W. F. KIESEL, JR.

CAR TRUCK.

APPLICATION FILED JULY 2, 1914.

1,166,693.

Patented Jan. 4, 1916.

4 SHEETS—SHEET 1.

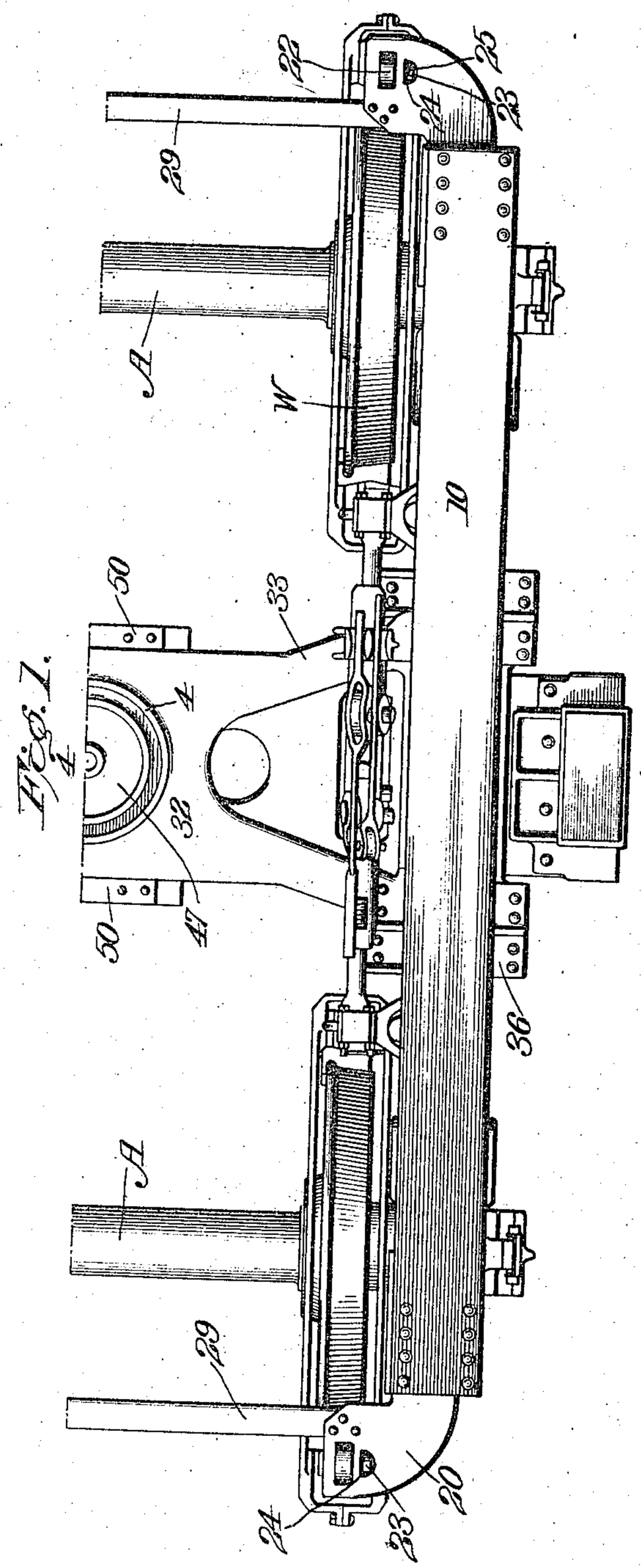

Fig. 1.

