E. POSSON.

SIX-WHEEL TRUCK.

APPLICATION FILED OCT. 31, 1912.

1,095,351.

Patented May 5, '14

5 SHEETS—SHEET 1.

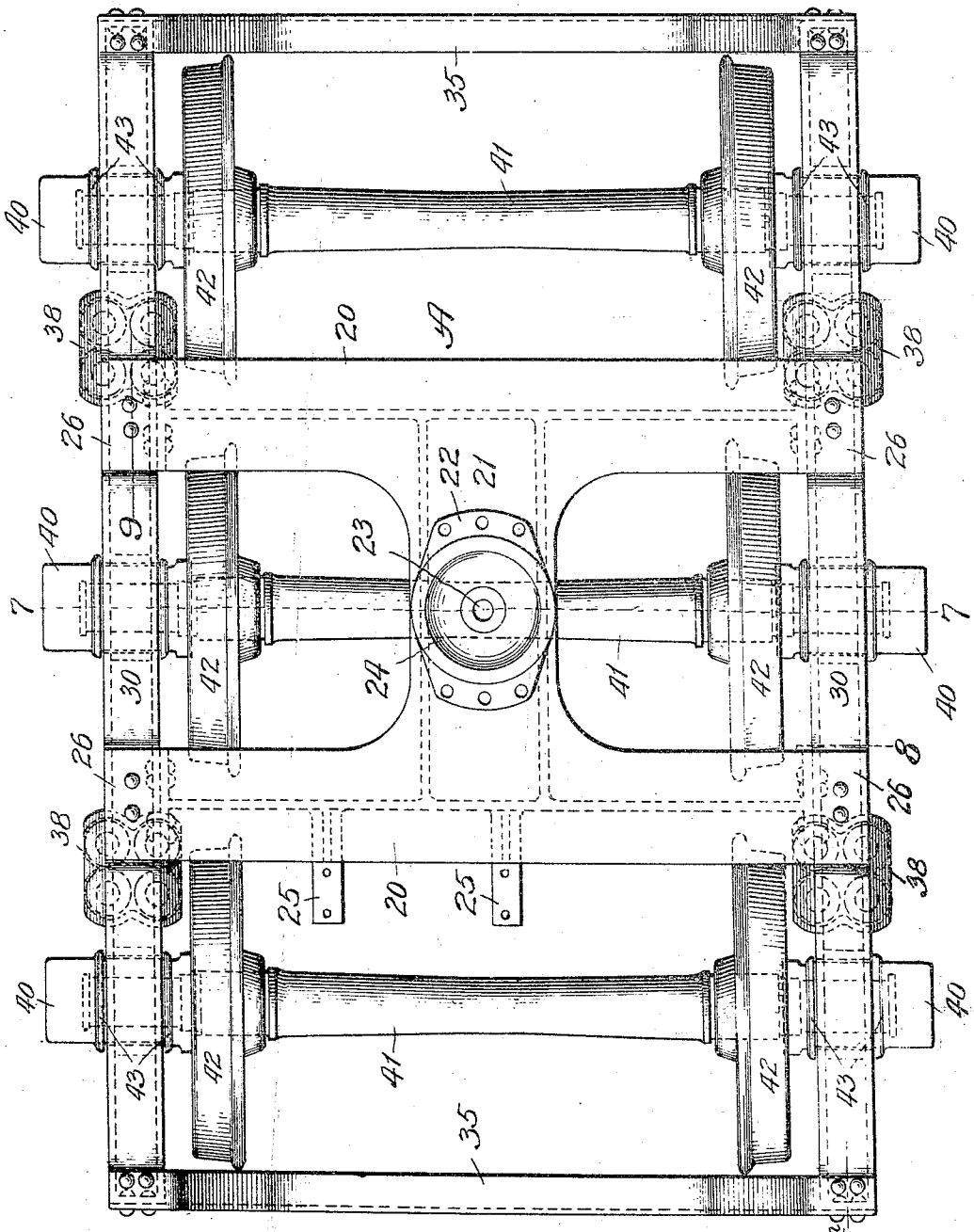


Fig. 1.

