

T. W. REMMERS.
CAR TRUCK.
APPLICATION FILED AUG. 26, 1909.

944,820.

Patented Dec. 28, 1909.

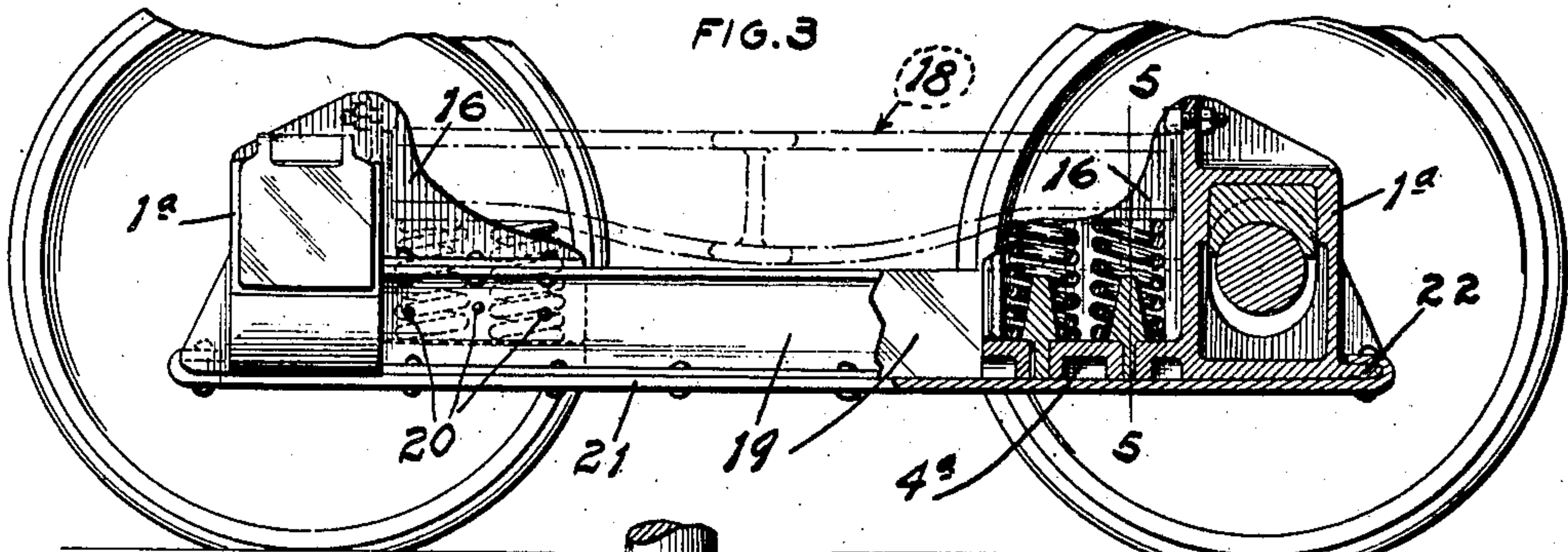
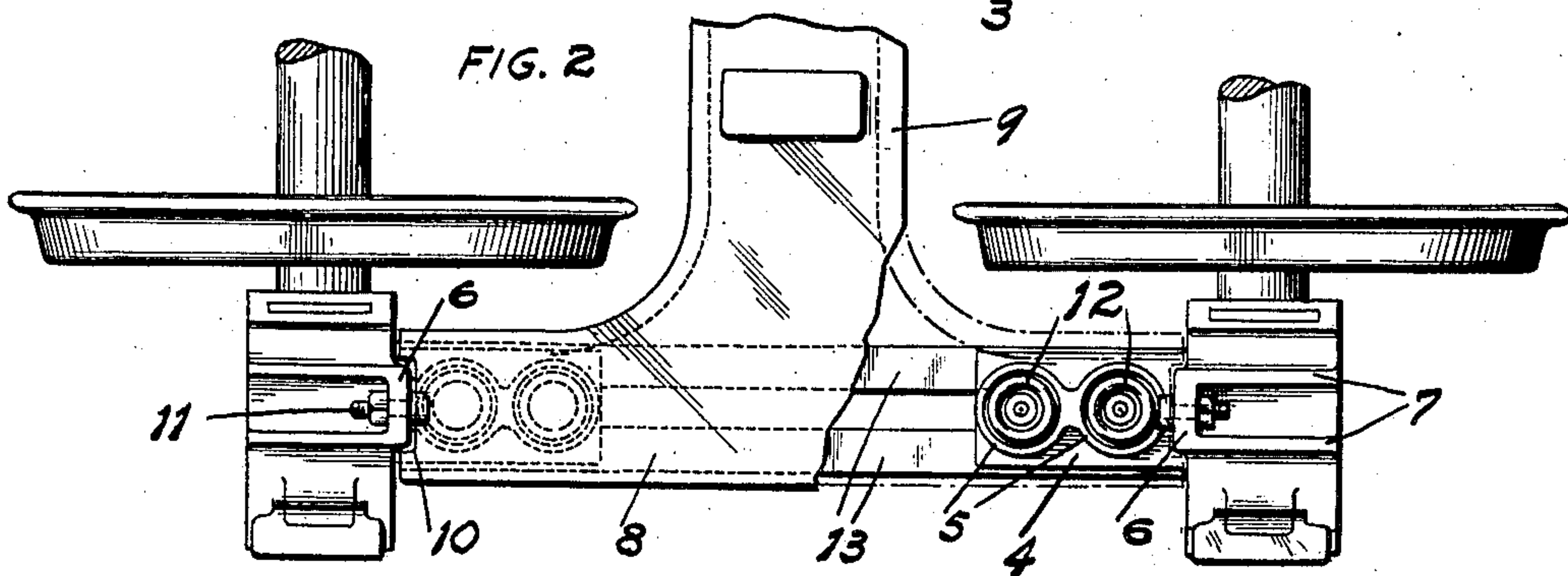
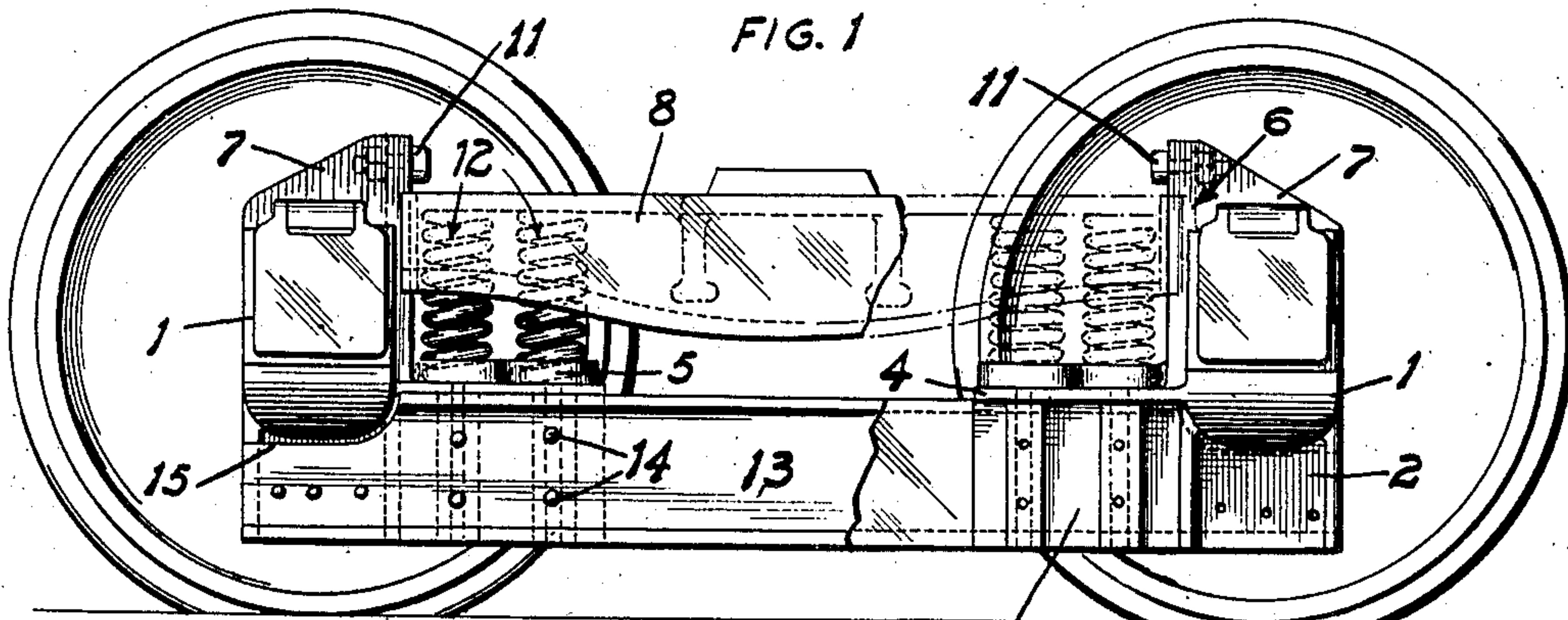


