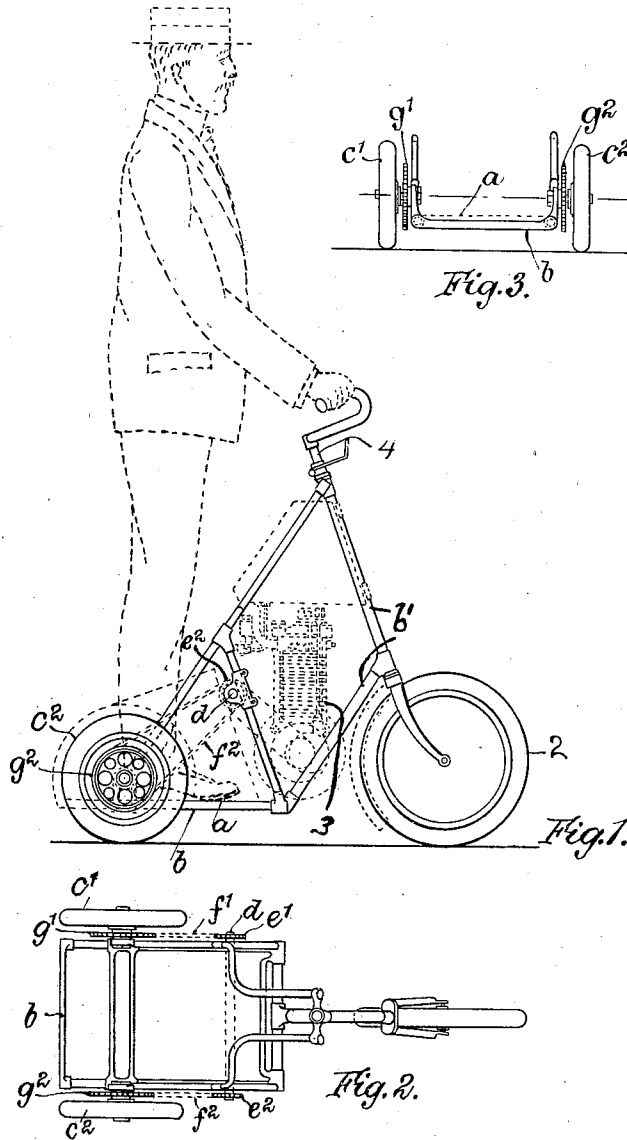


W. C. JOHNSON.  
MOTOR CYCLE.

APPLICATION FILED JULY 16, 1907.

898,481.

Patented Sept. 15, 1908.



WITNESSES  
*W. C. Johnson*  
*Geo. J. Schwenke*

INVENTOR  
*Walter Claude Johnson*  
By *Wm. Wallace White*

ATT'Y.

# UNITED STATES PATENT OFFICE.

WALTER CLAUDE JOHNSON, OF COLEMANS HATCH, ENGLAND.

## MOTOR-CYCLE.

No. 898,481.

Specification of Letters Patent.

Patented Sept. 15, 1908.

Application filed July 16, 1907. Serial No. 384,078.

*To all whom it may concern:*

Be it known that I, WALTER CLAUDE JOHNSON, subject of the King of Great Britain, residing at Broadstone Farm, Colemans Hatch, in the county of Sussex, England, have invented new and useful Improvements in Motor-Cycles, of which the following is a specification.

This invention relates to a motor driven cycle of the type described in my Patent No. 846212, a distinctive feature of which type consists in the facility it affords for mounting and dismounting due to the provision of a platform on which the rider is conveyed in a standing position, the platform being raised only a little above the road surface and placed well to the rear so that, by making a small step down backwards, the rider will be clear of the machine.

In my previous patent above quoted, the safety due to the facility for dismounting was supplemented by a measure of stability, derived from the employment of twin-treads on the rear-wheel, on each side of which a platform was provided, the rider being required to stand astride the rear wheel.

The present invention is distinguished from the former in an enlargement of the element of stability by the employment of two independently constructed wheels in substitution for the single twin-tread rear-wheel and by their being placed sufficiently apart to give enough width for a platform between them for the accommodation of the standing rider. The avoidance of an uprising wheel case between the feet will, in addition to the increased stability, due to widening the rear wheel-base render the machine especially suitable for use by ladies.

On the accompanying drawing is shown a tri-cycle constructed in accordance with the foregoing description.

In this drawing:—Figure 1 is an elevation showing a rider standing erect on the low situated platform between the two rear-wheels. Fig. 2 is a plan of the machine without the rider, and:—Fig. 3 is a rear view of a portion.

In these figures *a* is a platform on which the rider stands, this platform being supported at a small height above the ground by a drop frame *b* to which frame are also secured axles on which run the two driving wheels *c*<sup>1</sup> *c*<sup>2</sup>.

*b'* is the tube framing connected to the drop frame and carrying the single steering front wheel 2 and the motor 3; 4 is the steering fork connected with the wheel 2. As will be seen, the rear wheels are of smaller diameter than the front wheel and the motor is carried in front of the foot platform.

The power of the motor is first transmitted to a counter-shaft *d* and from this shaft to each wheel *c*<sup>1</sup> *c*<sup>2</sup> by an independent drive. Any one of the ordinary constructions of differential driving gear may be adopted whereby both wheels will be simultaneously urged each at the appropriate speed for running on a straight or curved path but, for the present purpose, a more simple method of driving may with advantage be employed as follows:—

At each end of the counter-shaft *d* is carried a small chain-wheel *e*<sup>1</sup> *e*<sup>2</sup> arranged to be free to run faster than the shaft but to be so clutch-driven as to preclude a slower rotation than the shaft, after the manner and by one of the methods of the ordinary free-wheel drive employed in bicycles. The chain-wheels *e*<sup>1</sup> *e*<sup>2</sup> are by chains *f*<sup>1</sup> *f*<sup>2</sup> connected respectively to chain wheels *g*<sup>1</sup> *g*<sup>2</sup> which are secured respectively to the driving wheels *c*<sup>1</sup> *c*<sup>2</sup>. If both wheels *c*<sup>1</sup> *c*<sup>2</sup> rotate with the same angular velocity as on a straight path then both will be driven but on a deviated path the wheel which runs along the curve of larger radius will have to rotate faster than the other to effect the required angular deviation. This it will be able to do by virtue of the free wheel clutch device and for the time the duty of driving the machine will be concentrated on the wheel which runs on the curve of smaller radius. The tendency to side-slip which appears to be greatly promoted by the differential driving gear will, under these circumstances, be diminished and still further increase the safety of the machine.

On account of the erect attitude of the rider he will be able by a slight adjustment of his body to concentrate as much weight on either wheel as will most efficiently propel the machine.

I claim:

A motor cycle having a single wheel in front and a pair of wheels in rear of smaller diameter, a drop frame extending from the front wheel to the rear wheels, a steering fork connected with the front wheel, a foot plat-

form carried by the drop frame between the rear wheels and on which the operator stands, and a motor carried by the drop frame in front of the foot platform with connections  
5 to the rear wheels to drive the same, substantially as described.

In testimony whereof I have signed my

name to this specification in the presence of two subscribing witnesses.

WALTER CLAUDE JOHNSON.

Witnesses:

F. W. LANE,

H. D. JAMISON.