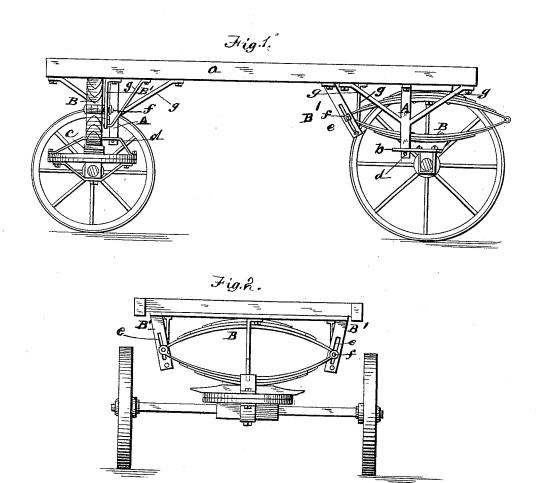
## J. W. ROBERTS.

## RUNNING GEAR FOR VEHICLES.

No. 266,723.

Patented Oct. 31, 1882.



F. H. Knight Harry Somhard.

by Edom Brothers
his Attorneys

# United States Patent Office.

JOHN W. ROBERTS, OF DALLAS, TEXAS, ASSIGNOR OF TWO-THIRDS TO JOHN M. SHACKLEFORD AND SANFORD F. ROBERTS, OF SAME PLACE.

#### RUNNING-GEAR FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 266,723, dated October 31, 1882.

Application filed June 29, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. ROBERTS, a citizen of the United States, residing at Dallas, in the county of Dallas and State of Texas, have invented certain new and useful Improvements in Running-Gear for Vehicles; and I 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 being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to improvements in running-gear for vehicles, and has for its object, in common with others, to dispense with the reach or pole, and while doing this to previde for or avoid interference with the normal action of the springs, and to render it applicable to vehicles already in use.

To these ends my invention consists in the employment of braces adapted to be connected to and permit the springs to have the required movement, and also of additional braces arranged between the body support or frame and axles, having the one a slotted plate and the

other a slotted bridge, substantially as hereinafter more fully set forth and claimed.

In the accompanying drawings, Figure 1 is a side elevation, with the axles in section, of a vehicle running-gear embodying my improvements. Fig. 2 is a front elevation of the same, and Fig. 3 is a detailed view thereof.

In order to dispense with the reach or pole, provision must be made to hold the axles and springs as against movement out of horizontal plane. To accomplish this I employ braces, (two or more,) disposed at each end of the running-gear. The braces A are pendants fast-ened to the body support or frame a at their upper ends, and having their lower ends passed the rear one through a slotin a plate, b, clipped

to and upon the upper side of the axle, and the front one through a slotted bridge, e, bolted to the upper plate of the fifth-wheel. The 45 bridge e crosses the lower half of the front spring. The lower ends of the braces A A have passed transversely through them, below the slotted plate and bridge, pins d, to prevent the withdrawal of said ends by the movement of the body. The braces A, at each end of the vehicle, keep the axles from rocking or going backward or forward.

To keep the springs B horizontal and at the same time not interfere with their normal action, I secure to the body support or frame a, contiguously to the springs, braces B', inclined as shown, and having slots e, which receive bolts f, nutted and cushioned on opposite sides of the braces. The braces A are suitably 60 braced in position as at a a Fig. 1

braced in position, as at g g, Fig. 1.

The bars or pendants B' may each be connected to the bottom of the body by one or more braces, as about

more braces, as shown.

When the body of the vehicle is depressed 65 the springs are elongated, and the slot of each bar B' being inclined outwardly from bottom to top, the distance from the slot of one bar to that of the opposite bar is increased in exact proportion as the springs are elongated.

I claim and desire to secure by Letters Pat-

ent-

In a vehicle running-gear, the combination, with the springs and laterally projecting and nutted bolts, of the inclined braces B', having 75 slots e, which receive said bolts, as and for the purpose specified.

In testimony whereof I affix my signature in

presence of two witnesses.

### JOHN WILLIAM ROBERTS.

Witnesses:

F. S. ROBERTS, J. M. SHACKELFORD.