

No. 737,810.

PATENTED SEPT. 1, 1903.

R. C. WRIGHT & F. E. STEBBINS.
CONSTRUCTING OR FORMING CAR TRUCKS.

APPLICATION FILED JULY 20, 1896.

NO MODEL.

2 SHEETS—SHEET 1.

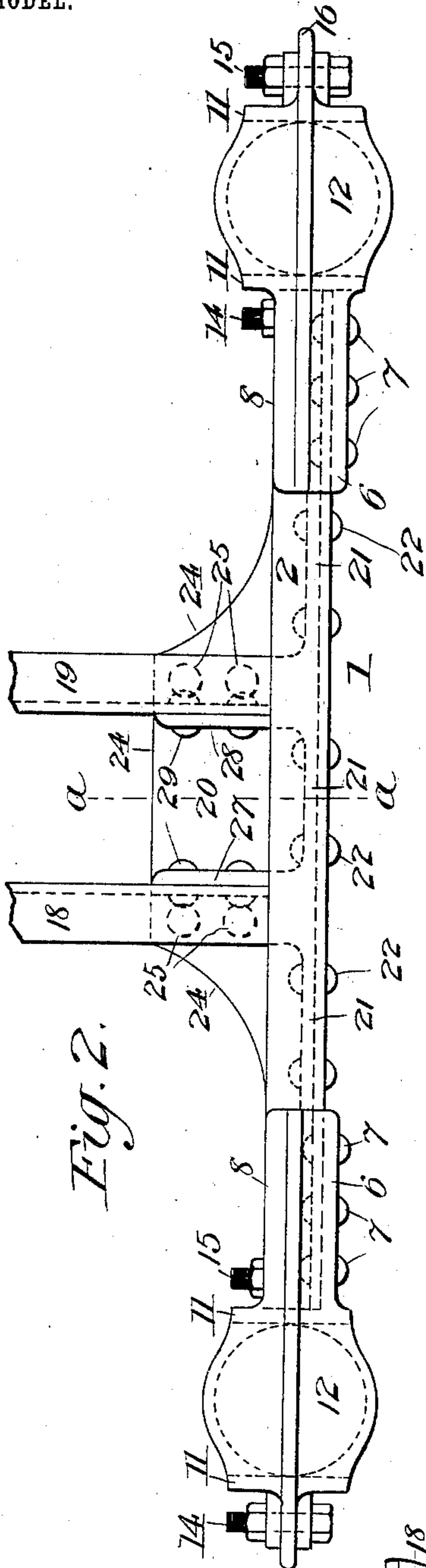


Fig. 2.