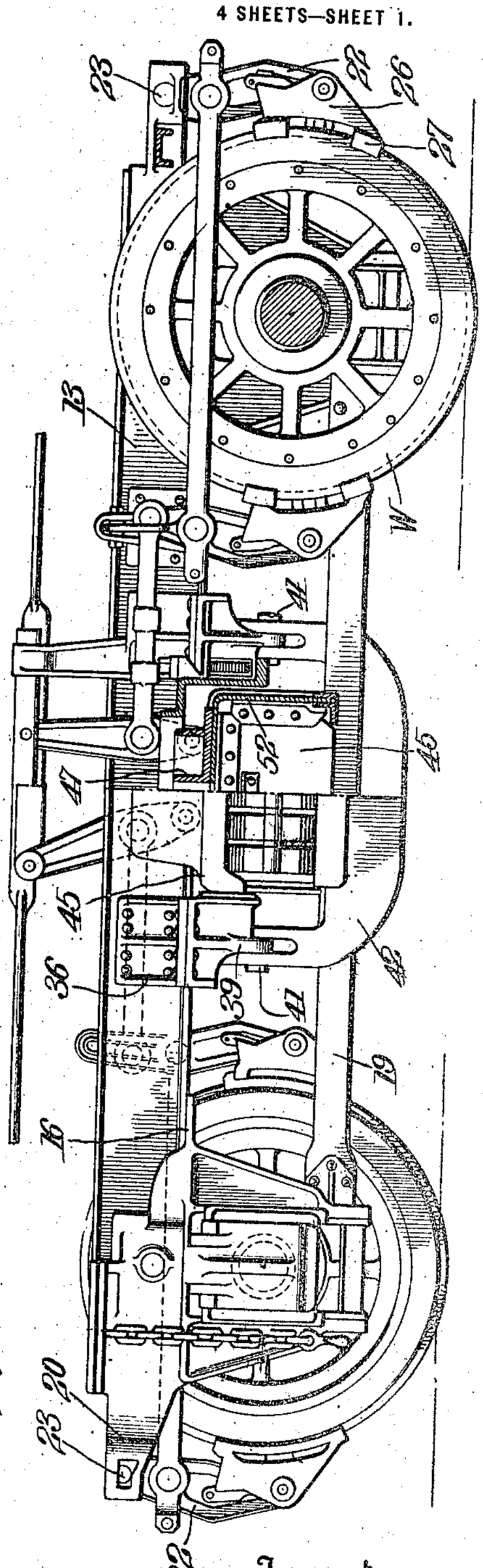

Fig. 2.

Witnesses

G. F. Baker.

E. L. Greenewald.

Inventor

William F. Kiesel Jr.

by Foster Freeman Watson & Coit

Attorneys

