

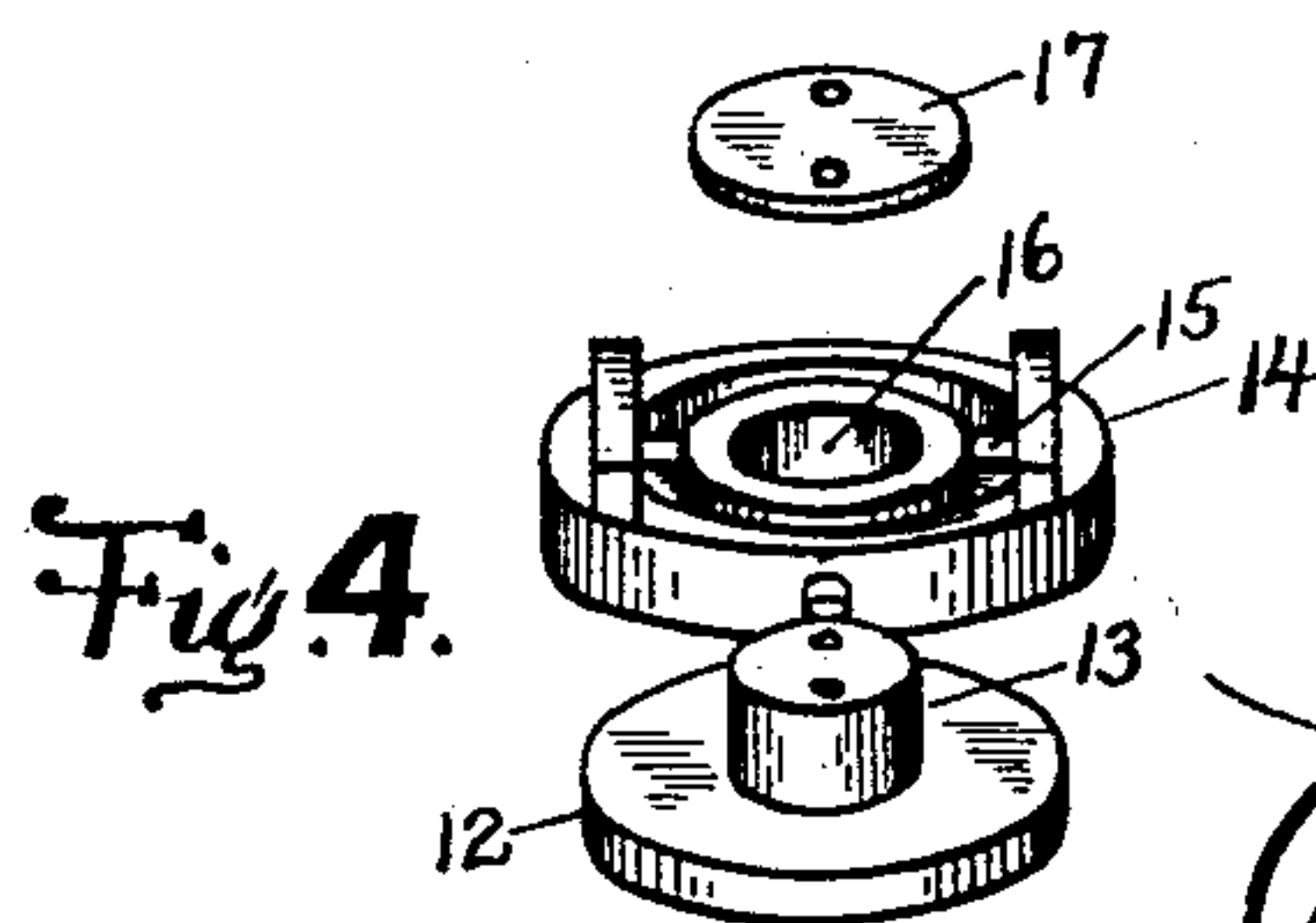
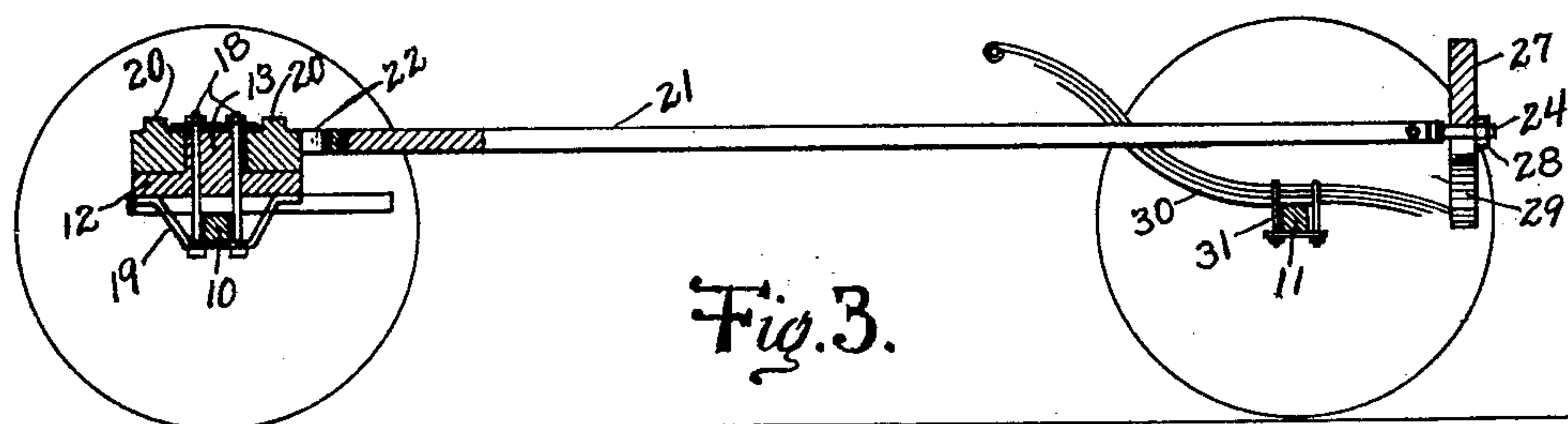
