

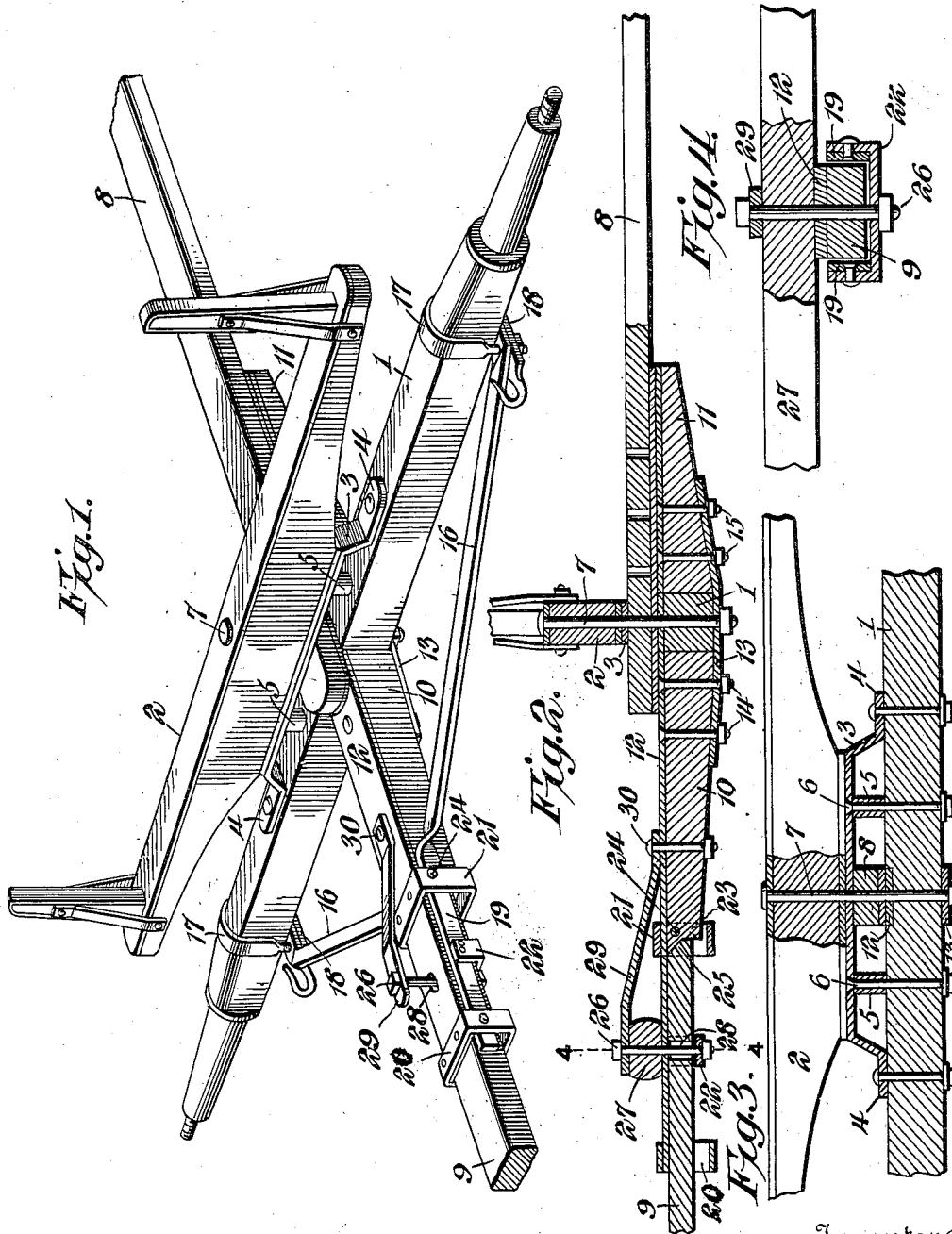
No. 859,040.

PATENTED JULY 2, 1907.

B. W. BERRY.
RUNNING GEAR FOR VEHICLES.

APPLICATION FILED MAR. 15, 1906.

2 SHEETS—SHEET 1.



Witnesses
Howard D. Orr.
J. H. Riley.

