

(No Model.)

W. H. & C. A. MAKUTCHAN.

ROAD CART.

No. 357,015.

Patented Feb. 1, 1887.

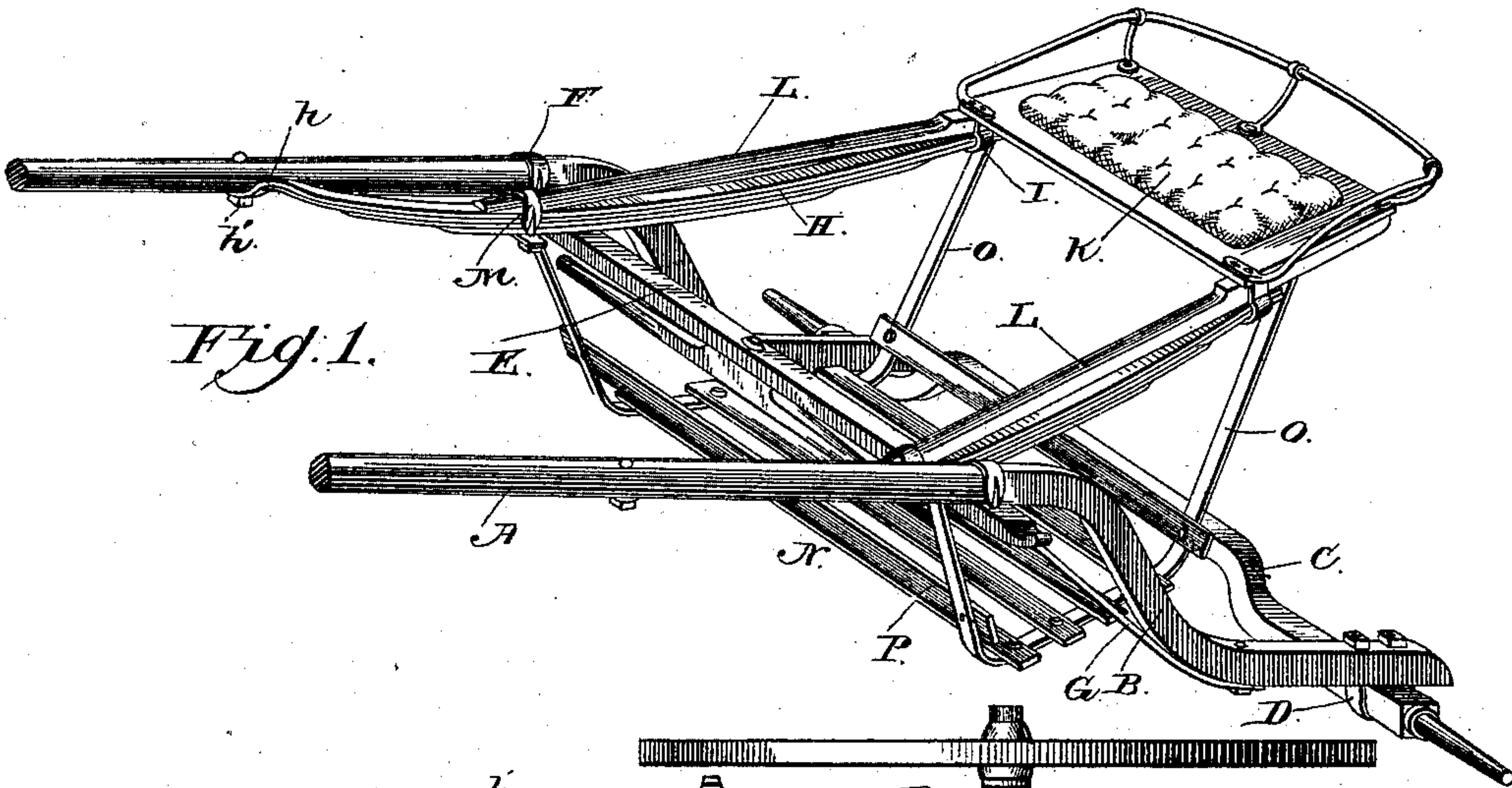


Fig. 1.

