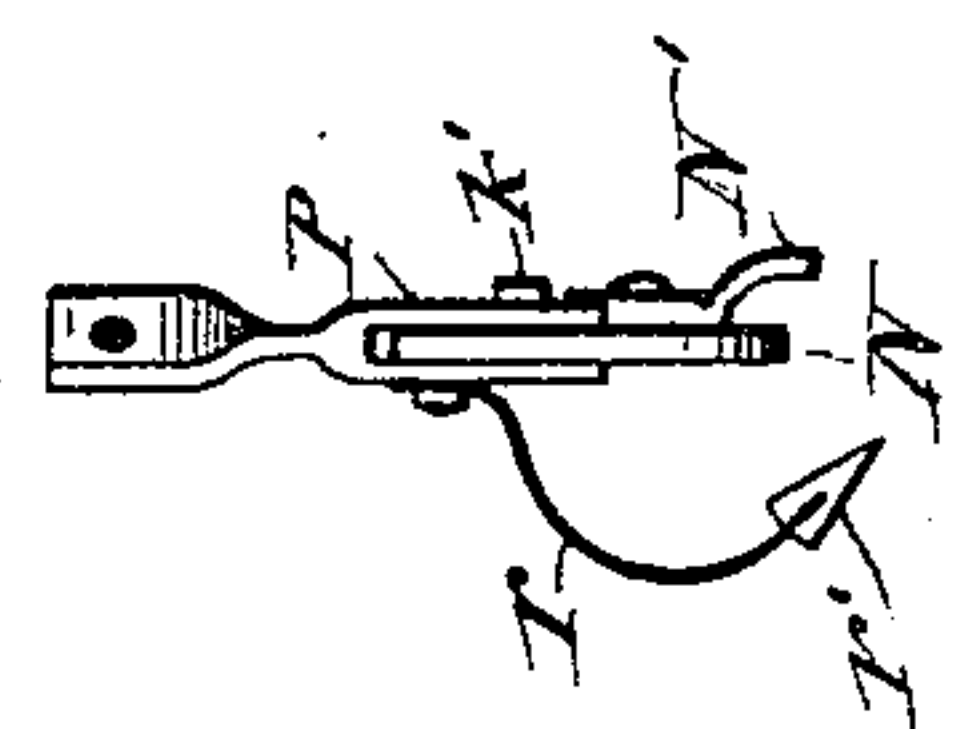


Fig. 5

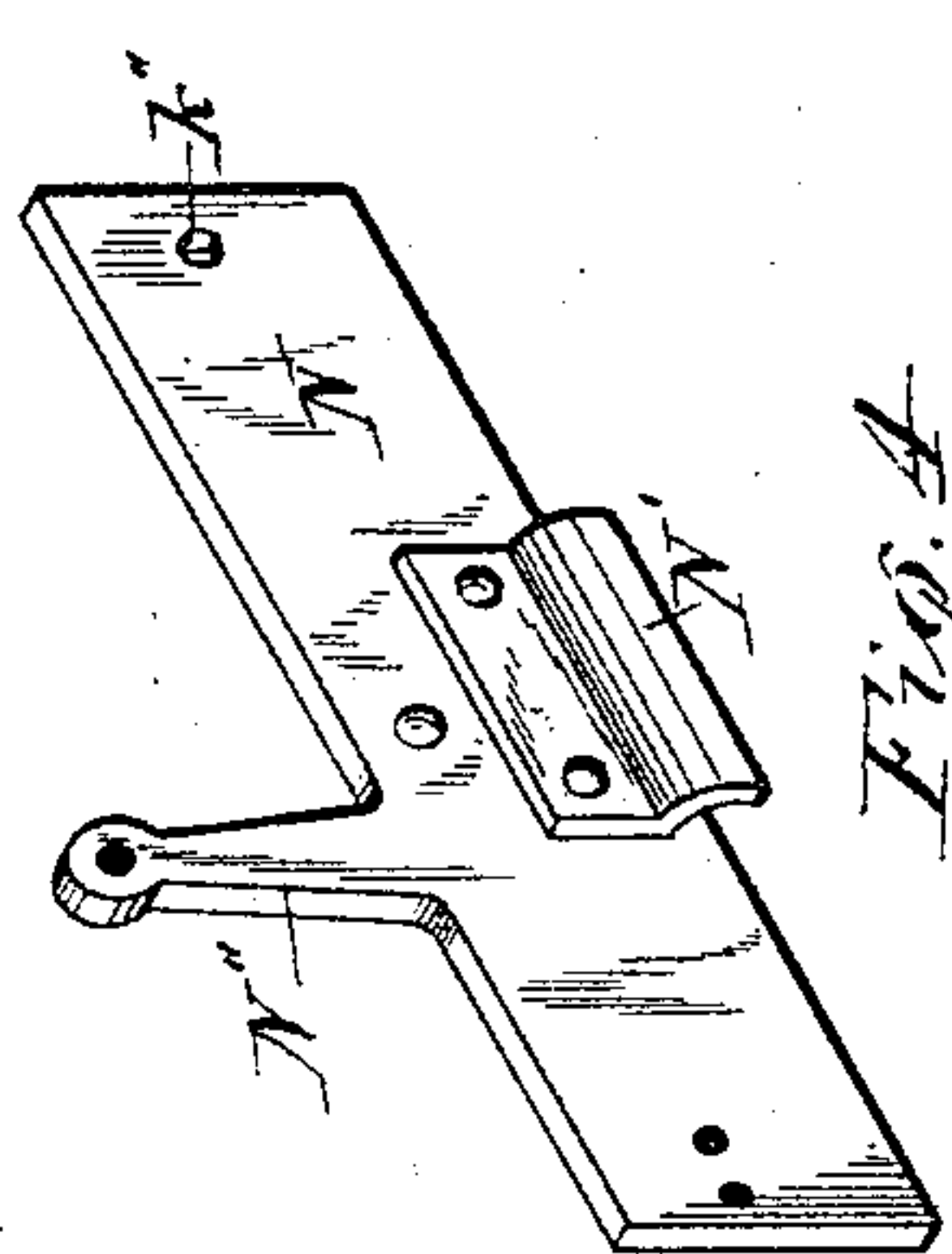


Fig. 4

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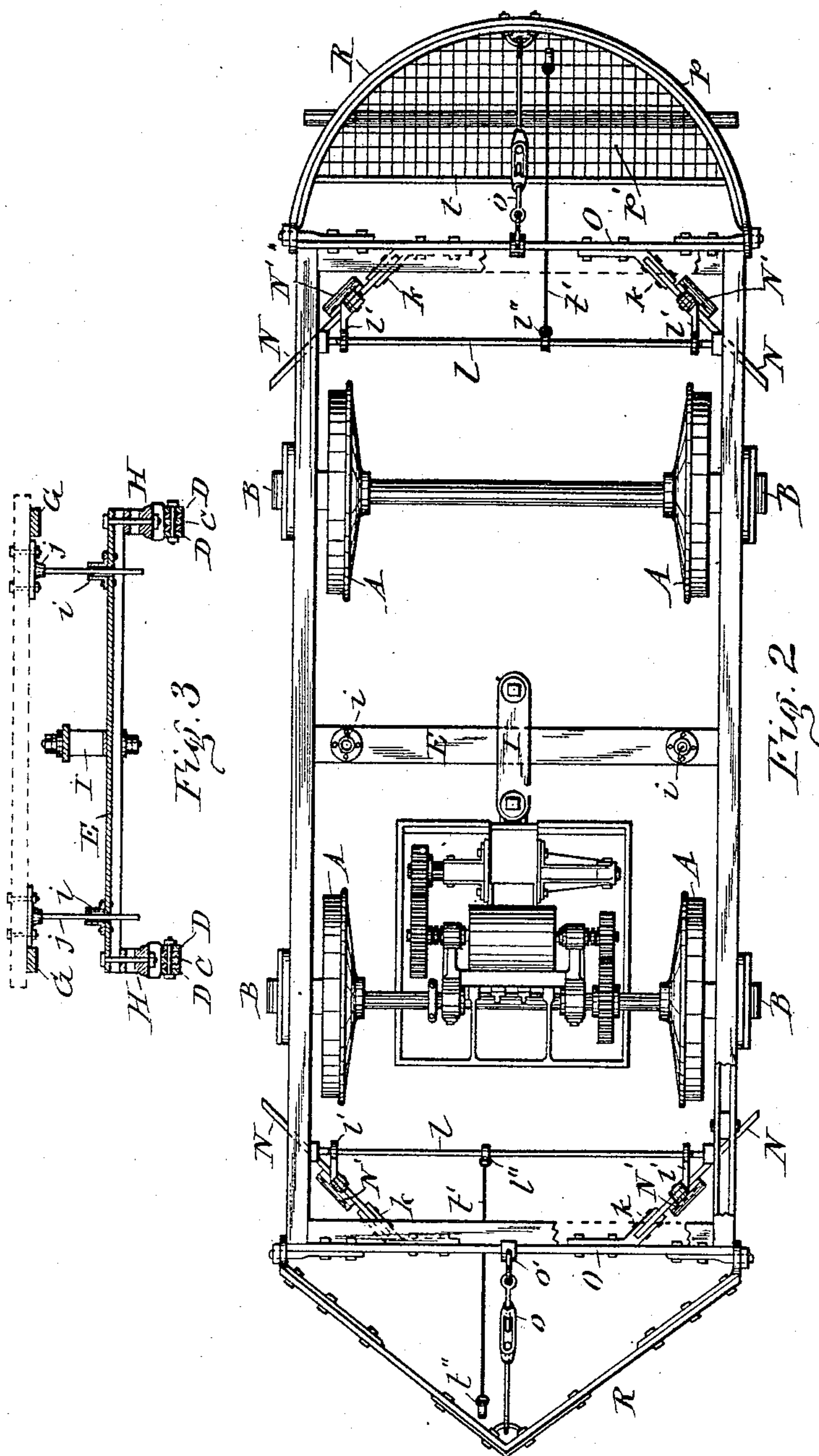
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WITNESSES:

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J. J. Gaasj.

INVENTOR:

INVENTOR:
Edgar Peckham
BY
Andell, Laess & Druell
his ATTORNEYS

UNITED STATES PATENT OFFICE.

EDGAR PECKHAM, OF KINGSTON, NEW YORK, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE PECKHAM MOTOR TRUCK AND WHEEL COMPANY, OF SAME PLACE.

CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 471,061, dated March 15, 1892.

Application filed October 30, 1890. Serial No. 369,785. (No model.)

To all whom it may concern:

Be it known that I, EDGAR PECKHAM, of Kingston, in the county of Ulster, in the State of New York, have invented new and useful
