(No Model.) 2 Sheets—Sheet 1.

J. A. KIRKPATRICK & G. W. McDANIEL.

ROAD CART.

No. 455,831. Patented July 14, 1891.

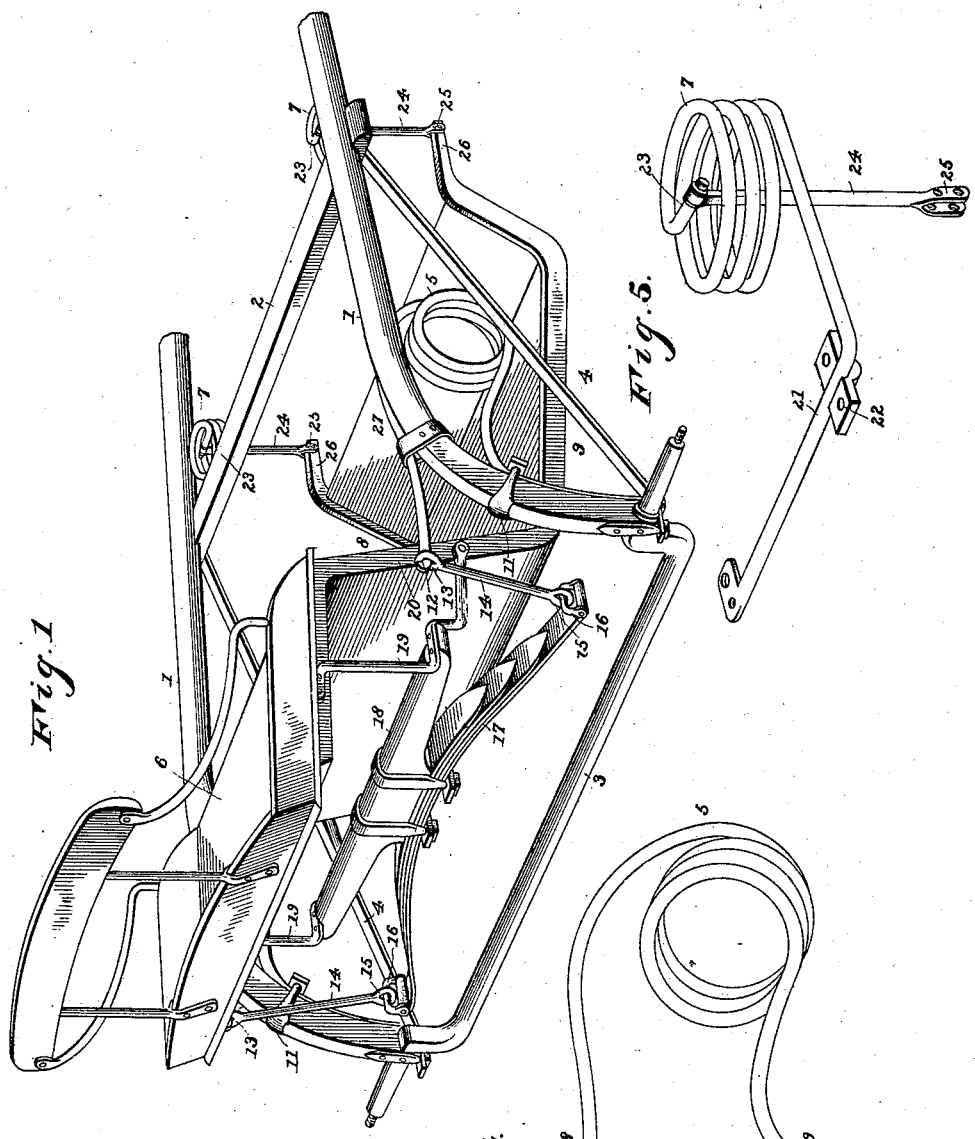

Fig. 1.

Fig. 5.

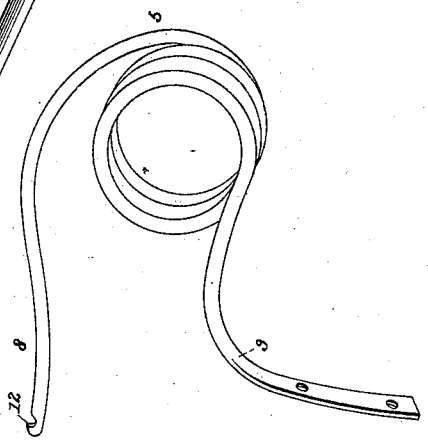

Fig. 4.

Witnesses;

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N. F. Riley

Inventors

John A. Kirkpatrick

and Geo. W. McDaniel,

By their Attorneys,

C. A. Snow & Co.

(No Model.)

2 Sheets—Sheet 2.

J. A. KIRKPATRICK & G. W. McDANIEL.

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Fig. 2.