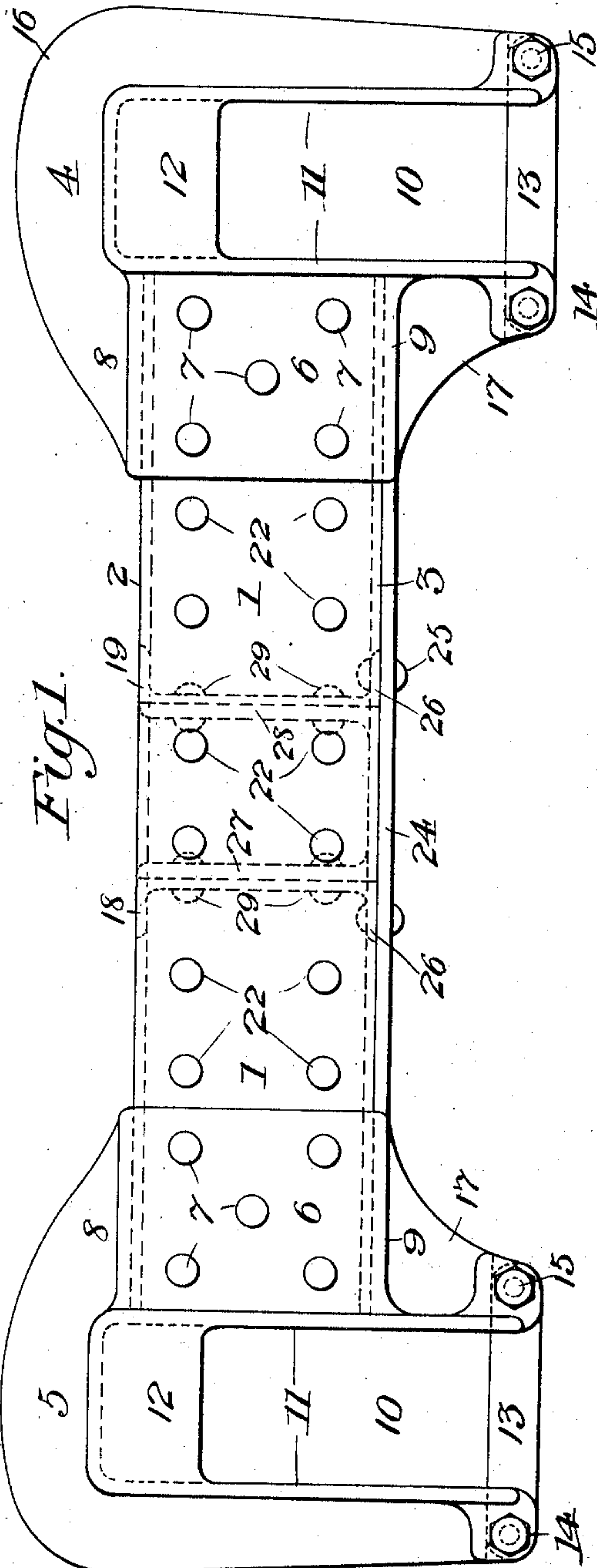


Fig. 1.

