(No Model.) 2 Sheets—Sheet 1.

F. H. KINDL.

CAR TRUCK.

No. 559,292. Patented Apr. 28, 1896.

Fig. 1.

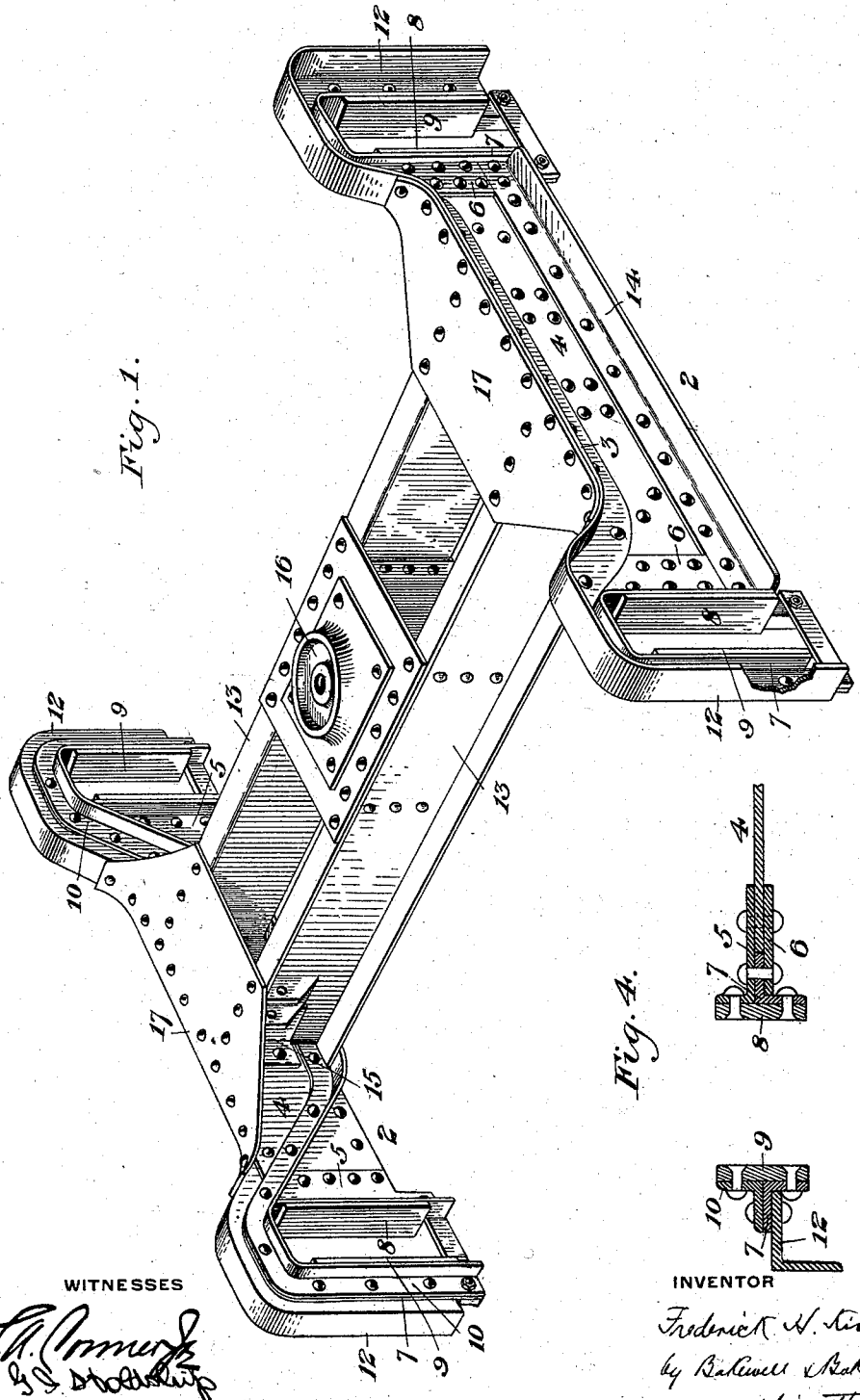

Fig. 4.