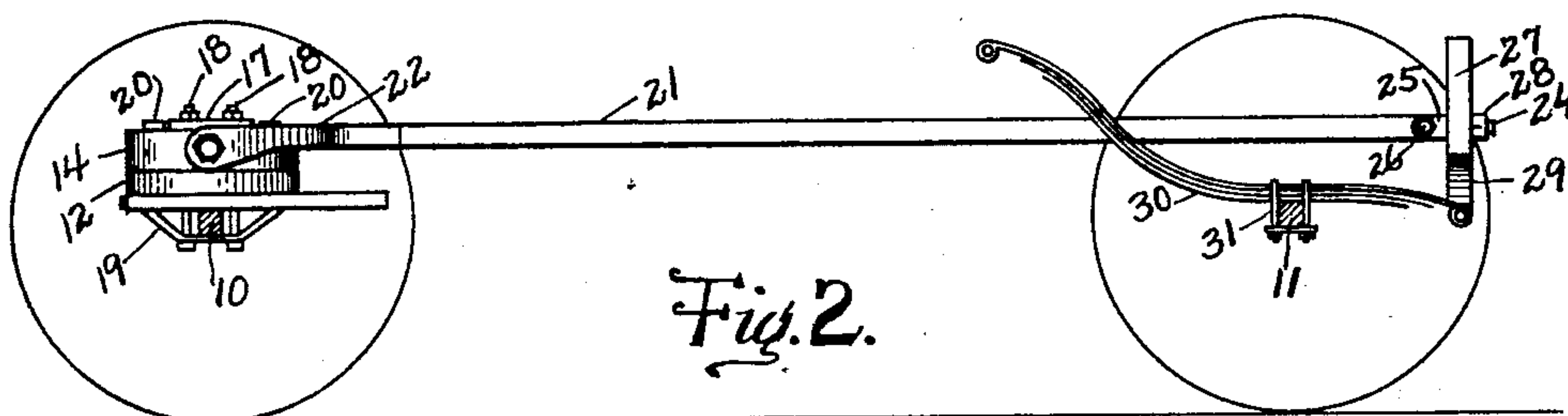
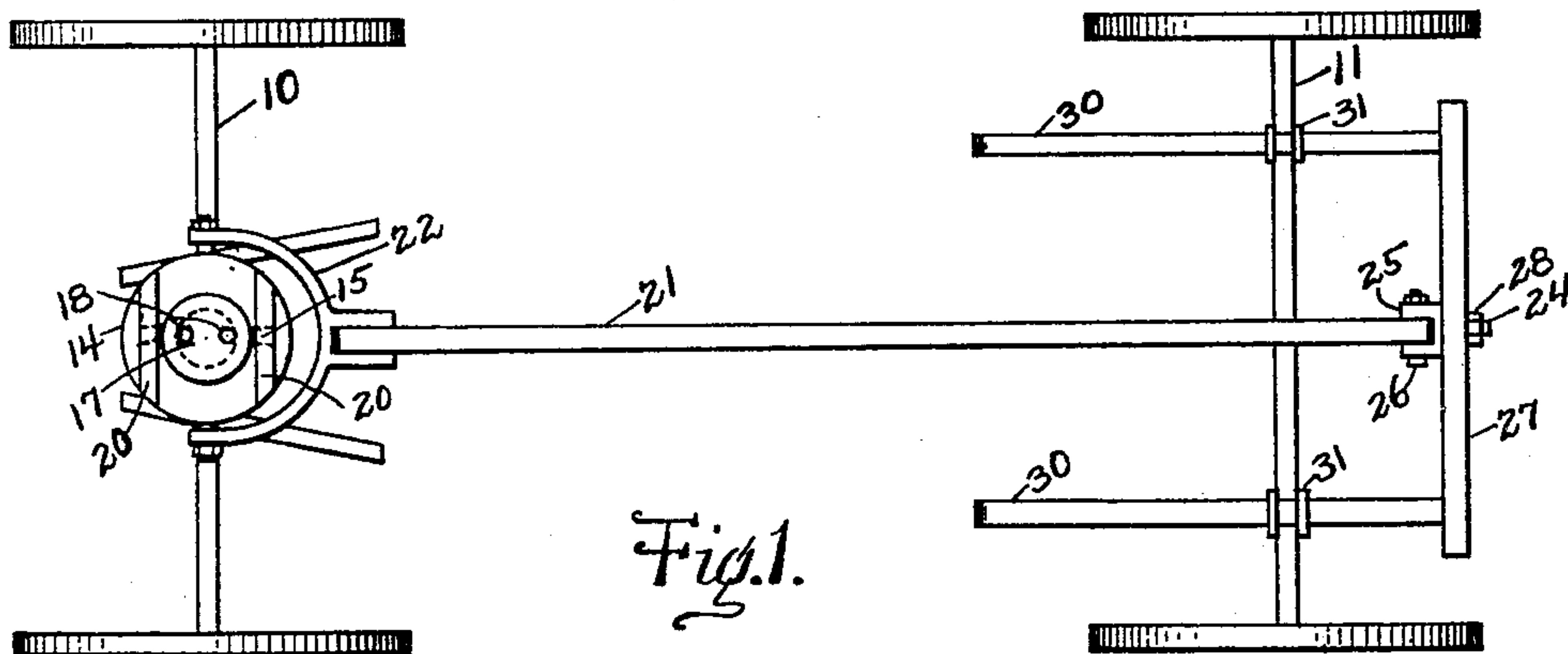
No. 750,854.

