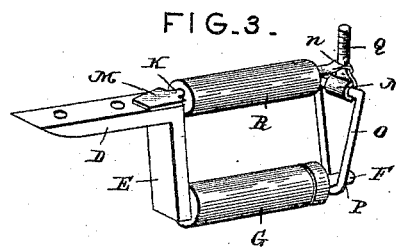
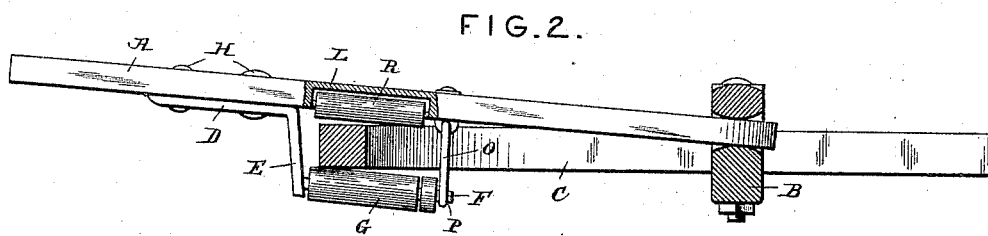
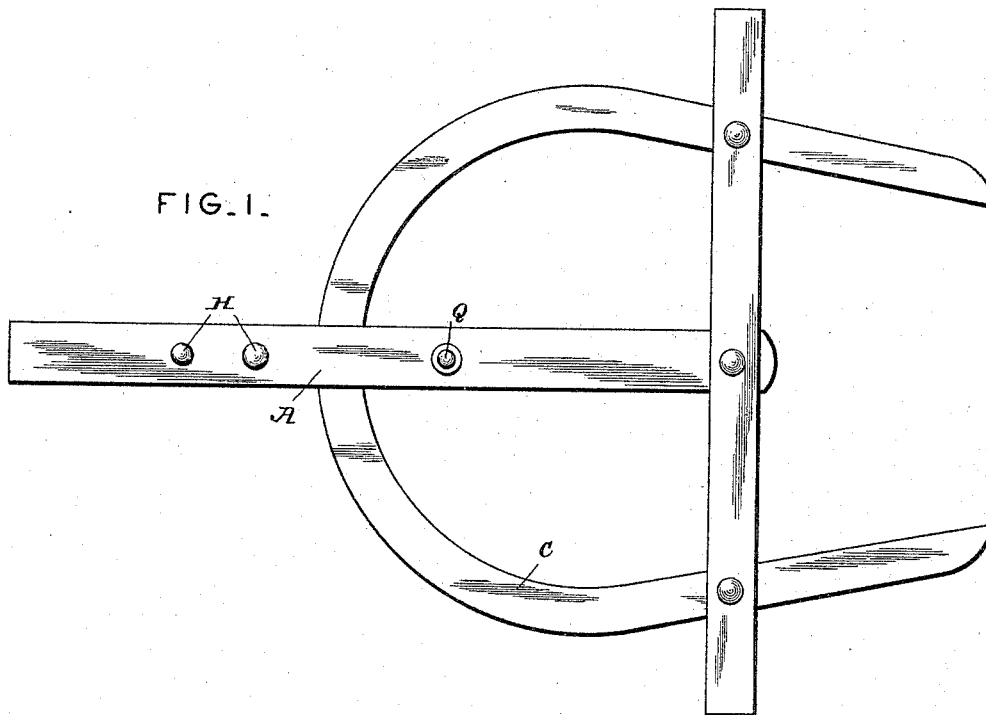


(No Model.)

W. B. PHILLIPS.  
RUNNING GEAR FOR VEHICLES.

No. 489,688.

Patented Jan. 10, 1893.



Witnesses

Harry L. Ames.

*[Signature]*

Inventor

W. B. Phillips.

By his Attorneys,

*Adams & Co.*

# UNITED STATES PATENT OFFICE.

WILLIAM B. PHILLIPS, OF CROCKER, MISSOURI.