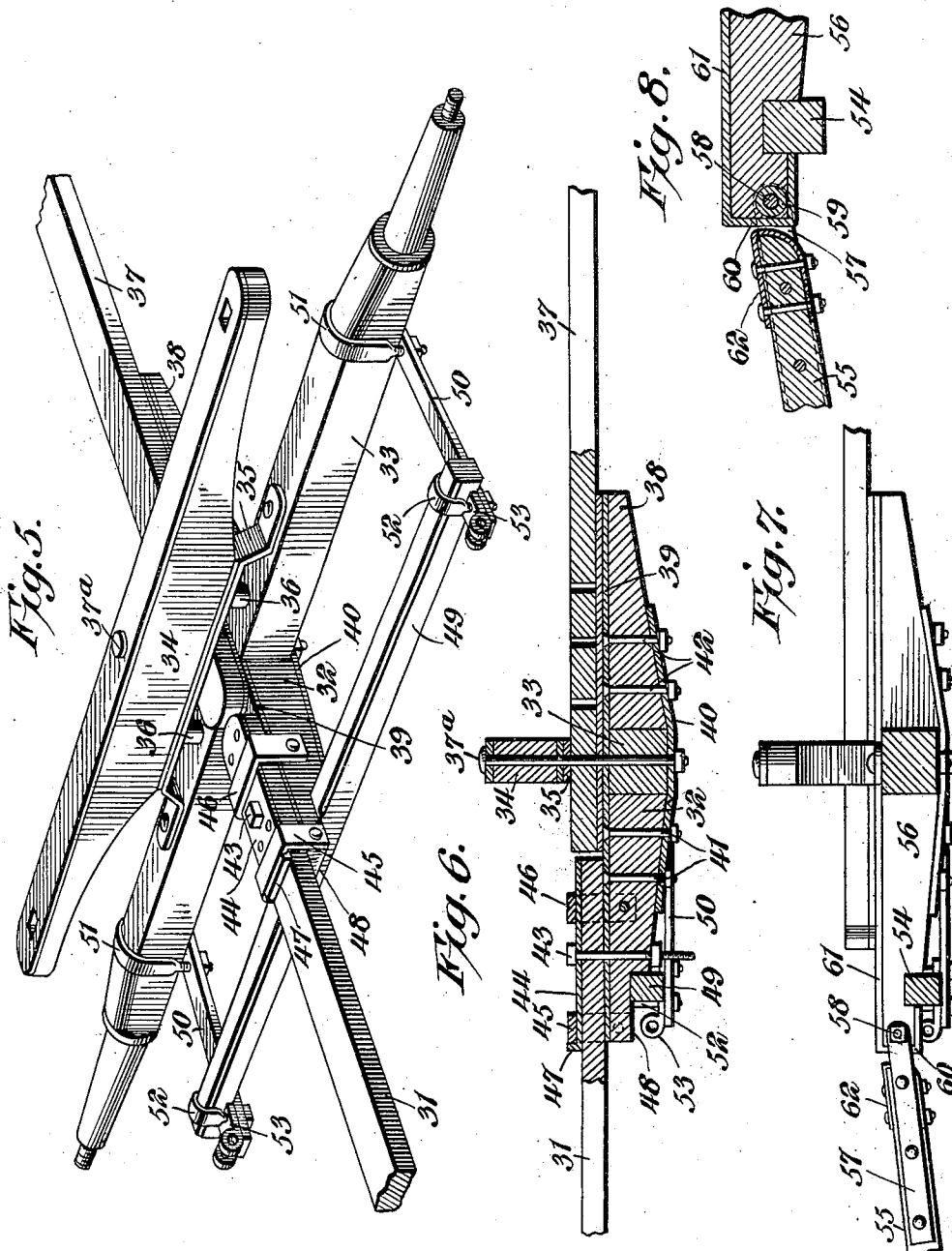
Inventor,
Benjamin W. Berry,
By *E. J. Siggers*
Attorney

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UNITED STATES PATENT OFFICE.

BENJAMIN W. BERRY, OF MONTICELLO, FLORIDA, ASSIGNOR OF ONE-HALF TO JOHN H. PERKINS, OF MONTICELLO, FLORIDA.

RUNNING-GEAR FOR VEHICLES.

No. 859,040.

Specification of Letters Patent.

Patented July 2, 1907.

Application filed March 15, 1906. Serial No. 306,181.

To all whom it may concern:

Be it known that I, BENJAMIN W. BERRY, a citizen of the United States, residing at Monticello, in the county of Jefferson and State of Florida, have invented
5 a new and useful Running-Gear for Vehicles, of which the following is a specification.