Witnesses:
John Enders
Henry A. Parks

Inventor:
Edward Posson.
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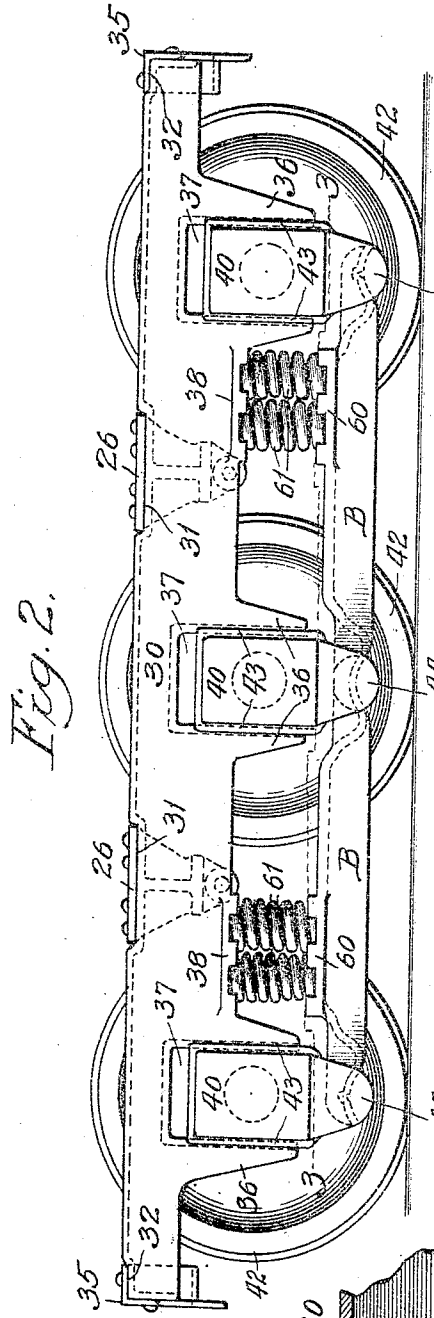


Fig. 2.

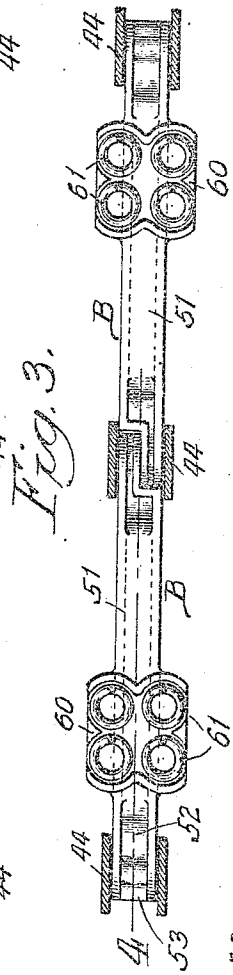


Fig. 3.

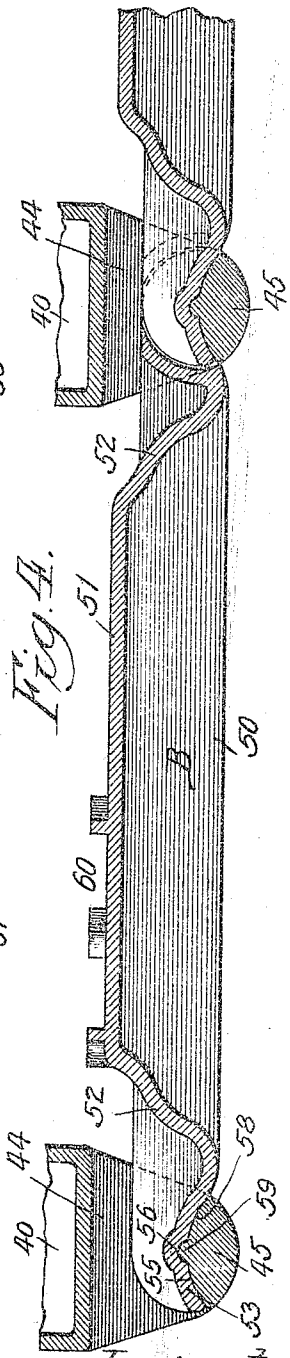


Fig. 4.

