

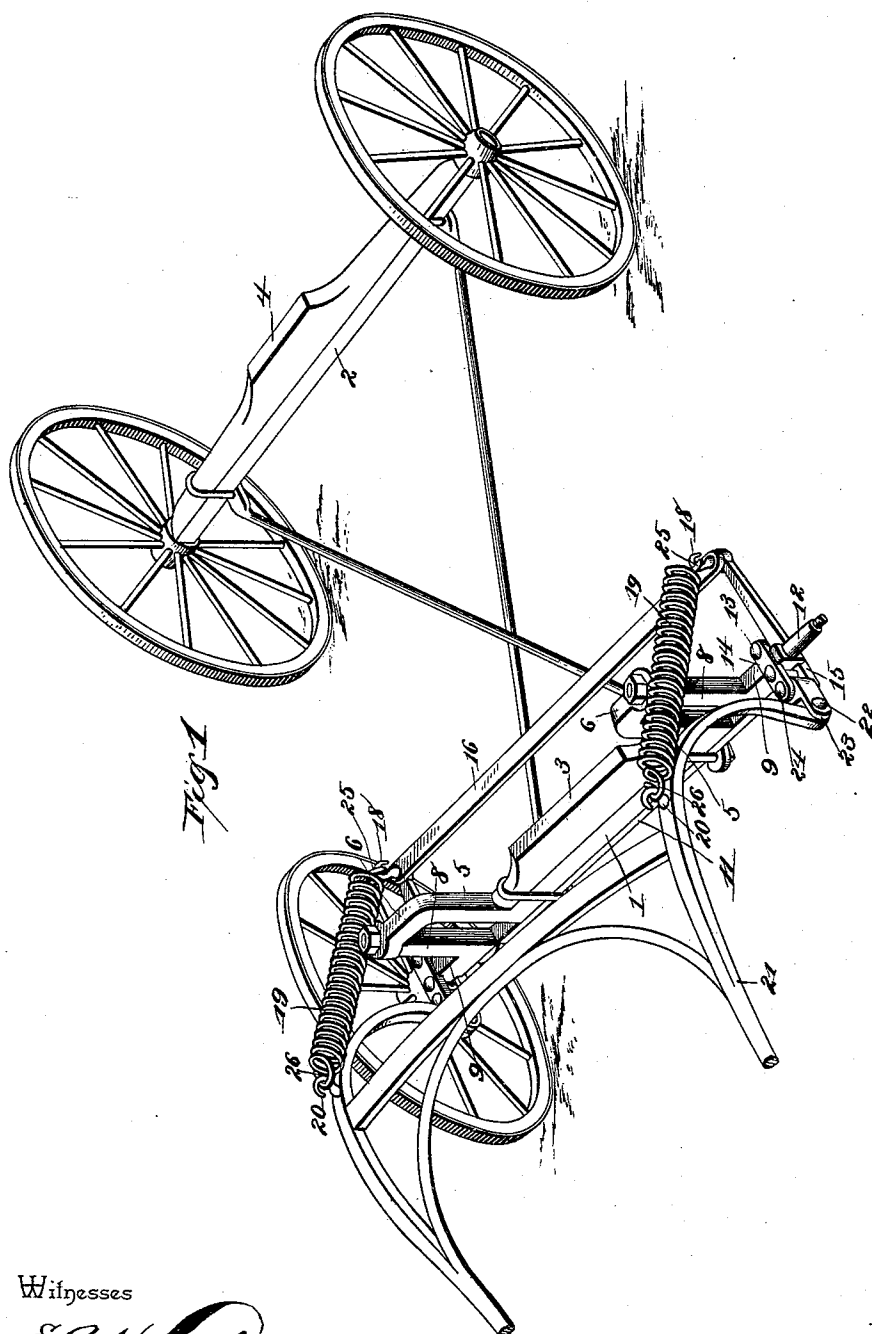
(No Model.)

2 Sheets—Sheet 1.

B. H. PAUGH & G. W. FRIDLEY.
RUNNING GEAR FOR VEHICLES.

No. 478,758.

Patented July 12, 1892.