5 Improvements in Car-Trucks, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention consists, first, in an improved construction and combination of the side bars and subjacent truss-bar, of a truck-frame united at the central portions to increase their rigidity and to support more firmly the support of the heel of the motor;
15 secondly, in the combination, with the journal-boxes, of longitudinal side bars supported thereon and formed with a depressed central portion which permits the removal of the motor through the side of the truck; thirdly, in the
20 combination, with the car-truck and electric motor, of a pendulum or flexible hanger supporting the heel of the motor and allowing said motor to accommodate itself to the variations of the alignment of the truck; fourthly,
25 in the combination, with the car-truck and electric motor, of a support for the heel of the motor provided with rubber cushions on top and bottom of said heel to relieve the motor from undue concussion in starting the motor
30 and thus obviate the danger of breaking the motor-gear; fifthly, in novel means for preventing the car-body from shifting on the truck; and the invention furthermore consists in certain novel features of the details
35 of the truck and its aforesaid attachments, all as hereinafter fully described, and specifically set forth in the claims.

In the annexed drawings, Figure 1 is a side elevation of a car-truck embodying my improvements. Fig. 2 is a top plan view of the same. Fig. 3 is a vertical transverse section on line *xx*, Fig. 1. Fig. 4 is a detached enlarged perspective view of the track-scraper. Fig. 5 is an end view of the same with its at-
45 tachments; and Fig. 6 is an enlarged vertical transverse section of the support of the heel of the motor.

