

N^o 19,775



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Complete Specification Left, 19th June, 1902—Accepted, 11th Sept., 1902

PROVISIONAL SPECIFICATION.

"Improvements in and relating to Motor Cars and Cycles".

I, WILLIAM SLINGER, of Settle, Yorkshire, Electrical Engineer, do hereby declare the nature of my invention to be as follows:—

This invention has reference to improvements in and relating to motor cars and cycles.

5 According to my improvements I have a rear wheel frame somewhat similar to the ordinary frame of a bicycle, and I connect to same a further frame carrying a front steering wheel, and an engine. At or near the central part of frames I mount a central road travelling wheel intermediate between a front steering wheel and the rear wheel, and this intermediate wheel is driven from the motor, 10 preferably by primary and secondary shafting and belt and pulley gearing.

I effect the steering of the machine by carrying down a fork or tube to near the front part of intermediate wheel, and I fit within same a central steering spindle or tube. A universal or equivalent joint would be fitted on steering tube a considerable distance down from steering handle, and at the lower part 15 of tube a fixed bridge piece would be fitted to carry steering tube or spindle. A serpentine or curved shaped lever which clears the forks or toothed wheels would connect from lower end of steering spindle to one end of a connecting rod, and the other end of connecting rod would pass through a lug and be attached to swivelling forks which would actuate or steer the front steering wheel, and be 20 controlled from the handle bar of steering gear as aforesaid, the connecting rod being fitted at both ends with universal or equivalent joints.

Dated the 3rd October, 1901.

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COMPLETE SPECIFICATION.

"Improvements in and relating to Motor Cars and Cycles".

I, WILLIAM SLINGER, of Settle, Yorkshire, Electrical Engineer, do hereby declare the nature of my invention and in what manner the same is to be performed to be particularly described and ascertained in and by the following statement in writing, reference being made to the accompanying drawings:— 30

This invention has reference to improvements in and relating to motor cars and cycles.

And in order that my said invention and the manner of carrying same into practice may be properly understood I have hereunto appended two sheets of 35 explanatory drawings in which Figure 1 is a side elevation of the front part of a motor as fitted with my improvements, Figure 2 is a transverse section, and Figure 3 is a plan view corresponding to Figure 1. While Figure 4 is a diagrammatic view of combined motor and cycle frames.

[Price 8d.]

Slinger's Improvements in and relating to Motor Cars and Cycles.

Referring to these drawings:—

According to my improvements I have a rear wheel frame *a* as shown in Figure 4 somewhat similar to the ordinary diamond frame of a bicycle or tri-cycle and fitted with the usual foot pedals and driving gear; and I connect to same a further frame *c*, carrying a front steering wheel *d* and a motor *e*. 5

The connection is formed as shown more particularly in Figure 2 by inserting and brazing the lower ends of the forks *g* into sockets in the pieces *o* which are secured to the part *c*¹ of the frame *c* by a bolt *p* secured by nuts on its ends and fitted with cones and antifriction balls to allow of oscillation to obviate any jarring caused by rough roads. At or near the central part of frames I mount a central road travelling wheel *f* intermediate between the front steering wheel *d* and the ordinary rear wheel *b* and this intermediate wheel *f* is driven from the motor *e* preferably by primary and secondary shafting and belt and pulley gearing. 10

I effect the steering of the machine by carrying down a fork *g* to near the front part of intermediate wheel *f* and I fit within same a central steering spindle or tube *h*. A universal ball or equivalent joint *i* would be fitted on steering tube *h* a considerable distance down from steering handle, and at the lower part of tube *h* a fixed bridge piece *j* would be fitted to carry steering tube or spindle. A serpentine or curved shaped lever *k* which clears the forks or toothed wheels would connect from lower end of steering spindle *h* to one end of a connecting rod *l* and the other end of connecting rod would be attached to swivelling forks *m* which would actuate or steer the front steering wheel *d* and be controlled from the handle bar of steering gear as aforesaid, the connecting rod *l* being fitted at both ends with knuckle or universal joints *n*. 15 20 25

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

First. A motor cycle characterised by the fact that the rear wheel frame usual in bicycles is connected with a forward frame provided with two wheels *d, f*, of which wheels the front wheel *d* is guided by the aid of the steering bar and the travelling wheel *f* lying between the steering wheel and the usual rear wheel is driven by the motor substantially as set forth. 30

Second. An embodiment of the motor cycle according to Claim 1, characterised by the fact that the steering of the front wheel *d* is effected by means of a guiding spindle *h* actuated from the steering bar and connected to the shaft, the same rotating in the front wheel fork by a ball or equivalent joint *i*, arranged between the front fork *g*, the rotation of which steering spindle *h* is transferred by a crank *k* connected with it and by means of a rod *l* pivotally connected thereto to a crank *m* arranged on the fork of the front small steering wheel 40 substantially as set forth.

