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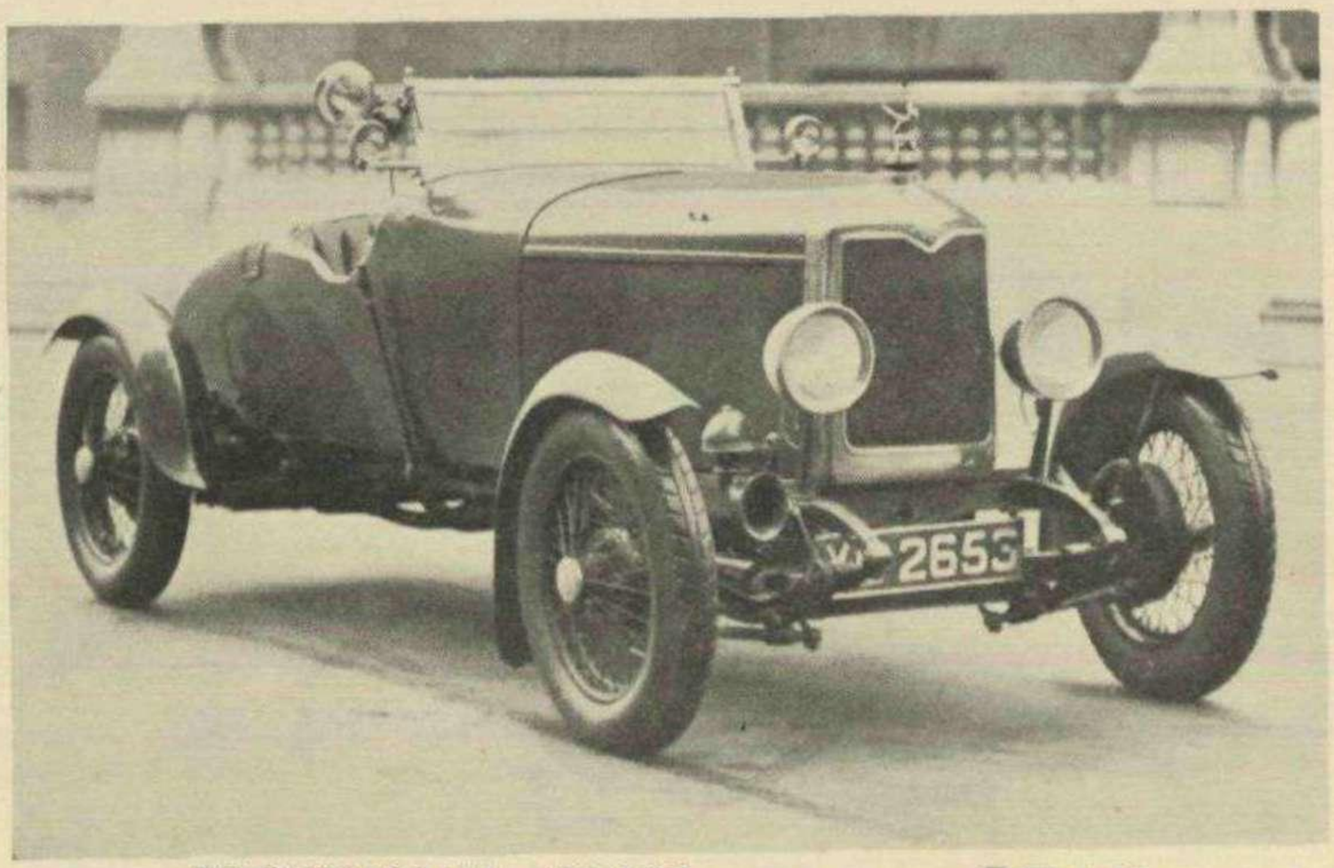
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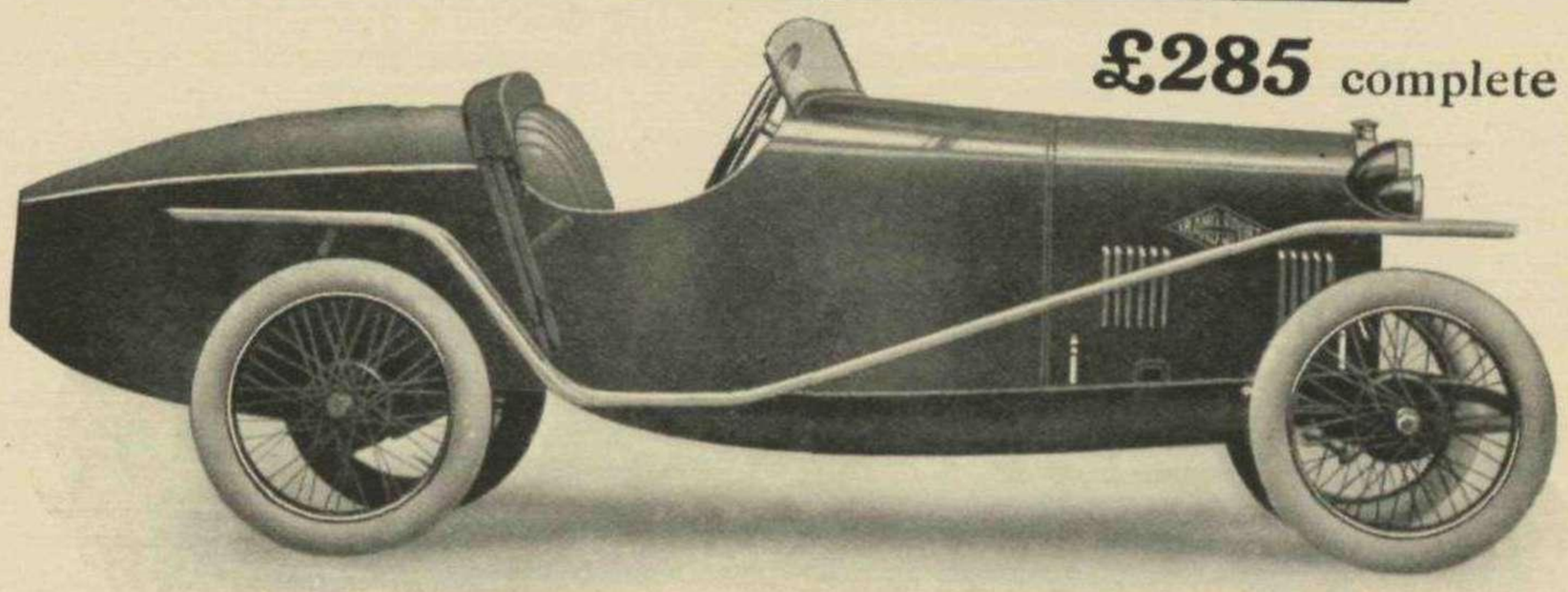
