

(No Model.)

R. D. SCOTT.
ROAD CART.

No. 438,493.

Patented Oct. 14, 1890.

Fig-1-

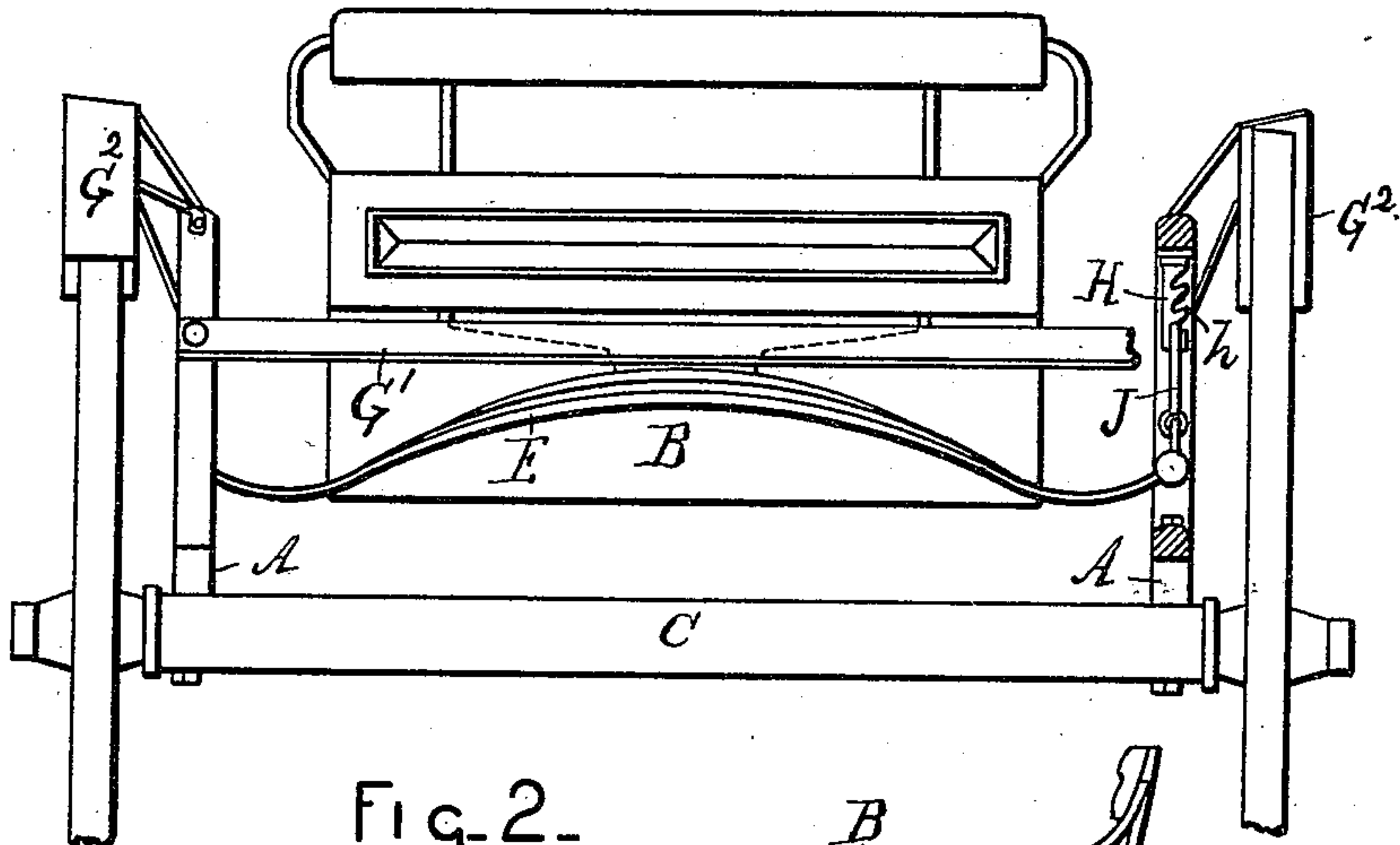


Fig-2-