Dated the 18th June, 1902.

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Fig. 1.

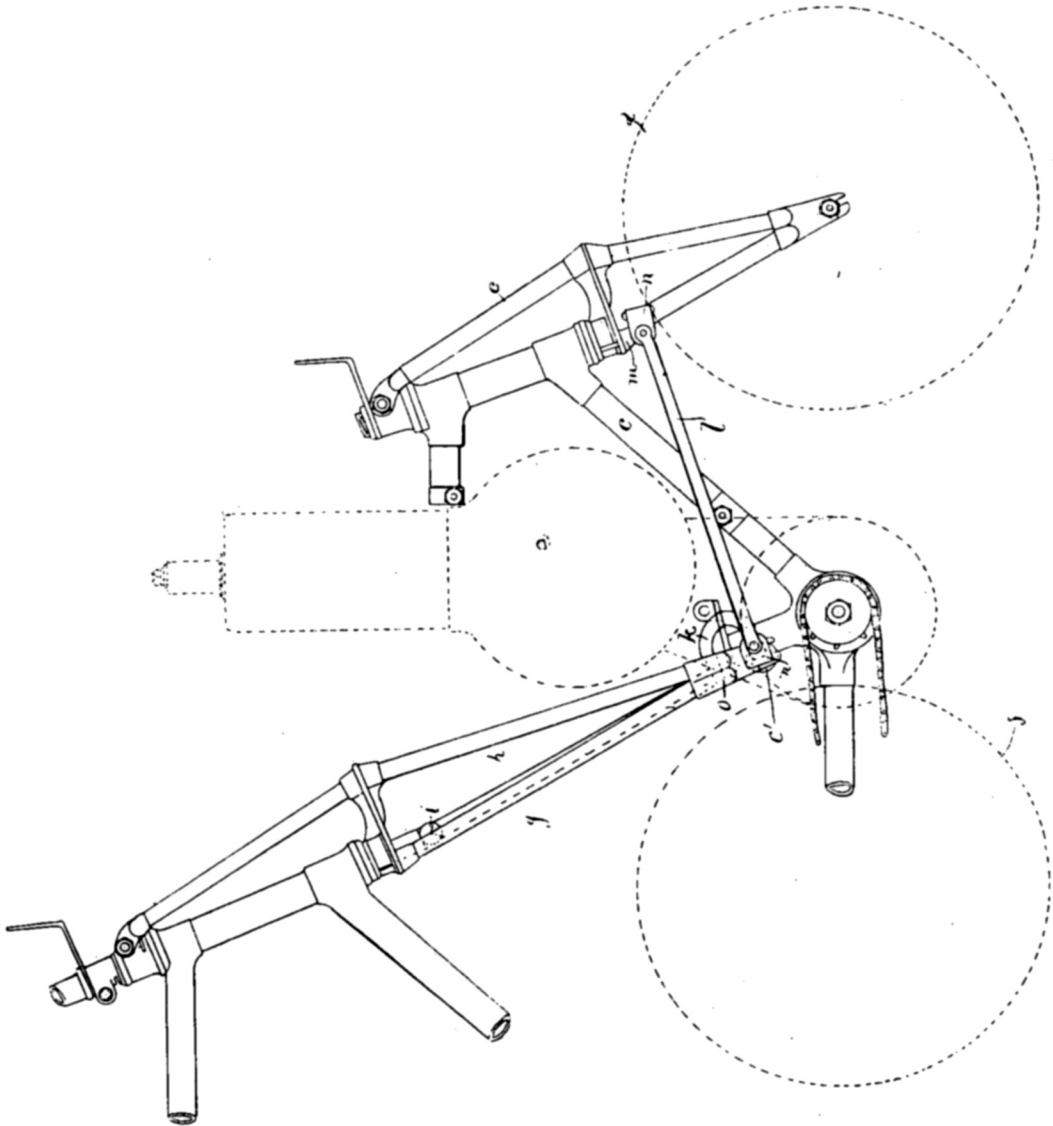


Fig. 2.

