

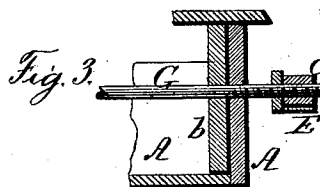
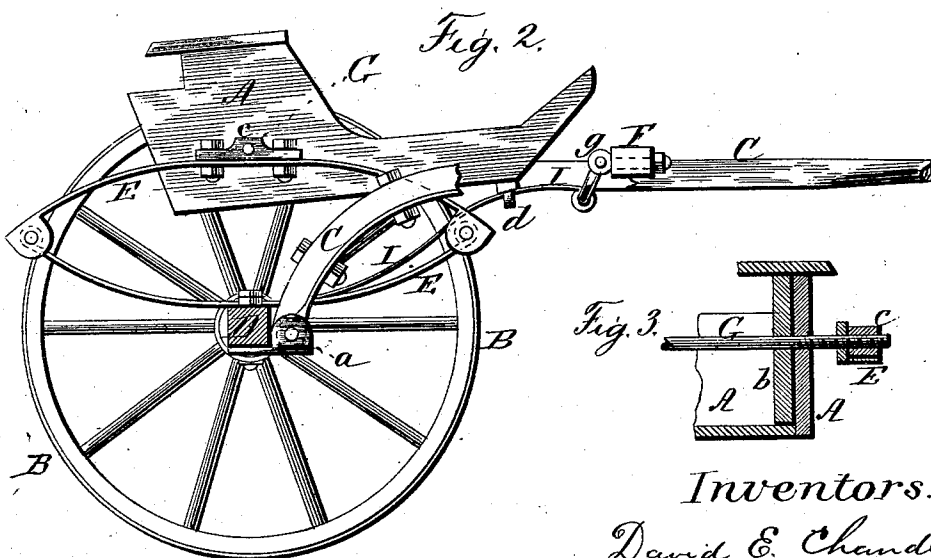
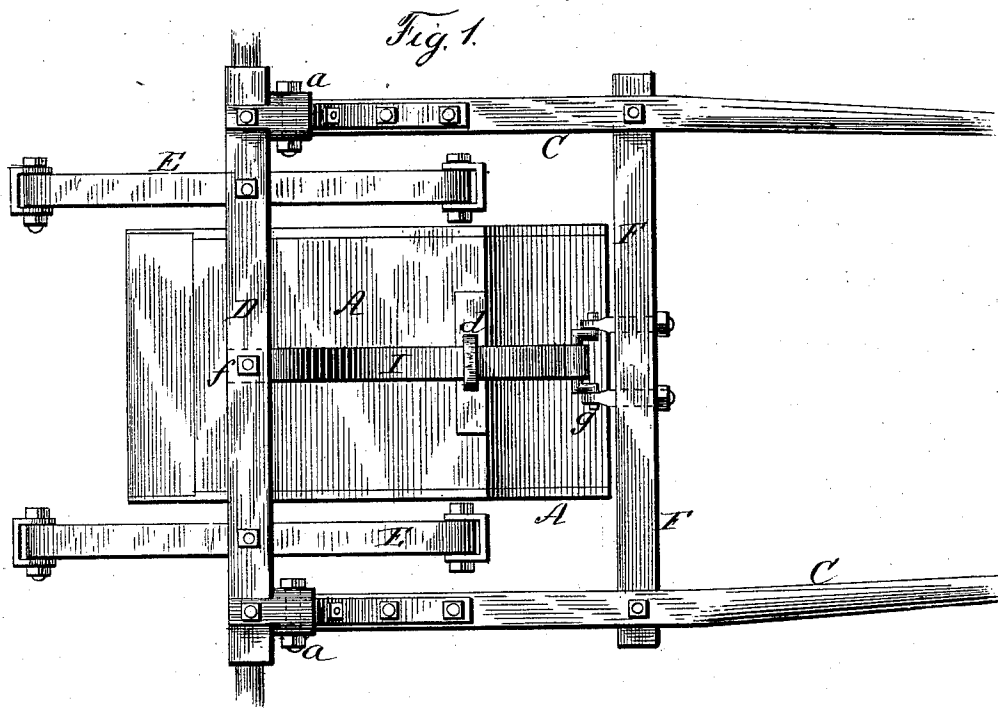
(No Model.)

D. E. CHANDLER & J. C. WILLIAMS.

TWO WHEELED VEHICLE.

No. 281,971.

Patented July 24, 1883.



