

## Motor Notes.

By "ACCUMULATOR."

Orders booked by British motor-bus engineers will average an aggregate output of 25 machines per week for the next six months—say £100,000 per month.

A unique sight is now offered Londoners. They are witnessing the smart and smoky petrol vehicle ranged alongside the unostentatious Jehu. The irony of fate!

The motor-bus traffic in London is very much curtailed within the centre of the city (taking in the Strand, Ludgate Circus, Oxford Circus, Piccadilly Circus, etc.) on account of the incompetence of drivers.

Messrs. Trengrove & Petherick have opened a new motor garage in Wellington—Harris street. Their establishment is commodious and up-to-date, and, supplying as it does a long-felt want, is a reliable sign of the increasing development of automobilism in the metropolis.

The tyre trouble still reigns supreme. Studded treads are going out of fashion on touring cars; the greenhide tread, or even the bare rubber tyre, being preferred. Studded treads will soon be found in use on city private cars only. These treads guard against the calamitous results of skidding in a crowded thoroughfare.

There is a movement in Britain for urging the great importance of encouraging the use of some other fuel than petrol, one of British manufacture for preference, as a matter of great national importance. Certainly there could be no better means of creating competition in fuel suitable for internal combustion engines on motor cars than the method of offering large money prizes.

The bodily exertion on the part of a London policeman, which he has displayed for ages, in the uplifting of the right hand to stop traffic, has now given place to the simple process of turning his back upon a flood of vehicular traffic when he requires to stop it. He and his colleague on the opposite corner so work in harmony in this respect as to lead one New Zealand motorist, who recently witnessed it, to consider that London traffic is now "mechanically operated."

The child's seat on the bicycle seems to have come to stay, and no wonder, for they are delightful to the children and therefore naturally so to all who are with the children. Moreover, they are remarkable for the simplicity of their attachment. I understand that Mr. Gardmer of Kilmore street, Christchurch, who has a stand in the Exhibition of that city, is very well satisfied with the demand that has set in, despite the fact that he is not at all pleased with the position assigned him by the authorities.

All reliable cars turned out by reputable firms cannot possibly come down in price on account of the ever-occurring application of new patents in their construction. Raising of gears and other improvements in the mechanical part of cars at all times require considerable forethought and outlay of capital. One improvement already applied to an English car is that of pneumatic control of gears and brakes, there being absolutely no levers. All that is required in order to ensure perfect control is the pressure of a finger on a pneumatic bulb.

Selling agents in London are feeling the effect of competition at the hands of members of local directorates. These members, being chiefly composed of noble lords, succeed in influencing an enormous amount of business, and it is quite a common thing for a prospective buyer to meet "my lord" in the course of a drive, and to be led into buying a car. The noble representative of the business pockets the commission in quite a gentlemanly and unostentatious manner, to the detriment of the selling agent, while the buyer believes he has at least procured a car free of the middleman's charges.

The need for keeping an eye (when buying) on the rough roads of the colony has been brought home to the neighbourhood of a certain centre not more than a hundred miles from Palmerston North, by the experience of a resident lately returned from the old country, who brought with

him a magnificent car on which he is said to have spent the sum of £2000, warranted to do every thing in the world possible to any car. This proud character it proceeded to live up to by breaking down at an early stage, after the rattling of the roads had fatally disagreed with the beautiful creature's digestion.

The F N 4-cylinder motor bicycle which hails from the ancient town of Herstal, Belgium, is beginning to engage the attention of the patrons of that branch of the motorism of the day. Its chief advantages are that it is built on a system of interchangeable parts, is gear driven, is free from vibration, has 59 per cent more cooling surface than prevailing systems, and is fitted with the Simms-Bosch magneto ignition and the patent F.N. fork. In addition, the frame is of extra strong steel tubing, the crank shaft is drop forged of high grade steel, the lubrication is all that can be desired and the carburettor entirely automatic.

Who was the inventor of the motor car? This question, so often discussed by the motorist, is answered by the Jewish Chronicle, in a recent issue. The Chronicle says—"The inventor of the motor car was Siegfried Markus, of Vienna. Markus's benzine motor was on show there at the great International Exhibition of 1873, and the description of the vehicle is to be found in the large catalogue of the Exhibition, which was published by the Imperial and Royal Printing Office. The car in which Markus and some other Viennese, who are yet living, made the first trips in Vienna is still to be found there in the depot of a well known carriage and motor manufacturer."

The "Prevention of Corruption Act, 1906," which came into operation in England on the 1st of January, substantially affects the motor trade, more especially from the chauffeur's point of view who is in the habit of demanding or receiving a commission for the introduction of business on behalf of his employer. From the 1st of January any chauffeur who accepts any gift or consideration, or attempts to obtain any without the knowledge of his master, will be criminally liable. The penalty is up to two years hard labour and a heavy fine. An echo of this measure seems to have reached and affected a good many people in this colony.

The 1907 Mitchell motor new design valve action is interesting, as will be seen from the cross section of our illustration. The valve placing is the notable thing. The exhaust is in the middle of the cylinder head, and hence is rapid, and connection assures a partial vacuum in the cylinder when the cold charge enters below the last remnant of the escaping burned charge, and thus valve placing and operation makes a fast running motor. The coring is easy and simple, and the motor has a very great extreme of high speed, as much as 2000 R.P.M., and possibly more, which means that it takes in a large charge volume, and is strong at low speeds, showing decided advantages to the mixed valve placing, which calls for the hybrid valve action. The chassis frames are of pressed steel, and all the best features of the Mitchell system are present, as per experience.