Similar letters of reference indicate corresponding parts.

50 A A represent the car-wheels, and B B the

journal-boxes, in which the axles of the aforesaid wheels are journaled.

F F denote the pedestals, which are rigidly secured either to the sill of the car-body or to the longitudinal top stringers G G of the truck, the jaws of said pedestals embracing the sides of the journal-boxes to maintain the axles of the wheels A A parallel with each other. The journal-boxes have the necessary vertical play in the pedestals to allow the car-body to be supported elastically vertically on the truck-frame, as hereinafter described.

Upon the journal-boxes are hung the yokes *a a*, which are formed with depending hangers *a' a'*, extending below the journal-boxes. To the inner vertical limbs of said yokes at points above the hangers are rigidly attached the longitudinal side bars D D, extending from yoke to yoke, and to the outer limbs of the yokes and in line with the ends of the bars D D are secured longitudinal bars D' D', extending toward the ends of the car-body.

To the lower ends of the inner hangers *a' a'* is attached a longitudinal truss-bar C, and end braces C' C' are extended from the outer hangers to the end portions of the bars D' D' and firmly secured thereto, as shown in Fig. 1 of the drawings. Straps C'' extend across the two hangers of each yoke and are secured thereto, and, if desired, also to the end braces C C to form ties between the central truss-bar C and said end braces. Said straps are detachable to allow the journal-boxes B to be removed downward from the yokes and thus facilitate the removal of the axles and wheels from the truck-frame when desired. In order to strengthen the truss thus formed, I unite the central portion of the bars D D to the subjacent portion of the bar C, preferably by depressing the said portions of the bars D D to the plane of the bar C and riveting or bolting them together. By this construction an opening is formed in the side of the truck, which permits the removal of the motor through said side when required. Upon the said united portions of the bars D D and C, I mount pedestals H, which are formed on their base with downwardly-extending flanges, by which they are bolted to either the inner or outer sides of the bars D. To the said ped-
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estals is rigidly attached a stout cross-bar E, preferably consisting of a longitudinally-channelled iron or steel bar, and to this cross-bar, central of the length thereof, I attach a frame I, disposed at right angles to the bar and formed with horizontal longitudinal extensions I' I', upon either of which the heel c of the motor is hung or two motors may be thus supported. To allow the heel of the motor sufficient lateral play, so that the motor may accommodate itself to the variations of the alignment of the truck when passing around a curve of the road, I connect the heel of the motor to its support I' by a pendulum hanger or laterally-flexible hanger d, of any suitable form. For exemplification I have shown the hanger d in detail in Fig. 6 of the drawings, and it consists of two bolts e e', hinged to each other at one end, as shown at e''. The bolt e passes through an eye in the support I', and is provided with nuts ff above said support, and a collar f' below the same. The other bolt e' passes vertically through an eye in the heel c of the motor, and is provided with nuts f'' f'' below the said heel and with a collar f' above the same.

To guard against undue concussion and danger of breaking the motor-gears incident to the vertical thrust of the heel of the motor when starting the motor, I interpose between the heel c and collar f' a rubber cushion h and washer h', and a similar cushion and washer between the said heel and the nuts f''. The motor may be further cushioned by placing a rubber washer h and a metal washer h' between the top of the support I' and nut f, and a rubber washer h between the bottom of said support and the collar f' on the bolt e.

The car-body is supported on the longitudinal bars D D and D' D' by springs L L, mounted on said bars adjacent to the yokes a a and on the end portions of the bars D' D', and in order to prevent the car-body from shifting longitudinally and laterally and to relieve the pedestals F F from undue strain, I provide the cross-bar E with vertical guides i i, and rigidly secure to the under side of the car-body vertical stays j j, which pass movably vertically through said guides, as shown in Fig. 3 of the drawings.