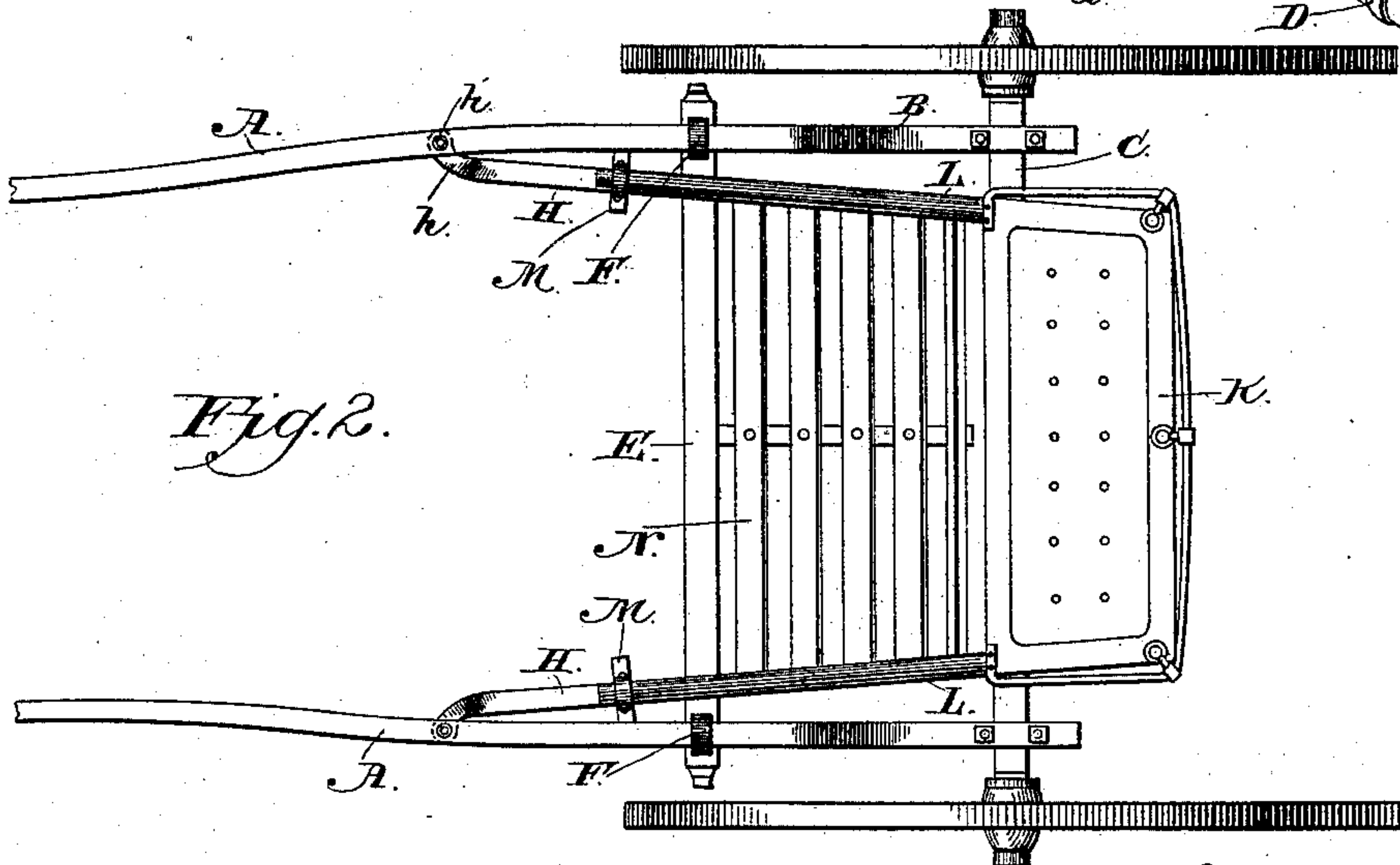


Fig. 2.

