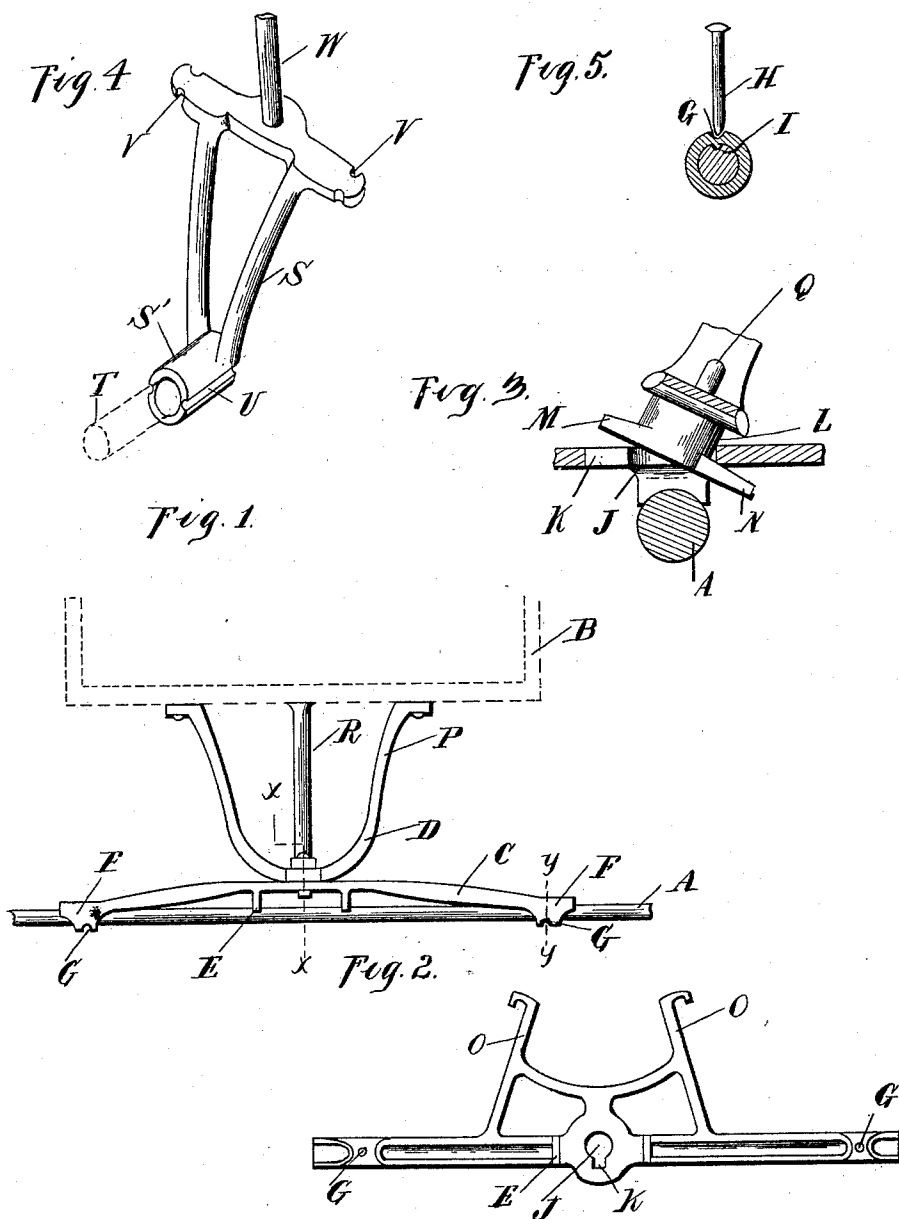


(No Model.)

F. NEWHOUSE.
WAGON RUNNING GEAR.

No. 469,504.

Patented Feb. 23, 1892.



Witnesses
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UNITED STATES PATENT OFFICE.

FREDERICK NEWHOUSE, OF TOLEDO, ASSIGNOR TO THE HARRIS METAL
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WAGON RUNNING-GEAR.

SPECIFICATION forming part of Letters Patent No. 469,504, dated February 23, 1892.