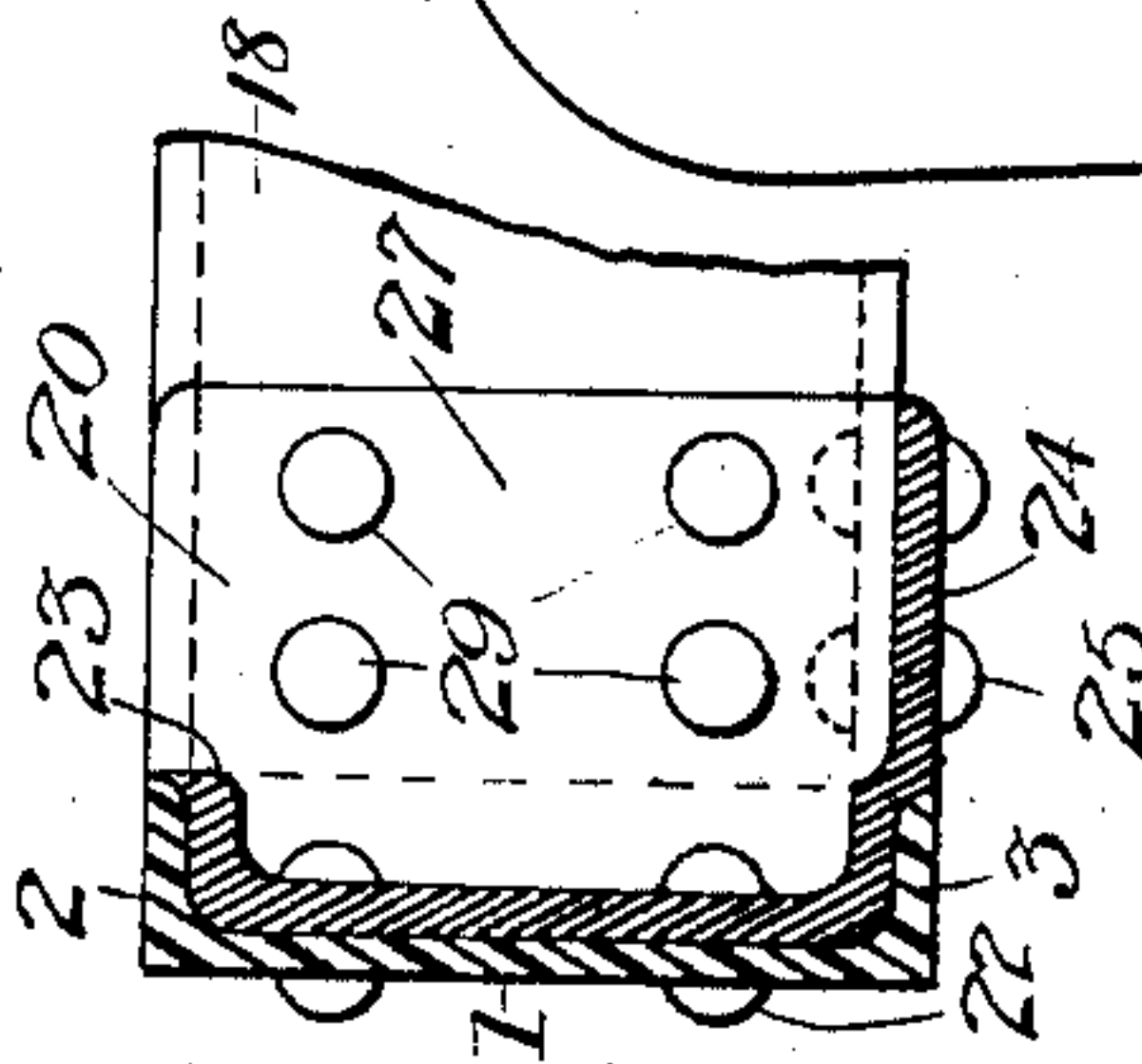


Fig. 3.