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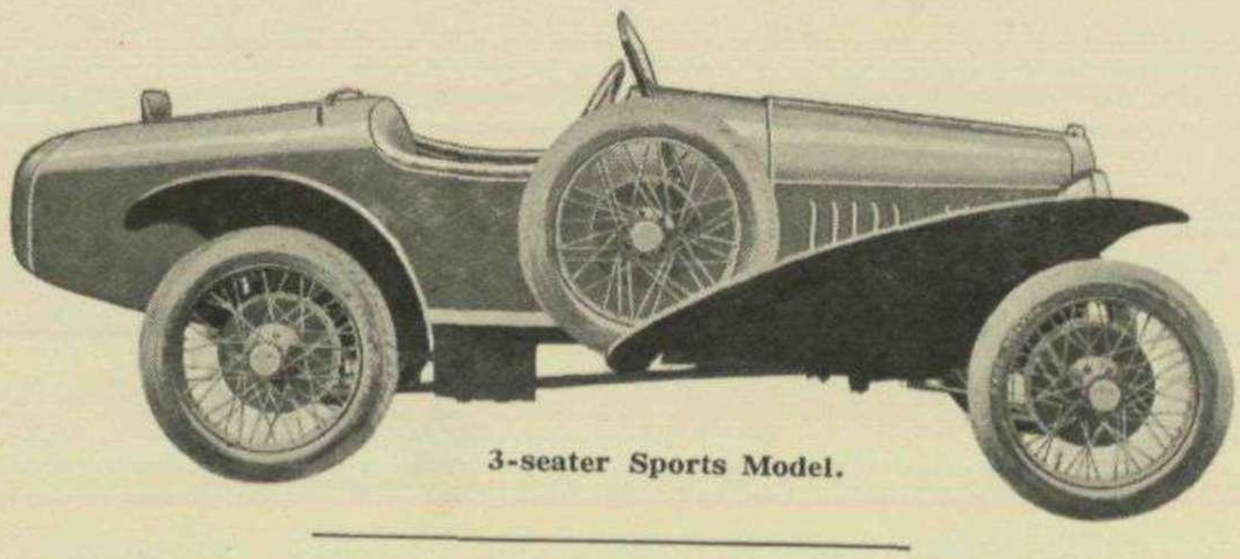
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Edited by RICHARD TWELVETREES, A.M.I.MECH.E., M.S.A.E., M.SOC.ING.CIV. (France)

