No. 815,841. PATENTED MAR. 20, 1906.

C. C. LAPHAM.

SULKY SEAT.

APPLICATION FILED SEPT. 6, 1904.

Fig. 1.

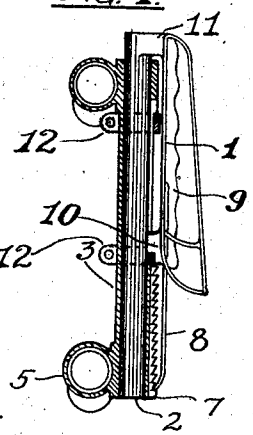


Fig. 2.

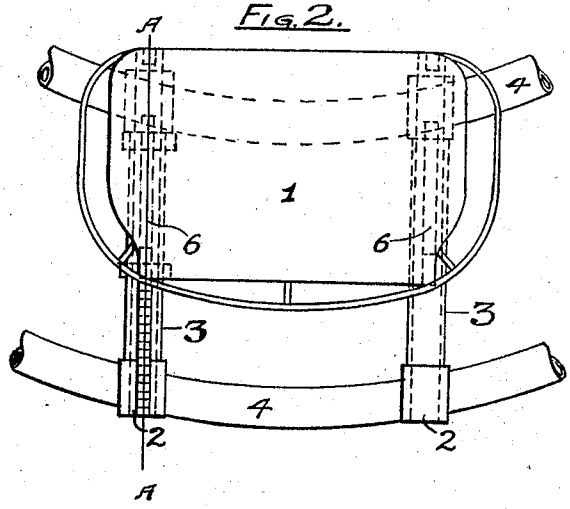


Fig. 5.

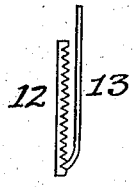


Fig. 3.

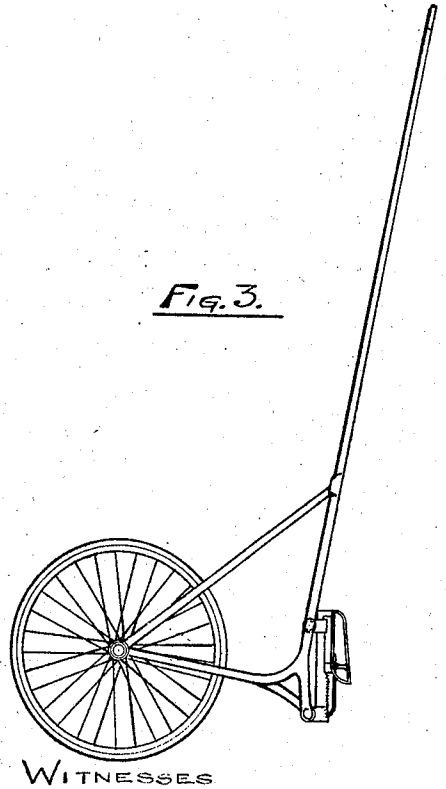
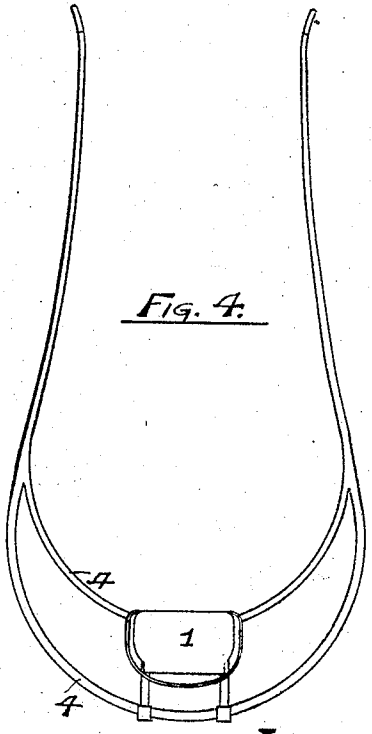


Fig. 4.



WITNESSES

W. S. Tunnis

INVENTOR

Charles C. Lapham

UNITED STATES PATENT OFFICE.

CHARLES C. LAPHAM, OF NEW YORK, N. Y.

SULKY-SEAT.

No. 815,841. Specification of Letters Patent. Patented March 20, 1906.

Application filed September 6, 1904. Serial No. 223,367.

To all whom it may concern:

Be it known that I, CHARLES C. LAPHAM, a citizen of the United States, residing at 849 St. Nicholas avenue, New York, in the county of New York, State of New York, have invented certain new and useful Improvements in Sulky-Seats, of which the following is a true and full description, reference being had to the accompanying drawings, which show my present improvement.

This improvement consists of mechanical means whereby the occupant of a sulky can vary the position not only of the center of gravity of himself and the sulky, but he can also so adjust the various elements which make for speed when starting, during running, and particularly near the end of a race, when it is desirable to give every assistance possible to the horse and to direct every pound of effort to the best advantage. This is accomplished by means of a moving seat.