N represents a track cleaner or scraper, which consists of an elongated steel or iron plate, to the central portion of which is rigidly attached a short supplemental plate N', the bottom edge of which projects slightly below the bottom edge of the plate N. This track-cleaner is disposed diagonally across the track-rail and with the supplemental plate N' directly over said rail, and is attached to the end extensions of the car-truck, and thus supported independently of the car-body or any other vertically-movable part of the car. Said track-cleaner may be made adjustable vertically by pivoting the front end of the plate N to a bracket k, attached to the plank or plate O, which extends across the end of

the truck-frame, and is secured to the ends of the bars D' D''. The rear end of the scraper-plate N in that case is sustained on a rigid guide P, secured to the bar D' and extending downward therefrom. The lower end of this guide is bifurcated to receive the rear end of the aforesaid scraper-plate, as shown in Fig. 5 of the drawings, and is provided with a vertical slot, through which passes a bolt k', which also passes through an eye k'' in the scraper-plate. Said plate can be raised or lowered in the guide P, as may be desired, and by means of the bolt K' it can be clamped in its adjusted position, and thus the scraper can be supported in its raised position during such weather or season of the year when it is not required.

In order to enable the person in charge of the car to control the track-scraper from the platform of the car, the scraper may be provided with a rigid upward-projecting arm N'', and the cross-bar l may be pivoted to the truck-frame, to which cross-bar may be fastened two crank-arms l' l', which are connected at their free ends to the arms N'' N'' of the two scrapers at opposite sides of the truck. A lever l'', rigidly attached to the cross-bar l, is by a rod t' connected to a hand-lever t'', pivoted to the platform of the car, as shown in Fig. 1 of the drawings.

To the rear of the scraper-plate N may be attached a spring-arm r, which is curved and extended toward the track-rail and has affixed to its lower end a small plow r', adapted to enter the groove of a crossing-frog in the track, so as to clean said groove.

R represents the life-guard secured to the end of the truck to guard the car from running over obstacles in front of it. The front end of said life-guard is supported by the brace-rod o, connecting it to the upper end of the post o', which is secured to the front end of the truck-frame.

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

1. In combination with the journal-boxes on one side of the truck, two side bars supported one above the other on said journal-boxes and united at the central portion of their lengths, as set forth.

2. In combination with the journal-boxes and yokes hung thereon, hangers depending from the yokes, a truss-bar attached to the lower ends of said hangers, and side bars attached to the yokes above the hangers and having their intermediate portions united to the corresponding portion of the truss-bar, substantially as set forth.

3. In combination with the journal-boxes and yokes hung thereon, hangers depending from the yokes, a truss-bar extending straight from the hangers of one of the yokes to the hangers of the other yoke and secured thereto, and side bars secured to the yokes above the hangers and having their intermediate portions depressed and secured to the corresponding por-

tion of the truss-bar, substantially as described and shown.

4. In combination with the journal-boxes and yokes hung thereon, hangers depending from the yokes, a truss-bar secured to the lower ends of the hangers, side bars attached to the yokes above the hangers and having their intermediate portions depressed and united to the truss-bars, and a motor-supporting frame secured to the united portions of the truss-bar and side bars, substantially as set forth.

5. In combination with the journal-boxes and yokes hung thereon, hangers $a' a'$, depending from said yokes, the bars $D' D'$, secured to the yokes and extending toward the ends of the car, bars D , extending from yoke to yoke and attached thereto, and the bar C , secured to the lower ends of the hangers and having its intermediate portion united to the corresponding portions of the bars D and the end portions of the bar C extended and secured to the end portions of the bars $D' D'$, substantially as described and shown.

6. In combination with the journal-boxes, side bars supported on said journal-boxes and formed with depressed portions between said boxes, and a motor-supporting frame supported on said depressed portion of the side bars, substantially as and for the purpose set forth.

7. In combination with the journal-boxes, yokes hung thereon, hangers depending from said yokes, a truss-bar attached to the lower ends of the hangers, side bars attached to the yokes above the hangers and formed with central depressed portions united to the truss-bar, body-supporting springs mounted on the side bars adjacent to the yokes, and a motor-supporting frame mounted on the depressed central portions of said side bars, substantially as described and shown.

In testimony whereof I have hereunto signed my name this 10th day of October, 1890.

EDGAR PECKHAM. [L. S.]

Witnesses:

WILLIAM SUTPHEN,
J. H. BURTON.