FIG. 4

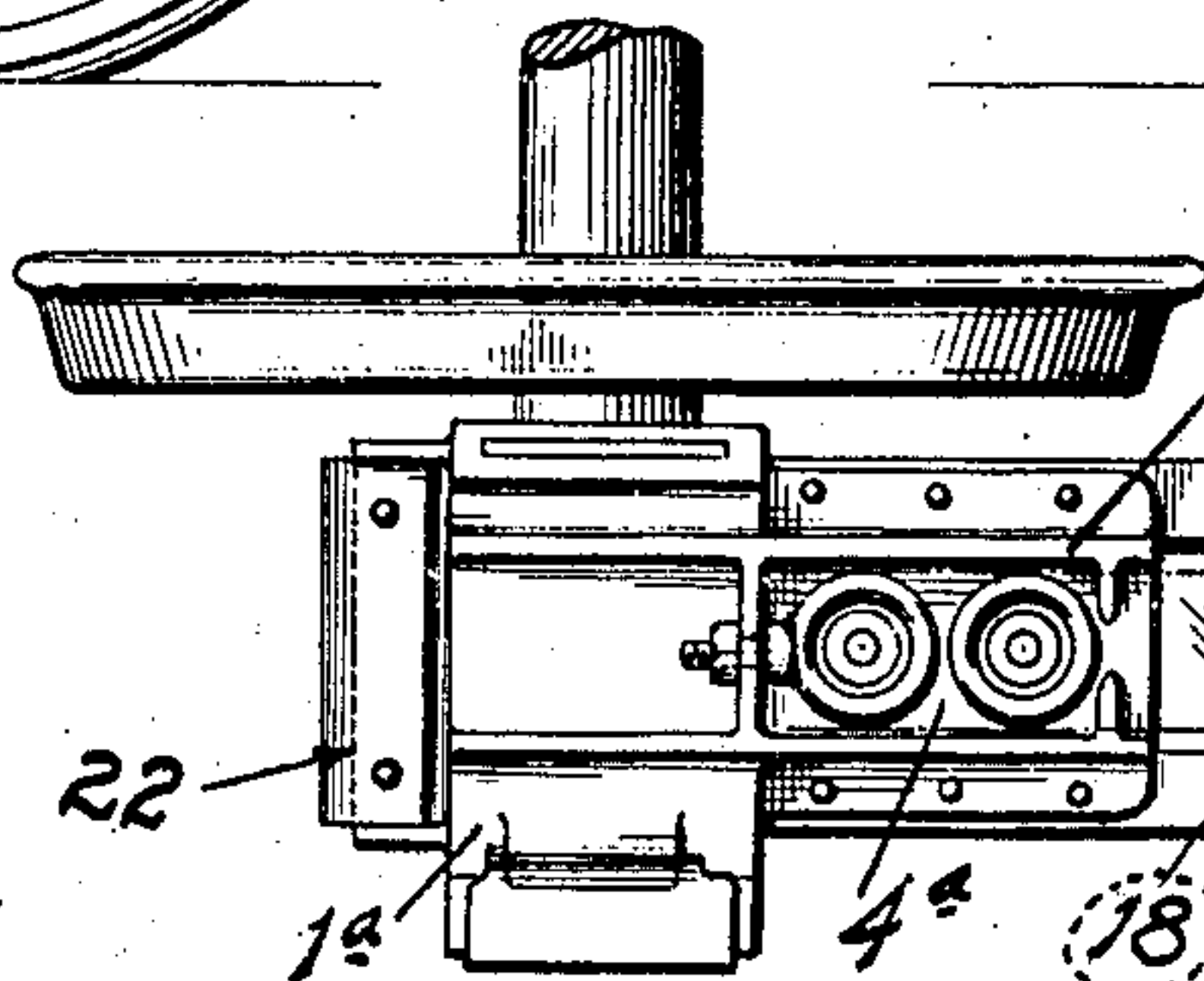