PATENTED FEB. 2, 1904.

H. S. HODIL.
RUNNING GEAR.
APPLICATION FILED MAR. 17, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses
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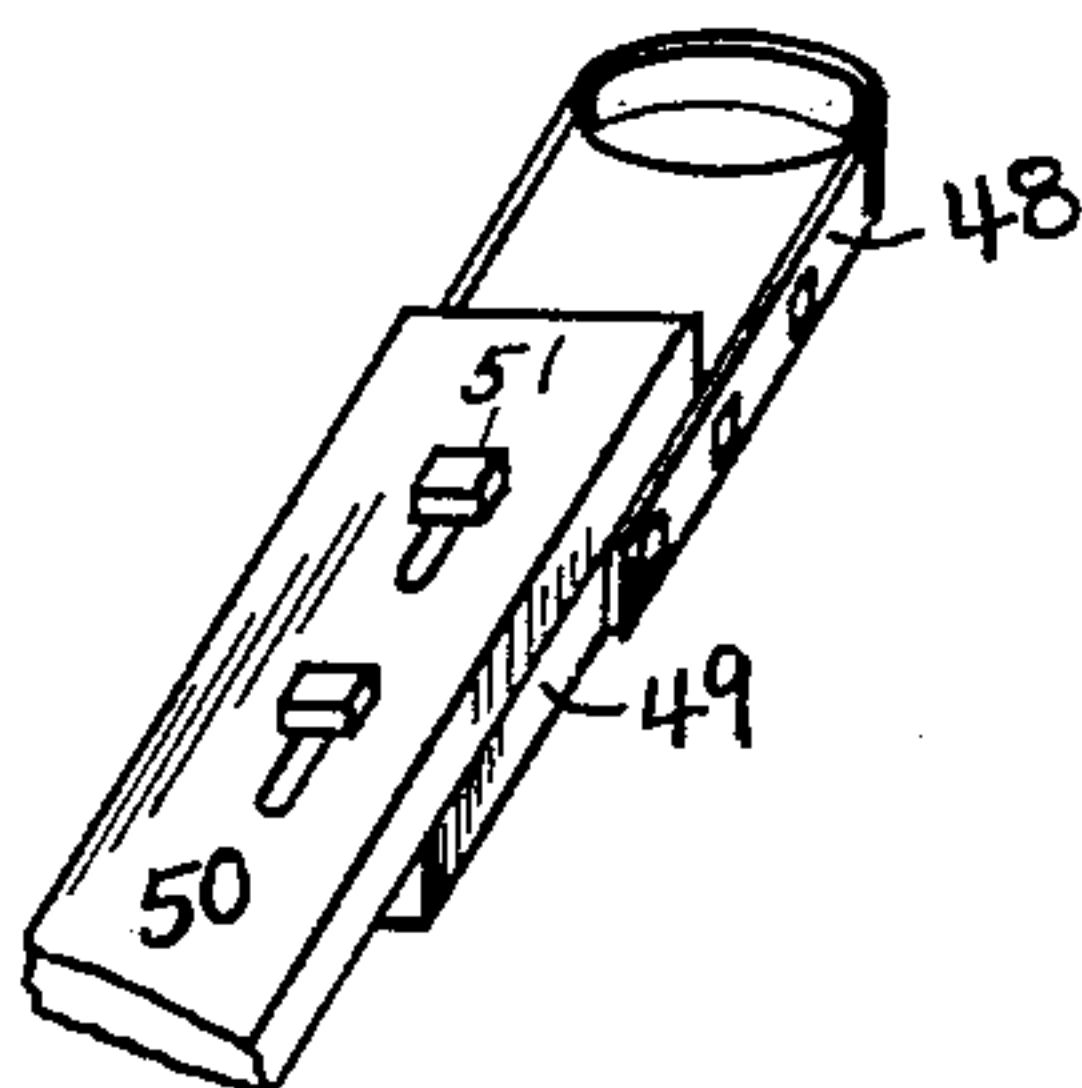
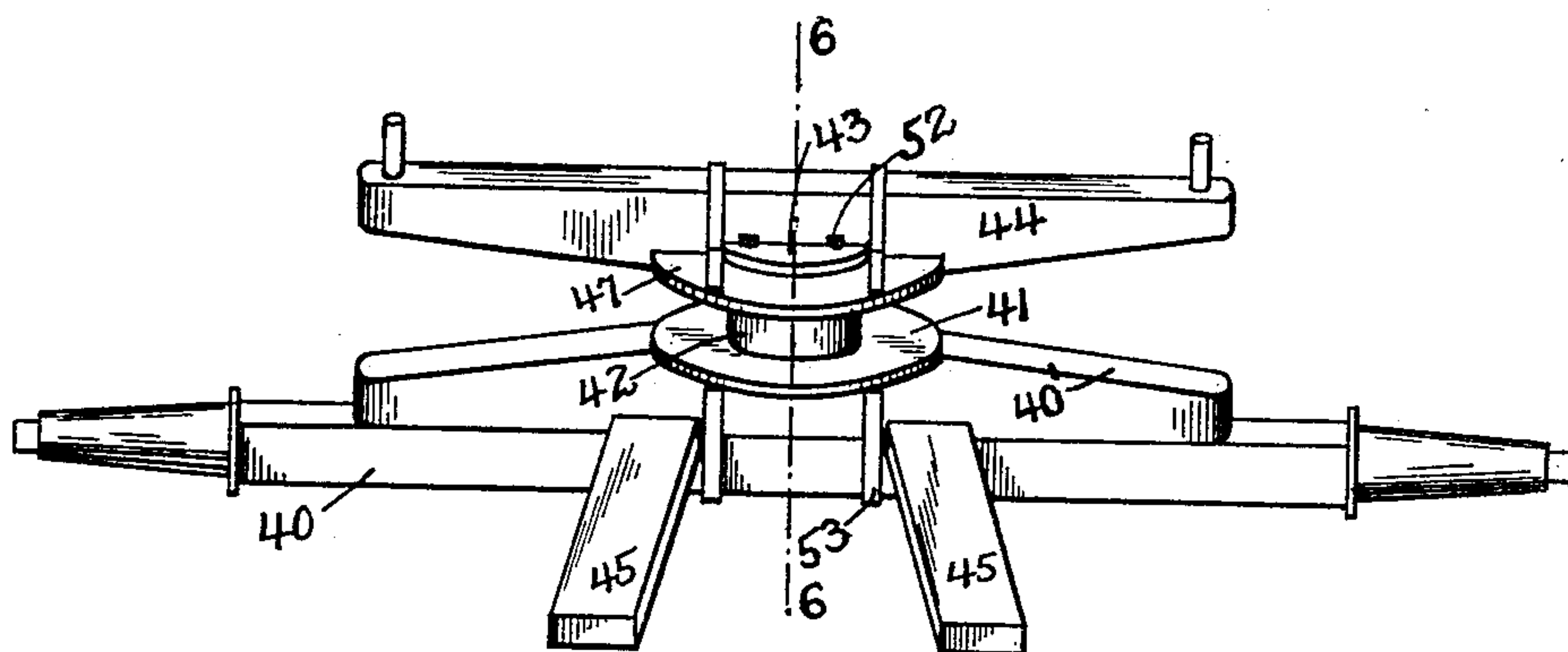


Fig. 5.