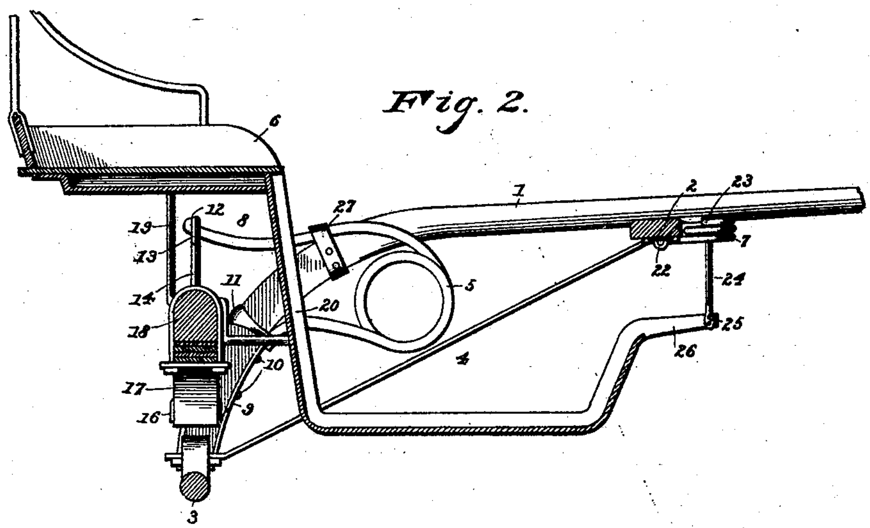
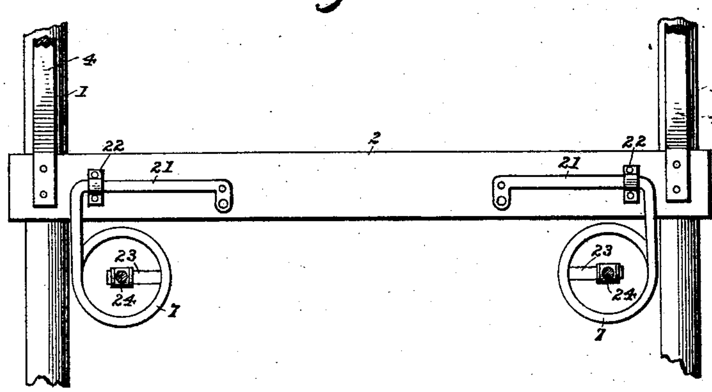


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOHN A. KIRKPATRICK AND GEORGE W. McDANIEL, OF ANTHONY, KANSAS.

ROAD-CART.

SPECIFICATION forming part of Letters Patent No. 455,831, dated July 14, 1891.

Application filed February 18, 1891. Serial No. 381,899. (No model.)

To all whom it may concern:

Be it known that we, JOHN A. KIRKPATRICK and GEORGE W. McDANIEL, citizens of the United States, residing at Anthony, in the county of Harper and State of Kansas, have invented a new and useful Road-Cart, of which the following is a specification.

The invention relates to improvements in road-carts.

The object of the present invention is to simplify and improve the construction of road-carts and prevent the motion of the horse being communicated to the occupant.

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 road-cart embodying the invention. Fig. 2 is a longitudinal sectional view. Fig. 3 is a detail view of cross-bar and front springs. Figs. 4 and 5 are detail perspective views.

Referring to the accompanying drawings, 1 designates a pair of shafts connected by the usual cross-bar 2, and having their rear ends downwardly curved and secured to a bent axle 3, and are braced by rods 4, extending from the axle to the cross-bar 2. The rear ends of the shafts have secured to them rear supporting-springs 5, from which is suspended the rear of the vehicle-body 6. The front of the vehicle-body is suspended from coiled springs 7, which are secured to the cross-bar 2. The rear supporting coiled spring 5 has its ends extended rearward and formed into upper and lower arms 8 and 9, the latter of which is curved rearwardly and downwardly from the coil and is secured to the curved portion of the shaft by a bolt 10 and a clip 11, and the portion of the said arm 9 which is secured to the shaft is preferably not tempered, to enable it to be readily shaped to any shaft. The upper arm is curved rearwardly and terminates directly above the axle and is provided with notches 12, which are engaged by an eye 13 of a link-rod 14, to which the vehicle-body or seat-supporting frame is connected. By suspending the rear of the vehicle-body directly above the axle vertical movement of the shafts is not communicated to the body. The link-rod 14 is provided at its lower ends with an eye 15, which engages a loop 16 at one end of the leaf-spring 17, having its spring-bar 18 connected with the vehicle-body by approximately L-shaped braces 19, and the latter are secured at their angles to the spring-bar, and having their vertical arms secured to the body below the seat and their horizontal arms extended forward and connected to the vertical portion 20 of the body.

The front coiled spring 7 has its lower end extended and formed into an L-shaped arm 21, which has one arm arranged along the cross-bar 2 and secured thereto by bolts arranged at the end of the arm and by a clip 22, arranged at the angle. The upper end 23 of the spring is bent inward and terminates over the center of the coil and is connected to the upper end of a link-rod 24, which has its lower end 25 bifurcated and bolted to the front end of the side bar 26, which is arranged in the bifurcation.

The leaf-spring may be omitted and a bar be employed, if desired, and we desire to be understood that we do not limit ourselves to the precise details of construction, as we may make minor changes therein. The upper arms 8 of the rear supporting coiled spring 5 have their movement limited by stay-straps 27, which are secured to the shafts and pass around the said arms, and when the vehicle has two occupants the arms 28 of the springs 5 are supported by the stay-straps and the weight is thrown on the leaf-spring, but when there is only one occupant the weight is supported by the spring 5. The front supporting-springs 7 allow a free movement in any direction and are sufficient to break the motion of the horse, which is not communicated to the occupant.

What we claim is—

1. In a vehicle, the combination of the shafts, the cross-bar connecting the shafts, the body, the front supporting coiled springs having their lower ends bent into L-shaped arms and secured to the cross-bar and having their upper ends bent inward and terminating over the center of the coils, and the link-rods secured to the upper extremities of the coils and connected to the body, substantially as described.

2. In a vehicle, the combination of the body,

the shafts, the front supporting-coils, springs having their lower ends connected with the shafts and their upper ends bent inward and terminating over the centers of the coils, and the link-rods secured to the upper ends of the coils and connected to the body, substantially as described.

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

JOHN A. KIRKPATRICK.
GEORGE W. McDANIEL.

Witnesses:
IRVING HOWE,
W. F. COULSON.