WITNESSES

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(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

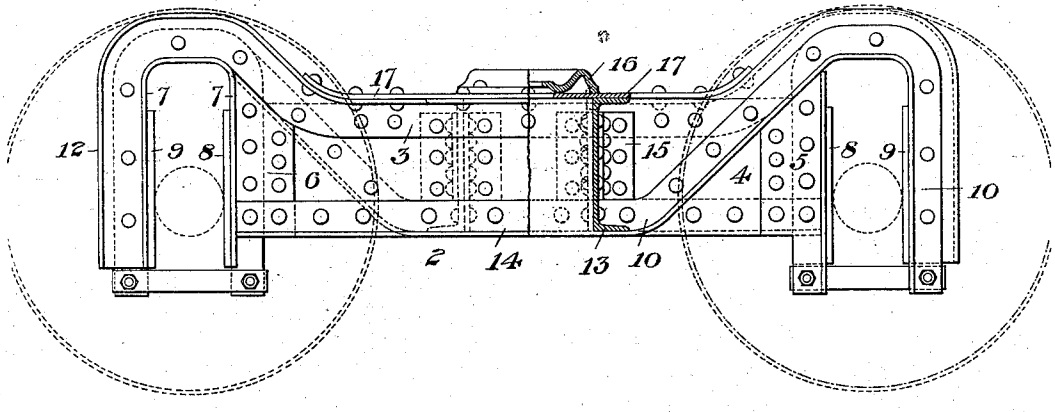
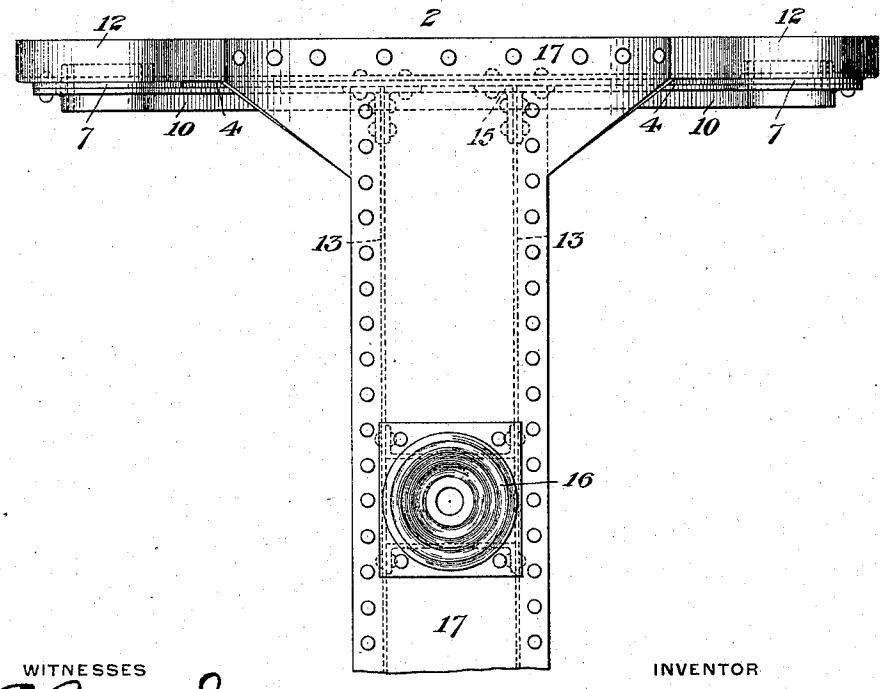


Fig. 3.



WITNESSES

INVENTOR

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UNITED STATES PATENT OFFICE.

FREDERICK H. KINDL, OF PITTSBURG, PENNSYLVANIA.

CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 559,292, dated April 28, 1896.

Application filed January 13, 1896. Serial No. 575,200. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK H. KINDL, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Car-Trucks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a general perspective view of my improved car-truck. Fig. 2 is an end view of the same, partly broken away to show one-half of the opposite side frame. Fig. 3 is a partial top plan view showing another form of transom, and Fig. 4 is a detail cross-section of the pedestal portion.

My invention relates to the construction of car-trucks, and is designed to afford a truck which is built up out of commercial shapes and plates of metal, thus avoiding the shaping or forming of special metal parts and giving an extremely cheap and simple construction.