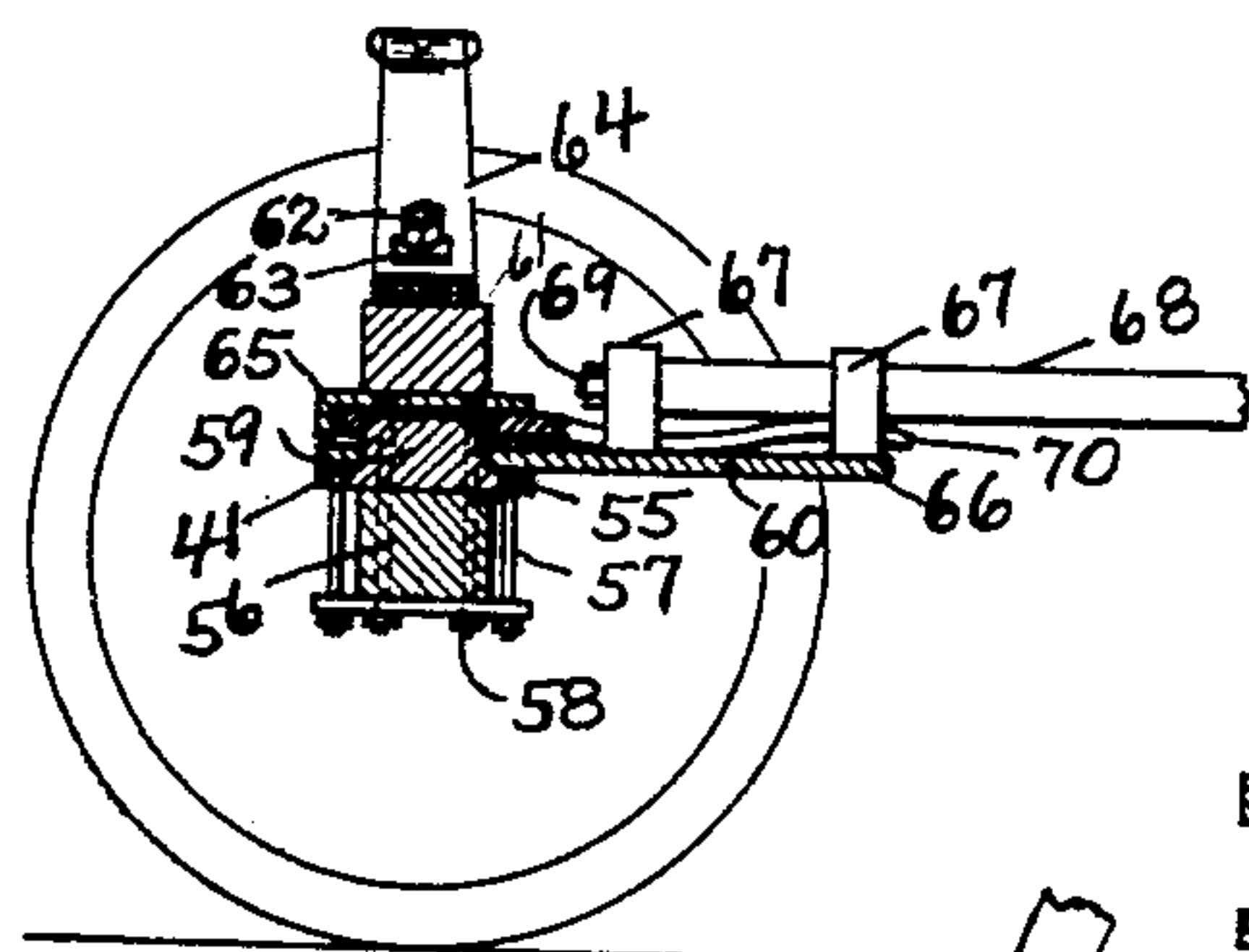


Fig. 8.