Figure 1 shows a section of Fig. 2 along line A A. Fig. 2 is a plan view of the seat. Fig. 3 is a side elevation of the seat in position on a sulky of simple construction. Fig. 4 is plan view also showing seat in position. Fig. 5 is a modification of the ratchet shown in Fig. 1.

The seat 1, which can be made of wood or metal or other suitable material, is secured to two light tubes 2 by means of distance-pieces 10 and 11.

The seat 1 and tubes 2 being secured together move as one piece, and the tubes 2 are made to move freely in the tubes 3. The tubes 3 are each provided with a slot extending part of their length, as shown in Fig. 1, to enable the distance-piece 10 to move and slide freely therein. Each end of the slot also acts as a stop to limit the movement of the seat 1 in each direction.

Mounted on the seat 1 is a flat steel pawl or detent 8, which engages in the teeth of a rack 7, which rack is secured to the tube 3. This detent and rack serve to prevent a backward movement of the seat after it has been drawn forward a desirable amount by the occupant of the sulky. The tubes 3 are securely mounted on the framework of the sulky 4.

The seat 1 is provided with a cushion of some yielding material firmly secured to the seat proper. This cushion-seat is preferably corrugated, as shown, and can be made of rubber or cloth, which will prevent the occupant of the sulky from slipping on the seat.

Fig. 5 shows a modification of the means for holding the seat in position after it has been moved by the driver in either direction, either while in motion or otherwise. It will be seen that the detent 13, which is a flat steel spring, is capable of movement in either direction over the rack 12, and the seat can be moved against the action of this spring, but will be secured thereby in any desired position.

The collars 12 are arranged to be adjustably secured to the tube 3 in order to limit the movement of the sliding seat in either direction, as desired.

It has been demonstrated beyond question that the best results are obtained when a horse is hitched to a sulky so that the center of gravity of the sulky, together with its occupant, is located sufficiently back of the perpendicular line which passes through the center of the wheel-axis so that the pull on the reins will just move the center of gravity sufficiently forward to be on the before-mentioned perpendicular line. In such an arrangement there is no weight on the horse's back; neither is there any lifting on the girth.

It is well known that a horse does not pull the same amount steadily against the driver's reins during a run of any great distance. In fact, usually the pull is hardest when the horse is fresh and diminishes as the horse becomes tired. Hence the necessity for a moving seat in order that the driver can so adjust the center of gravity of the sulky and himself to suit the pull of the horse.

It will readily be seen that the driver can move the seat forward by the action of his body, because his feet are secured in the stirrups. As the horse tires the driver moves the seat forward a little at a time, and consequently brings his body forward, and as a result equalizes the various forces which make for speed.

I do not limit myself to the particular form of arrangement shown, as many modifications could be made without departing from the spirit of the invention.

What I claim is—

1. A sulky provided with a seat arranged to be moved by the occupant by the movement of his body, when the sulky is in motion, to produce a desirable balance of forces, substantially as described.

2. A sulky provided with a seat arranged to be slidably moved by the occupant by the

movement of his body, when the sulky is in motion, to produce a desirable balance of forces, substantially as described.

3. A sulky provided with a seat arranged to be moved by the occupant by the movement of his body, when the sulky is in motion, means whereby the seat is prevented from returning after each successive movement, substantially as described.

4. A sulky provided with a seat, slidably mounted and arranged to be moved by the occupant by the movement of his body, when the sulky is in motion, means whereby the seat is prevented from returning after each successive forward movement, substantially as described.

5. A sulky provided with a movable seat mounted on guides or slides arranged to be moved by the occupant by the movement of his body, when the sulky is in motion, means including a rack and detent for holding the seat in a desired position, substantially as described.

6. A sulky provided with a slidable seat, provided with a cushion of yielding material, the seat arranged so as to be moved by the occupant by the movement of his body, when the sulky is in motion, substantially as described.

7. A sulky provided with a slidable seat, provided with a cushion of yielding material, the seat arranged so as to be moved by the occupant by the movement of his body, when the sulky is in motion, and means for preventing the return of the seat, substantially as described.

8. A sulky provided with a seat slidably mounted, arranged to be moved by the occupant by the movement of his body, when the sulky is in motion, adjustable means for limiting the extent of the sliding movement, substantially as described.

9. A sulky provided with a seat slidably mounted, arranged to be moved by the occupant by the movement of his body, when the sulky is in motion, adjustable means consisting of collars for limiting the extent of the sliding movement, substantially as described.

10. A sulky provided with a seat slidably mounted, arranged to be moved by the occupant by the movement of his body, when the sulky is in motion, adjustable means for limiting the extent of the sliding movement, means for retaining the seat in a desired position, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

CHARLES C. LAPHAM.

Witnesses:
W. S. TIMMIS,
LEON LEWIN.