MARCH, 1926.

EDITORIAL NOTES.

Sporting Trials and the Motor Industry.

AT the moment there seems to be a considerable amount of controversy concerning the attitude of certain manufacturers with regard to various trials and competitions. We understand also that some of the older manufacturing firms hold the view that such events should not be supported and even take up a strongly dictatorial attitude in the matter.

Every firm is, of course, entitled to hold its own opinions as to the value derived from sporting events in relation to business, but we feel that any suggestion of interfering with the development of types by putting obstacles in the way of competitions, is not only extremely foolish, but suicidal if this country is to hold its own with the productions of foreign countries, which are continually being improved as the result of very strenuous road and track tests.

As far as we are able to judge, it seems that having reached the stage where orders are rolling in in a fairly satisfactory way, some manufacturers are acting very much like the dog in the manger, with the sole object of preventing any newcomers, or small concerns from developing better machines, which if placed in competition with their own would put up very much better performances.

So long as motors run on roads, so long will sporting drivers demand cars of high performance and the disinclination of any manufacturer to participate in trials will mean that his make will cease to be regarded with favour by a certain section of the buying public. Everyone recognises that the biggest business is to be done in the sale and manufacture of touring models and we ourselves admit the comparatively small proportion of sporting motorists compared with the total number of car owners.

We are equally certain that the sporting driver can and does exercise a good deal of influence in advising his friends who, while not wanting a car to do eighty miles an hour, look to him for advice.

Does the touring car business of some of the high class manufacturers suffer just because they happen to hold a bunch of World's Records, or a fine collection of trophies won in reliability trials? We fancy not. On the contrary, it can be proved over and over again that the public regard reliability trials in the way that the organisers intended, namely, to establish the fact that standard productions are capable of standing up to severe work and thus ensuring satisfaction in the hands of the average user.

Any shirking of responsibilities in keeping performance well before the public notice is a sign of weakness on the part of the manufacturers, camouflage it how they may. At present there is far too much of the trade union spirit in certain sections of the motor industry, and real progress is being hindered by a modified form of Prussianism, which prevents individual firms from opening out into fresh avenues of development for the benefit of the car-buying public. Directly anything new is suggested, the matter is discussed by a species of Third International, and is thus severely handicapped from the start.

Competitive trials are essential to-day in maintaining the standard of automobile efficiency as they were in the days of tube ignition. Considered as advertising propaganda—their least valuable virtue—trials are infinitely superior to impossible looking pictures and imaginative claims set forth in some kinds of publications.

As to the cost of competition work, this is largely a matter of business organisation, and here some of the big firms could learn quite a lot from their humbler rivals, who, with very small amounts of money available, are consistently successful in winning trophy after trophy in open competitions. Or does the success of the mere nobodies in the industry account for the attitude of those who want to rest on their oars?

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TECHNICAL TALKS. By F. T. BERSEY, M.I.A.E.

No. 2.—ON THE MANUFACTURE OF SPECIAL GEARS.

[Following his remarks on engine overhauling in our last issue, Mr. Bersey explains some of the intricate machinery used in the production of special gears often required to secure the maximum performance in various kinds of sporting events.—EDITOR.*]*

MANY keen motorists in seeking increased efficiency from their cars imagine that, when everything has been done to improve engine performance, the only remaining possibility of getting the desired results lies in the direction of lightening the bodywork, or in other means for reducing dead weight. These latter points are, of course, important in their way, but at the same time quite a lot can be done by the judicious alteration of gear ratios, the means for effecting which forms the subject of my present notes.

Perhaps the sports car manufacturer is confronted with an almost insurmountable problem in providing gear ratios that will please each and every one of his customers, for the simple reason that drivers vary so much in temperament and in their methods of driving, and as it is obviously impossible to list cars with a wide selection of ratios individuals often prefer to decide upon the ratios for different gears as the result of their own observations. One owner, for example, may desire a top gear ratio that will enable his car to travel all out at the maximum speed on the track, another may desire a specially low first gear to guarantee ultra-rapid acceleration, whilst others may pick upon the second or third gear as needing alteration to set up a record for some classic hill climb. In short, the subject of selecting gear ratios is a somewhat complicated one and few sports car owners agree exactly as to what constitutes the ideal in this respect. For the purpose of explaining the methods by which special gears are manufactured, let me take the simple case where the

