

on the surfaces; but the most efficient oil in this respect would be in many cases inefficient in its application to group (b). There are very few motor-car engines fitted with a system of lubrication whereby different oils can be used, so the oil manufacturer not only has to group the friction places, but "group" the "groups" and effect a compromise between the requirements of groups (a) and (b), and supply an oil which will give best all-round results.

Alcohol as Fuel.

A revolution in the motor world is foreshadowed in an interesting article by Mr. Rodger W. Wallace, K.C., in the current issue of *The Car*. The revolution is to come by the use of alcohol as a fuel instead of petrol. The potentialities of alcohol as a fuel for internal combustion are enormous. The cost, 1s 6d per gallon, however, has been prohibitive as far as its general adoption for motor-car work is concerned; petrol at its highest price has always compared favourably with it. Now, however, all this is changed, and in a future article Mr. Wallace will tell of a remarkable scientific discovery, the result of a long chemical investigation extending over years, by means of which alcohol distilled from peat may be manufactured and sold with a wide margin of profit at 3d per gallon. The new fuel, it is stated, is more efficient in every way. It is safer to handle, and will not overheat the engine, as petrol has a tendency to do.

Caveat Emptor.

A point that should not escape buyers and sellers of motor cars is this—that a motor car constitutes valuable property, sometimes costing as much as a dwelling. In many countries it is expressly provided by statute that contracts to purchase personal property must be in writing. If an oral order for the purchase of a motor car should be given in one of these countries, the contract would not be binding on either side.

Motors for the Press.

Compared with the enterprise of some New Zealand newspapers, the London dailies have been slow to adopt motor vehicles for delivery purposes. One exception is the *Westminster Gazette*, which has for some years employed tricars painted in the familiar green hue of the paper itself. The *Daily Mail* during the last two summers hired motor vans to supply volunteer camps within a hundred miles of London, and the *Evening News* has for some time employed a service of tricars, which will, if extended, do much to displace the adventurous lads who cycle to all parts of London with huge bags of papers. Apparently, the *Tribune* is the only journal which relies mainly, if not entirely, on motor vehicles. These give the youngest penny daily the advantage of first-class advertisement, in addition to the ordinary benefits of the improved method of traction. By the aid of its motor vans, the *Tribune* was enabled to keep pace with the *Daily Mail's* enterprise at last summer's camps.

Smart Advertising.

A member of the staff of a London newspaper recently received a picture postcard and was naturally puzzled, as were no doubt hundreds of other motorists who received a similar communication, to read the following inscription: "Thoroughly enjoyed the run. No worry or engine troubles. Used nothing but Pratt's spirit—Tom." We believe that the above post card emanated from the Anglo-American Oil Co., Ltd., as the inscription and address on each card

was in the same handwriting and posted from a seaside resort. The firm are to be congratulated on an extremely clever advertising dodge, and a modification of it might very easily be put to good account by some of our enterprising motor houses.

Comparative.

According to a French contemporary, there are in Paris 65,000 vehicles of all kinds, the total being made up as follows—9,000 private carriages, 16,000 cabs, 2,560 omnibuses and street cars, 30,000 delivery wagons and trucks, and 4,000 automobiles.

Motor Cabs.

Remarkable success has attended the introduction of the motor cab into the streets of London. Within a very few weeks the General Motor Cab Company and the London United Cab Company will have between them no fewer than 1500 up-to-date vehicles besides 100 special cabs built especially for private use. The men themselves have found in motor-cab driving strikingly remunerative employment. This was evidenced at the statutory meeting of one of the other companies when the chairman stated that the average earnings per cab were £2 3s per day. One cab has earned as much as £8.

War Motors.

A number of armoured motor cars of new design are being built for the Austrian army. The chauffeur is protected by a bullet proof shield, and in case of enemy's fire becoming severe he can, within a second, lower his seat by means of a lever, so that he is entirely concealed below the screen, but is at the same time enabled to continue driving the car by peering through small observation holes. Behind the chauffeur there is an armoured revolving turret, which protects three men who work a quick-firing gun.

An Important Decision.

The French Minister of Public Works has decided to do away with animal traction for all vehicles used by the Post and Telegraphs Department. Motor cars, motor vans, etc., are in future to be used for all purposes.

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No less than four women have so far been licensed in Paris as motor-cab drivers.

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The Motor Union of Great Britain and Ireland now comprises eighty-eight clubs, with 14,792 members.

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During the recent electricians' strike in Paris several newspapers made effective use of automobile engines to drive dynamos for lighting the offices.

Why so Many Fail at the Motor Trade.

Many of the failures of young fellows, says a writer who is up in the subject, in the motor industry are due to the fact that their parents know nothing of its conditions, and are really unable to advise them. The boys themselves, feeling no immediate necessity, do not have their perceptions sufficiently quickened to realise that something more is required than the experience to be gained in the works and on the road. They fail to realise that they ought to take up courses of study at technical schools or elsewhere, thus making good any deficiencies in their technical knowledge. After all, the payment of a premium only gives a boy an entry to the works; everything else depends almost entirely on himself. If he is steady and

smart, observant and thoughtful, well and good; but at the present time none of the motor manufacturers have what may be called an established system for the training of premium pupils or apprentices. Only a few of the general engineering firms of this country have reduced this business to anything approaching a system. It is probable that many of the boys who have been sent into the motor industry would have done better in some such general engineering factory, and, what is more, they would have had as good or better chances of eventually getting on in the motor industry. A really well trained engineer who has thoroughly mastered the system of a great engineering factory is more likely to obtain a good position in a motor factory than a man who has received his sole training in a motor works and knows little or nothing about the systems of other great concerns.

Accidental Starting of Automobiles.

Accidents due to cranking the engine while the gears are in mesh are not unusual, but they seldom have such serious results as in a case which occurred on a ferry-boat at New York City last July. As the boat entered the slip the driver cranked the motor, and the car immediately ran forward, breaking through the chain stretched across the central part of the boat in front, and through the lattice gates, and pushing several ferry passengers into the water. The driver claimed that the accident was due to the impulse given to the vehicle by the impact of the boat with the sides of the slip, but, though this might possibly start the vehicle, it is clearly evident that it could not give it such an impulse as would be required to cause it to break through the chain and gates. Moreover the car began to move just after having been cranked, thus clearly indicating that the motive power was derived from the engine.

It is, of course, possible to provide the car with a device rendering it impossible to crank the motor while the gear is engaged, but whether such an arrangement is generally desirable is a question. It has probably no other fault than that of adding to the complication and weight of the car, but the majority of drivers, who are thoughtful, would consider it an unnecessary adjunct. There is certainly more danger of personal injury from cranking with the spark advanced, and the automatic safety devices for preventing this have never come in to great favour, and are now used only on cars with large single cylinder engines. It is to be supposed that such operations as disengaging the gear upon stopping the car and retarding the spark before starting will eventually become "second nature" with automobile drivers, and the dangers referred to will be eliminated in this way, rather than by fitting a multiplicity of automatic safeguards.

Special care should be exercised by the driver when taking his car on a ferry-boat. The emergency brakes should be set as soon as the car is in position and not released until the boat is fast to the bridge; and it might even be best not to crank the motor until the boat has been secured in place and the gates are being opened.

The Royal turbine yacht *Alexandra*, launched at Glasgow on May 30th, was built under strict Admiralty conditions. She is of 2000 tons displacement, 300 feet long, and her turbine engines will drive her 17 knots. Her internal arrangements are designed alone to meet the uses of the King and the Royal Family, and not for large parties of guests.