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4 SHEETS—SHEET 2.

Fig. 3.

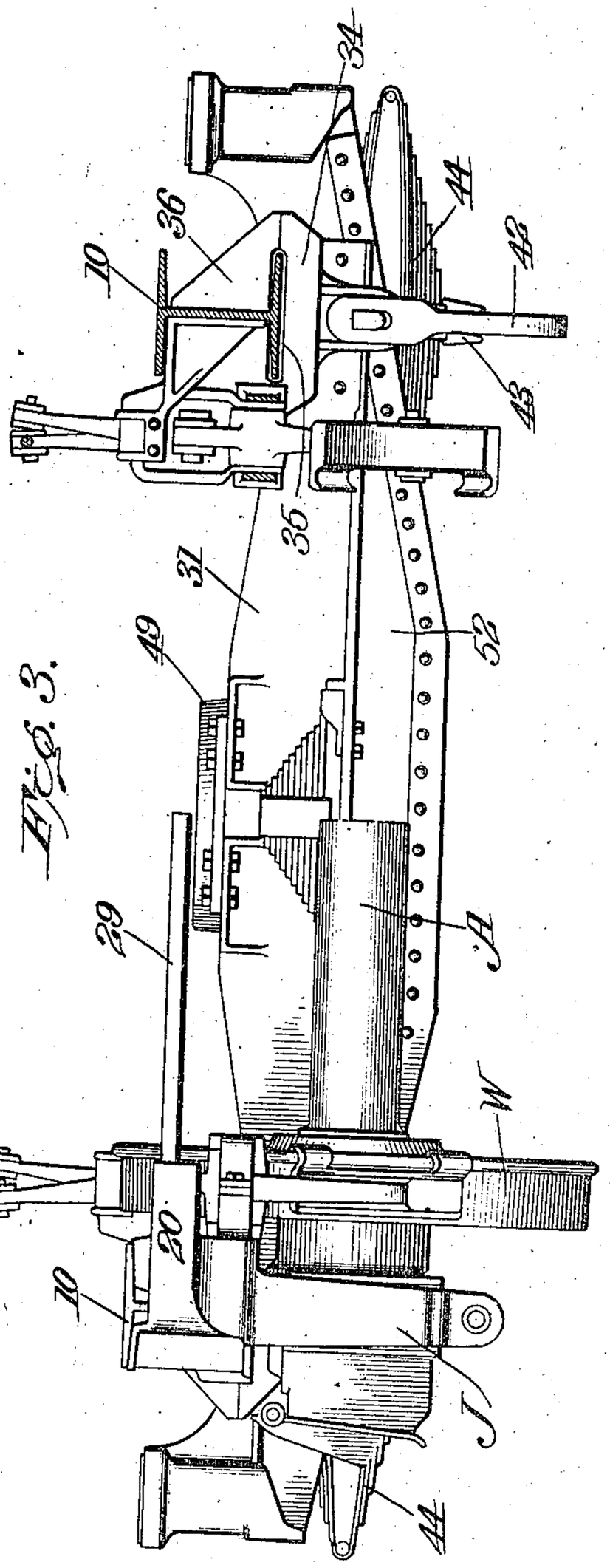
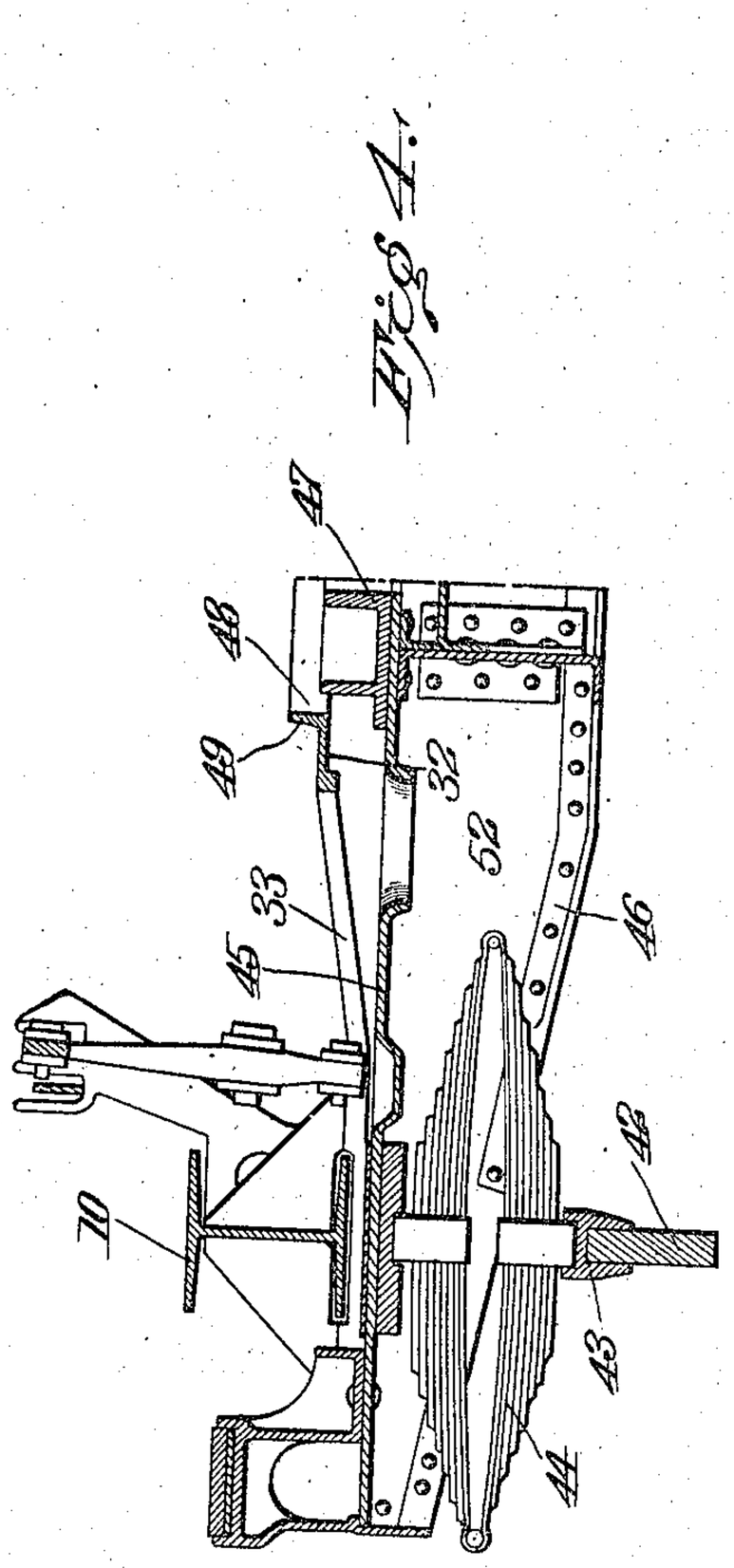