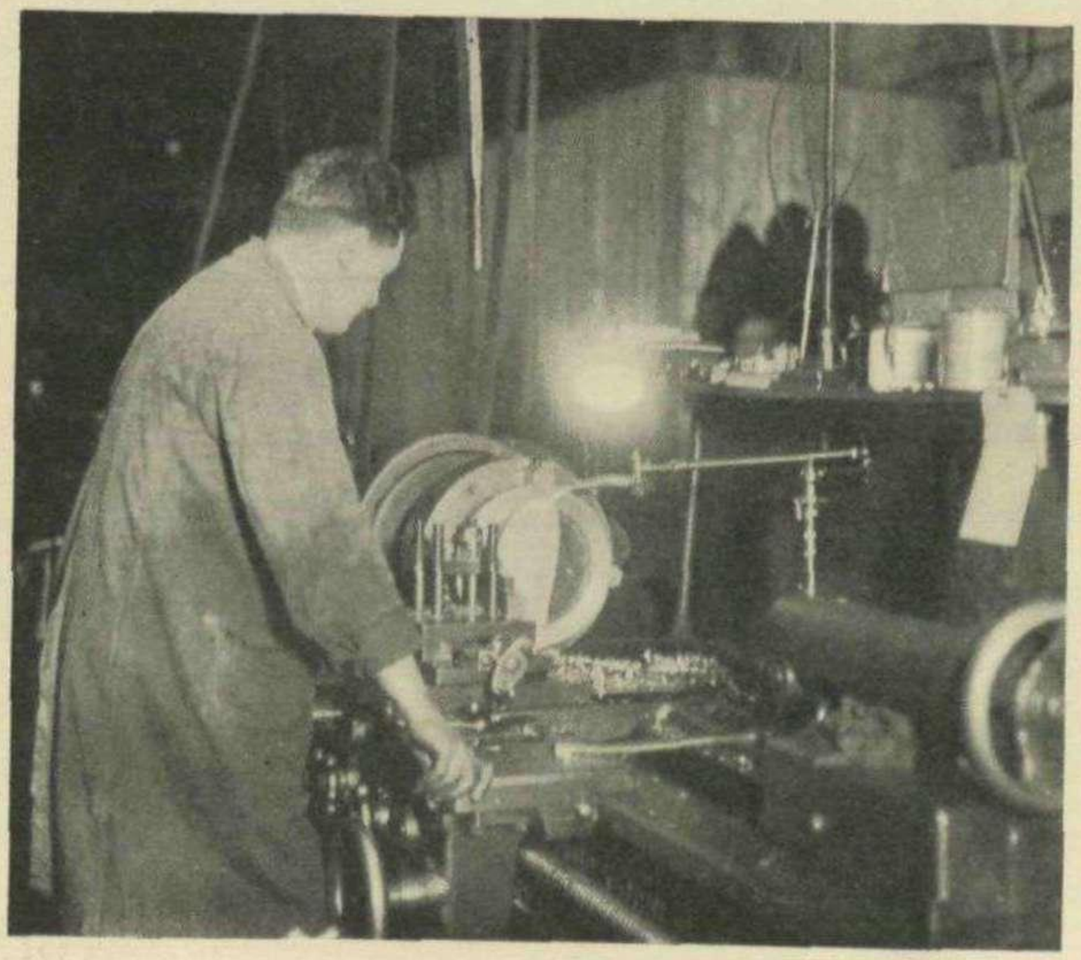


Fig. 1. TURNING A GEAR BLANK.

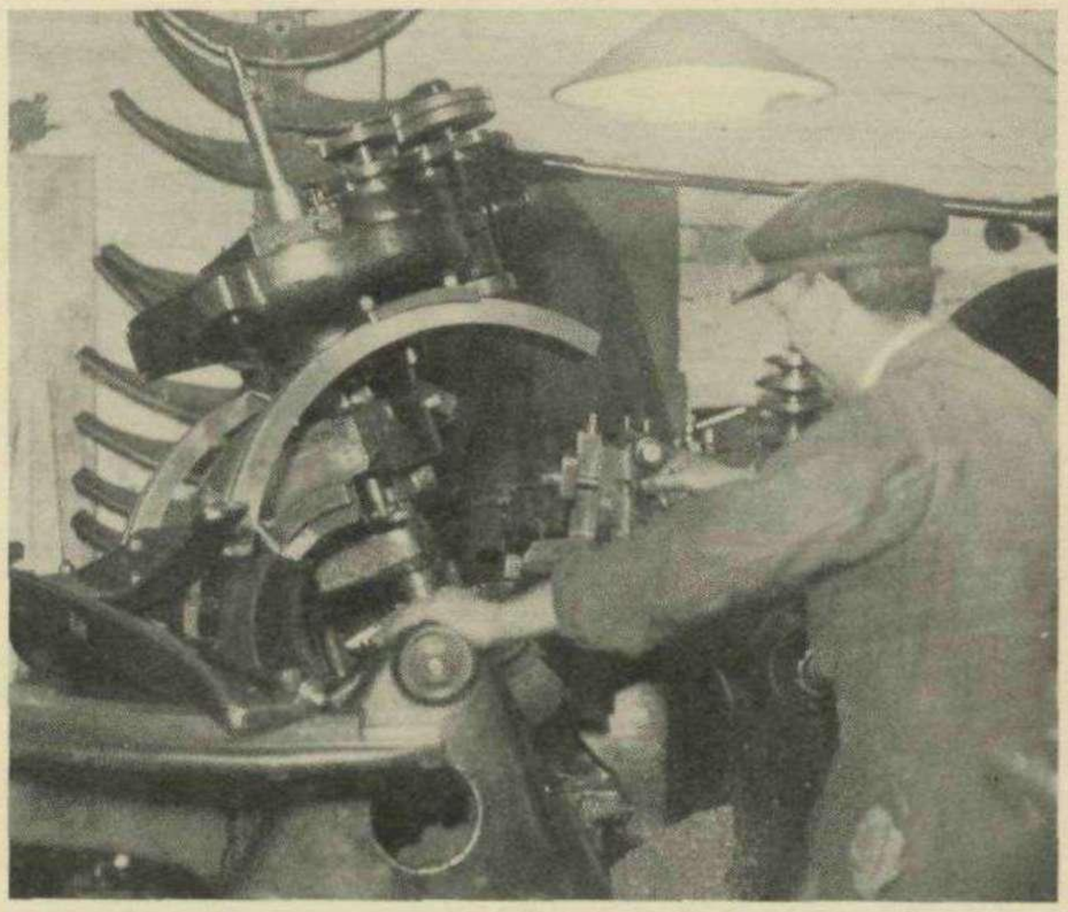


Fig. 2. THE REINECKER GEAR CUTTER IN ACTION.

alteration is effected by changing the ratios of all speeds by the provision of a new crown wheel and pinion in the rear axle.