Witnesses

E. H. Mendenhall,
N. H. Reay

Inventors

B. H. Paugh and
G. W. Fridley
C. A. Snow & Co.

By their Attorneys,

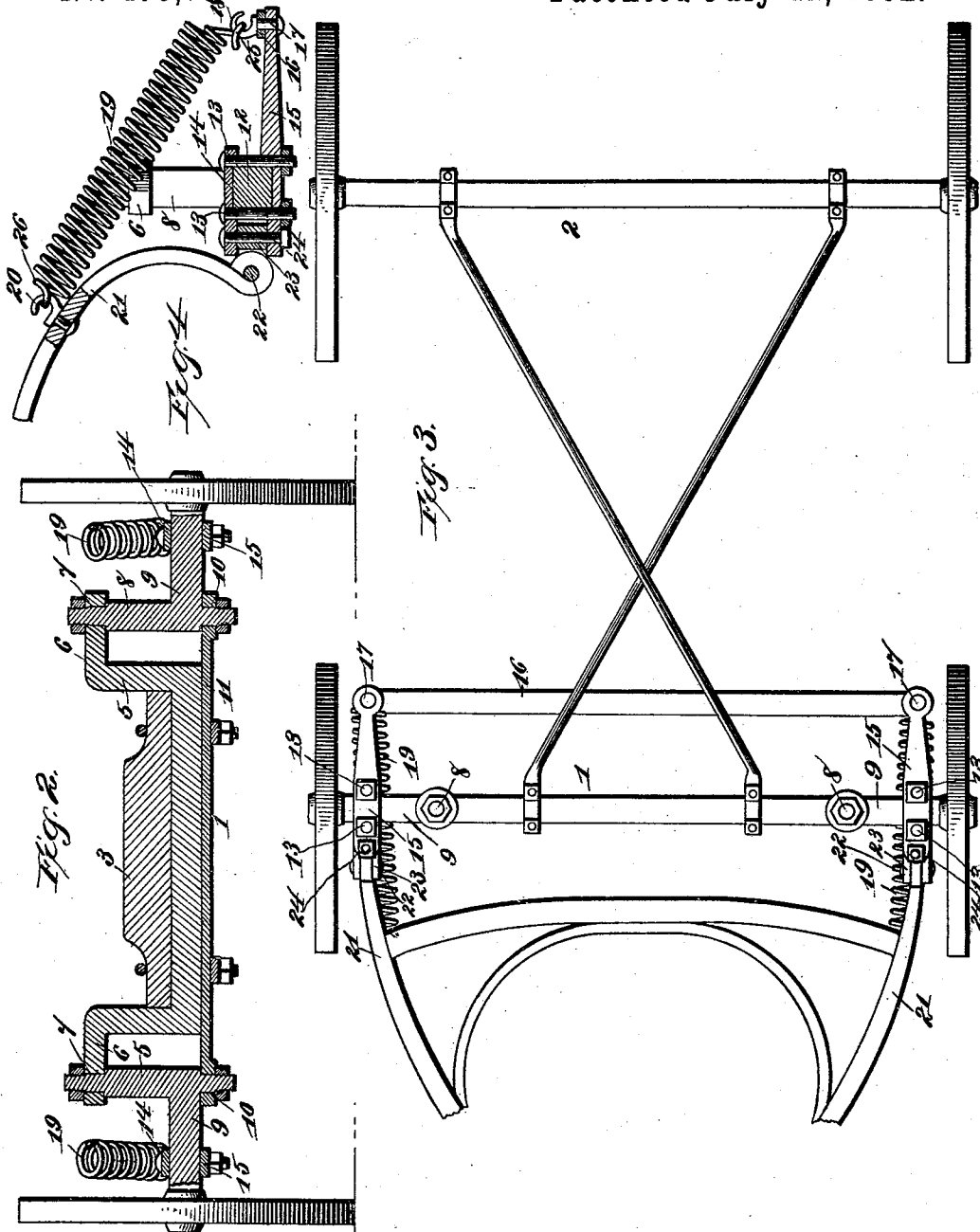
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Witnesses

E. C. Warden
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By their Attorneys, *C. A. Snow & Co.*

UNITED STATES PATENT OFFICE.

BENJAMIN H. PAUGH AND GEORGE WASHINGTON FRIDLEY, OF PHILIPPI,
WEST VIRGINIA.

RUNNING-GEAR FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 478,758, dated July 12, 1892.

Application filed March 11, 1892. Serial No. 424,554. (No model.)