Fig. 4.



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4 SHEETS—SHEET 3.

Fig. 5.

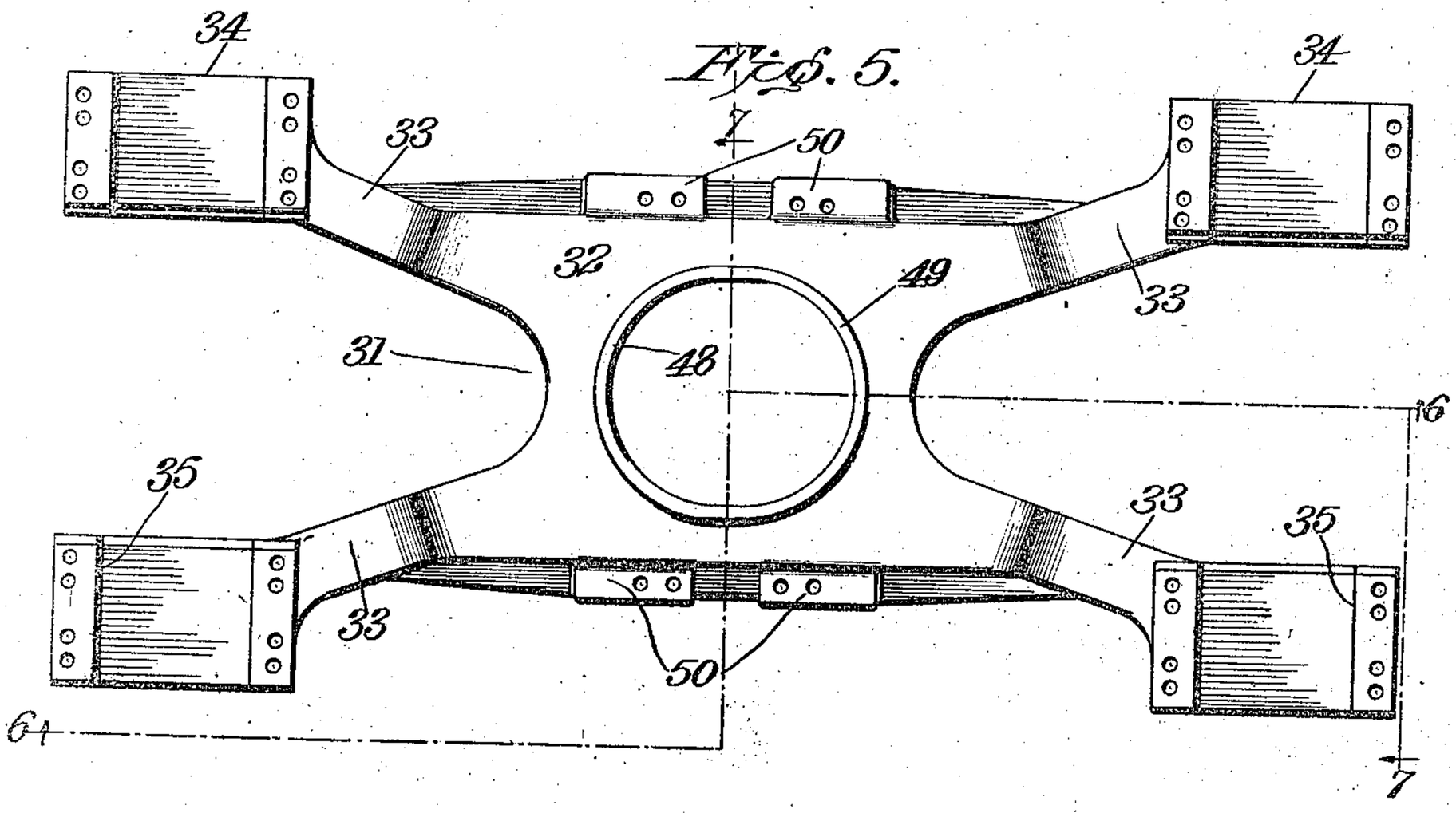


Fig. 6.

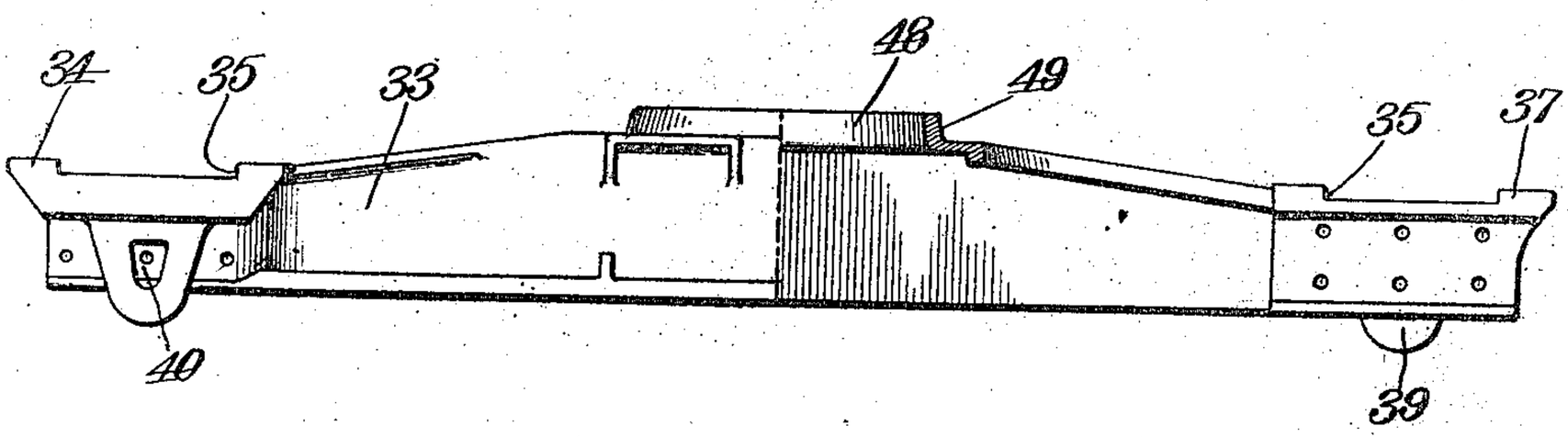
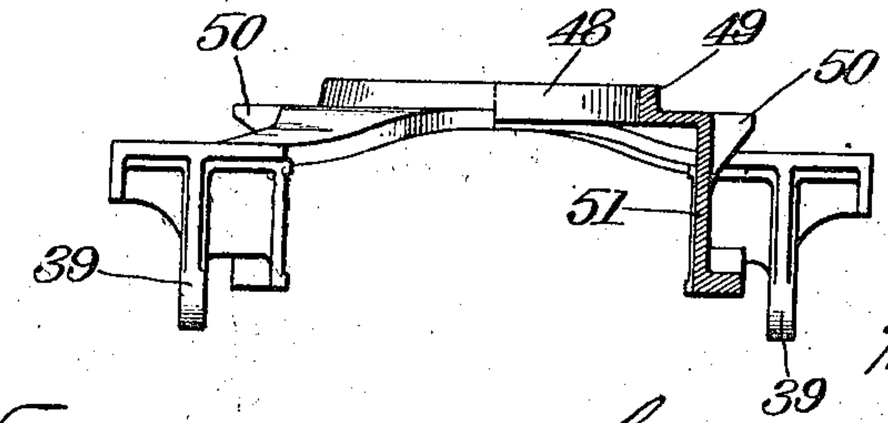


Fig. 7.



