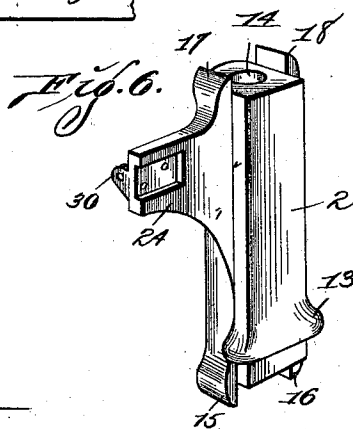
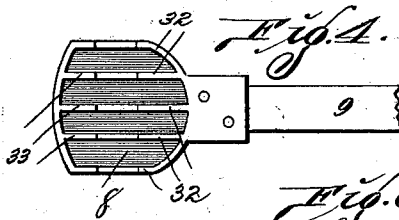
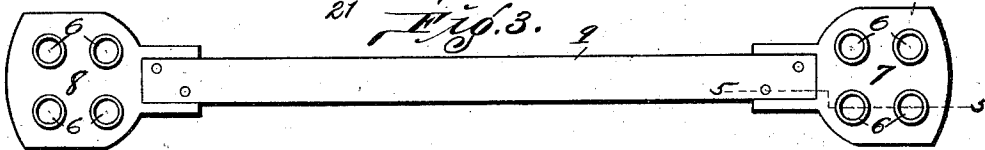
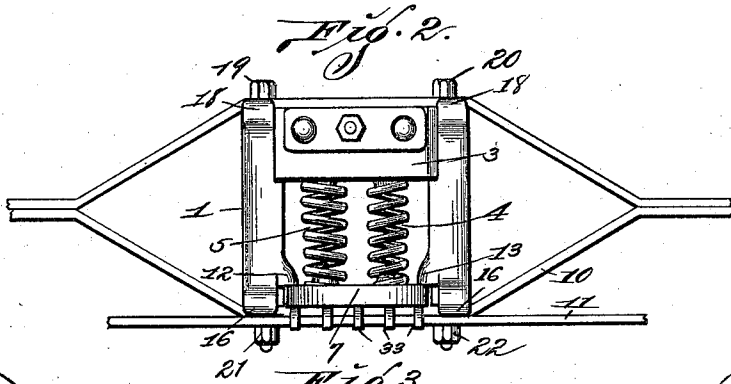
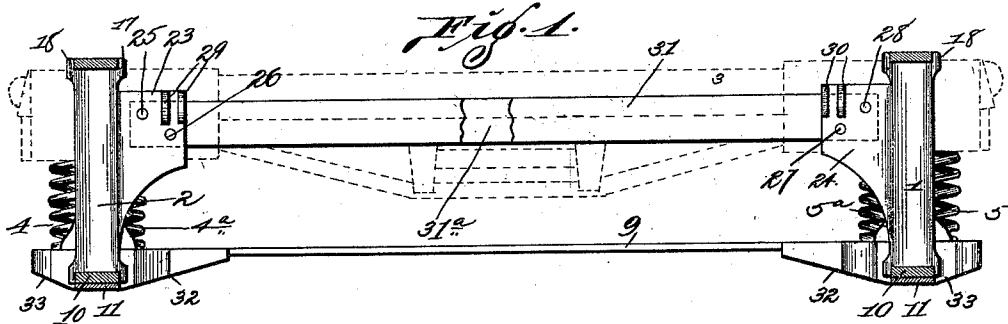


(No Model.)

J. C. WANDS.
CAR TRUCK.

No. 561,459.

Patented June 2, 1896.



Attest
W. Smith
S. G. Wells

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UNITED STATES PATENT OFFICE.

JOHN C. WANDS, OF ST. LOUIS, MISSOURI.

CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 561,459, dated June 2, 1896.

Application filed February 26, 1896. Serial No. 580,852. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. WANDS, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Car-Trucks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to an improved car-truck, and more specifically to the means of supporting the columns in an upright position and the spring-plates in horizontal position; and it consists in the novel construction, combination, and arrangement of parts hereinafter described and claimed.

In the drawings, Figure 1 is a side elevation of the part of a car-truck to which my invention relates, the relative portion of the car-bolster being shown in dotted lines and the brace-bars being shown in section. Fig. 2 is an end elevation of the parts shown in Fig. 1. Fig. 3 is a top plan view of the sand-board or spring-seat plates of my car-truck. Fig. 4 is a bottom plan view of one end of the spring-seat plate shown in Fig. 3. Fig. 5 is a sectional view taken on the line 5 5 of Fig. 3. Fig. 6 is a perspective of a column used in my improved truck.

Referring by numerals to the accompanying drawings, 1 and 2 are the body portions of the columns between which the car-bolster 3 operates. The car-bolster 3 is supported by the springs 4 4^a and 5 5^a, which rest in the spring-seats 6 of the plates 7 and 8, which are connected by the bar 9, riveted thereto. In the faces of the plates 7 and 8 are rectangular recesses in which the ends of the bar 9 are positioned, the walls around said recesses fitting closely around the ends of said bar, as shown in Fig. 3. These walls prevent a shearing motion between the face of the bar and the face of the plate, and thus protect the rivets or bolts from being cut or sheared. The plates 7 and 8 and the bar 9, as shown in Fig. 3, perform the functions of and may be conveniently designated as a "sand" or "spring" board.