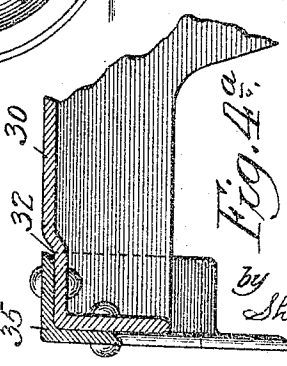


Fig. 4a.

Witnesses:

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5 SHEETS—SHEET 3.

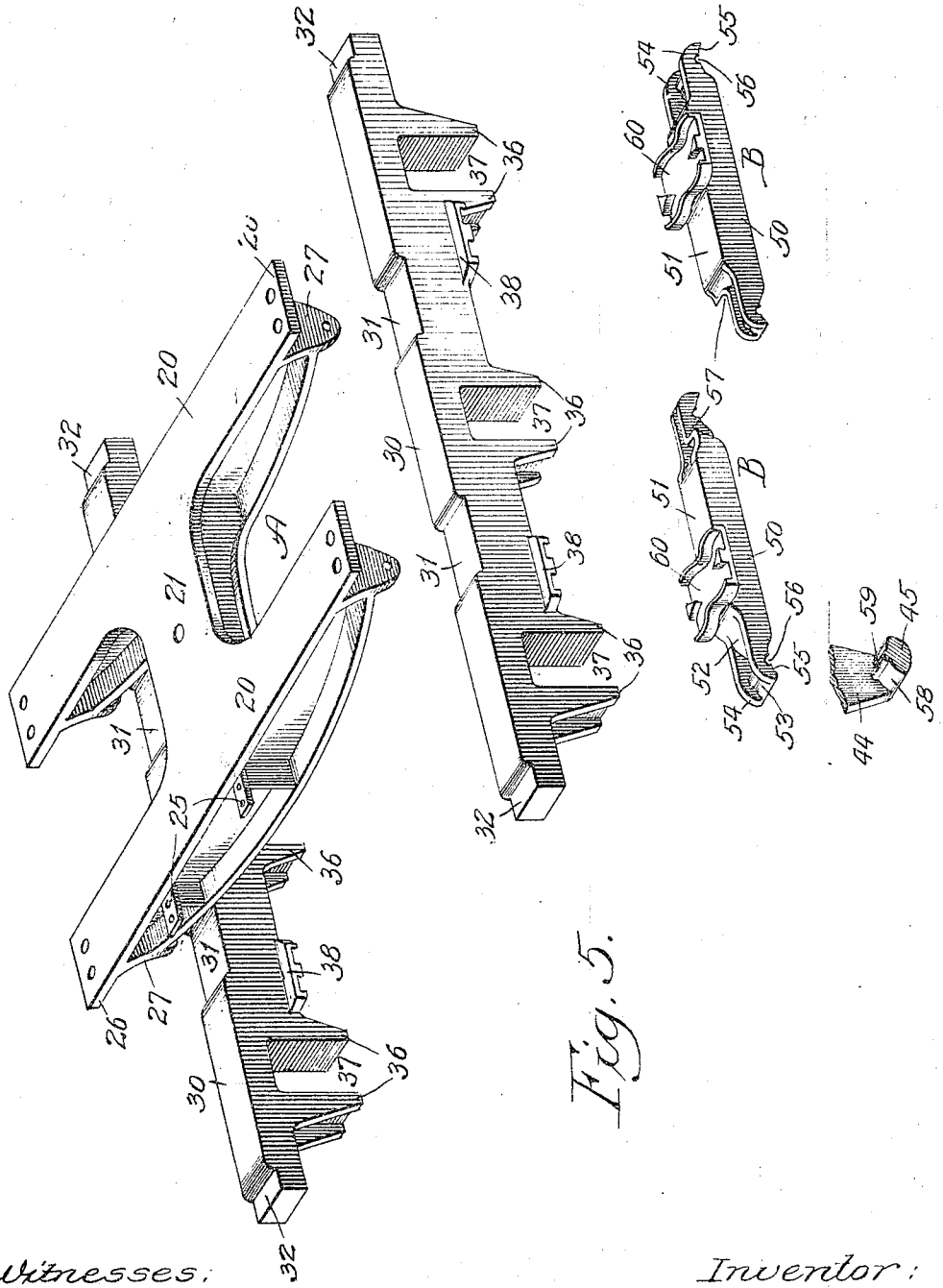


Fig. 5.

