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...ation of nickel, for working with super-
...ated steam.

A Detachable Cycle Motor.

THE invention illustrated herewith is intended to supply, at a popular price, a strong and simple motor which can be attached to the bicycles now in use, and which can be detached at will when not required. The special advantages claimed are :—

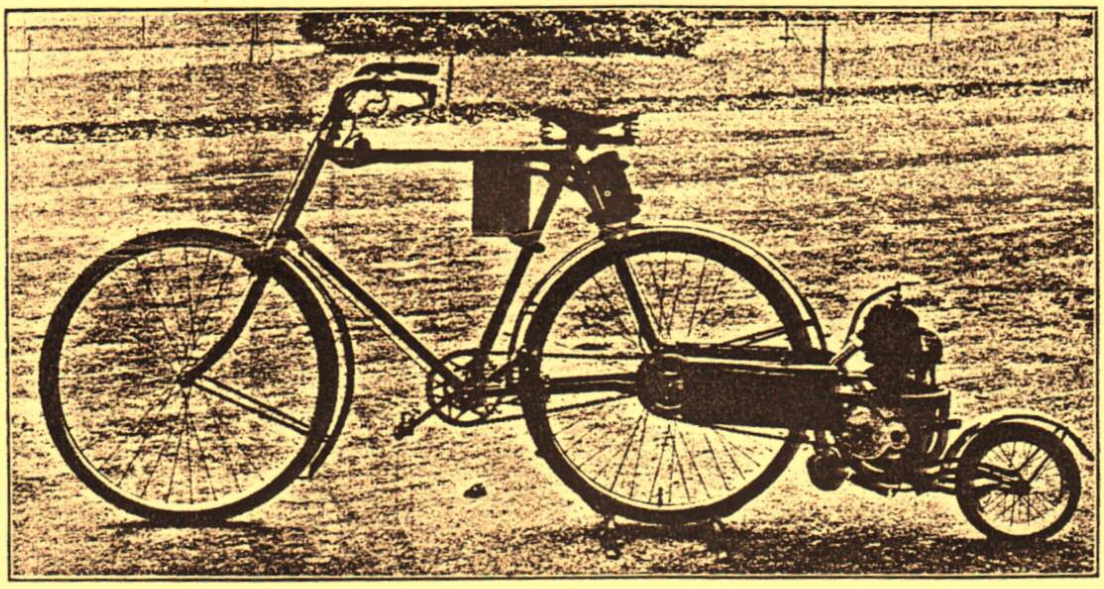
1. *Absence of Vibration.*—The motor engine being carried on a separate wheel, and supported by an independent frame which is attached by a flexible joint to the back-hub axle of the bicycle, the vibrations caused by the petrol explosions are not communicated to the bicycle frame or to the rider.

2. *Prevention of Side-Slip.*—This detachable motor, having its weight near the ground (below the level of the back wheel hub) considerably lowers the centre of gravity, and renders the bicycle the very opposite of top-heavy. The rider finds his mount to be steadier and under better control in balancing than any other form of bicycle, and that the tendency to side-slip is practically nil.

3. *Simplicity of Control.*—By levers operated from the handle-bar, the flow of petrol into the combustion chamber and the number of explosions per minute (electric ignition) are entirely at the rider's command. The supply of petrol carried in present models (see photograph) is sufficient for over 100 miles without re-filling tank.

(4) *High Efficiency.*—The full power of the engine (present models 2¾ h.-p.) is communicated by chain with spring chain-wheel directly to the back-hub of the cycle. High speeds are easily attainable, even in hill climbing. The complete motor, with its carrier, as shown, weighs about 60 lbs. This brings weight of bicycle and motor well under 100 lbs., rendering it easy of handling.

(5) *Cheapness.*—The complete motor attachment, ready to fit upon a bicycle, including a back hub and its additional spring-cushioned chain-wheel, will be retailed by the English company at from £15 to £17 10s. The motor, being carried upon its own wheel (which facilitates instead of hindering the steering), there is no undue strain upon the bicycle frame, and present bicycle frames are amply strong for the purpose. One model (1¼ h.-p.) has been driven over 3,000 miles without deterioration, which indicates the strength and practical utility of the invention. The patent is a "construction" patent, and covers the use of detachable motors with bicycles, tricycles and four-wheeled vehicles. There is no patent on the engine; any motor engine may be used. In order that this practical and common-sense invention may come into general use and popularity as rapidly as possible, the British Detachable Cycle Motor Company will freely grant licences to responsible motor manufacturers in England at moderate Royalty to make the detachable motors.



THE DETACHABLE MOTOR IN POSITION ON AN ORDINARY BICYCLE.