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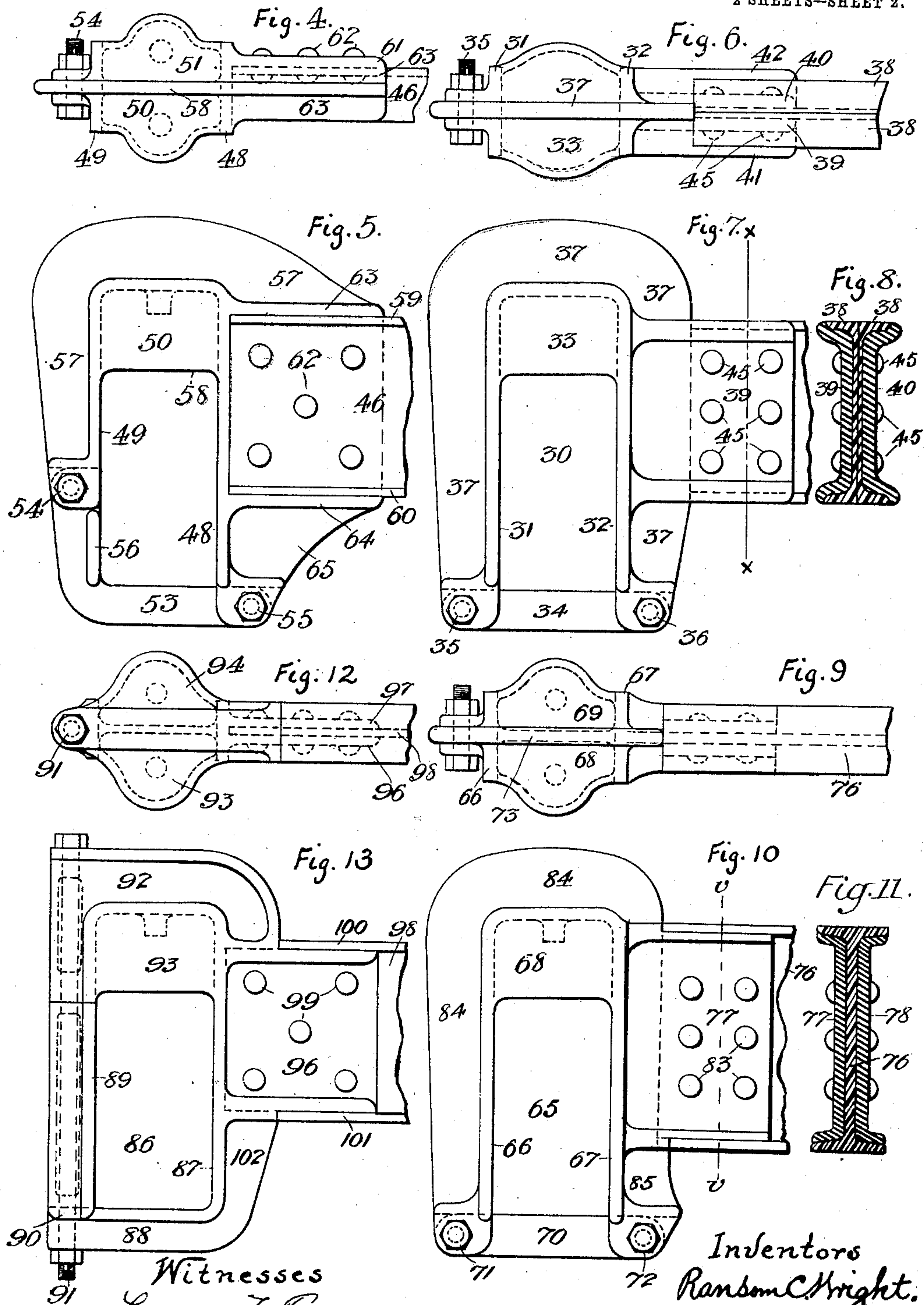
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UNITED STATES PATENT OFFICE.

RANSOM C. WRIGHT, OF PHILADELPHIA, PENNSYLVANIA, AND FRANK E. STEBBINS, OF WASHINGTON, DISTRICT OF COLUMBIA.

CONSTRUCTING OR FORMING CAR-TRUCKS.

SPECIFICATION forming part of Letters Patent No. 737,810, dated September 1, 1903.

Application filed July 20, 1896. Serial No. 599,835. (No model.)

To all whom it may concern:

Be it known that we, RANSOM C. WRIGHT, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, and
 5 FRANK E. STEBBINS, residing at Washington city, District of Columbia, citizens of the United States, have invented certain new and useful Improvements in Constructing or
 10 Forming Car-Trucks; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference
 15 being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

The objects of our invention are, first, to form a truck of great strength and principally of merchantable rolled forms whereby great
 20 strains may be resisted; secondly, to unite the rolled forms to the pedestals which control the wheels, axles, and boxes in a manner easily accomplished in any ordinary shop and without the use of special tools and machin-
 25 ery over and above the ordinary appliances; thirdly, to so form and shape the pedestals that they shall have ample strength to perform their work and so they can readily be made in any foundry adapted to make the usual run
 30 of railway-castings, and, finally, the provision of pedestals having webs or extensions at right angles to the jaws, which can be easily secured to the webs at the ends of the rolled or flanged side frames and likewise easily re-
 35 moved and other pedestals applied.

Our invention consists in certain novelties of construction and combinations of parts hereinafter set forth and claimed.

We have disclosed our best methods and
 40 forms of constructions and combinations in connection with the accompanying drawings.