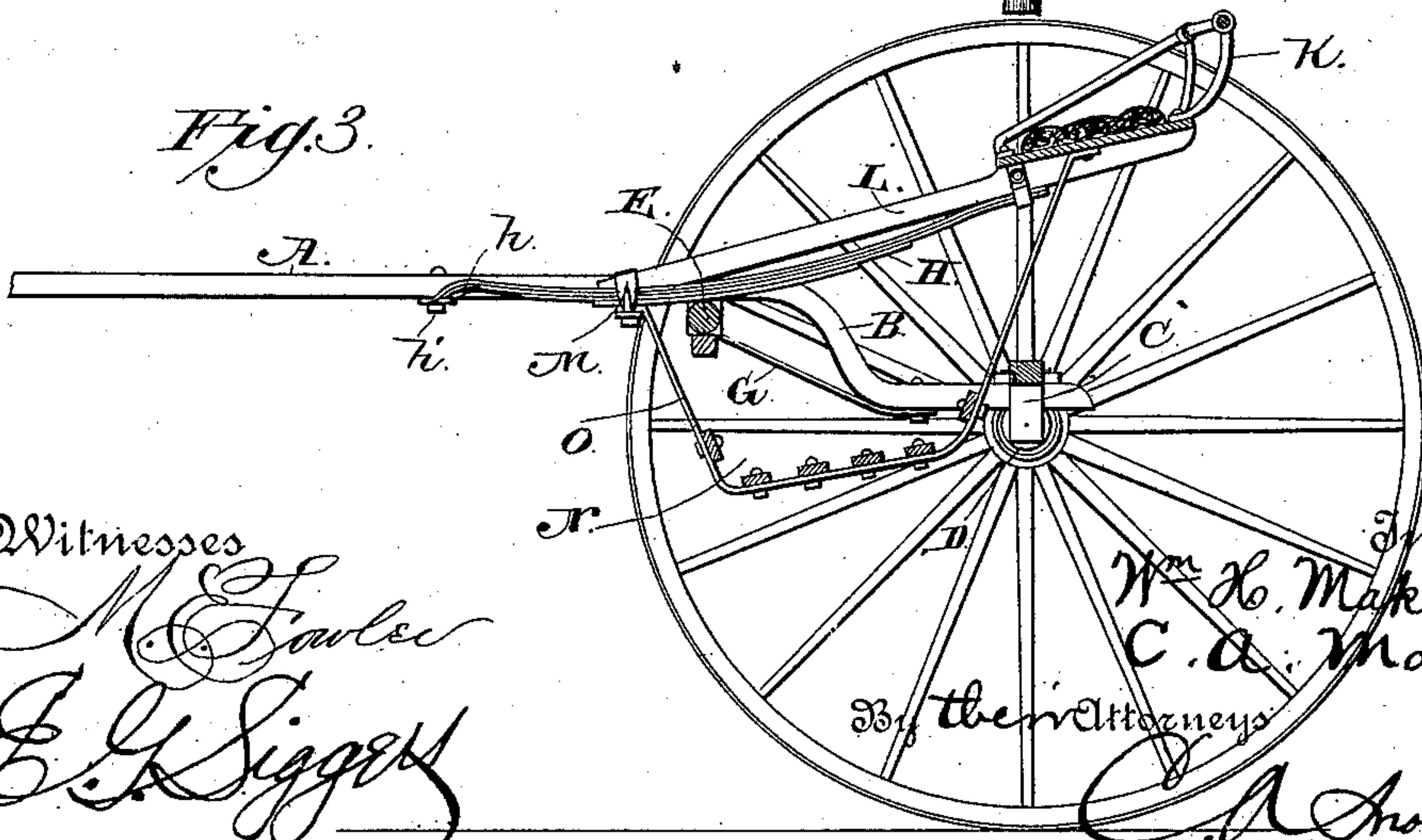


Fig. 3.

Witnesses  
*M. E. Fowler*  
*E. G. Siggers*

Inventors  
*W. H. Makutchan*  
*C. A. Makutchan*  
By their Attorneys  
*C. A. Snowdon*



# UNITED STATES PATENT OFFICE.

WILLIAM H. MAKUTCHAN AND CHARLES A. MAKUTCHAN, OF BUDA, ILL.

## ROAD-CART.

SPECIFICATION forming part of Letters Patent No. 357,015, dated February 1, 1887.

Application filed December 10, 1886. Serial No. 221,212. (No model.)

*To all whom it may concern:*

Be it known that we, WILLIAM H. MAKUTCHAN and CHARLES A. MAKUTCHAN, citizens of the United States, residing at Buda, in the county of Bureau and State of Illinois, have invented new and useful Improvements in Road-Carts, of which the following is a specification.

Our invention relates to improvements in road-carts, which consist in a certain novel construction and arrangement of parts, fully set forth hereinafter, and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of a road-cart embodying our improvements. Fig. 2 is a top plan view of the same. Fig. 3 is a longitudinal sectional view on the line *xx* of Fig. 2.

Referring to the drawings, in which similar letters denote corresponding parts in all the figures, A designates the thills or shafts of a road-cart having the downwardly-curved rear ends, B, which are secured to the top side of the axle C by means of the metallic clips D.

E designates the usual cross-bar, secured by the clips F to the under side of the shafts or thills A.

G G are the ordinary brace-bars, fastened at their upper ends to the cross-bar E, and having their lower ends bolted to the thills A.

H is a light leaf-spring of the ordinary construction, having three or more leaves, as desired. The forward end of the upper leaf of this spring is curved outwardly, as at *h*, and provided with an opening through which passes the bolt *h'*, to secure said front end of the spring at each side of the thills or shafts A. The springs H rest at or near the central point of their length upon the cross-bar E, and have their rear ends passed through the loops or sleeves I, which loops are rigidly attached to the under side of the seat K, near the front end thereof. The rear ends of the springs H are designed to slide easily in the loops I with the movement of the vehicle.

