

JACOB SKEEN.

Improvement in Fifth-Wheels and Attachment..

No. 115,246.

Patented May 23, 1871.

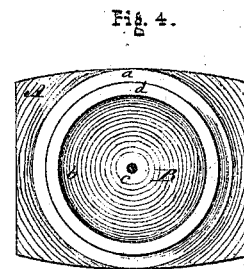
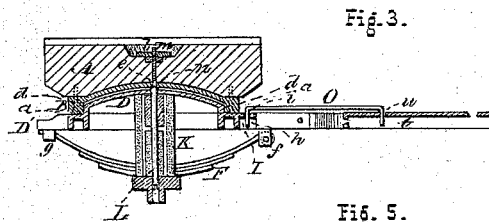
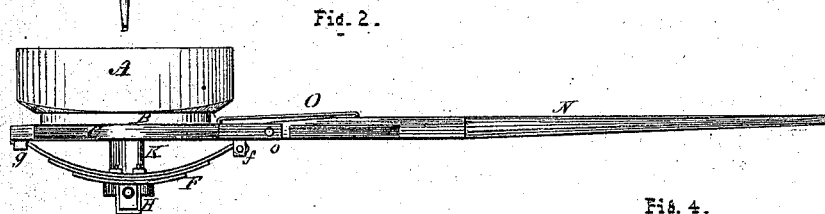
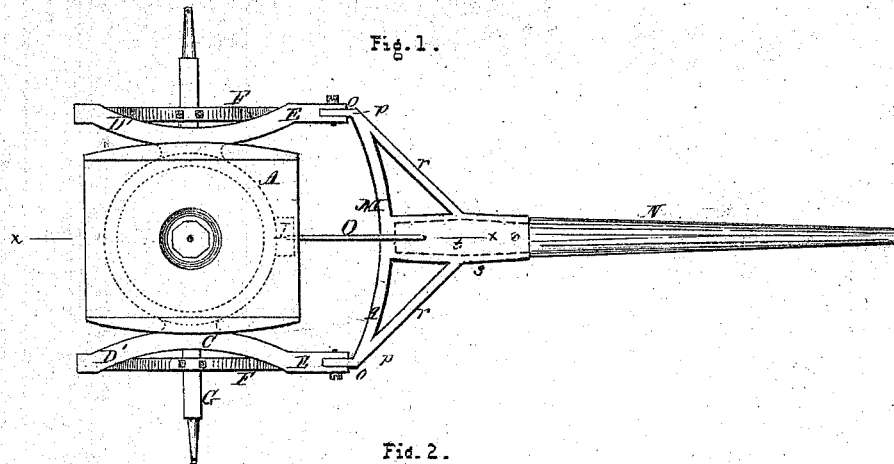
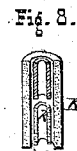
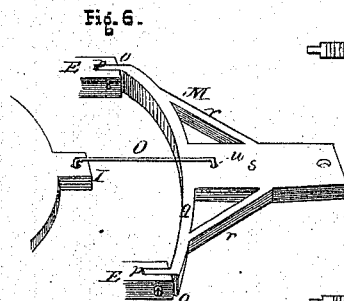
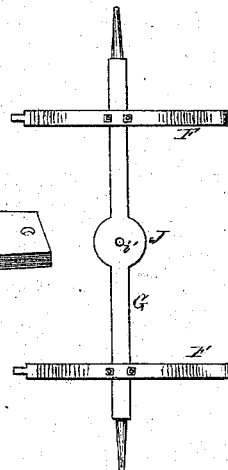


Fig. 5.



Witnesses.
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JACOB SKEEN, OF MOUND CITY, ILLINOIS.

Letters Patent No. 115,246, dated May 23, 1871.

IMPROVEMENT IN FIFTH-WHEELS AND ATTACHMENTS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JACOB SKEEN, of Mound City, in the county of Pulaski and in the State of Illinois, have invented certain new and useful Improvements in Fifth-Wheels and Attachments; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a top-plan view of my whole device;

Figure 2 is a side elevation of the same;

Figure 3 is a vertical cross-section on the line *x x* of fig. 1;

Figure 4, a plan view of the under side of the upper part of the fifth-wheel and the block to which it is secured;

Figure 5, a top-plan view of the axle and springs attached to it;

Figure 6, a top-plan view of a broken portion of the front of the fifth-wheel and the rear end of the hounds, showing the construction and method of attachment;

Figure 7, an elevation of the India-rubber spring; and

Figure 8, a vertical central cross-section of said spring.

Like letters designate like parts in each figure.