Figure 1 is a side elevation of a truck-frame having channel sides and transoms and cast pedestals. Fig. 2 is a half-plan of Fig. 1. Fig.
 45 3 is a vertical section on line *aa*, Fig. 2. Fig. 4 is a plan of a pedestal united to a channel-beam, and Fig. 5 is an elevation view of Fig. 4. Fig. 6 is a plan of a pedestal united to two channel-beams placed with their webs in contact and
 50 forming an I-shaped beam. Fig. 7 is a side elevation view of Fig. 6, and Fig. 8 is a sec-

tion on line *xx* of Fig. 7. Fig. 9 is a plan of a pedestal united to an I-beam. Fig. 10 is an elevation of Fig. 9, and Fig. 11 is a section on line *vv* of Fig. 10. Fig. 12 is a plan of a ped-
 55 estal also united to an I-beam, and Fig. 13 is an elevation of the same.

In Figs. 1, 2, and 3 the side channel-beam 1 has its flanges 2 3 turned in or toward the center of the truck, leaving a smooth outer
 60 side upon which pedestals 4 5 are secured by means of webs or extensions 6, which seat on the outer face of the channel-bar 1 and are secured thereto by rivets 7, while an upper
 65 flange 8 and a lower flange 9 project inwardly over flanges 2 3 and, fitting snugly, take the shearing strain off of the rivets. The pedestals have jaws 10, formed with wearing-flanges 11, against which the axle-boxes bear, the
 70 jaws being united at the top by spring-pockets 12 and held at the bottom by ties 13 and secured by bolts 14 15, a tie being removable whenever an axle-box is required to be placed or displaced between jaws 10. A web 16 joins
 75 flange 8, extends over pocket 12 and down the outer flange 11 for added strength, while a flange 17 joins lower flange 9 and inner flange 11 for the same purpose. Transoms 18 19, of channel shape, extend across the truck from
 80 side to side, with the flanges extending outwardly and are united to each side channel 1, as follows: A support 20, of cast material, preferably malleable iron or cast-steel, has a part 21, which fits inside of channel 1, extend-
 85 ing each way from the center, and is secured by rivets 23. A part 23 fits under flange 2 and a part 24 fits inside of flange 3 and extends inwardly, and thereon rest transoms 18
 90 19, secured by rivets 25 through their lower flanges 26. From part 24 are raised flanges 27 28, against which the inner or flat sides of channels 18 19 fit and where they are secured
 by rivets 29.

In Figs. 4 and 5 is shown a form of pedestal adapted to be attached to a channel-beam
 95 46. This pedestal has a jaw formed by a long wall 48 and a short outer wall 49, joined at the top by double spring-pockets 50 51, and at the bottom and outer side of the jaws the opening is closed by an angular-shaped tie
 100 53, secured by bolts 54 55, and upon the vertical part of the tie is a wall 56, as a continu-

ation of wall 49. A flange 57 projects from wall 49 outwardly and passes over spring-pockets 50 51 for stiffness, and there is a central partition 58 between the spring-seats for the same purpose. The channel-bar 46 has flanges 59 60, and its web is united to web or extension 61 by rivets 62, while flanges 63 above and 64 below the channel form a pocket for the channel end and take the shearing strains off of rivets 62. Web 65 unites flange 64 and web 48.

In Figs. 6, 7, and 8 is shown a pedestal having jaws 30, formed by walls 31 32, joined by a spring-pocket 33 for a single coil-spring at the top and held by a tie 34 at the bottom, secured by bolts 35 36. A web 37 adjoins spring-pocket 33. This pedestal is adapted to be secured to two channel-beams 38 38, placed between webs or extension 39 40, projecting outwardly from wall 32 and at right angles to the jaws and between which the two channel-beams rest, the webs of the beams being secured by rivets 45 through extensions 39 40.

In Figs. 9, 10, and 11 is shown a form of pedestal adapted to be attached to an I-beam and have double springs. The jaws 65 are formed by walls 66 67 and spring-pockets 68 69 and united at their lower ends by tie 70, secured by bolts 71 72. A partition or web 73 unites walls 66 67 at the top and separates the spring-pockets. The I-beam 76 is inserted into a seat formed between webs or extensions 77 78, reaching out from wall 67. Rivets 83 pass through the web of the I-beam and webs or extensions 77 78. A flange 84 unites wall 66 and the spring-seat tops and adds stiffness, while flange 85 unites wall 67 and extensions 77 78.