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4 SHEETS—SHEET 4.

Fig. 8.

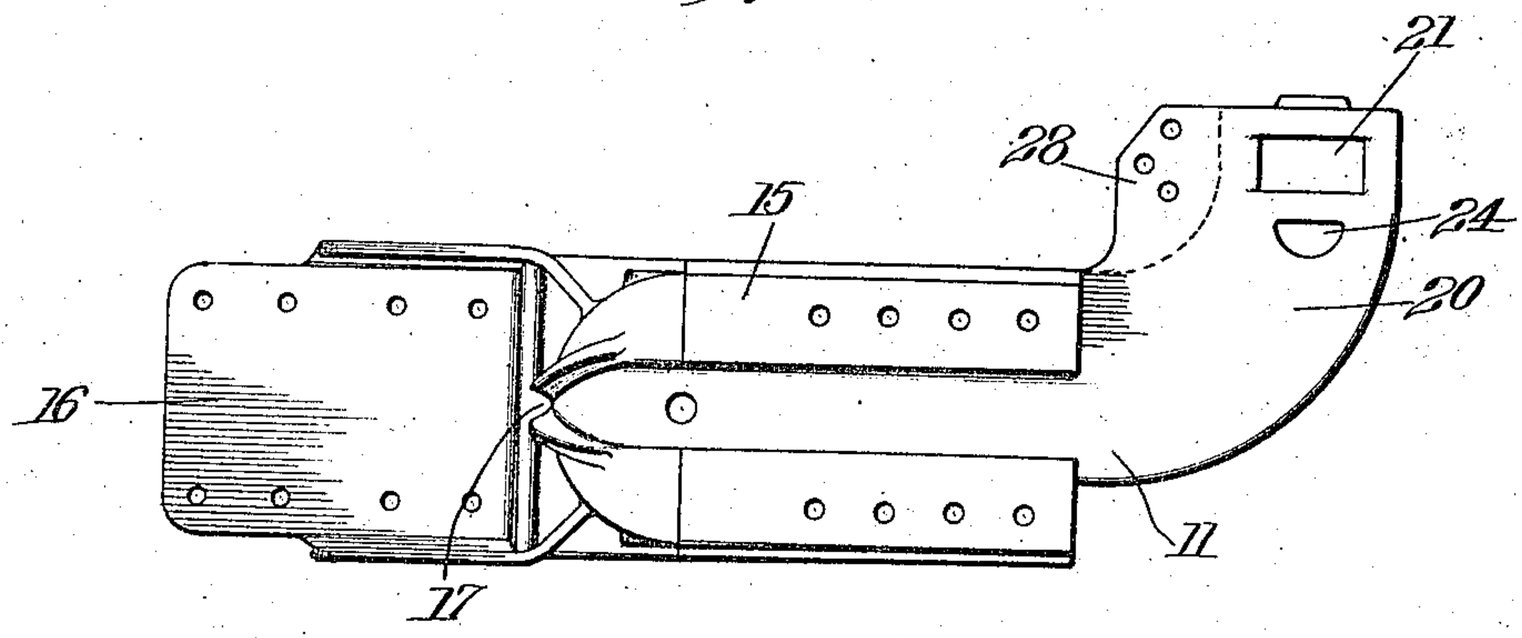


Fig. 9.