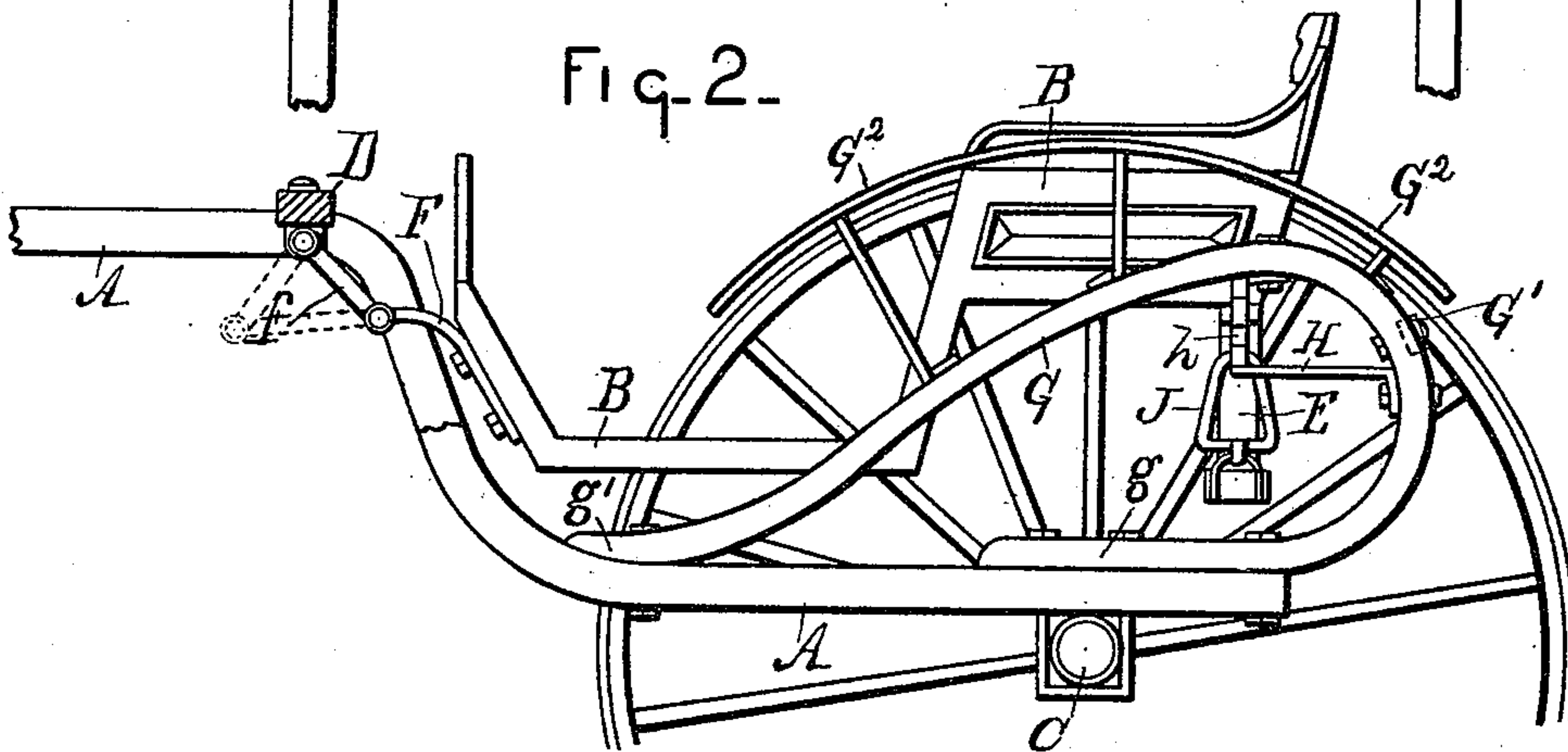


Fig-3-