Attest:
Edmund Bodhag
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UNITED STATES PATENT OFFICE.

DAVID E. CHANDLER AND JAY C. WILLIAMS, OF AURORA, ILLINOIS, AS-
SIGNORS OF ONE-THIRD TO CHARLES HOWARD, OF SAME PLACE.

TWO-WHEELED VEHICLE.

SPECIFICATION forming part of Letters Patent No. 281,971, dated July 24, 1883.

Application filed May 7, 1883. (No model.)

To all whom it may concern:

Be it known that we, DAVID E. CHANDLER and JAY C. WILLIAMS, citizens of the United States, residing at Aurora, in the county of Kane and State of Illinois, have invented new and useful Improvements in Two-Wheeled Vehicles, of which the following is a specification.

Our invention relates to that class of two-wheeled vehicles known as "driving-carts," "road-carts," "dog-carts," and "sulkies."

Two-wheeled vehicles have always been objectionable for pleasure-driving by reason of the constant rocking of the seat produced by the motion of the horse's shoulder communicated to the thills, and also by reason of sudden jars and jolts occasioned by the cart-wheels going into ruts, and in driving over rough roads generally.

The object of our improvement is to provide means for maintaining the cart-body almost in a state of equilibrium by causing the body to rock upon a pivoted connection with the spring and neutralizing said rocking motion, while at the same time checking lateral thrusts or jerks. These results we obtain by hanging the body between the springs upon a rock-rod or equivalent device having its bearings in boxes upon the tops of the springs, over the axle, and by providing a central plate-spring, over and upon which, by any suitable connection underneath its front part, the body may slide backward and forward to a slight extent, and be supported in front and held against backward and frontward movement.

The improvements are specified in the claims and the construction illustrated in the accompanying drawings, wherein—

Figure 1 represents a bottom view of a dog-cart embracing our improvements; Fig. 2, a longitudinal vertical section of the same, and Fig. 3 a detail, like letters indicating like parts.

A is the body; B, the wheels; C, the thills; D, the axle; E, side elliptic springs, and F the cross-bar of the thills or shafts. These are the parts common to the ordinary driving-cart.

The shafts C are hinged to the axle by thill-couplings *a* in the common manner, so that they

do not move the axle up or down as the horse trots. The body A is hung between the springs E by means of a rod, G, running through the body A, beneath the seat, from one side spring to the other. The rod is secured to the body either, as shown, in stay-posts *b* or in any suitable manner; or it may, when the body is desired to hang high, be properly secured beneath it; and said rod has its bearings in boxes *c*, firmly secured centrally on the top of the springs; but the body need not necessarily be hung by a rod, as brackets may project from the body, having cylindrical arms to enter the boxes on the springs; or the body may be hung between the springs, so as to have a pivot-bearing thereon, in any suitable manner.

Beneath the front part of the body is a loop or staple, *d*, suitably secured, which is adapted to receive a strap or plate spring, I, which is clipped or bolted to the axle at *f*, and extends centrally forward under the seat, through said loop *d*, to the cross-bar F of the shafts, to which it is connected by a hinged joint or shackle-yoke, *g*, so that the shafts at the forward end may move up and down, taking off the motion of the horse. This spring, being confined in the loop under the body, keeps the latter from rocking forward or backward, and as the weight in the body works the side springs up and down this spring I works with them, and when the wheel strikes a rut the axle rolls, and the shafts move on their hinges and the body on its pivot, sliding on said spring I by means of the loop, and thus maintains its equilibrium, not jerking nor jarring the occupant.

We claim—

1. In a two-wheeled vehicle, the combination, with the body hung between the side springs in pivot-bearings thereon, of the said springs, a supporting-spring centrally arranged beneath the body, means secured to the under side of the body loosely embracing said centrally-arranged spring, and the draft-frame whereby the pivoted body may have a sliding movement on said supporting-spring, substantially as and for the purpose described.

2. In a two-wheeled vehicle, the combina-

tion, with the body and the side springs, of a rod, G, or its equivalent, box-bearings *c* on said springs, loosely-connected thills D, the axle and a centrally-arranged supporting-
5 spring, I, the loop *d*, and the cross-bar F, provided with the hinged joint *g*, substantially as and for the purpose set forth.

In testimony whereof we have hereunto set

our hands in the presence of two subscribing witnesses.

DAVID E. CHANDLER.
JAY C. WILLIAMS.

Witnesses:

LYMAN BALDWIN,
CHARLES A. WILKIE.