The invention relates to improvements in running-gear for vehicles, more especially the construction shown and described in Patent No. 711,613, granted
10 to me October 21, 1902, and to lessen the cost of construction of running-gears, and to increase the strength, durability and efficiency of the same.

A further object of the invention is to provide a construction of this character which will also enable either
15 a pole or a pair of shafts to be connected or coupled to the running-gear.

With these and other objects in view, the invention consists in the construction and novel combination and arrangements of parts hereinafter fully described and illustrated in the drawing and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size, and details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrific-
25 ing any of the advantages of the invention.

In the drawing:—Figure 1 is a perspective view of a portion of a running-gear constructed in accordance with this invention. Fig. 2 is a central, longitudinal sectional view of the same. Fig. 3 is a transverse sectional view, illustrating the manner of mounting the body bolster on the front axle. Fig. 4 is a transverse sectional view on the line 4—4 of Fig. 2. Fig. 5 is a perspective view of another form of the invention, showing a construction adapted to enable either a pole
30 or a pair of shafts to be coupled to the running-gear. Fig. 6 is a longitudinal sectional view of the same. Fig. 7 is a longitudinal sectional view, partly in elevation, showing another manner of connecting the tongue to the running-gear. Fig. 8 is a sectional view
40 of the coupling or connection of the tongue or pole.

Like numerals of reference designate corresponding parts in all the figures of the drawing.

1 designates the front axle of a running-gear, which axle, as illustrated in the accompanying drawing, is
45 constructed of wood, but the improvements herein shown and described are equally applicable to metallic axles, as will be readily understood. The axle has mounted upon it a super-imposed body bolster 2, which is directly supported by a sand bolster 3, consisting of a metal plate or bar secured at its ends 4 to
50 the upper face of the axle by bolts or other suitable fastening devices, and having an intermediate arched portion presenting a horizontal upper face to the lower

face of the body bolster. The arched portion of the metallic bar or plate is supported at opposite sides of
55 the center of the axle by vertical blocks or pieces 5, which are in the form of short sleeves, and through which pass vertical bolts 6, that also serve to secure the plate or bar 3 to the axle. The front axle, the plate or bar 3, and the body bolster, are pierced by a king-bolt
60 7, which also passes through the front portion of a reach 8, which extends beneath the arched portion of the metallic bar or plate 3, and which is interposed between the same and the upper face of the front axle. The bolster is provided at its ends with the usual
65 standards, and is adapted to receive a box or body of any desired construction, and it also may directly receive a load in the usual manner, the improvements being applicable to all kinds of vehicles.

The running-gear is provided with a tongue or pole,
70 which is composed of a front member 9, and a rear member which consists of front and rear sections 10 and 11, located in advance and in rear of the axle 1, and having their proximate ends abutting against the same. The upper and lower faces of the proximate ends of the sections 10 and 11 are flush with the upper and lower
75 faces of the axle 1, and these sections 10 and 11 are rigidly secured to the axle by means of upper and lower metallic plates or bars 12 and 13. The sections 10 and 11 are preferably tapered as shown, and the bottom bar
80 or plate 13 spans the axle-receiving space between the sections 10 and 11, and is bolted to the sections 10 and 11, the bolts 14 and 15 piercing the said sections and also the top and bottom plates or bars 12 and 13, as clearly illustrated in Fig. 2 of the drawings. The king-bolt 7
85 also extends through the top and bottom metallic plates or bars 12 and 13.

The running-gear is strengthened at the front by a pair of forwardly converging braces 16, consisting of metallic bars secured by clips 17 to the outer portions
90 of the axle 1, a short distance from the inner ends of the spindles thereof. The outer or rear ends of the braces 16 are bent at an angle and extend across the lower face of the axle at right angles to the length of the same. The clips 17 also secure hook plates 18 to the axle, the
95 hook plates being provided at their front ends with hooks to receive stay-chains in the usual manner. The converging portions of the braces 16 are arranged edgewise horizontally, and the bars are given quarter turns at the front ends of the converging portions of the
100 braces to arrange parallel front end portions 19 vertically edgewise. These parallel front portions 19 are spaced apart and are located at opposite sides of the tongue or pole, and are connected by front and rear bands 20 and 21 and an intermediate bottom connecting
105 piece 22, which is in the form of a substantially U-