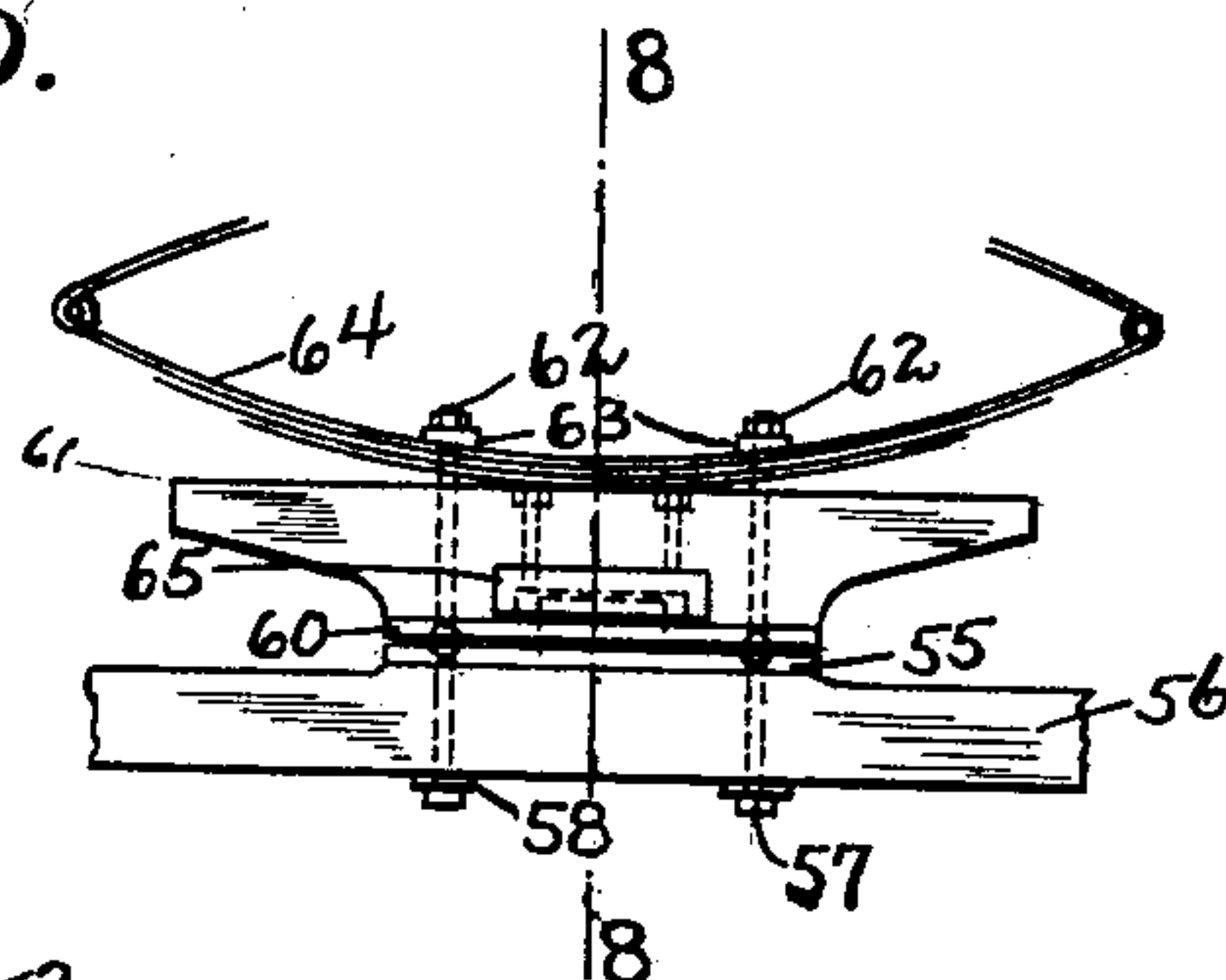


Fig. 7.

