

THE ROVER MOTOR CAR.

In our reports of the trials of small motor cars recently held by the Automobile Club, reference was made to the vehicle which has been constructed by the Rover Cycle

the pedal is pushed forward and the levers Q—of which there are three—pull back the disc P which carries the levers, and forces O into driving contact with N.
The gearing is designed to give three speeds forward and one reverse, namely, eight, sixteen, and twenty-four miles per hour and eight on the reverse. The top speed is obtained

and Z is slid along its shaft from the neutral position between the slow forward speed and the reverse speed into a small wheel behind L, which is continually rotating on an idle fixed shaft not shown in the figure. This wheel is always in mesh with L₁ and only comes into driving action when the slow speed wheel Z is moved into gear with it. The changing of the gears is effected in a novel manner through the medium of a tube arranged concentrically with the steering stem, and connected to a lever situated under the steering wheel.

From the illustrations it will be seen that the engine A, the clutch box B, gear box C, propeller shaft casing and exhaust box D, together with the aluminium casting E, form one solid whole. The front axle is a steel tube, the end jaws being brazed into it. The steering levers are situated at the rear of the axle, and are connected together by means of a cross rod, but the steering is effected by means of a double cable, which is rotated about the spindle at the bottom of the steering stem by means of the steering wheel. The connections between the cable and the ends of the levers which actuate the wheel spindles are made through the medium of a spring, the spring being so adjusted that only one of the cables is taut, the second being slack and acting as a reserve.

The front end of the car is carried by means of a horizontal bolt resting on a bracket on the transverse plate spring Y, supported on the front axle. The body is supported at the rear on two longitudinal springs, which are separately fixed by means of a single bolt in brackets carried at the outer ends of the rear axle case, the front end of the body being hinged to a swivel bar E₁, which is in turn secured to the bracket carrying the swivel pin before mentioned. The frame of the car is chiefly an aluminium casting, and the body is designed to carry two persons. The splash system of lubrication is adopted for the engine, and the lubricant for the clutch, gears, and rear axle is inserted through inspection covers. An electrical system of ignition with accumulators is provided, and has one or two novel points. The circulation of the water through the cylinder jacket is effected by a special form of pump with a two-bladed propeller, but