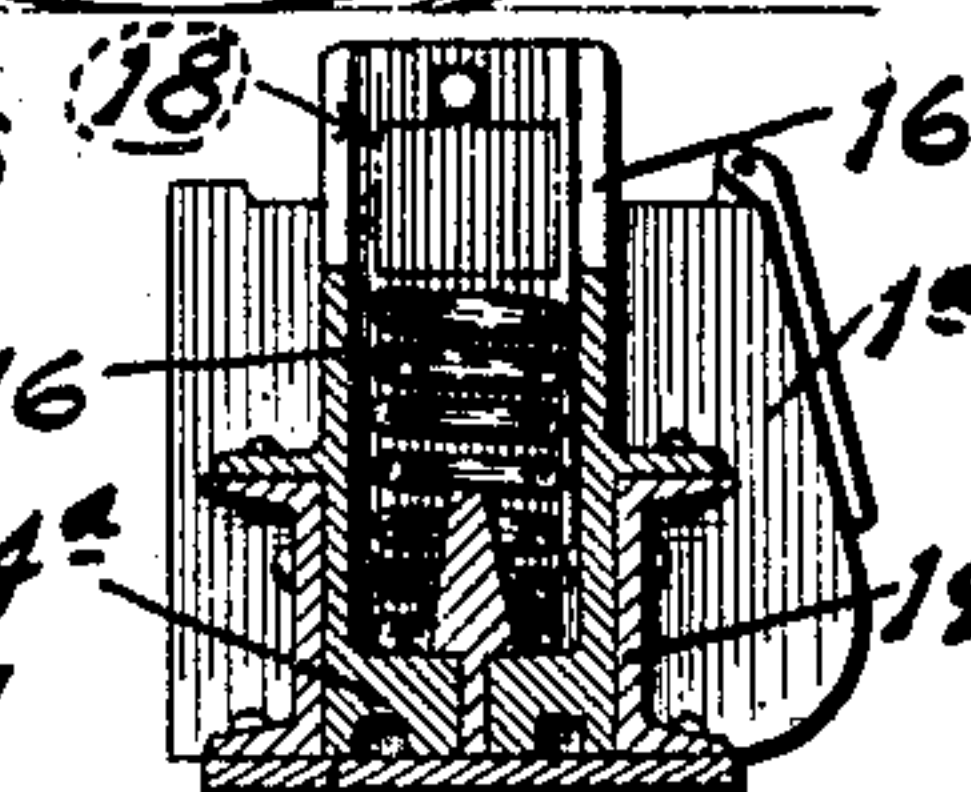