In Fig. 2 the plate 7 rests upon the lower arch-bar 10, which rests upon the lower brace-bar 11. On the inside lower ends of the columns 1 and 2 are lugs 12 and 13, which rest on top of opposite sides of the plates 7. Ex-

tending through the entire length of each of said columns is a perpendicular aperture 14. On each end of said columns is a pair of lugs 15 16 and 17 18, between which the respective arch-bars are located. Screw-threaded bolts 19 and 20, having the nuts 21 and 22, pass through the arch-bars, columns, and brace-bars, as shown in Fig. 1, and firmly hold the same together. On the inner sides of the columns 1 and 2, respectively, are the arms 23 and 24, in which are apertures containing the rivets 25 26 and 27 28. On one side of each of the said arms is a pair of perforated ears 29 and 30, to which is attached the brake-beam hangers. A bar 31 connects opposite columns, as shown in Fig. 1. Rows of lugs 32 32 32 and 33 33 33 33 are formed on the bottom of the plates 7 and 8, as shown in Fig. 4, the facing ends of said lugs being in line and a sufficient distance apart to allow arch-bar 11 and the brace-bar 10 to sink in between them, as shown in section in Fig. 5.

In the operation of my invention the car is attached to the bolster in the ordinary way, and the brace-bars and arch-bars are attached to the axles of the car-wheels in the ordinary way. By my improved construction the car-truck is held in an upright position, as well as horizontally. It is light and simple and at the same time is more rigid and durable than those heretofore in use.

The particular feature of my improved car-truck to which I wish to call attention is the rigid connections between the pairs of columns between which the bolster operates. It will be observed that there is one rigid connection between the bottoms of these pairs of columns, (the sand-board,) and there are two connections between the tops of said pairs of columns, (bars 31 and 31^a,) said connections being on opposite sides of and parallel with said bolster.

I claim—

1. In a car-truck, a column comprising the body portion 2 having the aperture 14, the lug 13 formed on one side of said body and near the lower end thereof, the lugs 15 and 16 formed on and projecting from the lower end of said body, the lugs 17 and 18 formed on and projecting from the upper end of said body, the arm 24, having apertures for the rivets 27 and 28, formed on one side of said

body and the perforated ears 30 formed on one side of said arm, substantially as stated.

2. In a car-truck, the columns 1 and 2, each having the lug 13 on one side thereof, the lugs 15 and 16 projecting from the lower end thereof, the lugs 17 and 18 projecting from the upper end thereof, the arm 24, having the ears 30, projecting from one side thereof, in combination with a bolster, springs to support said bolster, a sand or spring board to support said springs, arch-bars and brace-bars attached to said columns and axles supporting said bars, substantially as stated.

3. In a car-truck, a sand or spring board comprising the plates 7 and 8, the spring-seats 6 upon the upper face of each of said plates, the lugs 32 and 33 upon the lower faces of said plates, the facing ends of said lugs being in alinement to form a seat for the arch and brace bars, and the bar 9 riveted to and rigidly connecting said plates 7 and 8, each of said plates having a rectangular recess in its face in which the end of said bar 9 is seated as required to prevent shearing of the rivets between the faces of said plates and the faces of said bar, substantially as specified.

4. In a car-truck, the pairs of columns 1 and 2, each of said columns having the lugs 13 on one side thereof, the lugs 15 and 16 projecting from the lower end thereof, the lugs 17 and 18 projecting from the upper end thereof, the arm 24, having the ear 30, projecting from one side thereof and the bar 31 rigidly connecting opposite columns of each pair and the bar 31^a rigidly connecting the other columns of each pair, and a car-bolster operating between said bars 31 and 31^a, substantially as specified.

5. In a car-truck, a pair of columns on one end rigidly connected at the top and bottom by arch-bars and brace-bars, the end of the sand or spring board between the lower ends of said columns and rigidly attached thereto, mating columns and connections at the opposite end of said truck, a rigid connection between the two ends of the sand or spring board, and rigid connections transversely of the car between the upper ends of the mating columns, substantially as stated.

6. In a car-truck, a rigid connection transversely of the car between the bottoms of oppositely-arranged pairs of columns, a car-bol-

ster operating above said connection and between the columns of each pair, two rigid connections transversely of the car one on each side of said bolster and parallel therewith, between the oppositely-arranged columns, substantially as specified.

7. In a car-truck, a pair of columns at each end of the bolster, rigid connections between the bottoms of each pair of columns and a rigid connection from the bottom of one pair of columns to the bottom of the other pair of columns, rigid connections between the top of each pair of columns and rigid connections from the tops of one pair of columns to the tops of the other pair of columns, substantially as specified.

8. In a car-truck, a pair of columns at one end of the bolster, one on each side thereof, rigid connections transversely of the bolster and both above and below said bolster, a mating pair of columns on the opposite end of said bolster, one on each side thereof, rigid connections transversely of the bolster and both above and below said bolster, a rigid connection parallel with the bolster between the bottom ends of said columns, and rigid connections between the top ends of said columns, said connections being on each side of said bolster and parallel therewith, substantially as stated.

9. In a car-truck, a pair of columns at one end of the bolster, one on each side thereof, rigid connections transversely of the bolster and both above and below said bolster, a mating pair of columns on the opposite end of said bolster one on each side thereof, springs under each end of said bolster, rigid connections transversely of the bolster and both above and below said bolster, a rigid connection parallel with the bolster between the bottom ends of said columns and rigid connections between the top ends of said columns, said connections being on each side of said bolster and parallel therewith, substantially as stated.

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

JOHN C. WANDS.

Witnesses:

E. E. LONGAN,
MAUD GRIFFIN.