

(No Model.)

2 Sheets—Sheet 1.

H. M. & J. M. CRIPPEN.
RUNNING GEAR FOR VEHICLES.

No. 494,628.

Patented Apr. 4, 1893.

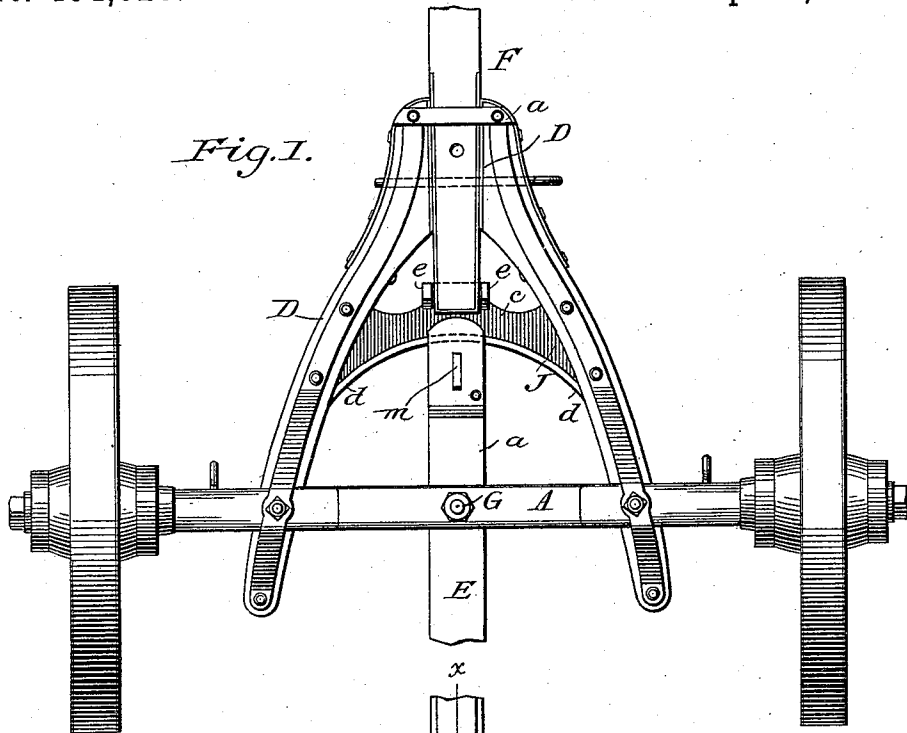


Fig. 1.

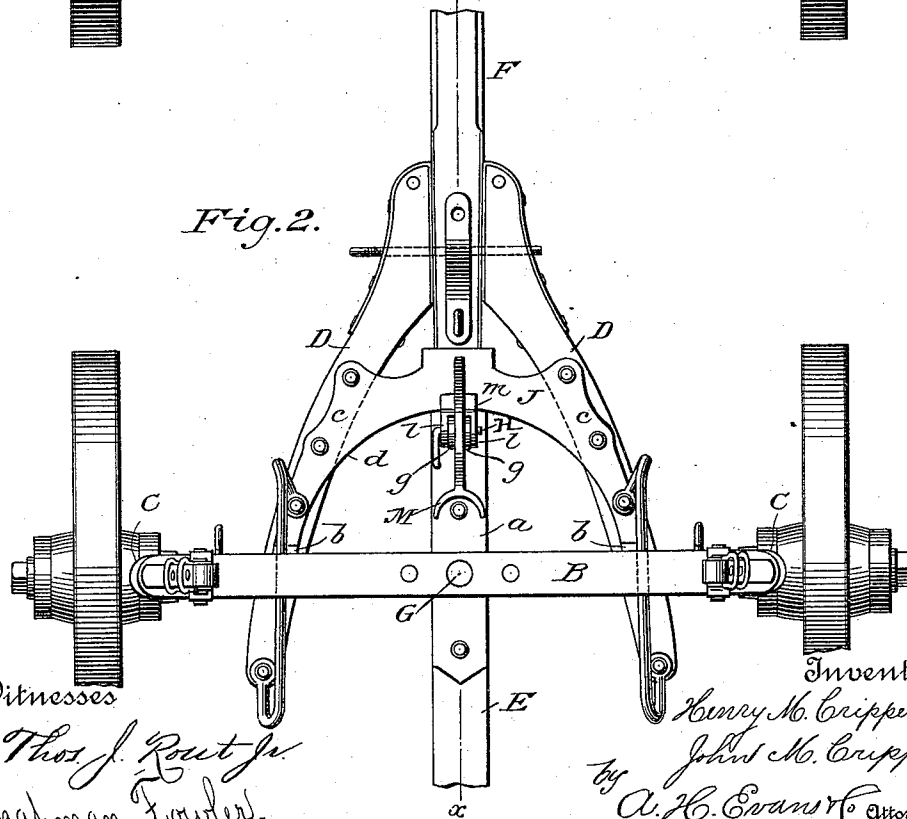


Fig. 2.

