# R. H. WALLACE. RUNNING GEAR FOR VEHICLES.

RUNNING GEAR FOR VEHICLES. No. 604,811. Patented May 31, 1898. Fig.4. Fig. 3. Inventor RobertHiwattace Wilnesses M. S. Wieterick By Fries Altorneys,

## UNITED STATES PATENT OFFICE.

## ROBERT HENRY WALLACE, OF NEW CONCORD, OHIO.

### RUNNING-GEAR FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 604,811, dated May 31, 1898.

Application filed March 31, 1897. Serial No. 630,151. (No model.)

To all whom it may concern:

Be it known that I, Robert Henry Wal-LACE, a citizen of the United States, residing at New Concord, in the county of Muskingum and State of Ohio, have invented 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.

The objects of the present invention are to improve the construction of vehicle running-gear, to provide a simple and efficient device by which the front and rear axles can be pivoted and caused to track perfectly, and to enable either end of a running-gear to be used as the front and to receive a pole or tongue.

The invention consists in the construction and novel combination and arrangement of parts, as hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

In the drawings, Figure 1 is a plan view of a running-gear constructed in accordance with this invention. Fig. 2 is a reverse plan view of the same, the axles being shown parallel in full lines and at an angle in dotted lines. Fig. 3 is a detail perspective view illustrating the construction of the central guide and showing a portion of the connecting wires or rods. Fig. 4 is a detail sectional view illustrating the manner of mounting the brake-bar. Fig. 5 is a detail perspective view of one of the semicircular end guides.

Like numerals of reference designate corre-35 sponding parts in all the figures of the draw-

ings.

1 and 2 designate axles, upon each of which is mounted a pair of outwardly-converging hounds 3, the outer terminals of each pair being adapted to receive a tongue or pole, whereby the running-gear is adapted to have either of its ends arranged at the front of the vehicle. The inner terminals of the hounds are connected by transverse bars 4, and the two axles are connected by a reach-bar 5, pivoted at each end by a vertical pin or king-bolt 6, which also pivots a bolster 7 to each axle, a sand-bolster 8 being interposed between the hounds and the body-receiving bolster 7 in the ordinary manner. The bolsters 7 are provided with standards and are adapted to sup-

port a wagon-body, and springs can be em-

ployed, if desired.

The axles 1 and 2 are caused to track perfectly by a pair of diagonally-disposed connecting wires or rods 9 passing centrally through a guide 10 of the reach and secured at their terminals to the inner faces of the axles, at opposite sides of the center thereof. The central guide, which consists of a block 60 suitably secured to the reach, is provided with diagonally-disposed openings through which the rods pass.

Semicircular guides 11, which are mounted on and extend inward from the axles, are in-65 terposed between the ends of the connecting wires or rods and are adapted to spread the same properly when the axles are arranged at an angle to each other in turning the running-gear to prevent the wires or rods from 70 shortening through bending and thereby maintaining the axles firmly in proper relation to each other. The semicircular end guides are bolted to the hounds and are provided with peripheral grooves for the recep-75 tion of the wires or rods 9.

A transverse brake-bar 13, which is arranged at one end of the running-gear, is mounted in brackets 14 and is connected by a substantially V-shaped frame or piece 15 80 with one arm of a rock-shaft 16, and the latter, which is provided at its outer end with an arm, may be connected with any suitable operating mechanism. The brake-bar is recessed to receive the brackets and is provided 85 at its end with brake-shoes, the recessing holding the brake-bar against longitudinal movement.

It will be seen that the connection between the axles cause them to track perfectly, that 90 either end of the running-gear may be arranged at the front of a vehicle, and that the improvement is applicable to various kinds of vehicles and sleds.

What I claim is—

In a running-gear, the combination of a reach, a pair of axles pivoted to the ends of the reach, the centrally-arranged guide-block mounted on the reach between the ends thereof and provided with diagonally-disposed roo openings, the wires or rods 9 disposed diagonally of the running-gear, extending through

the openings of the guide and secured at their terminals to the axles near the ends thereof, and the semicircular guides mounted on the axles and interposed between the ends of the wires or rods to take up the slack of the latter and cause the wheels to track perfectly in turning the vehicle, substantially as and for the purpose described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 10 the presence of two witnesses.

#### ROBERT HENRY WALLACE.

Witnesses:

J. M. WALLACE,

J. W. MILLER.