To all whom it may concern:

Be it known that we, BENJAMIN H. PAUGH and GEORGE WASHINGTON FRIDLEY, citizens of the United States, residing at Philippi, in the county of Barbour and State of West Virginia, 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 object of the present invention is to dispense with the usual king-bolt and fifth-wheel, which cause much annoyance, to increase the strength and durability of vehicles, and to provide means for holding the shafts elevated to facilitate the attachment of a horse.

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

In the drawings, Figure 1 is a perspective view of a running-gear constructed in accordance with this invention. Fig. 2 is a transverse sectional view. Fig. 3 is a reverse plan view. Fig. 4 is a detail sectional view.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 and 2 designate the front and rear axles of a running-gear, which are clipped to axlebeds 3 and 4 and which are suitably connected by a reach. The front axle has its ends provided with L-shaped extensions composed of a vertical portion 5 and a horizontal portion 6, which is provided with an opening 7, in which is journaled a vertical shaft 8 of an axle-arm 9, which is adapted to turn with the shaft 8 as a pivot, whereby the necessity of employing king-bolts and fifth-wheels is dispensed with. The vertical shaft or pivot 8 has its end rounded and journaled in the opening 7 of the extension of the front axle and in an opening 10 of a bar 11, clipped to the lower face of the front axle and extending beyond the horizontal body portion thereof. The arm 9 of the axle has a spindle portion 12 and has secured to it by clip-bolts 13 an upper clip-plate 14 and a lower clip-bar 15, the latter of which extends rearwardly from the axle-arm 9 and is secured to one end of a

connecting-bar 16. The connecting-bar 16 is pivotally attached to the rear end of both of the clip-bars 15, whereby the axle-arms 9 move in unison, and the pivots 17 of the connecting-bar 16 are provided with hooks 18 to which are connected the rear ends of springs 19, which have their front ends engaging, detachably, hooks 20 of shaft 21, whereby the shafts are held elevated while a horse is being harnessed up. The shafts have their irons pivoted by a coupling-bolt 22 to a coupling-block 23, which is pivoted by a vertical bolt 24 between the front ends of the upper clip-plate and the lower clip-bar, the said bar and plate projecting forward beyond the axle-arm and being provided with perforations to receive the pivot-bolt. The spring 19 is provided at its ends with loops 25 and 26 to engage the hooks 18 and 27, the latter being arranged on the adjacent shaft. By means of the springs the shafts are held elevated while the horse is being hitched to the vehicle without the necessity of employing the usual prop-stick, which often frightens a horse and is the cause of a runaway.

It will be seen that the running-gear is simple and comparatively inexpensive in construction, that the ordinary king-bolts and fifth-wheel are dispensed with, and that the shafts are held elevated while hitching a horse to a vehicle.

The ends of the pivots of the axle-arms extend beyond the ends of the extensions of the front axle and the ends of the bar, which are secured to the same and are threaded to receive nuts. The coupling-blocks are bifurcated at their front ends to receive the shaft-irons.

What I claim is—

1. In a running-gear, the combination of an axle provided with L-shaped extensions, the bar secured to the lower face of the axle and projecting therefrom, the arms 9 of the axle, having vertical pivots journaled in the extensions of the axle and in the ends of the bar, the clip-bars secured to the lower faces of the axle-arms and projecting rearwardly therefrom, the clip-plates secured to the upper face of the axle-arm, the clip-bolts connecting the clip-plates and the clip-bars, the connecting-bar secured to the rear ends of the clip-bars,

the hooks 18, having shanks pivoting the connecting-bar to the clip-bars, the shafts coupled between the front ends of the clip plates and bars and provided with hooks, and spiral springs provided at their ends with loops engaging the hooks, substantially as described.

2. In a running-gear, the combination of the front axle, the axle-arms having vertical pivots journaled at the ends of the axle, the clip-bars extending forward and rearward from the axle-arms and extending from them, the clip-bolts securing the clip-plates and the clip-

bars to the axle-arms, and the coupling-blocks pivoted between the front ends of the clip-plates and the clip-bars, substantially as described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

BENJAMIN H. PAUGH.

GEORGE WASHINGTON FRIDLEY.

Witnesses:

W. B. KITTLE,

J. C. WILLOUGHBY.