This may be a simple or complicated matter, dependent upon whether the axle casing gives sufficient room for the alteration or not, for in some instances it is necessary to make a crown wheel with a large amount of "dish," in order to throw it over to a sufficient extent to accommodate a different diameter; though, as a rule, the greatest care is taken to avoid any modifications of this kind. Then, again, one has to be careful to avoid any alterations that would interfere with the substitution of the new and old wheels by the owner, because he may desire to use a moderately high gear for touring and only need a lower gear for climbing some of the freak hills to be found in most reliability trials of to-day.

The first step in the process, therefore, is to examine the rear axle very carefully to make sure that the alteration can be accomplished without creating any complications, and having satisfied ourselves on this point we can proceed with the preparation of the gear blanks for the machine on which the teeth are cut. The gear blanks are turned on an ordinary centre lathe and are usually made from 3 per cent. nickel-chrome steel, which can be hardened by cementation. Air-hardening steels are sometimes used, but I am rather inclined to favour the former class of steel, as under heavy duty the air-hardened steels appear to suffer somewhat by spreading at the ends of the teeth.

In making the gear blanks the original dimensions are followed closely, though in some cases we find it

TECHNICAL TALKS—continued.

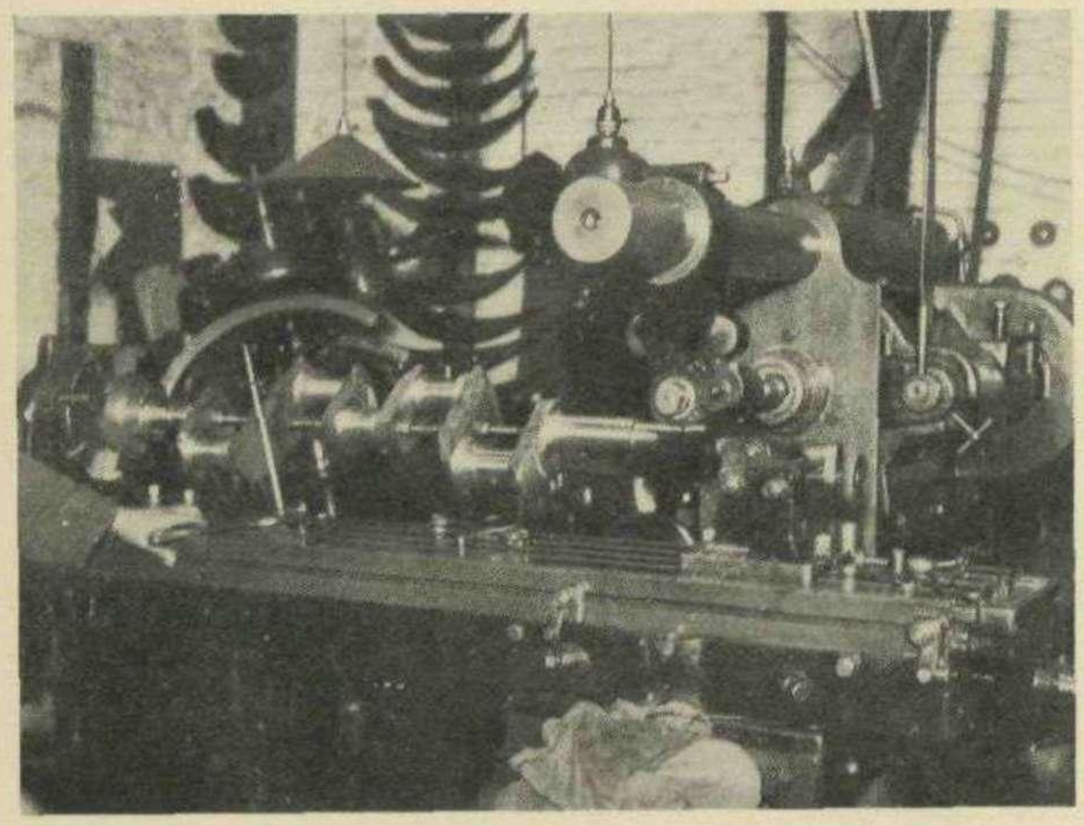


Fig. 3. A Universal Miller which has Numerous Applications for Gear and Other Work.

desirable to allow a little more metal at critical points to provide extra strength, especially where some of the light cars are concerned in which the design is somewhat on the fragile side:

Milled v. Generated Gear Teeth.

Before the introduction of modern gear cutting machines, it was the universal practice to cut the teeth by the aid of form cutters in a milling machine, but this system permits of various inaccuracies. For example, the true form of the gear tooth depends entirely upon the accuracy of the form cutter, and after this had become worn by continued use the teeth of the gears begin to lose their shape and noisy transmission results.