To speak of driving a motor car or a motor boat is the easiest thing of the world. But to get the practice which alone can guarantee safety and true pleasure,—there's the rub. It is something to know that the art has, like others once considered more important, at last become the object of a school of the correspondence order. The Correspondence School of Automobile Engineering, incorporated in New York, is now prepared to furnish all who may want them, correspondence courses in automobile and motor boat operation and engineering. This supplies a want felt by owners, machinists, drivers, repairers, and the rest who have to make the motor car perform its useful functions in out-of-the-way back blocks and lonely places. I have to acknowledge receipt of a copy of the pamphlet of the rules, terms, and all necessary particulars from Mr Rodger, of Cashel street, Christchurch.

About steam cars a recent controversy is interesting and instructive, and it has placed the merits of steam in somewhat bold relief. For example, as to hilly country, there are, it may be gathered, steam cars which negotiate the steepest hills without any rushing at the bottom; and they have this advantage that if, in going down a hill, anything goes wrong with the brakes the engine can easily be reversed and the car pulled up. Starting is a problem, sometimes, in the car of Commerce, but in the case of steam, once steam is up, all you have to do is to open the throttle, and away glides the car, with instantaneous and certain start. In the matter

of economy (to which millionaires attend as much as the messenger boys, their employees who ride motor bicycles) the steam car burns paraffin at a cost of 5d. to 6d. per gallon and will run as far as a petrol car carrying the same quantity of petrol, the present price of which is 1/3 a gallon. Moreover the steam car runs a hundred miles on a single fill of water, eighty if there is much hill work. Fourthly to lubricate adequately means that the steam engine will last practically for ever. That, at least, is the statement of one enthusiastic expert, who declares that after several years of use of a steam car, he has never paid a penny in repairs of the engine, and never had to take off the covering.

Mr. Somerville, county surveyor for County Cavan, writes to Messrs. Alldays & Omions about a 10-h.p. car recently purchased from them, that he is particularly pleased with its hill climbing capacities. It can with ease surmount on the top gear hills that a 15 h.p. 4-cylinder car of celebrated make was only able to take on the second speed, and it is only on rare occasions that he has had to use any but the top speed, and as a very striking example of this, he says, he drove, with two up, the entire distance to Baileborough and back, a distance of 40 miles, without once altering from the top speed the whole time, and that on one of the hillest roads in that, perhaps the most, hilly county in Ireland. The firm, which turns out these cars in all sizes up to 20 h.p. of both ordinary and standard gauge, has a type specially constructed for the colonies, with special radiator and fan for efficient cooling, and built extra strong to withstand the rough roads.

The motor manufacturing industry in England is extremely promising. A New Zealander, who has just returned to Wellington, says the Home demand is so great that colonial orders must, perforce, take a very second place. Notwithstanding my informant's ideas, I am fully aware that the lack of capabilities to complete foreign orders in England is due more to the inadequacy of arrangements for handling the demand than to the inordinate inroads on any one firm's power of production. To further qualify this we have only to look to at least half a dozen large motor manufacturing concerns which, two or three years ago, doubled and nearly trebled the size of their then existing factories in order to meet the impending rush. These firms were at the time ridiculed on many sides, but their forethought has helped them to enter into a very profitable and expanding trade with Britain's oversea colonies.

In corroboration of the above another expert has some pertinent information to offer. "I can remember," says he, "a little air-cooled bicycle engine I rode about 1901. The combustion head was as heavy as most motor-car cylinders are cast now, it was detachable with flanges 5-16 in. thick; it never got hot enough to fire prematurely or to fire at all with switch off. The De Dion tricycle engines were not cast with light cylinders or combustion heads, yet they never or seldom overheated with gears of eight to one when properly driven. Again I rode a motor cycle in 1904-5 with a particularly light engine, and it was most difficult to keep it cool. The cylinder was a beautiful example of moulding and casting, bored out to 3-32 in. with very thin ribs, but it absolutely refused to keep cool. This year I have been riding a very heavy one. The radiators are 'chunks' of metal. Does it get hot? No! And one cannot make it overheat unless by very careless driving."

The announcement recently made in England about the inclusion of a monstrous tax on horse power (£1) in the draft of the new motor Bill has excited the greatest indignation in motor circles. When the mail left the expert journals were full of correspondence on the subject and the enquiries as to what ought, might, could, would and should be done to prevent this tremendous iniquity were exceedingly numerous. All were agreed that the first vital necessity was to get the proposed provision modified before the Bill got before Parliament. Protest was made principally because the Bill is a government one and ought, therefore, not to pick out any particular section of the community for drastic, if not prohibitory, taxation; and, secondly, that the tax of £1 per horse power would considerably restrict the sale of motors, and therefore affect a very large number of hands employed in the motor industry.

Tourist trophy races are now recognised in England as the most important and the most interesting which take place in connection with automobilism, combining, as they do in a way peculiar to themselves, sport and mechanical development. There is, therefore, much discussion about the conditions on which these events are to be arranged. The bulk of opinion