In the drawings, 2 represents the side frame, which is composed of an upper horizontally-extending angle-iron 3, the end portions of which are bent upwardly and thence downwardly at substantially right angles to its central portion, so as to form a part of the pedestals. To the central vertical flange of this angle-iron is riveted the central plate 4, the end portions of which extend between and are riveted to an inner flange-plate 5 and an outer plate 6, as shown in Fig. 4, thus bringing the rivets used in this connection into double shear. Between the plates 5 and 6 is riveted one leg of the inverted-U-shaped angle-iron 7, one flange of which is in line with the central plate, while the face of the other flange is parallel with the face of the flange of plate 5, and to these two parallel flanges is secured, by countersunk rivets, the cheek-piece 8 of the pedestal. The opposite plate or cheek-piece 9 of the journal-box is secured to the parallel flanges of the vertical portion of an angle-iron 10 and the other leg of the angle-iron 7, these portions being riveted to the vertical flange 12 of the angle-iron 3, thus giving a very strong and simple construction. The inverted-U-shaped angle-iron 7 incloses the top and sides of the opening in the pedestal, as shown in Fig. 1, and the angle-iron 10 extends the entire length of the side frame, its outer portions extending over the top and outer side of the journal-box opening in the pedestal, while its central portion is bent downwardly to a lower horizontal plane, so as to form a support for the ends of the transom 13, this intermediate portion of the angle-iron 10 being riveted directly to the central plate 4. Along the lower portion of the outer face of the central plate 4 is riveted a horizontal angle-iron 14, the ends of which fit snugly beneath the lower ends of the plates 6. The transom consists of two parallel channeled beams, which may be either in the form of channels, I-beams, or other suitable shapes, the webs of which are secured to the side frames by short vertical angle-irons 15, which are riveted to the transom-beams and to the central plates of the side frames.

The center plate 16 of the truck is riveted or otherwise secured to the upper horizontal flanges of the transom, this center plate being supported by two short sections of channels, the end flanges of which are riveted to the webs of the beams forming the transom. Suitable connecting-plates 17 are riveted to the end portions of the transom-flanges and to the angle-irons 3 of the side frames, the ends of these plates being bent upwardly slightly, so as to fit snugly upon the curved portions of these angle-irons.

As shown in Fig. 3, these connecting-plates may be formed integral with the plate which supports the center plate, thus covering in the entire top of the transom.

The advantages of my invention will be apparent to those skilled in the art, since a truck is afforded which may be built up entirely of commercial shapes which may be bought in open markets, while a double shear is given to rivets at points in the structure where the greatest strain is sustained. A simple and cheap construction is also afforded without complicated parts which are liable to get out of order.

It is evident that the angle-iron 3 may be bent upwardly into arch-bar form and the central plate omitted, leaving a space for springs where a swinging bolster is used, as in passenger-trucks.

Many other variations may be made in the

form and arrangement of the parts without departing from my invention, since

What I claim is—

1. A car-truck having a metal side frame, said frame having secured to its inner face an angle-iron upon which the transom rests, and having a horizontally-extending strengthening angle-iron secured to its outer face; substantially as described.

2. In a car-truck, a side frame having a horizontally-extending angle-iron, the ends of which are bent downwardly and form portions of the pedestal, substantially as described.

3. In a car-truck, a side frame having an upper angle-iron, the ends of which are bent downwardly to form portions of the pedestal, a body-plate secured to the intermediate portion of the angle-iron, and angle-irons of inverted-U shape inclosing the journal-box openings of the pedestals, substantially as described.

4. In a car-truck, a side frame comprising an upper angle-iron having ends bent downwardly to form portions of the pedestals, a central plate secured to the intermediate portions of said angle-iron, angle-irons of inverted-U shape inclosing the journal-box openings of the pedestals and secured to the end portions of the upper angle-iron, and plates secured to said inverted-U-shaped angles and to the central plate, substantially as described.

5. In a car-truck, a side frame having secured to its inner face an angle-iron, the end portions of which inclose the top and sides of the journal-box opening in the pedestals, while its intermediate portion is bent downwardly to form a rest for the transom, substantially as described.

6. In a car-truck, a side frame having secured to its inner face an angle-iron, the end portions of which inclose the top and sides of the journal-box opening in the pedestals, while its intermediate portion is secured to the central plate of the frame; substantially as described.

7. In a car-truck, a side frame having an upper angle-iron with its end portions bent down to form portions of the pedestal, two angle-irons riveted directly to the downwardly-bent portions, one of said angle-irons being of inverted-U shape, and a flanged plate secured to the inner portion of the pedestal and secured to the inner leg of the inverted-U-shape angle, substantially as described.

8. In a car-truck, a side frame having an upper angle-iron with its end portions bent down to form parts of the pedestal, two angle-irons riveted directly to the downwardly-bent portions, one of said angle-irons being of inverted-U shape, the other being a bottom angle-iron, and a flanged plate secured to the inner portion of the pedestal; substantially as described.

9. In a car-truck, a metal side frame having an upper angle-iron, the ends of which are bent to form parts of the pedestals, and a flat plate having its end portions bent to fit the angle-iron and secured to the angle-iron and to the transom; substantially as described.

In testimony whereof I have hereunto set my hand.

FREDERICK H. KINDL.

Witnesses:
H. M. CORWIN,
G. I. HOLDSHIP.