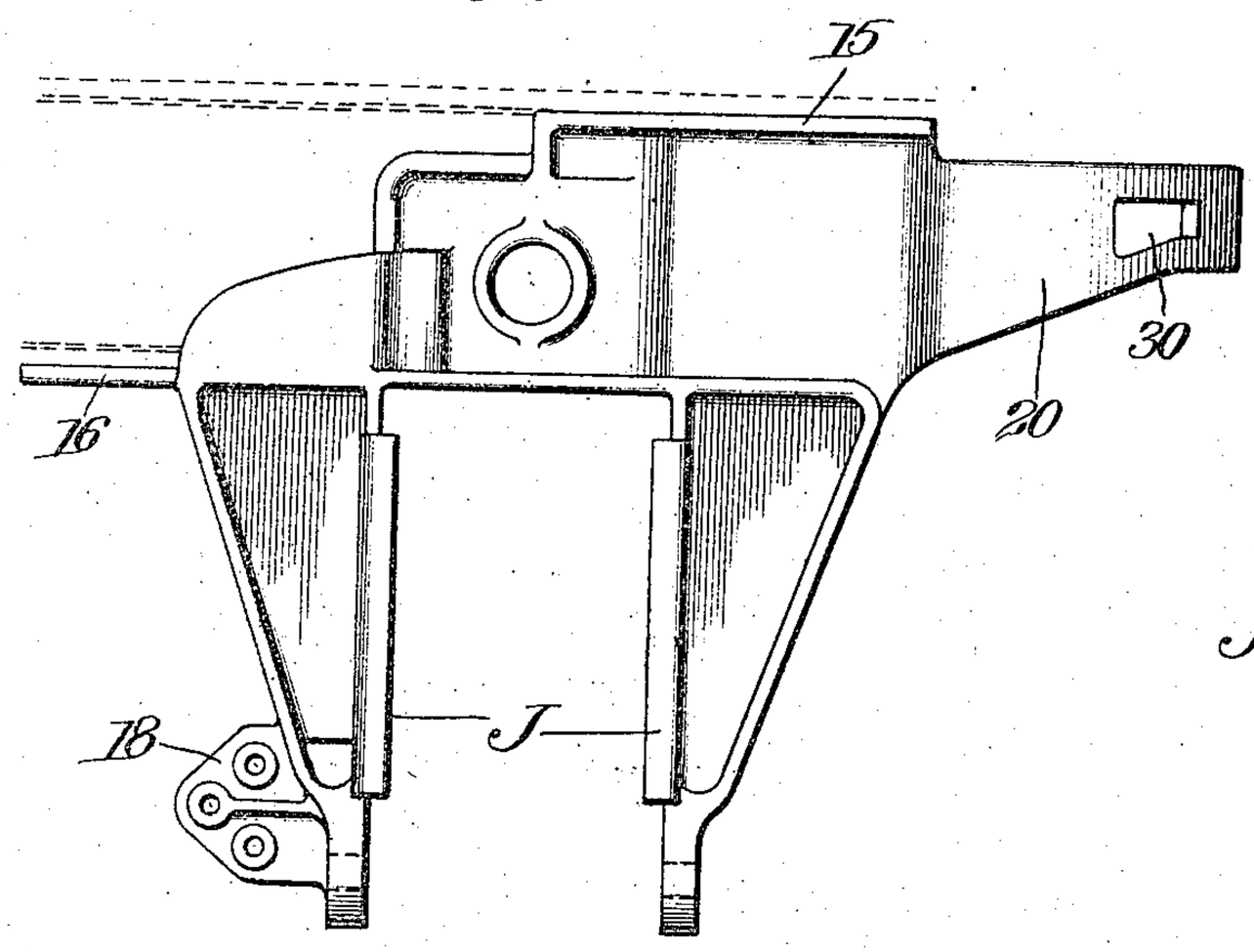
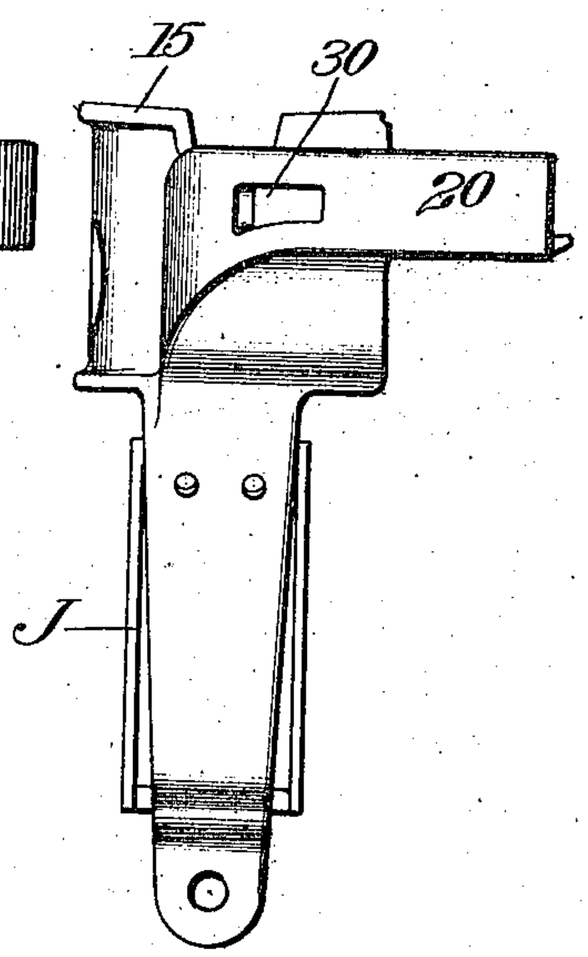


Fig. 10.



Witnesses
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E. L. Greenewalde

Inventor
William F. Kiesel Jr.
by Foster Freeman Watson & Coit
Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM F. KIESEL, JR., OF ALTOONA, PENNSYLVANIA.

CAR-TRUCK.

1,166,693. Specification of Letters Patent. Patented Jan. 4, 1916.

Application filed July 2, 1914. Serial No. 848,612.