shaped clip. The bands and the clip are secured to the parallel front portions 19 of the braces by rivets or other suitable fastening devices, which have their inner ends enlarged to form heads, and counter-sunk in the inner faces of the braces. The front end 23 of the front section 10 is located within the rear band 21, and is secured rigidly to the same by means of a transverse bolt 24, which pierces the front section 10 and the sides of the band 21 at a point in rear of the median lines of the sides of the band 21. The front end face of the section 10 is beveled or undercut at the upper portion as shown, and the rear end face 25 of the front member or pole proper is beveled to fit the beveled face of the front section 10. The transverse portion of the intermediate connecting piece or clip 22 is arranged in a plane above the bottoms of the bands 20 and 21, and the front member or pole proper 9 has a limited vertical pivotal or oscillatory motion to relieve the necks of the draft animals of strain on uneven ground or bad roads, the bands 20 and 21 being extended downward a sufficient distance for this purpose. The intermediate connecting portion or clip receives a pivot bolt 26 of a double-tree 27, and the front member 9 has an elongated slot or opening 28 of substantially elliptical form, as clearly shown in Fig. 1 of the drawing, for the said pivot bolt 26. This slot or opening 28 also permits the said vertical oscillatory motion of the tongue or pole. The upper end of the pivot bolt 26 is supported by a rearwardly extending brace 29, which is secured at its rear end to the section 10 and the upper plate 12 by means of a bolt 30.

In Fig. 5 of the drawing is illustrated another form of the invention, wherein the front member 31, or tongue or pole proper, is rigidly connected with the forwardly extending bar or section 32, and wherein, also, the means for connecting the front end of the bar or section 32 with the opposite portions of the front axle 33 are adapted to receive a pair of shafts or thills, when the tongue or pole 31 is detached, thereby adapting either a single horse or a team to be hitched to the running-gear. A body bolster 34 is mounted upon the axle 33 by means of an arched bar or sand bolster 35, which is supported at opposite sides of the center of the axle by means of short blocks or pieces 36, constructed and secured to the arched bar and to the axle in the same manner as the blocks or pieces 5 hereinbefore described. A reach 37 is pivoted between the arched bar 35 and the axle 33 by means of a king-bolt 37^a, which extends through the running-gear from the upper face of the bolster 34 to the bottom of the axle. The running-gear is also provided with a rearwardly projecting bar or section 38, arranged in alinement with the forwardly projecting bar or section 32, and connected with the same by upper and lower plates 39 and 40, which are secured to the bars or sections by means of bolts 41 and 42. The forwardly and rearwardly projecting bars or members 32 and 38 have their upper and lower faces flush with the upper and lower faces of the axle, and the upper and lower plates 39 and 40 extend across the axle-receiving space between the forwardly and rearwardly projecting bars or sections 32 and 38. The upper plate extends the entire length of the projecting bars or sections 32 and 38, and it receives the rear portion of the tongue or pole 31, which is secured to the front bar or section 32 by means of a

pivot bolt 43, adapted, also, to be employed for pivoting a double-tree to the running-gear. The inner portion of the tongue or pole 31 is reinforced by an upper plate 44, and is arranged within front and rear loops or bands 45 and 46, which are substantially U-shaped, being composed of vertical sides and top connecting portions. The sides are secured to the forwardly projecting bars or members 32 by means of transverse bolts as clearly illustrated in Figs. 5 and 6 of the drawing. The front end 47 of the plate 44 is bent upward to form a projecting flange, which engages the front loop, and which limits the inward movement of the tongue or pole. The rear end of the tongue or pole 31 is rounded, and the front end of the reach 36 is also rounded, so that the parts will clear each other when the front axle is turned. The reaches 8 and 37 are adjustable, their front portions being provided with suitable perforations to receive the king-bolts. The perforations of the reach 37 are not necessary when the tongue or pole 31 is used, but may be employed when a pair of shafts or thills is attached to the running-gear, as heretofore explained. Such perforations, however, may be omitted, and the adjustments may be effected from the rear axle in the usual manner. The front end of the forwardly projecting bar or section 32 is provided at its lower face with a recess 48, in which is secured a transversely disposed draft-bar 49, which extends laterally from opposite sides of the forwardly projecting bar or section 32. The ends of the draft-bar are connected with the axle by means of longitudinal connecting or tie-bars 50, secured at their rear ends to the axle adjacent to the inner ends of the spindles thereof by means of clips 51. The front ends of the bars 50 are also secured by clips 52, to the terminals of the transversely disposed draft-bar. These clips 52 also secure coupling members 53 to the draft-bar. The coupling members consist of plates extending across the lower faces of the draft-bar, and provided at their front ends with ears, which are adapted to receive coupling bolts for connecting a pair of shafts or thills to the running-gear. The coupling members are pierced by the sides of the clips, which have threaded ends for the reception of nuts.