Witnesses:

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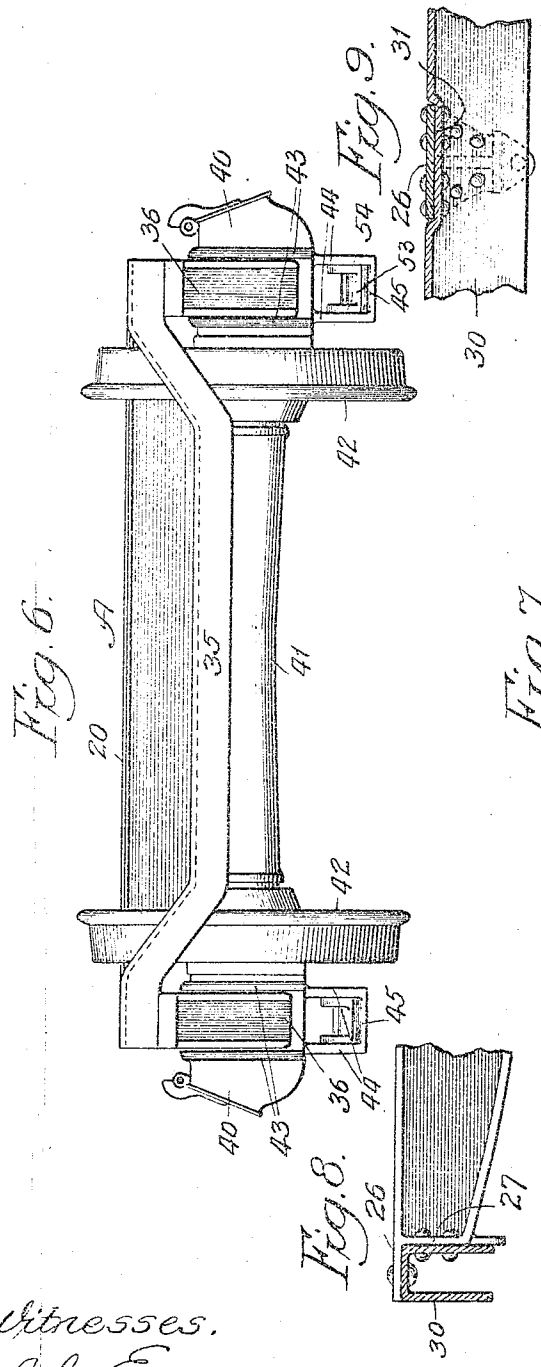
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5 SHEETS—SHEET 4.



Witnesses.

John Enders

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5 SHEETS-SHEET 5.