To all whom it may concern:

Be it known that I, WILLIAM F. KIESEL, Jr., a citizen of the United States, residing at Altoona, Blair county, State of Pennsylvania, have invented certain new and useful Improvements in Car-Trucks, of which the following is a specification.

My invention relates to car trucks and more particularly to a four-wheel truck for electric railway cars.

The principal object of the invention is to improve several features of the truck shown in Patent No. 1,016,073, granted to me January. 30, 1912.

The improvements include a combined pedestal and brake hanger casting secured to the side frame, the pedestal having an integral part at one end serving as a support for a hanger of the brake rigging.

Another improvement comprises the transom construction which combines the transom, bolster guide, spring hanger support and motor nose support in one piece.

The above and other objects and the novel features of my invention will appear from the following description taken in connection with the drawings, in which,

Figure 1 is a plan view of one half of a truck embodying my invention; Fig. 2 is a side elevation partly in section, showing parts of the opposite half of the truck; Fig. 3 is an end elevation partly in section; Fig. 4 is a section along the transverse center line of the truck and taken on the line 4—4 of Fig. 1; Fig. 5 is a plan view of the transom embodying my invention; Fig. 6 is a view partly in side elevation and partly in section along the line 6—6 of Fig. 5; Fig. 7 is a view partly in end elevation and partly in section along the line 7—7 of Fig. 5 of the transom embodying my invention; Figs. 8, 9 and 10 are respectively a top plan view, a side elevation and an end elevation of the combined pedestal and brake hanger casting embodying my invention.

Referring to the drawing, each of the side frames of the truck consists of a steel H-beam 10 to each end of which a steel pedestal and brake hanger casting 11, such as is shown in Figs. 8, 9 and 10, is riveted. The lower flange 12 of the beam and the web 13 are partly cut away leaving a projecting portion of the top flange 14 at each end which fits and is secured to the top surface 15 of the pedestal. The lower flange 12 is riveted to the bracket plate 16, a notch 17 being provided on the inner wall to receive the end of the web 13.

The pedestals are each provided with the usual jaws J to fit the journal boxes and a lug 18 to which the longitudinal tie bars 19 are bolted. Beyond the supporting surface 15 the pedestal has a tapering elbow 20 which is turned inwardly toward the center line of the car and substantially at right angles to the beam 10. The elbow 20 is formed integral with the pedestal and near its end it has an aperture 21 to receive the upper end of the brake hanger 22 which is pivotally supported in the said opening by a bolt or pin 23 journaled in the end of the elbow 20 and extending transversely of the opening 21. There is an opening 24 through which a cotter pin or other suitable fastening means 25 may be inserted to engage the pin 23 and lock it in place. The outside brake hangers 22 are thus hung directly from the pedestal which is practically a part of the side frame. The ends of the pedestals are so positioned that the hangers 22 will support the brake heads 26 and brake shoes 27 thereon, directly in line with and on the outer side of the treads of the wheels of the truck. The turned end or elbow 20 also has lugs 28 whereby the opposite brake hanger castings 11 on corresponding ends of the truck may be connected together by bars 29 to form a more rigid and better braced frame structure. An opening 30 is provided at the bend in the elbow 20 so that access may be had to the inner end of the pin 23 and so that it may be driven out to take down the brake hanger 22.

The transom 31 comprises a single steel casting which has the central body part 32 and pairs of limbs 33 which connect the bearing parts 34 which receive and are secured to the side frame or H-beam 10. Each part 34 has a groove or recess 35 to receive the bottom flange of the H-beam and reinforcing angle plates 36 have parts which are riveted to the web 13 of the beam and parts which are riveted to the edges 37 of the bearing parts 34 on the transom, thus securing the beam in place.

Cast integral with and on the under side of the bearing portions 34 of the transom there are depending lugs 39 which extend

transversely of the grooves 35 on the top face of the bearing parts 34 and have openings 40 therein to receive pivot pins or bolts 41 which also pass through openings in the limbs of a U-shaped spring hanger 42. The spring hanger 42 when thus hung in place is disposed directly under the center line of the main frame members or H-beams 10. The spring hanger 42 supports a saddle 43 which is grooved to fit the upper edge of the hanger 42 and has suitable means for holding the spring 44 in place to support the bolster 45 at each end directly beneath the frame members 10. The bolster 45 is provided with usual stiffening angle irons 46 riveted to the edges thereof and the center plate 47 thereof supports the body center plate on the car body, not shown, the latter extending through the hole 48 at the center of the transom. The hole 48 is surrounded by an upwardly extending rim 49 which stiffens the body of the transom at the portion surrounding the hole.

On opposite sides of the opening 48 of the transom body 32 there are motor nose supports 50 to engage the noses on the motors carried by the two axles A, mounted on the wheels W.

As will be seen from Figs. 2 and 7, the transom is inverted U-shaped in transverse cross section having the depending sides 51 which, with the top body portion 32, inclose the bolster 45 on its top and sides. The sides 51 of the transom are close enough to the vertical sides 52 of the bolster to guide the latter as it moves up and down.