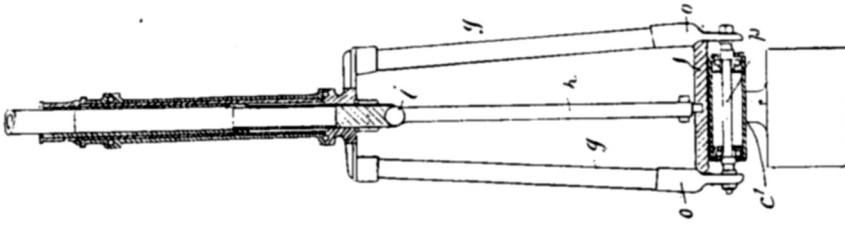


Fig. 3.

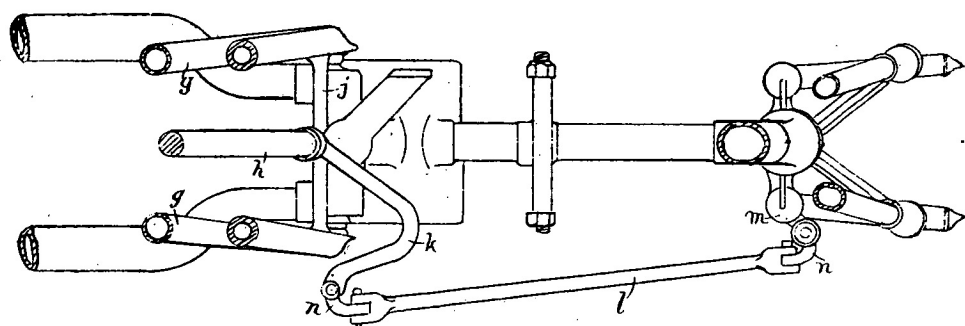
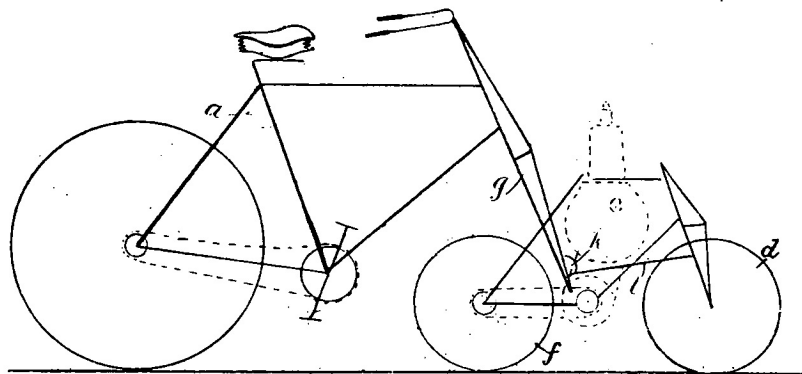
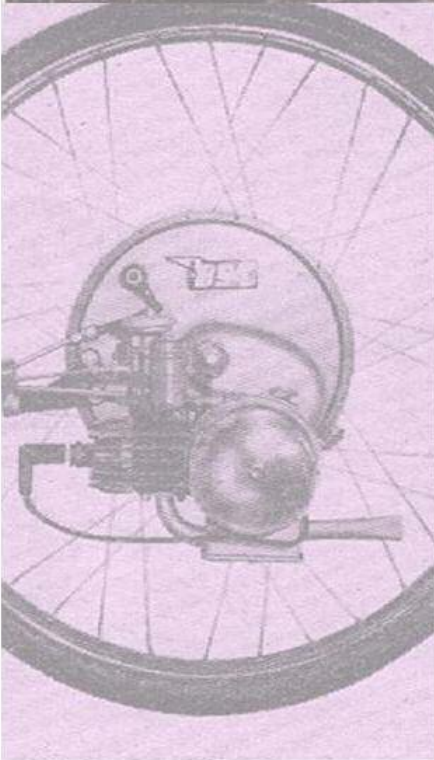


Fig 4



[This Drawing is a reproduction of the Original on a reduced scale.]

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