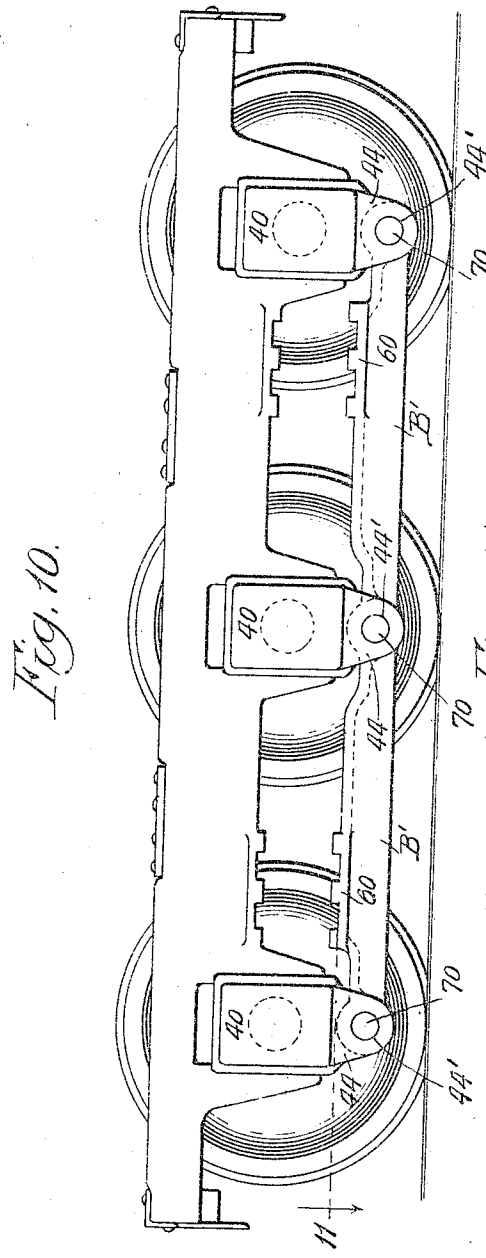


Fig. 10.

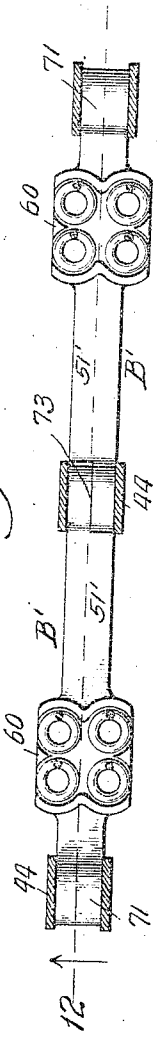


Fig. 11.

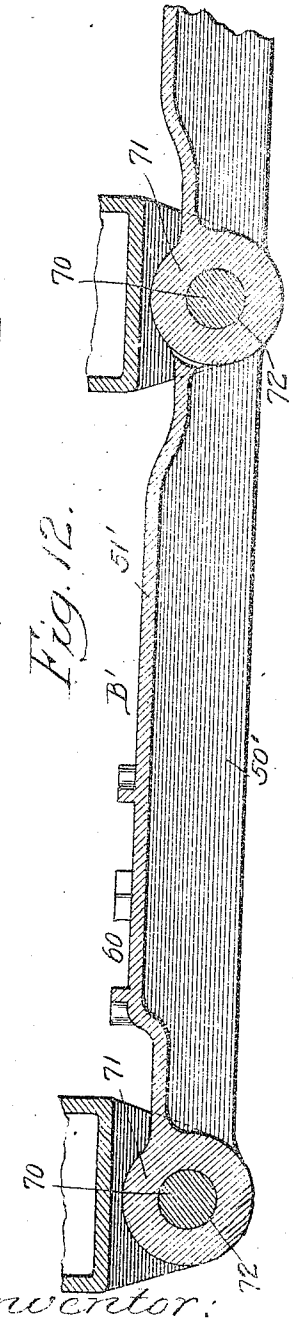


Fig. 12.

Witnesses:

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Attys.

UNITED STATES PATENT OFFICE.

EDWARD POSSON, OF CHICAGO, ILLINOIS.

SIX-WHEEL TRUCK.

1,095,351. Specification of Letters Patent. Patented May 5, 1914.

Application filed October 31, 1913. Serial No. 798,873.

To all whom it may concern:

Be it known that I, EDWARD POSSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Six-Wheel Trucks, of which the following is a specification.

This invention relates to an improvement in six-wheel trucks, and has for its object to provide an improved form of truck construction.

Hitherto in car construction, especially with reference to freight cars, the possible loading capacity has been limited to less than one hundred thousand pounds. Owing to the use principally of the four-wheel truck, the unit weight carried by each wheel and the corresponding crushing effect observed upon the wheel serve to limit the possible loading capacity of the car. By utilizing a six wheel truck construction, the total weight at each end of the car may be distributed between the six wheels, thus increasing the possible total load capacity. The use of the six-wheel truck hitherto, however, in freight car construction has been impractical, owing to the length of wheel base required and the consequent non-rigidity and greater wearing effect upon the rail in rounding curves, etc. By my improved construction I am enabled to provide a six-wheel truck and approximately only 7 foot wheel base, which is compact and comparatively rigid in construction and readily assembled or disassembled, as will be apparent. I secure this result by an improved form of equalizer bar supported below and by the journal boxes, the space between adjacent journal boxes being practically unfilled, except for the springs extending between the truck side frame and the equalizer bar.

