

No. 767,299.

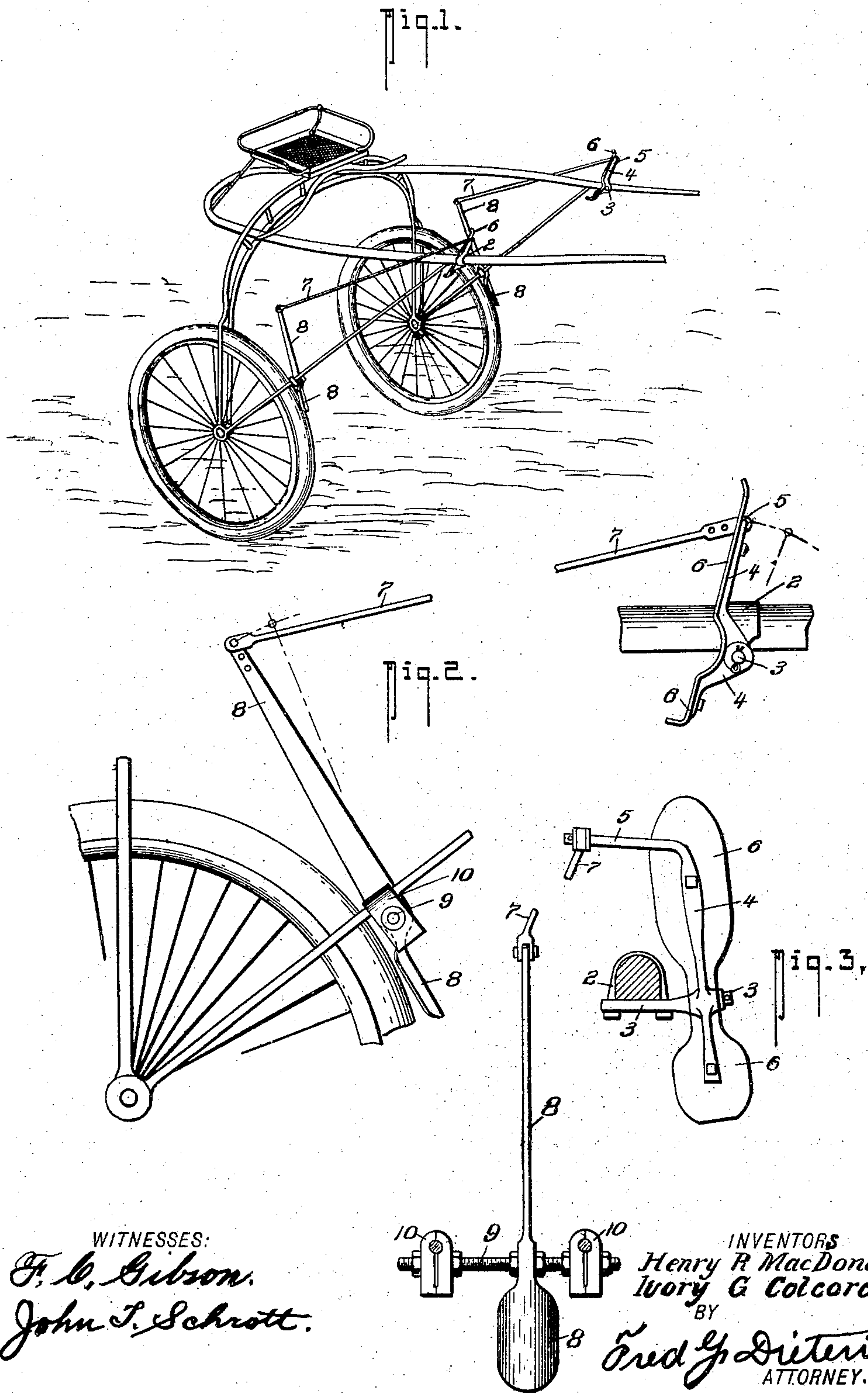
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VEHICLE BRAKE.

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NO MODEL.



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VEHICLE-BRAKE.

SPECIFICATION forming part of Letters Patent No. 767,299, dated August 9, 1904.

Application filed January 30, 1904. Serial No. 191,330. (No model.)

To all whom it may concern:

Be it known that we, HENRY R. MACDONALD, a citizen of the Dominion of Canada, and IVORY G. COLCORD, a citizen of the United States of America, both residing at the city of Vancouver, in the Province of British Columbia, Canada, have invented a new and useful Improvement in Vehicle-Brakes, of which the following is a specification.