In Figs. 12, 13 is shown still another form of pedestal, also attached to an I-beam. The jaw 86 is formed with a back wall 87, which also extends outward and forms the bottom piece 88, and a removable piece 89 forms the outer jaw. The jaw locks onto part 88 by side flanges 90 and has a bolt 91 extending perpendicularly through it and through pedestal-head 92. This pedestal has double spring-pockets 93 94, and from wall 87 are double webs or extensions 96 97, between which web 98 of the I-beam is secured by rivets 99. The web may extend to the wall 87; but its flanges 100 101 are cut short and abut head 92 and bottom stiffening-flange 102, making a very firm support and relieving the rivets from shear.

It will be observed that in all the examples the main parts of the frames consist of flanged beams, that the ends of the sides are plain and free prior to the application of the pedestals, and that the said cast-metal pedestals are integral, aside from the tie-pieces, and secured to the ends of the side frames or flanged beams by their integral webs or extensions, which are at right angles to the jaws, being placed in frictional contact with the webs of the flanged beams and riveted in position.

In Figs. 1, 2, and 3 we have illustrated channel-beam transoms which unite two side frames consisting of rolled channel-beams. The same type of transom-beams may be used to unite the sides of the channel, double channel, or I-beam side frames shown in the remaining examples. However, other types of transom may be employed to unite the side frames, inasmuch as the chief novelty disclosed in these examples resides in the side frames and pedestals and the methods of their union. In all cases except Figs. 12, 13 the ends of the flanged side frames are shown cut off square; but they may be cut off at an angle or part of the webs or flanges removed at the ends and the cast-metal pedestals slightly altered in shape, so as to admit of facile attachment through the medium of their webs or extensions, and such slight changes we shall not consider as substantial departures from our invention. The seats or pockets for springs may be made independently of the integral cast pedestals, if desired, without destroying the integral character of the pedestal.

In Figs. 1, 2, and 3 a side frame and portions of the transoms only are illustrated. The complementary portions of the complete truck-frame are essentially duplications and for that reason not reproduced. The remaining figures show one end of each of the other four examples of side frames with pedestals attached. The opposite ends of the frames are in each case mere duplicates, and hence omitted.

It should be understood that any one of the four side frames can be substituted for the side frame shown in Figs. 1, 2, 3 and the parts duplicated to constitute an entire and complete truck-frame.

What we claim is—

1. The combination in a truck-frame, of two side pieces each consisting of a flanged metallic beam having plain ends; a transom or transoms, adapted to support the car-body, uniting the two side pieces at their central portions; and cast-metal pedestals, each cast integral, and having a spring-pocket, and a horizontal extension or web adapted to engage the plain end of a side piece, secured upon the ends of the side pieces.

2. The combination in a truck-frame, of two side pieces each consisting of a single flanged metallic beam having a web and flanges; a transom or transoms adapted to support a car-body uniting the two side pieces at their central portions; and cast-metal pedestals, each having a horizontal web or extension, inner bearing wall or flange, and a spring seat or pocket cast integral, secured upon the ends of the side pieces.

3. The combination in a truck-frame, of two side pieces each consisting of a metallic beam having a plain web and flanges extending outwardly at top and bottom; a transom or transoms adapted to support a car-body uniting the two flanged beam sides at their central portions; and cast-metal pedestals, each hav-

ing a horizontal extension or web, an inner wall or flange, and spring seat or pocket cast integral, secured upon the ends of the flanged side pieces.