FIG. 5



WITNESSES

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UNITED STATES PATENT OFFICE.

THEODORE W. REMMERS, OF ST. LOUIS, MISSOURI.

CAR-TRUCK.

944,820

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To all whom it may concern:

Be it known that I, THEODORE W. REMMERS, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Car-Trucks, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation partly in section of the side frame of a car truck of my improved construction. Fig. 2 is a plan view of the side frame seen in Fig. 1 and with parts broken away in order to more clearly illustrate the same. Fig. 3 is an elevation partly in section of a modified form of the side frame of a car truck of my improved construction. Fig. 4 is a plan view of one end of the type of side frame seen in Fig. 3. Fig. 5 is a cross section taken on the line 5—5 of Fig. 3.

My invention relates generally to car trucks, and more particularly to the side frames thereof, my object being to provide a side frame wherein the journal boxes form a part, the same being connected by rails or beams, and being provided with suitable guides for the ends of an H shaped truck bolster.

The principal objects of my invention are; first, to produce a light strong and durable side frame composed of a minimum number of parts which can be cheaply produced and readily assembled and which side frames are characterized by the absence of bolts and nuts, which as is well known, easily work loose in service; second, to produce a side frame, the various parts of which are interchangeable, thereby materially reducing the cost of manufacture of said frames; third, to produce a side frame, on which a desirable form of body bolster can readily be used and to do away with the usual stationary arch bar over the bolster, and fourth, to form a truck with an exceptionally short wheel base.

To the above purposes, my invention consists in certain novel features of construction and arrangement of parts hereinafter more fully described and claimed.

Referring by numerals to the accompanying drawings, and particularly to the form

of side frame illustrated in Figs. 1 and 2, 1 designates the journal boxes with the under sides of which are formed integral, depending webs 2 which extend laterally as designated by 3 and formed integral with the tops of these lateral extensions 3 are horizontally disposed plates 4 on the upper surface of which are formed suitable spring seats 5. The outer ends of the plates 4, are formed integral with the lower portions of the journal boxes 1, and formed integral with the inner faces of said journal boxes and extending upward from the plates 4 are vertically disposed ribs 6 which extend above the tops of the journal boxes and unite with webs 7 formed on said journal boxes. These ribs 6 form guides for the ends 8 of the H shaped truck bolster 9, said ends being cut away as designated by 10 in order to receive the ribs, and when the parts are assembled the ends 8 of the truck bolster are held for vertical movement between the journal boxes 1. Bolts or cotter pins 11, are seated in the upper ends of the ribs 6 and form stops to limit the upward movement of the ends 8 of the truck bolster. Interposed between the plates 4 and the ends of the truck bolster, are springs 12, the lower ends of which rest in the spring seats 5. Uniting the journal boxes 1, is a pair of beams 13 preferably in the form of commercially rolled channels arranged parallel, with their ends fitted against the depending webs 2 and extensions 3, and said channels are rigidly fixed to said webs and lateral extensions by means of rivets 14 or like fastening devices. The tops of the channels 13 are cut away at the outer ends as designated by 15 in order to accommodate the lower portions of the journal boxes 1. Thus it will be seen that this form of side frame is made up of but four main parts, namely, the pair of journal boxes and the pair of channels, said parts being rigidly united by means of rivets or the like.

In the form of side frame shown in Figs. 3, 4 and 5, the journal boxes 1^a are provided on their inner faces with the integral plates 4^a, and formed integral with the side edges of said plates 4^a and with the inner faces of the boxes 1^a are vertically disposed webs 16 which are spaced apart such a distance as to permit the location of spring 17 between them. The ends of an H shaped truck bolster 18 rest on the springs 17, said ends be-

ing guided vertically by the webs 16. A pair of beams 19 preferably in the form of commercially rolled channels are arranged between the lower portions of the journal boxes 1^a and the ends of said channels are rigidly fixed to the lower portions of the webs 16 preferably by means of rivets 20. Thus each pair of journal boxes 1^a is connected, and to further strengthen the structure, a flat plate 21 is positioned against the under side of the lower flanges of the channels 19 and against the inner sides of the journal boxes 1^a, the edges of which flat plate are connected to the lowermost flanges of the channels 19 by means of rivets or like fastening devices. The ends of this flat plate 20 are bent around flanges 22 formed on the lower outer corners of the journal boxes 1^a, and are fixed thereto by means of rivets or the like. In this form of side frame, five main pieces are utilized, viz, a pair of journal boxes, pair of channels, and the flat plate.

In ordinary construction it will not be necessary to tie the two side frames of each truck together, but if such construction is desired, said side frames can be united by means of a transversely disposed flat plate, a channel, or a pair of angle bars, as shown by dotted lines in Fig. 1.

Side frames of my improved construction can be very easily and cheaply produced as they are composed of but a small number of parts which are easily assembled, combines great strength with rigidity and provides a construction wherein all small parts, such as bolts and nuts are dispensed with, which small parts as is well known, tend to work loose in service.

I claim:

1. In a car truck side frame, a journal box having a bolster guide formed on its side face.

2. In a car truck side frame, a pair of journal boxes, a beam connecting the same and bolster guides formed on the inner side faces of said journal boxes.

3. In a car truck side frame, a journal box provided with a plate for supporting the springs interposed between the side frame and the truck bolster and a bolster guide formed on the journal box above said plate.