Witnesses

*Thos. J. Rout Jr.
Carpenter
Fowler.*

Inventors

*Henry M. Crippen
John M. Crippen
by A. H. Evans & Co. Attorneys*

H. M. & J. M. CRIPPEN.
RUNNING GEAR FOR VEHICLES.

No. 494,628.

Patented Apr. 4, 1893.

Fig. 3.

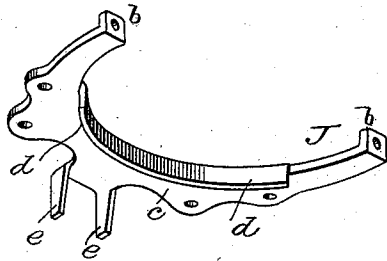


Fig. 6.

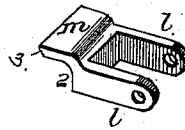


Fig. 4.

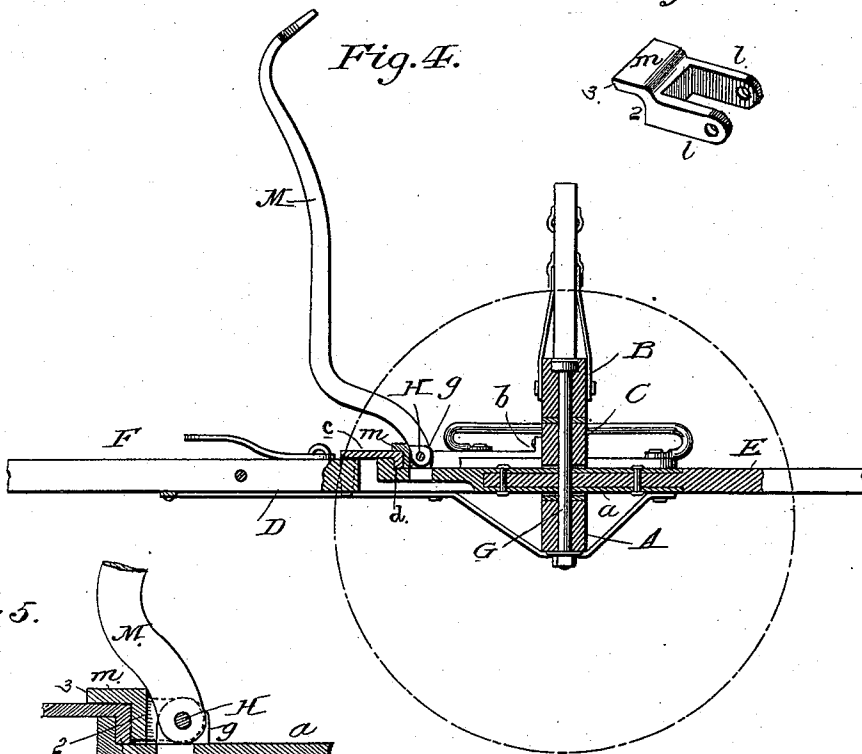
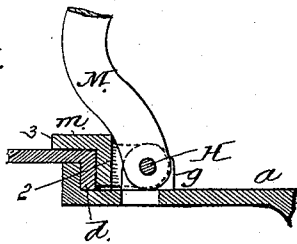


Fig. 5.



Witnesses

Thos J. Rust Jr.
Chapman Fowler.

Inventors

Henry M. Crippen
John M. Crippen
by A. H. Evans & Co.
Attorneys

UNITED STATES PATENT OFFICE.

HENRY M. CRIPPEN AND JOHN M. CRIPPEN, OF ATHENS, OHIO.

RUNNING-GEAR FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 494,628, dated April 4, 1893.

Application filed August 2, 1892. Serial No. 441,950. (No model.)

To all whom it may concern:

Be it known that we, HENRY M. CRIPPEN and JOHN M. CRIPPEN, citizens of the United States, and residents of Athens, in the county of Athens and State of Ohio, have invented certain new and useful Improvements in Running-Gear for Vehicles, of which the following is a full and clear description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1, is a bottom plan view of the forward portion of the running gear of a vehicle, showing the coupling pole attached, and the tongue or pole broken off. Fig. 2, is a top plan view of the same. Fig. 3, is a detail of the circle plate which serves as a bearing for the front end of the coupling pole and rear end of the pole or tongue. Fig. 4, is a longitudinal sectional view on the line $x-x$ of Fig. 2. Figs. 5 and 6 are enlarged details of the wear plate and its adjuncts.