The object of my invention is the construction of fifth-wheels for heavy vehicles, in such a manner that they shall be cheap, strong, and durable, shall be readily adapted to side half-springs so as to obviate the inconvenience attending the use of platform-springs, and shall be capable of a direct connection to the draft-pole, which may be either a flexible or a stiff pole, as desired; and

My invention consists in the peculiar construction of the globular bearing surfaces of the fifth-wheel; in the peculiar construction of the bed of the fifth-wheel and its radiating arms; in the arrangement of the side springs in relation to said bed; in the combination of the side springs and a central India-rubber spring; in the construction and arrangement of the hounds; in the combination of the hounds and the fifth-wheel; and in the means employed for converting a flexible tongue into a stiff tongue, all as more fully hereinafter described and explained.

In the drawing—

A represents a block, which may be of wood or metal, which is secured to the under side of the vehicle directly in line over the front axle.

To the under side of said block is secured the top B of the fifth-wheel, which is cast in one piece, and is a shell of semi-globular form inside and outside, having a flange, *a*, around its rim.

The cavity *b* of this wheel is globular at the bottom, the center of which has a small opening, *c*, but with perpendicular walls *d* nearest the rim.

The bottom or bed C of the fifth-wheel, also cast in one piece, has a central boss or elevation, D, conforming in all respects of shape to the inside of the top B, within which it revolves in use, and having at its center an opening, *e*, which coincides with the opening *c* in the top B.

Arms D' extend diagonally to the rear from the outsides of the bed C, for the purpose of attaching thereto the ends of the springs; and other arms, E, extend from the outsides of said bed diagonally to the front, to which are attached the other ends of the springs and the hounds.

The springs F are secured at their centers upon the axle G by means of clips H, and at their forward ends are shackled upon eyes *f* cast upon or otherwise secured to the under side of the arms E, and at their rear ends pass under yokes *g*, also secured upon the under side of the arms D', by means of which said springs have a certain freedom of motion.

Upon the forward part of the bed, and cast with it, is a projection, I, having a rectangular recess, *h*, in it to receive the end of the tongue, if the same is extended into it, for the purpose of having a stiff tongue.

This projection has also a vertical opening, *i*, in it for the purpose of receiving one end of a hook or chain for the purpose of making a stiff tongue.

The under side of the boss D is hollowed out for lightness, as are also other portions of said bed C and its arms.

The center of the axle is provided with a disk, J, having a vertical opening, *k*, through it and through the axle, coinciding with the openings *c* and *e*, before referred to.

Upon this disk the India-rubber spring K stands, its top resting upon the center of the cavity *b* of the top B.

This spring has a central opening, *j*, its entire length, a portion of which has fitted within it a sleeve, *k*.

A bolt, L, passes up through the axle, its disk, the sleeve *k*, the centers of the boss D, the cavity *b*, and the block A, where it is secured by a suitable nut, *l*, upon its upper threaded end *m*. This end is made smaller than the remainder of the bolt and provided with shoulders at *n*, which prevent said bolt from passing up through the boss D.

Upon the front ends of the arms E are shackle-eyes *o*, to which the hounds M are attached by ears *p*.

These hounds are cast all in one piece, with a cross-bar, *q*, braces *r*, and body *s*, which body is made with a rectangular recess, *t*, beveled in each direction longitudinally, into which recess the end of the tongue N, correspondingly beveled, is inserted from beneath, and then properly secured.

An opening, *u*, in the top of the hounds, gives support to one end of the hook O, the other end of said hook being inserted in the opening *i* before mentioned.

Instead of a hook a chain with a hook may be employed for the purpose.

It is intended to have this fifth-wheel and the hounds cast of malleable iron or of steel, and the several parts are constructed with a view of casting readily, as well as for combining strength with the least possible weight.

In operation, the pressure will come mainly upon the side springs F, but a portion of it will act upon the India-rubber spring, which will serve to equalize the pressure, particularly when the shock is given to one side of the vehicle.

The upper portion of the fifth-wheel will traverse upon the lower portion very readily, having a large extent of bearing, which will serve to keep it steady, the weight resting mainly upon the globular surfaces.

Having thus explained my invention,

What I claim as new therein is—

1. In fifth-wheels, the combination of globular bearing surfaces, constructed and arranged substantially as described and shown.

2. In combination with a fifth-wheel, and forming a part of the same, the arms D' and E, constructed and arranged substantially as described and shown.

3. The combination of the fifth-wheel C, constructed as described, and the side springs F, constructed, attached, and arranged substantially as set forth.

4. The combination of the side springs F and the India-rubber spring K, constructed, arranged, and operated substantially as described and shown.

5. The hounds M, cast in one piece, constructed and arranged substantially as described and shown.

6. The combination of the hounds M and the fifth-wheel C, when both are constructed and arranged substantially as described and shown.

7. The combination of the hook O, the hounds M, and the fifth-wheel C, for the purpose of converting a flexible tongue to a stiff tongue, constructed and arranged substantially as described and shown.

In testimony that I claim the foregoing I have hereunto set my hand this 20th day of April, 1871.

JACOB SKEEN.

Witnesses:

GEO. S. PRINDLE,
EDM. F. BROWN.