In Figs. 7 and 8, is illustrated another form of invention in which a transversely disposed draft-bar 54 is employed, said draft-bar being constructed and arranged similar to the draft-bar 49 heretofore described. In this form of the invention, the front member 55, or tongue or pole proper, is pivotally connected with a forwardly extending bar or section 56 by means of a pair of plates 57, secured to the side edges of the tongue or pole 55 at the rear end thereof, and projecting therefrom a sufficient distance to embrace the front end of the forwardly projecting bar or section 56. The projecting portions of the side bars or plates 57 of the tongue or pole are perforated for the reception of a pivot bolt 58, which pierces the front end of the forwardly projecting bar or section 56. A sleeve or bushing 59 is preferably arranged at the front end of the forwardly projecting bar or section 56, which is reinforced by an extension 60 of a top plate 61. The rear end of the tongue or pole is also reinforced at the top, bottom, and rear end by means of a plate or piece 62, which is bolted or otherwise secured to the tongue or pole, as clearly shown in Fig. 8.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. In a running-gear, the combination with a front axle, of a vehicle pole or tongue composed of front and rear members, of which the rear member consists of front and rear bars or sections located at opposite sides of the axle and having their upper and lower faces substantially flush with the upper and lower faces of the same, and upper and lower substantially straight plates or bars secured to the upper and lower faces of the said bars or sections and extending across the upper and lower faces of the axle.

2. In a running-gear, the combination with an axle, of a tongue or pole composed of front and rear members, of which the rear member consists of forwardly and rearwardly projecting bars or sections having their proximate ends abutting against the opposite faces of the axle with their upper and lower faces flush with the top and bottom of the said axle, and means for rigidly connecting the bars or sections and for securing the same to the axle.

3. In a running-gear, the combination with an axle, of a tongue or pole composed of front and rear members, of which the rear member consists of forwardly and rearwardly projecting bars or sections abutting against the opposite faces of the axle and being of uniform thickness therewith, connecting means extending from the axle at opposite sides of the center thereof to the tongue or pole at the rear end of the front member thereof, and upper and lower plates secured to the upper and lower faces of the said sections of the rear member, the upper plate being extended to the front of the means for connecting the tongue or pole with the end portions of the axle.

4. The combination with an axle, of a tongue or pole composed of front and rear members, of which the rear member is rigidly connected with the axle, braces extending forwardly from the end portions of the axle to the tongue or pole at opposite sides of the proximate ends of the members thereof, front and rear bands connecting the braces and depending below the same, and an intermediate connection located between the bands and forming a seat or fulcrum for the front member of the tongue or pole.

5. The combination with an axle, of a tongue or pole

composed of front and rear members, of which the rear member is rigidly connected with the axle, braces extending forwardly from the end portions of the axle to the tongue or pole at opposite sides of the proximate ends of the members thereof, front and rear bands connecting the braces and depending below the same, an intermediate connecting piece located between the bands and forming a seat or fulcrum for the front member of the tongue or pole, and a pivot piercing the front member of the pole or tongue and the intermediate connecting piece.

6. The combination with an axle, of a tongue or pole composed of front and rear members, of which the rear member is rigidly connected with the axle, braces extending forwardly from the end portions of the axle to the tongue or pole at opposite sides of the proximate ends of the members thereof, front and rear bands connecting the braces and depending below the same, an intermediate connecting piece located between the bands and forming a seat or fulcrum for the front member of the tongue or pole, and a pivot piercing the front member of the pole or tongue and the intermediate connecting piece, said front member having an elongated opening to receive the pivot.

7. In a running-gear, the combination with an axle, of a tongue or pole composed of front and rear members, of which the rear member has a rigid connection with the axle and is provided with a beveled or undercut front end, the front member having a corresponding bevel at the rear end, braces extending from the end portions of the axle to the proximate ends of the members, front and rear bands connecting the braces and extending below the same, an intermediate connecting piece secured to the braces between the bands and located above the plane of the bottoms of the same, and a pivot piercing the front member of the tongue or pole and the intermediate connecting piece.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

BENJAMIN W. BERRY.

Witnesses:

T. M. PULESTON,
P. E. BELLINGER.