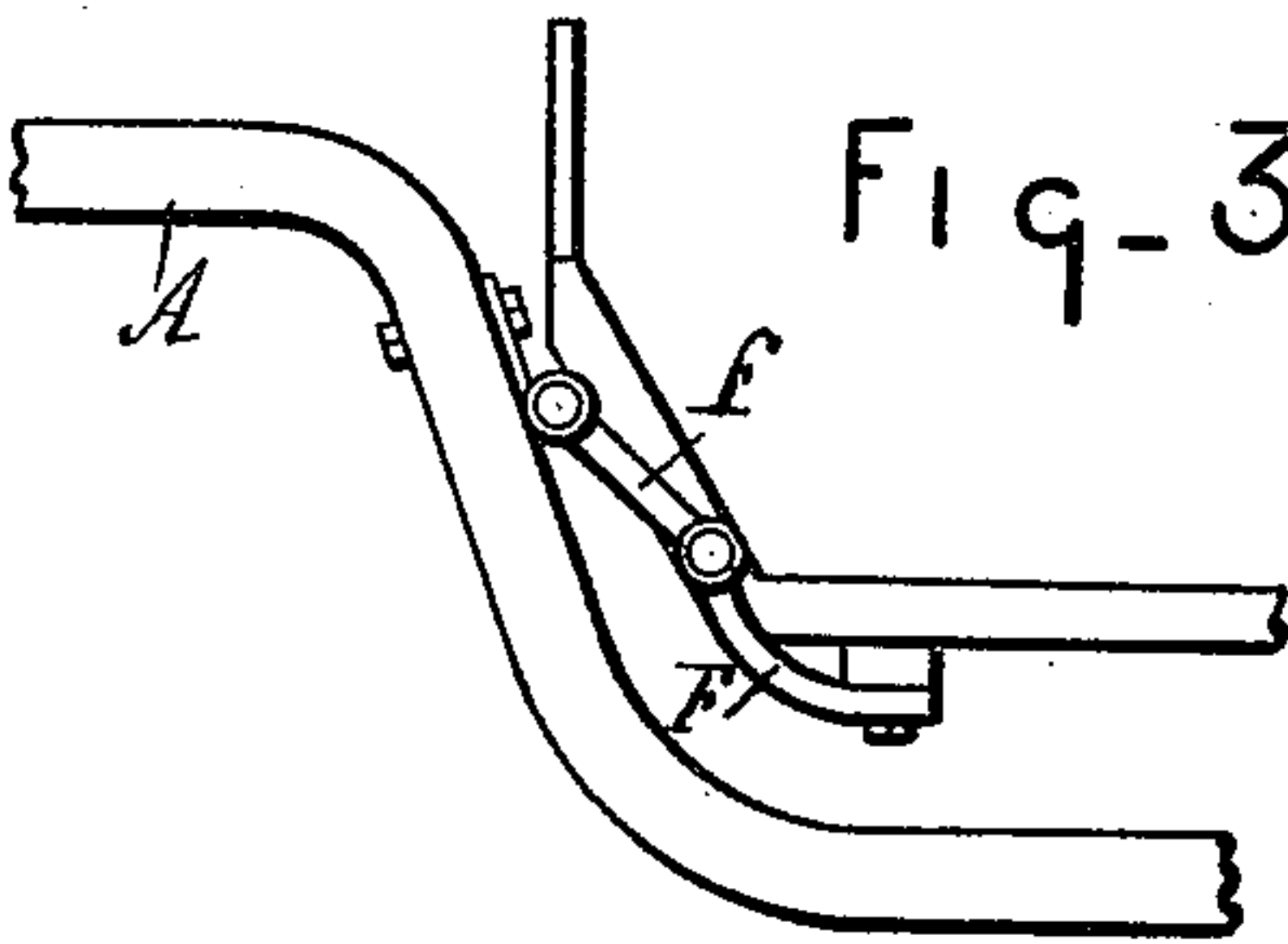
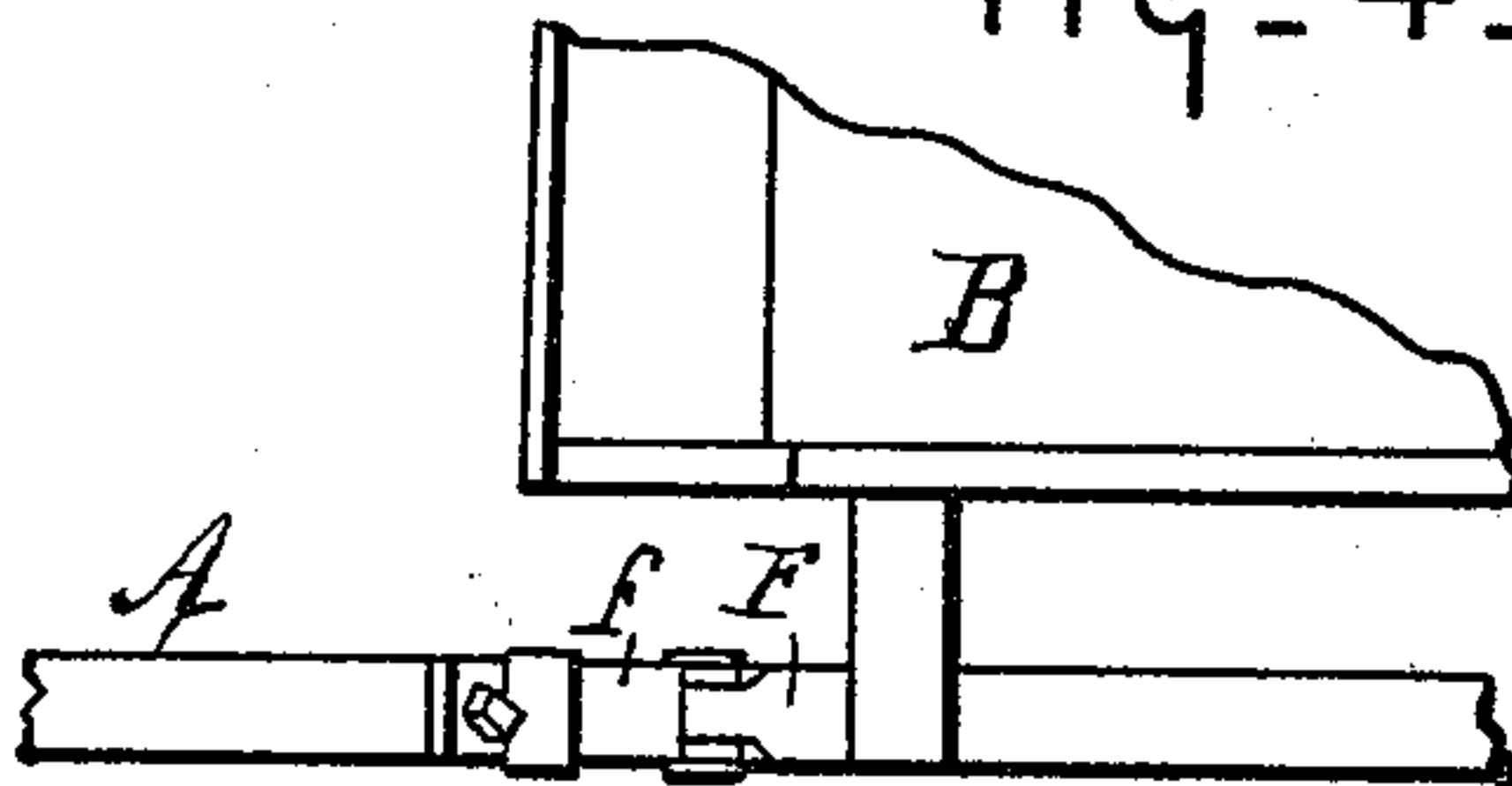