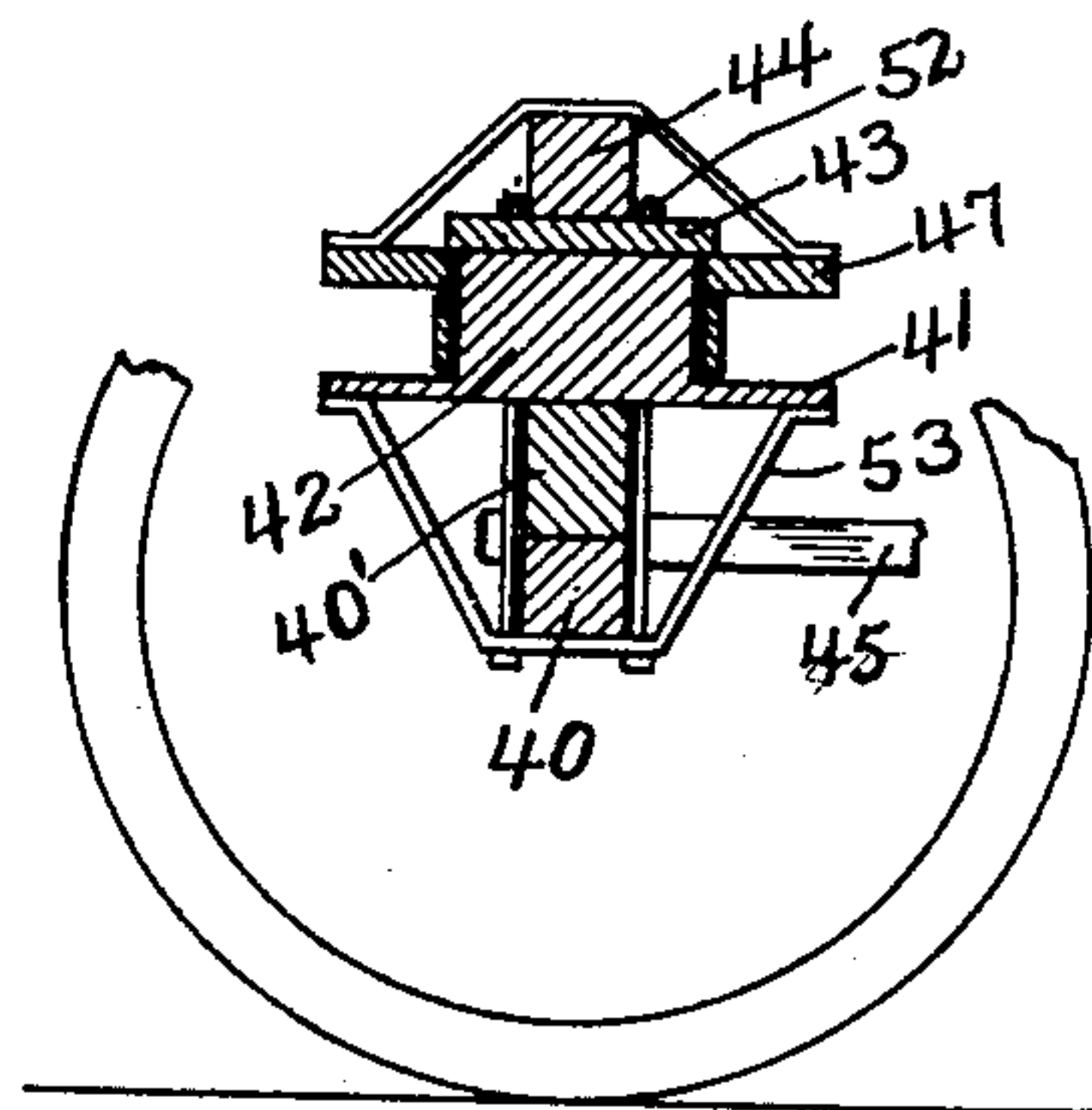


Fig. 6.

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UNITED STATES PATENT OFFICE.

HARRISON S. HODIL, OF ETNA, PENNSYLVANIA.

RUNNING-GEAR.

SPECIFICATION forming part of Letters Patent No. 750,854, dated February 2, 1904.

Application filed March 17, 1903. Serial No. 148,234. (No model.)

To all whom it may concern:

Be it known that I, HARRISON S. HODIL, a citizen of the United States, residing at Etna, in the county of Allegheny, State of Pennsylvania, have invented certain new and useful Improvements in Running-Gear; and I do hereby 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.

This invention relates to running-gears for vehicles, and more particularly to the pivotal connection between the front axle and front bolster and the connections between the reach-bar and adjacent parts.

The object of the invention is to provide a construction wherein the front and rear axles may have independent lateral rocking movements and in which the usual king-bolt will be dispensed with.

Other objects and advantages of the invention will be understood from the following description.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a top plan view of a running-gear with the bolster at the front removed. Fig. 2 is a side elevation of the construction shown in Fig. 1. Fig. 3 is a vertical section taken transversely through the front axle in a plane including the axis of pivotal movement of the axle. Fig. 4 is a perspective view showing the irons for pivotally connecting the reach-bar with the front axle. Fig. 5 is a perspective view showing the front axle of a wagon with the hounds and bolster thereon and illustrating the forward end of the reach-bar disconnected therefrom. Fig. 6 is a vertical section on line 6 6 of Fig. 5. Fig. 7 is a front elevation of the front axle and bolster of a buggy having a modified equipment. Fig. 8 is a vertical section on line 8 8 of Fig. 7.