Our invention relates to certain new and useful improvements in the forward running gears of vehicles, and consists of the constructions and combinations of devices which we shall hereinafter fully describe and claim.

To enable others skilled in the art to which our invention appertains to make and use the same we will now describe its construction and indicate the manner in which the same is carried out.

In the said drawings A represents the front axle, B the bolster, C the sand-bolster, D the front hounds, E the coupling pole joining the front and rear gears, F the pole or tongue to which the team is attached, and G the king-bolt, these features being of the usual well known construction, except that the forward end of the coupling pole, which supports the weight of the front hounds, is faced by a metal socket or plate a to take off the wear from this end of the pole and to strengthen and brace the same. The front hounds D, in the present case are shorter than usual, and project mostly in front of the front axle, only projecting in rear of the axle a distance sufficient to receive the bolster rest and axle braces, the rear portion of the hounds, commonly used and provided with a rear cross bar or slider, being in this case omitted, to simplify and cheapen the construction and make a more desirable form of gear.

Upon the front hounds forward of the front axle, is secured a circle plate J, having lugs b at its rear end by which it is bolted to the front of the sand-bolster, said plate being also bolted to the hounds as indicated in the drawings. This circle plate J is of angular form in cross section, its horizontal flange c fitting over the top of the hounds and its vertical or inner circle d passing down and fitting against the inner walls of the hounds, while the front portion of the plate is wide and spans the open space between the parts of the hounds, and has suitable lugs e projecting from its under surface to form a housing or socket for the metal-faced front end of the coupling pole as shown in Fig. 1.

The tongue or pole F, is fitted between the front hounds in the usual manner and its rear end projects under the wide front portion of the circle plate J and between the two downwardly projecting lugs e on said plate, said lugs being of sufficient length to allow the usual upward motion of front end of tongue, and still support the tongue from side motion. The circle plate supports the weight of the tongue, and also serves as a bearing against the under surface of which the rear end of the tongue rests, as the team moves out of a straight course; and the front gear turns upon the king bolt, a sufficient space being left between the rear end of the tongue and front end of the coupling pole to permit this movement without cramping or binding of the parts in the act of turning. In order that this result may be accomplished, and the weight of the forward hounds supported upon the front of the coupling pole, it is necessary to make the extended front portion of the coupling pole longer than usual to enable it to be seated under the circle plate, and by dispensing with the usual rear extension of the front hounds, the wagon, when loaded with stone or like material, may discharge its load without injury or danger to the hounds.

On the forward end of the coupling pole, contiguous to the rear curved surface of the circle plate, and preferably formed upon the metal socket or plate a are suitable lugs between which the lower end of a foot lever M is pivotally secured. The bolt H upon which the lever M is pivoted also passes through openings in the ears l of a wear plate

m having its forward portion or wall 2 interposed between the lever and inner wall of the circle plate, said wear plate being provided with a forward projection 3 which hooks over
 5 on top of the circle plate thereby preventing all upward motion of the hounds. The purpose of this lever M will be readily understood when it is stated that, as the front gear works free upon the king bolt, there must be
 10 some means to prevent the wheel that strikes a stone or obstruction from flying back and jerking the tongue against the team. This movement is prevented by the use of the lever M, because, when the same is forced
 15 against the interposed wear plate, it makes the latter serve as a brake to the front gear and firmly locks the said gear to the coupling pole. The forcing of the lever against the circle plate therefore insures, when desired,
 20 the maintenance of the tongue in a position in line with the coupling pole and effectually prevents the disagreeable lateral motion of the tongue which is incident to many of the wagons now in use and operating on rough
 25 and stony roads, and the binding effect is equally accomplished, if desired, when the wagon is in the act of turning.

30 Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a vehicle the front gear thereof provided with a circle plate adapted to receive and form a slide for the adjacent ends of the pole or tongue and coupling pole, in combination with a lever on the coupling pole
 35 adapted to be forced against said plate to lock the gear to the coupling pole and prevent a jerking movement of the tongue or pole, substantially as herein described.

2. In a vehicle, the combination with the
 40 rear gear, of the front gear having hounds projecting forward of the front axle, a circle plate on said hounds adapted to receive and form a slide for the adjacent ends of the
 45 tongue or pole and coupling pole, a metal plate or socket on the front end of the coupling pole having lugs upon its upper surface, and a lever pivotally held between said lugs,
 50 and an interposed wear plate with forward projection adapted to be forced by the lever against the circle of the plate to lock the plate to the coupling pole and prevent a jerking movement of the tongue or pole, substantially as herein described.

HENRY M. CRIPPEN.
 JOHN M. CRIPPEN.

Witnesses:

J. P. WOOD,
 CHAS. LOGAN.