The need for absolute accuracy in the shape of gear teeth has led to the introduction of many ingenious forms of machine tools, among which the Fellows gear shaper occupies a deservedly high place and operates on the principle that a gear tooth can be made to form its conjugate in a blank running in correct relations as to speed, centre distance, etc., with the first wheel. This is accomplished by producing a gear as near perfect as possible and then using it as a generating cutter. The manner of using such a cutter is extremely interesting, for the machine in which it is mounted provides a reciprocating motion similar to that of a shaper, the cutter passing backwards and forwards over the face of the blank parallel to its axis and shapes its way into the latter to the required depth of the pitch to be cut. When this has been accomplished, the feed of the machine causes the cutter and the blank to rotate in unison, the cutter still maintaining its reciprocating motion, the combined result of the rotary and reciprocatory motions being that the cutter generates the teeth in the blank to the precise theoretical shape.

Cutting Bevel Gears.

There are several types of machines operating on the moulding-generating principle, by which bevel gears can be cut with the aid of planing or shaping tools, the first application of the idea being made by Hugo Bilgram, of Philadelphia, a later example of the same principle being found in the Reinecker machine, illustrated in Fig. 2. This machine does not operate on the principle of completing one side of each tooth before going on to the next, but the rolling action is progressive with the indexing motion so as to finish all the teeth at once. By this method the tool remains stationary in so far as its angular position is concerned, whilst the frame upon which the crown wheel blank is mounted is free to rotate and at the same time rolls the work in its correct relation to the tool, which moves backwards and forwards with a planing action. In addition to cutting straight bevels, the Reinecker machine can form spiral bevel gears, except those of the Gleason variety, which have to be cut on another kind of machine.

Thus it will be seen that by the aid of modern machinery, it is possible to produce new gears with a very great degree of accuracy and the operations being absolutely automatic, to eliminate all possibilities of error.

Treatment of Top Gear Dogs.

Owing to the fact that most sporting drivers cultivate the " slip " method of changing gear, we are sometimes called upon to alter the form of top speed dog clutches to facilitate the operation, which in most cases consist in providing a little extra undercutting on the engaging portions of the dogs. This work requires considerable care, as the parts concerned have first to be annealed, then milled without removing an unnecessary amount of metal—to avoid undue backlash—and subsequent rehardening. The illustration reproduced, as Fig. 3, shows the type of machine used for milling the teeth of a top gear dog to give the desired result, the operation being carried out by the aid of a universal milling machine.

The Process of Hardening Gears.

No matter how much care is devoted to the manufacture of special gears, the ultimate results depend



Fig. 4. Cooling out a Bevel Gear for Hardening.

TECHNICAL TALKS—continued.

almost entirely upon the manner in which the hardening process is carried out, for there is always a possibility, however remote, that a newly-made gear may warp considerably when submitted to the heat necessary for the carbonising process. A good deal depends upon the skill of the hardener, but sometimes he cannot avoid a certain amount of distortion, and should this appear likely to take place the gear is firmly clamped between two massive metal plates before it is dipped out. The formation of scale on certain classes of steel is also a point that needs careful attention, for its presence will prevent the proper cooling of the metal, which may, in consequence, suffer from soft patches—a very grave defect in any class of gear. Then, again, in cooling out a large gear wheel, the heat will be so great as to increase the temperature of the cooling water, which is overcome by employing a special form of cooling tank, so arranged as to allow a continuous stream of cold water to pass through whilst the hardening process is going on.

To gauge the depth to which the cementation process has extended, or in other words to measure the depth of the hard skin, test pieces are put into the hardening muffles at the same time as the gear to be hardened. These test pieces are afterwards broken and the fracture will show the demarcation between the soft core of the metal and the hard skin. It follows that if the skin is too deep the teeth will become brittle and liable to break under the driving stresses and an insufficient depth will, on the other hand, impair the wearing qualities of the new gear.

A final test for hardness is made with the Brinell test, by which a hardened steel ball is pressed into the surface of the metal so as to make an indentation that can easily be measured by means of a microscope. The spherical area of the indentation being known, together with the pressure exerted on the ball, gives the basis for calculating out the hardness in accordance with tables provided for the purpose.

(*To be continued.*)

F. T. Bersey

HOW RACING HAS IMPROVED ENGINE DESIGN.

Speaking at a meeting of the Society of Automobile Engineers at Indianapolis, Mr. Dusenberg explained how the rule limiting cubic inch piston displacement in American racing events had resulted in reducing the size of engines from 600 cubic inches displacement in 1911 to the present size of 122 cubic inches, and predicted a further reduction to 91 cubic inches.

With these reductions in size, the average speed of cars in the 300 mile races has increased from about 75 miles per hour in 1911 to 127 miles per hour in 1925, whilst the number of cylinders has increased from four to eight. Given correct streamlining and gear ratios, said Mr. Dusenberg, the 122 cubic inch engine would be able to equal the Beach record of 156.56 m.p.h. made with a car fitted with two 300 cubic inch engines.