Referring now to the drawings, and more particularly to Figs. 1, 2, and 3 thereof, there is shown a running-gear comprising the front and rear axles 10 and 11. Upon the front axle 10 is secured a plate 12, having a central

upwardly-directed cylindrical boss 13, which serves the purpose of the ordinary king-bolt. In connection with the plate 12 is employed an annular plate 14, having a central hub from which radiate the spokes 15, and in the hub is a perforation 16, in which is rotatably received the boss 13. To hold the plate 14 in place on the boss 13, a cap-plate 17 is provided of a greater diameter than the boss, so as to project over the central portion of the plate 14. Through the cap-plate 17, the boss 13, and the plate 12 are engaged bolts 18, which pass downwardly at the front and rear sides of the front axle and are engaged through a plate 19, which is disposed transversely of the under side of the axle and the ends of which extend upwardly and diagonally and are secured to the under side of the plate 12 to brace the latter. Upon the plate 14 at the front and rear of the axle are seats 20, which receive the front springs of the body of the vehicle.

The running-gear includes a reach-bar 21, at the front end of which are secured the yoke-arms 22, having their ends pivotally engaged with the plate 14, as illustrated. The rear end of the reach-bar is pivotally engaged with a clevis consisting of a bolt 24, having a yoke 25 at its front end, between the arms of which the end of the reach-bar is received and between which it is held by the pivot-bolt 26, which permits of vertical pivotal movement of the bar. The bolt 24 is engaged through the rear bolster 27 and is held by the nut 28 against withdrawal. The bolster 27 rests upon the springs 29, the ends of which extend outwardly and downwardly and are connected to the rear ends of other springs 30, which extend upwardly and forwardly and are pivotally connected at their upper ends with the body of the wagon. The springs 30 are connected at points midway of their ends to the rear axle 11 by means of clips 31. With this construction it will be seen that the front axle and bolster are not weakened by an opening to receive a king-bolt, and at the same time the axle has the same freedom of movement as is obtained with the usual fifth-wheel. Furthermore, as the wagon or buggy travels over a rough road independent rocking of the axles is permitted, and vertical

movement of the axles with respect to each other may take place without straining the connections between the reach-bar and axle.

In Figs. 5 and 6 of the drawings there is shown a construction including an axle 40 and an axletree 40', on which latter is secured a plate 41, which corresponds to the plate 12, this plate having a boss 42 and a cap-plate 43, on top of which latter rests the front bolster 44. The boss is engaged through a plate 47, which is secured to the lower face of the bolster 44 to connect the latter pivotally with the front axle, and encircling the boss below this plate 47 and resting upon the plate 41 is the metal strap 48, the ends of which are secured against the side faces of the block 49, which is secured to the reach-bar 50 and is held for longitudinal adjustments thereto by the bolts 51. The front end of the block 49 is recessed to partly receive the boss. The cap-plate in this construction is likewise held against the upper end of the boss by bolts 52, engaged therethrough and through the boss, and with a clip-plate 53 disposed against the under face of the axle.

In Figs. 7 and 8 there is shown a construction in which a lower plate 55 is employed, which is secured to the front axle 56 by means of bolts 57 and clip-plates 58 and which plate has a boss 59, which engages through a plate 60, which is held to the under face of the bolster 61 by bolts 62, engaged also with plates 63, which are passed through and clamp the spring 64 upon the bolster. The boss enters a recess in the bottom of the bolster and is provided with a cap-plate 65, which is bolted in place, as illustrated. The plate 60 has a rear extension 66, having perforated bosses 67, in which is rotatably engaged the forward cylindrical end portion of the reach-bar 68, so

that the front axle may rock independently of the reach-bar, the reach-bar being held against withdrawal from the bosses by the nut 69. A spring-plate 70 has a perforated head which receives the boss and lies between plates 60 and 65, the rear end of the spring-plate engaging beneath the front end portion of the reach-bar to hold the latter yieldably against movement.

What is claimed is—

In a running-gear, the combination with the front axle of a plate secured thereto and having an upwardly-directed vertically-perforated boss thereon, a second plate having a central perforation therethrough disposed with its perforation upon the boss and having seats upon the upper face thereof at the opposite sides of the axle to receive springs, and having pivot-pins arranged upon opposite sides thereof between the seats, a reach-bar having a forked end, the arms of which are perforated, and disposed with their perforations upon the pivot-pins, a perforated cap-plate disposed upon the boss and projecting beyond the second plate, the perforations thereof registering with those of the boss, bolts disposed within the perforations of the boss and cap-plate and extending below the axle, and a perforated plate disposed with its perforations upon the ends of the bolts and its upper face bearing against the axle and having its ends brought upwardly, and secured to the first-named plate to brace the latter.

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

HARRISON S. HODIL.

Witnesses:

FRANK M. METZ,
C. A. SEITZ.