Our invention relates to an improved brake for a racing or training sulky, and is especially designed to afford a driver perfect control to check and regulate a horse's pace without pulling it up by the mouth and without the driver's attention being taken from the lines or any change in the position of his body being necessitated. As the brake is independently applicable to each wheel, the device can be used to guide and aid a horse in turning, as in rounding a corner the wheel on the inner side may be checked while the outer one is allowed to run free. A horse will in a very short time respond freely to the slight strain thus thrown on his body from one side or the other by the brake and the checked inner wheel will swing the vehicle to make the turn; but the important feature lies in the perfect control which a driver may exercise on a horse in training it without pulling on its mouth. These results are attained without adding to the weight of the vehicle, as the mechanism is designed to replace the foot-rests and their stays, for which purpose our device also serves.

A further important feature in our device is that it can be readily applied to existing machines and that without any cutting of the frame or drilling for bolt-holes. The advantage of this feature will be fully realized when it is considered that the structure of a racing-machine is made as light as possible consistent with the requirements of strength, and to cut it in any way means an impairment of that strength.

The invention is fully set forth in the following specification and illustrated in the drawings which accompany it.

Figure 1 is a perspective view showing the application of the brake to both wheels of a racing-machine; Fig. 2, a detail elevation of

the brake mechanism from within the shafts, and Fig. 3 a front elevation of the same.

On the under inner side of each shaft in the position usually occupied by the foot-rest, which need not be removed unless it is desired to do so, is secured by a strap-bolt 2 a stud member 3, on which is pivotally mounted a foot-lever 4, the lower end of which projects below the fulcrum and at the upper end is outwardly turned, as at 5, toward the plane of the wheel.

On the foot-lever 4 is secured a foot-plate 6, shaped to conform to the foot, heel and toe being on opposite sides of the stud-pin 3 and the foot-plate angled to a convenient position for the comfort and support, as a foot-rest of a driver when occupying the seat of the sulky.

To the bent-over end 5 of the foot-lever 4 is connected a rod 7, the other end of which is pin-connected to the upper end of a brake-lever 8, which is pivotally mounted adjacent to the wheel on a fulcrum 9, secured by clamps 10 between the two members of the frame of the vehicle which carries each wheel. The lower end of the brake-lever 8 beyond the fulcrum 9 is shaped as a spoon-brake to engage the wheel-tire. The end of the rod 7 may be provided with a series of holes to allow for "take-up" or adjustment of the mechanism, and the upper end of the brake-lever 8 is similarly furnished to afford a means of varying the brake-power to the requirements of the driver.

The attachment by which the fulcrum 9 is secured to the frame of the machine is perfectly adaptable to variations in the frame or the position of the wheel therein. As the split clamps 10 will allow for variations of frame diameter and are fastened by the threaded ends of 9 between two nuts for each end, the position of these nuts may be varied on 8 to suit differences of width apart of the frame members or the position of the tire between them.

As is evident, the driver sits with a foot on each foot-plate, heels down, in which position the brakes are off, and when it is desired to apply the brake either for the purpose of

turning or to check the horse when it attempts to break its pace the brake can be applied to any desired extent by merely pressing forward the upper part of either one or both of the foot-plates with the toes. This can be done without the driver changing the position of his body or taking his attention from his horse and the track.

The foot-plates 6 form a very efficient foot-rest and may be provided with turned-up edges as guard against slip or furnished with a toe-clip. If more convenient, they may be constructed in one piece with the foot-levers 4.

Having now particularly described our invention, we declare that what we claim as new, and desire to be protected in by Letters Patent, is—

1. In a vehicle-brake; the stud member 3 secured to each shaft of a vehicle by the strap-bolt 2, the foot-lever 4 having the foot-plate 6 secured to the connecting-rod 7, brake-lever 8 mounted on the fulcrum 9 which is adjustably secured by the split clamp 10 to the vehicle-frame.

2. In a vehicle-brake, a lever a foot-plate

secured to said lever and having a heel and a toe portion said lever being pivotally connected to the vehicle-frame between the heel-and-toe portion to permit of heel-and-toe movement, said lever having an integrally-formed right-angled projecting portion, a brake-lever pivotally mounted on the vehicle-frame and having a wheel-engaging portion at one end, a rod adjustably connected to the said brake-lever, said rod having its other end formed with a flattened portion having a series of apertures, said flattened-portion apertures being adapted to receive the right-angled projection of the lever to form a pivotal connection therewith, all being arranged substantially as shown and for the purposes specified.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

HENRY R. MACDONALD.
IVORY G. COLCORD.

In presence of—

ROWLAND BRITAIN,
ELLICE WEBBER.