L are side bars, rigidly secured at their front ends by the clips M to the upper side of the springs H, at a point forward of the cross-bar E. Said side bars extend rearwardly above and parallel to the springs H, and have their rear ends rigidly bolted to the under side of the seat K, the under side of said side

bars resting upon the free ends of the said springs H.

It will be seen that with a moderate weight upon the seat there will be a small space between the upper side of the said side bar L and the upper side of the spring H at a point midway between the two points of contact of the said spring and side bars, as shown clearly in Fig. 3. When two persons, however, occupy the said seat K, the springs will be straightened out, and extended farther through the loops I and caused to come in contact with the under side of the side bars L along their entire length. The springs will thus serve to help the side bars support the weight, the seat having no other means of support than that afforded by the said side bars and springs.

N is the basket or foot-board, comprising the bent side bars O and the slats P bolted thereto. Said side bars O are secured at their front ends to the clips M and at their rear ends to the under side of the seat, as shown. It will be seen from the above that the said foot-board oscillates or moves with the seat.

The operation of our invention will be readily understood from the foregoing description.

Our invention possesses an advantage over wagons of a similar nature now in general use in the fact that we can use a very light spring in the construction of our vehicle, and yet secure an easy resilient motion of the seat with either a light or a heavy load therein.

With similar vehicles now in use it is necessary to adjust the parts, especially when a heavier load than usual is carried, while with our improvement the parts adjust or accommodate themselves to an increased load. The spring in our road-cart may, however, be considerably strengthened by loosening the clips M and sliding the side bars L farther forward, thereby drawing the seat also forward. This adjustment is not necessary, however, with an ordinary increase in the load. For instance, either one or two persons can ride in our vehicle without special adjustment of the side bars L.

A further advantage which we claim for our wagon is that the motion of the seat during travel is more gentle and easy than is the case with other vehicles.

Our improvement possesses still another advantage, in that the means used to attain the



results named are very simple and strong of construction, and easily replaced or repaired when broken or damaged.

A still further advantage which our improvement possesses is that the parts are mutually supported one upon the other, and the strain is thus distributed.

Having thus described our invention, what we claim, and desire to secure by Letters Patent of the United States, is—

1. In a road-cart, the seat K and side bars L secured thereto, combined with the thills or shafts A, springs H, secured to the thills or shafts at the forward ends and having their rear ends bearing against the seat, and clips M, adapted to secure the front ends of the side bars L to said springs, substantially as described.

2. In a road cart, the seat K, side bars L, secured to the seat, loops or guides I on the seat, springs H, attached at front ends to the thills and passing at their rear ends through the said loops I and resting at or near their middle points upon the cross-bar of the thills, and securing means to connect the front ends of the side bars to the springs, substantially as described.

3. In a road-cart, the seat K and side bars L secured rigidly thereto, in combination with the thills or shafts and the springs H, connected rigidly to the thills or shafts and running back and bearing under the seat, the said springs H and side bars L being connected together at the front ends of the latter, as set forth.

4. In a road-cart, the seat K, in combination with the side bars L, secured rigidly thereto, and the springs H, having the bowed or arched centers, the ends of the springs being held from vertical movement, one end bearing under the seat, while the other end is

preferably attached to the shaft so as to allow the centers of the springs to straighten out by the weight from the seat, as set forth.

5. In a road-cart, the seat K, in combination with the side bars L, secured thereto, and the springs H, arranged below the side bars and having their rear ends free to slide longitudinally, which rear ends are held against the under side of the seat, the front end of the side bars being secured to the springs so as to leave the centers of the springs bowed or arched, as set forth.

6. In a road-cart, the thills or shafts and the connecting cross-bar E, in combination with the seat K, the side bars L, rigidly secured thereto, the springs H, secured to the thills or shafts, running back over the cross-bar below the side bars, the rear ends of the springs being free to move longitudinally and held against the seat, and the front ends of the side bars being secured to the springs H, as set forth.

7. In a road-cart, the suspended seat K, the side bars L, rigidly secured thereto, the foot-board connected at the rear end to the seat, and the springs H, also connected at the rear end of the seat, the front ends of the springs being secured to the thills or shafts, the front ends of the side bars L secured to the springs H, and the front end of the foot-board being connected to the springs H in rear of the point where they are attached to the thills, as set forth.

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

WILLIAM H. MAKUTCHAN.  
CHARLES A. MAKUTCHAN.

Witnesses:

T. W. FAIRBANKS,  
T. A. ZINK.