Application filed November 13, 1890. Serial No. 371,366. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK NEWHOUSE, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Wagon Running - Gear, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to new and useful improvements in wagon running-gear; and the invention consists in the peculiar construction of the gear, whereby it is cheaply and quickly secured to the axle, and, further, in the peculiar construction of the axle-cap and bolster, whereby they are detachably secured together in a manner which forms a lock in the normal position of the parts, but when they are turned at an angle to each other may be disengaged, and, further, in the peculiar construction, arrangement, and combination of the various parts, all as more fully hereinafter described.

My invention is especially designed to be used in the construction of wagon-gears for toy wagons and similar vehicles.

Figure 1 is a front elevation of the axle and attached gear of a toy wagon. Fig. 2 is a detached bottom plan view of the axle-cap. Fig. 3 is a vertical central section on line *x x* in Fig. 1, showing the manner of engaging the axle-cap and bolster. Fig. 4 is a detached view of one of the brackets secured to the rear axle, and Fig. 5 is a cross-section on line *y y* in Fig. 1.

A is the front axle of a vehicle, and B is the body thereof.

C is the axle-cap, and D is the bolster. The axle-cap is arched and is provided centrally with the bearing E, which rests upon the axle, and at its ends with the sleeves F, through which the axle is passed. These sleeves are provided, preferably on the under side, with a recess or indentation G. The cap being sleeved upon the axle to secure the two parts together, the operator takes a sharp-pointed tool—such as shown at H—and inserts in the indentation G and strikes the tool a sharp blow, which will force a point or pin I into the axle.

By making the axle-cap of malleable iron

and forming the indentation as above described I get sufficient strength in the sleeve and but a small amount of metal at the point of the indentation, whereby but a comparatively light blow is required to indent the metal of the sleeve into the metal of the axle, forming a positive fastening between the two both as against rotary and lateral motion. The axle-cap is provided centrally with an aperture consisting of the main portion J, preferably round, and a slot K at one side thereof.

The bolster D is provided centrally with a king-bolt L, formed integral therewith and adapted to enter the aperture J in the axle-cap. This pin is provided on its lower side with the cross-bar, having the arm M extending to the front and the arm N extending in the rear of the pin. The arm M is of a corresponding length to the length of the slot K; but the arm N is of greater length than the slot K.

To engage the parts the arm N is first inserted through the hole, as plainly shown in Fig. 3, which may be accomplished by turning the bolster at an angle to the axle-cap, and then, if the two are brought into parallel position, as in use, the arm N will engage through the slot K and by a partial rotation of the parts bring the arm N opposite the slot K and the two parts will be locked together, nor can they be disengaged from this position except by causing them to assume an angular position to each other, as shown in Fig. 3, and this can only be done when the arm M is opposite the slot K. This under ordinary circumstances is prevented by the pole of the vehicle, which is secured to the hounds O, cast integral with the axle-cap.

P are brackets secured to the bolster and extending to either side thereof, by means of which the bolster is secured to the body.

The bolster is centrally provided with an upwardly-projecting pin Q, over which an aperture in the lower end of the brace R is adapted to engage. When so engaged, the head is formed upon the pin, preventing the disengagement of the brace from the bolster, the other end of the brace being secured to the body of the wagon.

S is a rear bracket, having a sleeve S',

adapted to engage over the rear axle T and provided on its side or at any suitable point with a groove or indentation U. I preferably make a groove in place of the indentation, as
5 it is more convenient to form this in casting. The head of the bracket, by means of which it is secured to the body, is formed at its end with suitable notches V, adapted to receive a staple X for securing the bracket to the body,
10 in addition to a bolt W. The sleeve S' is secured to the axle in the same manner as described for the sleeve F on the front axle.

What I claim as my invention is—

15 In a wagon running-gear, the combination, with the axle, of a bolster sleeved thereon and

provided with a central aperture having an extension K, a cross-head having radial arms of unequal length extending out from opposite sides, the shorter arm corresponding with the length of extension K and the opposite 20 arm being of a length greater than the combined length of the aperture and extension, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

FREDERICK NEWHOUSE.

Witnesses:

F. E. SOUTHARD,
A. E. KLAUSER.