Fig-4-



WITNESSES

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ROAD-CART.

SPECIFICATION forming part of Letters Patent No. 438,493, dated October 14, 1890.

Application filed June 4, 1890. Serial No. 354,256. (No model.)

To all whom it may concern:

Be it known that I, ROBERT D. SCOTT, a citizen of the United States, residing at Pontiac, county of Oakland, State of Michigan, have invented a certain new and useful Improvement in Road-Carts; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention is designed to produce a road-cart which shall embody several novel and useful elements of construction; and it consists in a combination of devices and appliances hereinafter described and claimed.

In the drawings, Figure 1 is a rear elevation of the cart embodying my invention. Fig. 2 is a side elevation of the same. Figs. 3 and 4 illustrate a variation in the manner of supporting the forward end of the body.

I have discovered in the use of road-carts that the most effective way in which to obviate the unpleasant motion popularly termed "horse motion"—i. e., the tilting up and down of the cart—is to convert the up-and-down motion of the shafts, due to the motion of the horse, into a forward-and-back swaying of the body, and this I effectively accomplish in my present invention by freely suspending the body both at front and rear by loose double shackles or links and so locating these links that the up-and-down motion of the shafts will cause the body to sway forward and back freely, thus giving a far more pleasant sensation than where the up-and-down motion is felt.

In carrying out the invention, A represents the shafts, in this case being what are known as "double-bent shafts;" B, the body of the cart, and C the axle. At the rearmost point of the body is engaged the semi-elliptic spring E.

F are arms or standards rigidly engaged to the forward portion of the body and extending out toward the cross-bar. Pivotaly engaged with the upper end of the standard F is a link or clevis *f*, pivotaly engaged to the cross-bar D.

It will be observed that the rear portion of the shafts extends out beyond the axle at the rear for a considerable distance, and rigidly engaged on this rear portion is one end *g* of the bent piece G. (Shown in Fig. 2.) The bent piece then curves upward and forward and then downward, and is again engaged to the shaft, as at *g'*. There being one of these bent pieces on each side of the cart, they are rigidly connected together by the cross-bar G'. It will be observed that the highest portion of this bent piece is adjacent to the end of spring E, and on the bent piece at this point is engaged the hook-piece H, provided with the series of hooks *h*.

J is a link engaged by a clevis with the end of the spring E, which link engages over the hooks *h*. It will now be observed that the position of the supporting-links J and *f* is peculiar. The link J is vertically depending, whereas the link *f* depends at an angle of about forty-five degrees. Now, when the cart is in motion and the shafts rising and falling with the motion of the horse, because of the peculiar position of these links, which support the body freely and allow it to move in any direction, either forward and back or laterally, the body, instead of partaking of the up-and-down motion of the shafts, will simply sway forward and back without any perceptible vertical motion. This, I have found by experiment, is accomplished by the peculiar position of the supporting-links—viz., the rear supporting-links having a vertical position, while the forward supporting-links are at an oblique angle, thus making the distance between the engaging-points of the links to the frame greater than the distance between the engaging-points to the body.

Of course instead of the forward links being inclined rearwardly from top to bottom they might be inclined forward from top to bottom, as illustrated by the dotted lines in Fig. 2. So, also, instead of the links being engaged with the cross-bar the standard or arms F might be shaped as shown in Fig. 4, so as to bring the upper end of the standard adjacent to the shaft and then the link be pivoted directly to the shaft, as shown in Fig. 3.

Another feature of my invention is the provision of the bent piece G, to which a mud-guard G² may be attached, thus serving as a guard for the wheel, and at the same time
5 supporting the rear portion of the body.

It is of course obvious that where a skeleton frame is used and the single-bent shafts are employed the construction would have to be altered slightly; but this could be done
10 without departing from the essential feature of my invention, which consists in so supporting the body by freely-swinging links that the up-and-down horse motion of the shafts will be converted into a free forward-
15 and-back movement of the body.

What I claim is—

1. In a road-cart, the combination, with the body, of inclined depending links for supporting the forward portion of the body and
20 links for supporting the rear portion of the body, said latter links made vertically adjustable, substantially as described.

2. In a road-cart, the combination, with the body and shafts, of inclined depending links
25 engaging the forward portion of the body, with the shafts and links adapted to support the rear portion of the body, and a series of

sustaining-hooks for engaging said latter links, said links made small at their upper ends and wider from the top downward, 30 whereby free lateral and longitudinal movement may be had without the sides of the link binding against or striking said sustaining hook-piece, substantially as described.

3. In a road-cart, the combination, with the shafts, the body, and the semi-elliptic spring E, of the bent pieces G, the links J, connecting the spring E with the curved pieces G, and the links f, supporting the forward end
40 of the body, said links J being supported in a vertical position, while the links f are at an oblique angle, substantially as described.

4. The combination, with the shafts, of the bent pieces G, simultaneously forming a support for the rear portion of the body and a
45 support for a suitable guard-plate, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

ROBERT D. SCOTT.

Witnesses:

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W. H. CHAMBERLIN.