In the ordinary form of equalizer bar it is customary to incline portions of the same adjacent each extremity upwardly, so as to permit the ends thereof to rest on top of the journal boxes. Inasmuch as it has been found highly desirable to locate the spring seats of the equalizer bar and truck side frame at a point approximately one-third of the distance between adjacent journal boxes, it will be readily apparent that the upwardly inclined portions of the conventional equalizer bar will operate to prevent seating of the springs at such a point in close proximity to one journal box—that is, the distance between adjacent journal boxes will be considerably greater than is necessary with my form of construction.

Another object of my invention is to provide an improved form of equalizer bar and journal box.

Still another object is to provide an improved form of integral truck side frame.

Other objects will be made apparent in the following specification and claims, taken in connection with the accompanying drawings, in which—

Figure 1 is a plan view of my improved truck. Fig. 2 is a side elevation of the same. Fig. 3 is a longitudinal section along the line 3 of Fig. 2. Fig. 4 is a vertical longitudinal section along the line 4 of Fig. 3. Fig. 4ª is a vertical section taken through the end of one of the side frames showing an end beam riveted thereto. Fig. 5 is a perspective, showing the elements of my invention in disassembling relation. Fig. 6 is an end elevation of my device. Fig. 7 is a transverse cross section along the line 7 of Fig. 1. Fig. 8 is a central section along the line 8 of Fig. 1. Fig. 9 is a central section along the line 9 of Fig. 1. Fig. 10 is a side elevation of a modification of my device. Fig. 11 is a section along the line 11 of Fig. 10; and Fig. 12 is a longitudinal section along the line 12 of Fig. 11.

Like numerals and letters refer to like elements through out the drawings, wherein—

A indicates what I term my top casting, comprising the transom bars 20, joined by the cross bolster 21, integrally formed therewith. The transom bars are preferably formed of I-shaped cross section, as shown clearly in Fig. 5. The cross bolster is preferably formed of channel-shaped cross section, as indicated in Figs. 1 and 5.

A central plate 22 is carried by the cross bolster 21, and is provided with the usual central socket 23 and the dished-out portion 24. Brackets 25 project outwardly from one of the transom bars 20. Each of the transom bars is provided with the outwardly extending end flanges 26 and the downwardly extending flange 27 located inwardly of the ends of the transom bars, as shown in Fig. 5.

A side frame 30 is located on each side of the truck. This side frame is preferably of integral construction and is provided with depressed portions 31 in its upper surface, in which are adapted to be seated and

secured the ends 26 of the transom bars. The downwardly extending flanges 27 abut against the inner side of the side frame, and are riveted or otherwise secured thereto. The side frames 30 are also provided with the depressed portions 32 at their extremities, in which are seated and secured the ends of the extremities of the end beams 35, formed of angle iron, as shown. These end beams have the side and top of their extremities riveted or otherwise suitably secured to the ends of the side frames. These side frames are provided with downwardly extending jaws 36, which form the apertures 37 located on each side. Formed on the under side of the side frame are the spring seats 38.

Journal boxes 40, of conventional interior construction, are carried at the extremities of the axles 41 exteriorly of the wheels 42, as shown in Fig. 7. These journal boxes are provided with continuous flanges 43, formed on their sides and top, and with downwardly depending ears 44 at their bottom portion. Extending between the ears—in the construction shown in Figs. 1 to 9 inclusive—is the integrally formed supporting member 45. The jaws 36 of the side frames 30 are adapted to fit on and closely embrace the sides of the journal boxes 40, being seated between and held against lateral movement by the flanges 43, as shown in Fig. 2 of the drawings. This construction will permit relative up and down movement of the side frame with respect to the journal boxes, but relative lateral movement will be prevented, as will be apparent.