5 4. The combination in a truck-frame, of flanged side pieces with plain webs and flanges; a transom or transoms uniting the side pieces at their centers and adapted to support a car-body; and cast-metal pedestals, 10 each having two horizontal webs or extensions at right angles to the jaws, an inner bearing wall or flange, and a spring-pocket; the said horizontal webs of each pedestal being located upon opposite sides of the web at 15 the end of a side piece and secured thereunto.

5 5. The combination in a truck-frame, of a transom or transoms; flanged side pieces of rolled metal, each having plain ends and upper and lower flanges on the side of the web 20 adjacent the transom end; and cast-metal pedestals, each having a web at right angles to the jaws, an inner bearing wall or flange, and spring-pocket cast integral; said web or extension of each pedestal being secured to 25 the web at the end of a side piece.

6. The combination in a truck-frame, of flanged side pieces with plain ends, each side piece having upper and lower flanges on each side of the web; a transom or transoms uniting the side pieces at their centers; and cast-metal pedestals, each having two webs or extensions at right angles to the jaws, a bearing-wall, and spring-pocket cast integral, and each pedestal secured upon the perpendicular end of a side piece. 35

7. The combination in a truck-frame, of a transom or transoms; I-beam side pieces with plain ends; and integral cast-metal pedestals having webs or extensions at right angles to the jaws; bearing walls or flanges, and spring-pockets, the web or extension of each pedestal being secured to the web at the end of an I-beam side piece. 40

8. The combination in a truck-frame, of a transom or transoms; I-beam side pieces with plain ends; and integral cast-metal pedestals each having two separate webs or extensions at right angles to the jaws; the integral webs or extensions of each pedestal being secured to the web at the end of an I-beam side piece. 50

9. The combination in a truck-frame, of a transom or transoms; I-beam side pieces with plain ends; and cast-metal pedestals having spring-pockets, bearing walls or flanges, and 55 webs or extensions at right angles to the jaws which latter are open at the bottoms; the web or extension on each pedestal being secured

to the web at the end of an I-beam side piece.

10. The combination in a truck-frame, of a transom or transoms; I-beam side pieces with plain ends; and integral cast-metal pedestals having seats or pockets for springs and webs or extensions at right angles to the jaws; the web or extension of each pedestal being secured to the web at the end of an I-beam side piece, the said transom or transoms uniting the I-beam side pieces at their centers and being adapted to support a car-body. 60 65

11. A side frame for a truck comprising a flanged beam having its ends cut off square, and cast-metal pedestals each having a horizontal extension at right angles to the jaws, a bearing wall or flange adjacent the horizontal extension, and a pocket or seat for a spring, and said pedestal extensions secured to the webs at the ends of the beam. 70 75

12. A side frame for a truck comprising a beam I-shaped in cross-section with its ends cut off square, and cast-metal pedestals each having a horizontal extension, a bearing-wall adjacent the extension, and a pocket for a spring cast integral, and the pedestals secured to the webs at the ends of the beam. 80

13. A side frame for a truck comprising a rolled metallic I-beam having its ends cut off square, and cast-metal pedestals each having an extension at right angles to the jaws, a perpendicular bearing wall or flange adjacent the extension, and a spring-pocket, said pedestals being secured to the webs at the ends of the I-beam. 85 90

14. The combination with the flanged end of a truck side piece, of a cast-metal pedestal having a web or extension at right angles to the jaws and by which extension the pedestal is secured to the flanged end of the side piece, a bearing wall or flange adjacent the extension, and a pocket for a spring all cast integral; said web or extension fitting between the flanges of the side piece. 95 100

15. The combination with the end of a truck side piece I-shaped in cross-section, of a cast-metal pedestal having two webs or extensions at right angles to the jaws and by which extensions the pedestal is secured to the end of the side piece. 105

In testimony whereof we affix our signatures in presence of two witnesses.

RANSOM C. WRIGHT.
FRANK E. STEBBINS.

Witnesses:

GEO. W. REED,
NATHAN H. ROBBINS.