4. In a car truck side frame, a journal box, a spring receiving plate integral therewith, a bolster guide formed on the side face of the journal box above said plate and removable means on said guide for limiting the upward movement of the bolster operating on said guide.

5. In a car truck side frame, a journal box having a bolster guide extending above the top of the journal box.

6. In a car truck side frame, a journal box having a bolster guide extending above the

top of the journal box and a bolster stop removably positioned on the upper portion of the bolster guide.

7. In a car truck side frame, a journal box, a web thereon for the attachment of the journal box uniting beam, and a bolster guide formed on the end of said journal box.

8. In a car truck side frame, a journal box having a web for the attachment of a journal box uniting beam and a spring supporting plate integral with said box.

9. In a car truck side frame, a journal box having a web for the attachment of a journal box uniting beam, a plate integral with the journal box and spring seats on said plate.

10. In a car truck side frame, a journal box having a web for the attachment of the journal box uniting beam a spring receiving plate integral with said web and box and a bolster guide on the journal box.

11. In a car truck side frame, a journal box having a web for the attachment of the journal box uniting beam, a plate integral with the web and box spring seats formed on said plate and a bolster guide on the said journal box.

12. In a car truck side frame, a pair of journal boxes, webs integral therewith, a beam fixed to and connecting said webs, spring receiving plates integral with each box and the web thereof, and bolster guides formed on said boxes.

13. In a car truck side frame, a pair of journal boxes, webs integral therewith, a pair of beams rigidly fixed to and connecting said webs, plates integral with said webs and boxes, spring seats formed on said plates and bolster guides formed on the boxes.

14. In a car truck side frame, a pair of journal boxes, depending lateral projecting webs integral with said boxes, a pair of beams rigidly fixed to and connecting said webs and journal boxes, guides integral with the inner faces of said journal boxes.

15. In a car truck side frame, a pair of journal boxes, depending lateral projecting webs integral with said boxes, a pair of beams rigidly fixed to and uniting said webs, bolster guides integral with the inner faces of said journal boxes and means on said bolster guides for limiting the upward movement of the ends of the bolster.

16. In a car truck side frame, a journal box, an extension integral therewith for the attachment of a journal box uniting beam and which extension forms a rest for the springs between the side frame and bolster.

17. In a car truck side frame, a journal box, an extension integral therewith for the attachment of a journal box uniting beam and which extension forms a rest for the springs between the side frame and bolster, and a bolster guide formed on said box.

18. In a car truck side frame, a pair of journal boxes, webs integral therewith, a pair of beams rigidly fixed to and uniting said webs and a plate rigidly fixed to and uniting said beams, the ends of which plate extend beneath and are fixed to the journal boxes.

19. The combination with a side frame, comprising a pair of journal boxes, a beam connecting said journal boxes, spring seats integral with said journal boxes and bolster guides formed on said boxes of a bolster, the ends of which are engaged by the guides, and springs interposed between the spring seats and the ends of the bolster.

20. In a car truck side frame, a journal box having a vertically disposed bolster guide formed on one face and means removably arranged on said guide for limiting the upward movement of the bolster, operating on said guide.

21. In a car truck, a pair of journal boxes, beams connecting the lower portions of said journal boxes, a bolster having a side member which is positioned above the beam between the journal boxes and there being connections between the journal boxes and the ends of said side member whereby the same is guided during its vertical movement.

22. In a car truck, a pair of journal

boxes, beam connecting the lower portions of said journal boxes, a bolster having a side member which is positioned above the beam between the journal boxes, there being connections between the journal boxes and the ends of said side member whereby the same is guided during its vertical movement and springs interposed between the side member of the bolster and the beam.

23. In a car truck, a pair of journal boxes, a beam connecting the lower portions thereof, a bolster having a side member arranged between the boxes above the beam and guides formed on the boxes, which guides engage the ends of the side member.

24. In a car truck, a pair of journal boxes a beam connecting the lower portions thereof, a bolster having a side member arranged between the boxes above the beam, guides formed on the boxes, which guides engage the ends of the side member and springs interposed between the side member and the beam.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this 24th day of August, 1909.

THEODORE W. REMMERS.

Witnesses:

ALMA GEBHART,
LENORE CLARK.