From the foregoing description, it will be seen that I have provided a pedestal which is in effect a continuation of the main frame side members. The main frame member therefore will have parts which extend laterally inwardly toward the center line of the car and into a position to afford a support for the brake head directly in line with and on the outside of the wheel W.

The transom casting constructed according to this invention serves as a transom, bolster guide, spring hanger support and motor nose support in one piece.

While I have described my invention in detail I do not wish to be limited to the exact construction as shown, as it is clear that it may be varied without departing from the spirit of the invention.

Having thus described the invention, what is claimed and desired to be secured by Letters Patent is:

1. In a car truck, the combination of side frame members, and pedestals mounted at the ends thereof, said pedestals having jaw members connected by parts integral therewith, said pedestals also having parts integral therewith and turned to provide brake hanger supporting portions.

2. In a car truck, the combination of an integral pedestal comprising jaw members capable of fitting opposite side of an axle box of the truck, a side frame member to which the pedestal is secured, said pedestal having an integral part extending laterally of the side frame member and in line with a wheel of the truck to provide a support for a brake head.

3. In a car truck, the combination of axles, wheels mounted on the axles, a pair of frame members extending along the outer sides of the truck and the wheels thereof, and pedestals at the ends of said frame members, said pedestals having parts which extend inwardly and in a position to support brake heads in line with the wheels.

4. In a car truck, a pedestal having jaw portions capable of fitting a part of the truck, portions to which a side frame member of the truck may be secured, and a portion to which a brake hanger may be secured.

5. In a car truck, a pedestal comprising a single casting having jaws capable of fitting a part of the truck, portions to which a frame member may be secured, and an elbow constituting a brake hanger support and having recesses therein to receive the brake hanger and to receive a pin for securing the brake hanger in place.

6. In a car truck, a pedestal having a part capable of fitting members mounted on the axle of the truck, parts to which a frame member of the truck may be secured, and an elbow having at its end two openings, one extending transversely of the other, said elbow constituting a support for part of the brake rigging of the truck.

7. In a car truck, the combination of side frame members having flanges, a transom having parts channeled to receive said flanges, and plates secured to said frame members and to said transom to retain the flanges in the channel.

8. In a truck, the combination of side frame members, a transom secured to said frame members and having integral lugs disposed beneath the frame members, a bolster between said frame members, and devices for supporting the bolster at its ends, said devices being carried by said lugs.

9. In a car truck, the combination of I-beams comprising side frame members, a transom having portions at its ends recessed to fit the flanges on the bottoms of the I-beams to connect said transom to said I-beams, said transom also having a central body portion provided with an opening therethrough and a bolster carrying a center plate which extends upwardly through said opening in the transom.

10. In a car truck, a transom comprising a main body part having a central opening, limbs projecting from the body part, portions at the ends of said limbs constituting

bearings for frame members of the truck, and lugs on the said bearing portions, for the purposes set forth.

11. In a car truck, the combination of side frame members comprising beams having flanges, a transom between said frame members secured to the flanges thereof, and lugs on said transom, pairs of said lugs being located longitudinally in line and hangers depending from said lugs, for the purpose set forth.

12. In a car truck, the combination of side frame members having flanges, a transom having parts constituting bearing surfaces for said flanges, means for securing the flanges in place, lugs on the underside of said bearing parts of the transom, pairs of said lugs being located in line with the longitudinal center lines of the frame members, and hangers for springs suspended from said lugs.

13. In a car truck, the combination of a transom having the body part thereof U-shaped in transverse cross section, a bolster fitting between the side walls of said transom and guided thereby, and means depending from said transom for supporting the bolster, said means comprising lugs on the underside of said transom and U-shaped spring hangers suspended from said lugs.

14. In a car truck, the combination of side frame members comprising beams having bottom flanges, a transom secured to said flanges, a bolster, means on the transom for guiding said bolster, springs on which said bolster is mounted, and means for supporting said springs comprising lugs on the transom and spring hangers suspended from said lugs in line with the longitudinal center lines of said beams.

15. In a car truck, the combination of side frame members comprising beams having bottom flanges, a transom having a central body portion provided with an opening therethrough and limbs connected with said body portion and secured to said flanges, said limbs having lugs on the under sides thereof where they are connected to said flanges, said lugs being arranged in pairs directly beneath said beams, a bolster carrying a part at its center which extends upwardly through said opening in the transom, springs supporting the ends of said bolster and hangers suspended from said pairs of lugs and supporting said bolster springs.

16. In a car truck, a transom casting constituting a transom, bolster guide, spring hanger support, and motor nose support in one piece and comprising a central body portion and limbs integral therewith, the under side of said body portion having spaced parallel flanges constituting the bolster guides, parts on opposite sides of the body portion adapted to serve as motor nose supports, and lugs at the ends of said limbs and on the under sides thereof adapted to serve as hanger supports for the bolster springs.

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

WILLIAM F. KIESEL, JR.

Witnesses:
J. C. STORM,
H. A. HOKE.