Superchargers were fitted to the cars in 1924, and in April last year De Paolo established a lap speed of 139.7 m.p.h. on the Culver City track, whilst more recently Earl Cooper improved the figure to 141.6 m.p.h. In trials, these engines have attained a speed of 5,500 r.p.m., and Mr. Dusenberg predicted that within three years the 91 cubic inch engine would equal the speed of the present engines measuring 122 cubic inches.

NUMBER PLATES.

The R.A.C. has been advised that the police are displaying a certain amount of activity in regard to the back number plates of cars.

On a large number of vehicles the petrol tank is carried at the back of the car, and is cylindrical in shape; it has been the custom of certain owners either to paint the back number on this tank, or to bend the plate so as to conform to its shape.

It may be argued that such practices are not in accordance with the regulations, and traders should note the fact, both for their own and their customers' benefit.



MR. S. J. BASSETT, who, well known in trials and racing events, is now technical superintendent in charge of the "Brooklands" Austin Seven Department for Messrs. Gordon England, Ltd. The illustration shows the minute proportions of the Austin Seven crankshaft.



THE AUTHOR'S BUNGALOW IN THE WILDS OF NEW ZEALAND.

ABOUT COLONIAL SECTIONS.

By ARNOLD RADCLYFFE.

The following article gives some interesting facts concerning real Colonial Sections encountered in Overseas Motoring.

TRIALS which include or consist almost entirely of "colonial sections" are the vogue of to-day. Before the war a long main road trial was considered a good test for motor-cycles and cars of that period. Gradually, by-roads were introduced and in these times the very worst that Scotland and Wales have to offer is served up and the modern machine shows that it can rise superior to everything. Unfortunately, it is difficult in the British Isles to go far without striking some kind of metalled road, so organisers resort to sending conpetitors round the course twice, sometimes in the opposite direction the second time. But, however much ingenuity is shown in planning the trial, the majority generally win through and what failures there are are due, usually, to the human element.

Motoring in the Colonies.

In the colonies it is the other way round; failure to get to one's destination on an ordinary main or trunk road is due to the inability of the machine to conquer the conditions which prevail. These conditions vary considerably in the different colonies; some countries are fairly dry throughout the year and mechanical transport can be used ten months out of twelve. In other lands the roads and tracks are only negotiable during six or seven months, during the remaining five or six months no one attempts to use them at all, the railway or the horse being the only possible means of transport. There is, however, one part of the world where the only alternative in the wet months is the steamer, which, of course, only serves the coastal districts. In the North Island of New Zealand, colonial sections, as we know them, prevail throughout the summer months and are classed by the guide books as good roads. In the winter they become impassable to heavy vehicles and would be considered over here as impassable to any traffic whatsoever. But the New Zealander has no other means of communicating with the interior parts of his island, as the railway is not yet really developed and the roads make transport by horse and trap impossible.

The North Island is unfortunate in its composition. This consists chiefly of clay, soft clay and pumice sand, with occasional patches of sandstone. In the summer the clay makes a good hard track but full of ruts; the soft clay seldom reaches the same state, and the pumice sand makes bad going for a car, and is a nightmare on a motor-cycle. In winter the soft clay becomes a bog, the hard clay becomes soft and tenacious, and the ruts deepen to eighteen inches in places.

The few hardy souls who go down to the back blocks in Fords have a really rough time of it and progress is slow, sixty miles in one day being considered excellent running.

Towns are really isolated during the winter months, all real inter-communication being accomplished by the steamers, a really good service of which regularly operates all round the coast. In consequence, certain little townships located inland are almost entirely cut off as there are only three railway lines of any importance serving the North. The exchange between each town differs considerably, one pound in Auckland being worth perhaps only nineteen shillings in Tanpo.

This will serve to show that the roads really do become impassable even in a small island like this with a highly civilized population which boasts a car to every one in twenty-one of its inhabitants.

A Typical Run in New Zealand.

A few facts about a very ordinary journey which the writer did regularly every week in the winter will help his readers to gain an insight into real colonial conditions.

The journey, although accomplished by a motor-cycle in the early days of winter, was later on only possible with a Ford, and it was the wonder of local residents that this particular Ford ever managed to do the run. Every time it arrived back safely, with, let me say, the mail and a large quantity of stores, the populace openly expressed their surprise.

The little settlement where the writer lived for some months was located about thirty miles from the city of Auckland, and constituted the last outpost of the back blocks, as the timber lands are called out there. The only link with the town was a launch which might—or might not—call once a week. The Ford was bought to convey building materials and luggage to the settlement as the launch was regarded as too uncertain a proposition to rely upon. It was a 1919 30-cwt. lorry and was fitted up to carry passengers, and in consequence had an enormous canopy over it which was top heavy, and

ABOUT COLONIAL SECTIONS--continued.

eventually had to be scrapped. As a light Ford van with difficulty made the trip, sceptics were of the opinion that the old lorry would be hopelessly useless in the winter.