Equalizer bars B extend between adjacent journal boxes, as shown in Fig. 2, and are constructed with side flanges 50, connected by the top flange 51, downwardly extending between said side flanges, as indicated by 52, and terminating in the approximately horizontal portion 53. The sides 50 adjacent to each extremity are curved downwardly, as indicated by numeral 52, on their upper surface and are cut out at 55 flush with the under surface of the flange portion 53. A groove or depression 56 is formed in the under surface of the sides 55 and flange portion 53. The construction at the other extremity of the equalizer B is similar, except that one of the sides 50 is instepped, as indicated by the numeral 57, and the portion 52 of the top flange 51 is curved upwardly as shown in the drawings. The supporting member 45, carried between the ears 44, is slightly rounded, as indicated by numeral 58, and is provided with the upwardly projecting rib 59 adapted to fit in the groove 56 of the equalizer bar B. A spring seat 60 is provided in the upper surface of the equalizer bar B.

When the device is assembled, the instepped extremities 57 of adjacent equalizer bars B are interfitted, as shown in Fig. 7, at the central journal box, the other extremity being formed of a width approximately equal to the distance between the depending ears of the journal box. The groove 56 in the under surface at the extremity of the equalizer bar is adapted to fit on the rib 59. Springs 61 are located between the under surface of the side frame 30 and the upper surface of the equalizer bar, the extremities of said springs being located in the seats 60 and 38. As in the construction described and claimed in my prior Patent, No. 979,033, I prefer to locate each pair of corresponding seats 38 and 60 at a point inwardly of the outer axle 41, a distance equal to one-third the distance between adjacent axles, whereby approximately two-thirds of the weight to be borne by each equalizer bar will be carried by the outer journal box, and the central journal box will support a like total weight, supporting one-third of the total amount carried by each equalizer bar.

In the modification shown in Figs. 10 to 12 inclusive, the construction is similar to that shown in the preceding figures, except as to the supporting of the equalizer bars and their construction. In the modification the journal boxes 40 are provided with the downwardly depending ears 44, apertured at 44′ to receive a removable pin 70. The equalizer bars B′ are formed with the side flanges 50′ and the top flange 51′ carrying on its upper surface the spring seat 60. The equalizer bars B′ are provided with the circular end portions 71, centrally apertured at 72. One extremity of each equalizer bar B′ is instepped or reduced, as indicated at 73, these instepped ends of adjacent parts of said equalizer bar being adapted to interfit, as shown in Fig. 11, when in assembled position. The pins 70 are inserted through the apertures 72 in the ends of the equalizer bar, and serve to support the same in detachable relation to the journal boxes. In other respects the construction is similar to that shown in the preferred form.

It will be apparent from the above description and accompanying drawings that I have provided a simple, compact, and economical six-wheel truck, easily assembled, and of strong construction.

While I have described and shown my device with more or less particularity, I do not wish to be unduly restricted to such description or showing beyond the scope of the appended claims.

What I claim is:—

1. In a device of the class described, a plurality of journal boxes, each of said journal boxes being provided with supporting means adjacent its lower portion, and

a plurality of equalizer bars, the ends of said equalizer bars being supported by said supporting means.

2. In a device of the class described, a plurality of journal boxes, each of said journal boxes being provided with supporting means adjacent its lower portion, and a plurality of equalizer bars, the ends of said equalizer bars being supported by said supporting means, each of said equalizer bars having an instepped extremity adapted to interfit with the corresponding extremity of the contiguous equalizer bar, said extremities of said equalizer bars being adapted to be carried by said supporting means.

3. In a device of the class described, an equalizer bar, said bar being formed with side flanges and a top flange, said side flanges being extended beyond said top flange adjacent the extremity of said bar.

4. In a device of the class described, an equalizer bar, said bar being formed with side flanges and a top flange, said side flanges being extended beyond said top flange adjacent the extremity of said bar, said top flange being inclined downwardly and then horizontally between said side flanges adjacent the end thereof.

5. In a device of the class described, an equalizer bar, said bar being formed with side flanges and a top flange, said side flanges being extended beyond said top flange adjacent the extremity of said bar, said top flange being inclined downwardly and then horizontally between said side flanges adjacent the end thereof, the upper surface of said side flanges and top flange being grooved adjacent the end of said equalizer bar.

In testimony whereof, I have subscribed my name.

EDWARD POSSON.

Witnesses:
HENRY A. PARKS,
E. M. ANDERSON.