## RUNNING-GEAR FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 489,688, dated January 10, 1893.

Application filed August 25, 1892. Serial No. 444,139. (No model.)

### *To all whom it may concern:*

Be it known that I, WILLIAM B. PHILLIPS, a citizen of the United States, residing at Crocker, in the county of Pulaski and State of Missouri, have invented a new and useful Rub-Iron, of which the following is a specification.

My invention relates to a rub iron or slide for the running gear of vehicles, the object of my improvement being to provide an anti-friction connection between the hounds and the reach, or coupling-pole, to prevent unnecessary wearing of said parts.

My invention is fully described in connection with the accompanying drawings, and the novel features thereof are particularly pointed out in the appended claims.

In the drawings;—Figure 1 is a plan view of a portion of the running gear of a vehicle with my improvement applied thereto; Fig. 2 is a side view of the improvement, showing the hounds in section; Fig. 3 is a detail view of the attachment.

A designates the reach or coupling pole, pivotally connected to the axle, B, and C designates the hound, upon which the reach bears in its movements around its pivot as a center. To the underside of the reach is firmly secured a metallic plate, D, bent downward at its front end to form a hanger or bracket-arm, E, and bent parallel with the underside of the reach and reduced to form a spindle, F, upon which is mounted an anti-friction roller, G. The plate of which the bracket or hanger is a part, is perforated for the reception of bolts, H H, which pass through the reach.

K designates an upper spindle; arranged in a channel, L, in the under-surface of the reach and provided at its rear end with a flattened portion, M, which engages under the front end of the plate, D, or between the same and the underside of the reach. The front end of the upper spindle is provided with an eye, N, in which is pivotally mounted the upper end of a bracing loop, O, the lower reduced end of which is engaged with the forwardly extended end of the lower spindle F. The end of said lower spindle is provided with a notch, P, to receive and hold the lower end of the

bracing-loop. The upper end of the loop, toward which the sides diverge, bears against the under surface of the reach and prevents lateral straining of the front end of the lower spindle. The front end of the upper spindle is further provided with a bolt by which it is secured to the tongue, and preferably said bolt, Q, is integral with the eye—N—and extends through a perforation, n, in the extremity of the upper spindle, as shown in the drawings. The spindles are parallel, as shown, and therefore the upper roller, R, which is mounted upon the upper spindle is parallel with the lower roller, and they bear respectively against opposite sides of the hound. Inasmuch as the rollers turn freely it will be understood that the lateral movements of the reach cause but slight friction with the hounds, and therefore but little wear is apparent.

The attachment may be readily applied to the reach of any vehicle now in use, without any alterations except the channeling of the under surface of the reach sufficiently to allow the spindle to be seated therein so as to bring the under surface of the upper roller approximately in the plane with the under-surface of the reach.

Having thus described my invention what I claim and desire to secure by Letters Patent of the United States, is:—

1. In combination with front wagon hounds and reach, an attachable bracket E provided with a spindle F a roller mounted upon said spindle to bear upon the under side of the hounds, and a swinging loop O engaging the free end of said spindle, substantially as specified.

2. In combination with front wagon hounds and reach an attachable bracket E fastened to the under-side of the reach and provided with a spindle F, an upper spindle K, parallel with spindle F and provided at its front end with an eye N, a loop journaled in said eye and engaging the free end of spindle F, and rollers mounted upon said spindles, substantially as specified.

3. In combination with front wagon hounds and reach, an attachable bracket E, provided with a securing plate D and spindle F, an up-

per spindle K provided with an ear M and  
a perforation *n*, an eye-bolt Q fitting in said  
perforation and having an eye N, a loop jour-  
naled in said eye and engaging the free end  
5 of spindle F, and rollers mounted upon the  
spindles, substantially as specified.

In testimony that I claim the foregoing as

my own I have hereto affixed my signature in  
the presence of two witnesses.

WILLIAM B. PHILLIPS.

Witnesses:

W. D. ROWDEN,  
J. H. TURPIN.