It was the habit of the writer to set out early on a Friday morning to do the shopping for the settlement and to bring back its weekly supply of bread and vegetables and the mail. It is a peculiar thing but no one grows vegetables there except the Chinese who have a complete monopoly of the greengrocery trade. It was always necessary to take in at least one man as the outward journey was impossible without help. One also included in one's equipment two spades, long lengths of rope and chain, several planks and baulks of timber, two jacks and a quantity of sacks. Buckets made out of petrol cans (4-gallon tin ones are standard in the colonies and are not returnable, no charge being made for them) were necessary for obtaining water and petrol and oil were carried in large amounts.

Many a time the Ford would get bogged before it had left the few " baches " which constituted the village, and this was very disheartening as it curtailed our hours of daylight considerably. When the road was eventually reached there ensued for about five miles a battle with soft clay, luckily this was on an upward gradient, which made it easier for the return journey as, loaded up, soft clay makes a climb impossible. Very often one got bogged about twice on the trip in, but only once was a clean run accomplished even when light. There was one particular spot where some misguided enthusiast of a farmer had dug up the road for about two hundred yards in an attempt to eliminate the ruts. The first time we struck this it took us two hours to get clear, and a new track had to be made through the surrounding titri (a sort of tall gorse). It is the ruts that make progress possible as the clay is somewhat harder at the bottom of them and the only deciding factor is their depth. Again and again would one's back axle bite the dust and then ensued a frantic hour or so backing and going forward perhaps a hundred times while the men cut down branches of titri and dug away the clay for yards around. Naturally, a place like this would be impossible to negotiate after the next rains and ever and anon were we finding or making new tracks.

But if the trip into Auckland provided scope for spade work the trip out, ladened up, was a nightmare. One particular day will remain in my memory for ever. The Ford had been fractious (what car wouldn't that never slept under a roof and had coil ignition) and we had run all the way in on a set of dry cells, a feat usually considered impracticable. After collecting all the bread and et ceteras that made life bearable we adjourned to the warehouse of Briscoe & Co., where we took on board thirty-five hundredweight of asbestos sheeting in five cases ! ! We had a crew of five men in addition and every jack one of them was required before the day was out. Starting off we tried to take a short cut which included a very sharp hill ; the Ford refused and if we had been wise we would have returned and left one case behind, but we proceeded by a roundabout route and were eventually eating up the five miles of concrete road that led out of Auckland. At the end of this the road becomes a mass of enormous potholes which had to be taken at less than a walking pace. Following on these is a piece of metalled road that gives one a good start into the country. Level for about five miles, the hills, nevertheless, loomed up brown in the distance and never before had they seemed so unassailable. A stop at the foot of the first and a general fill up.



A Convoy of Heavily Laden Cars Crossing a Desert.

ABOUT COLONIAL SECTIONS—continued.



MAN POWER REQUISITIONED TO AID IN HOME TRIALS.

The whisky at £1 per bottle was broached and sandwiches were partaken of; the night approached and the lack of twilight hastened the meal. The Ford was regaled with water, oil and petrol, and plugs were cleaned and a new set of dry cells fitted as a stand-by in case the dynamo failed at a critical moment. This first hill was surmounted by the aid of vigorous pushing and only two stops and a halt was called at the summit (about 800 feet) to refill with water. The run down into the next valley was precarious, but its terrrors vanished at night as the drop at the side of the road was just an inky vastness. That night, however, a thick fog, rather unusual so near the seaboard, enclosed everything and the descent with its two dangerous hairpin bends became a matter of low gear and both brakes.

The unfortunate part of this procedure was that the lamps would die out unless a certain speed were attained, so that the progress was carried out with the aid of scouts armed with flashlights. The only consolation about the whole ghastly business was that the likelihood of encountering another vehicle was infinitesimal. What would have happened in that unlikely occurrence one can only guess. For either vehicle to reverse would have been impossible at night and the only thing to do would be camp out, an unpleasant proceeding as nights in New Zealand are cold even in summer. Curiously, the writer only once encountered another car on that road, and it was a Thornycroft five-tonner; needless to say, it hadn't reached the clay.

The valley was eventually reached, and the road here crosses a rushing torrent by a rickety, wooden bridge about fifty feet above it. After another three miles of undulating, twisting road a small bridge is reached and this is where the trouble always used to commence. A long halt was made, chains, wire and rope were fitted in the dark to the rear wheels, the engine was allowed to cool and water was taken on board, oil was again poured in lavishly (she never smoked and her oil consumption was enormous) and the petrol tank was filled right up as otherwise the gradient did not permit the spirit to reach the carburettor. You must remember that the rear wheels dug in much more than the front ones, thus accentuating the angle.

Two more hills were yet to be climbed both about 900 feet high; the first was actually surmounted with only four stops, but it was on the second, "Wally's Terror," as it was christened, that Lizzie met her Waterloo and nearly got her insurance. To give any good idea of this hill is difficult. Its surface is of clay, its ruts are deep and perilously near the edge, where the bank drops away to the river rushing four hundred feet below. Its bends are so acutely cambered that the descent must be made fast otherwise the feeling is present that a car with a high centre of gravity must tip, the ascent is a feat of skill not to be attempted without practice in the dry season.

The writer would honestly prefer to tackle Beggar's Roost or Bwlch-y-Groes even if they were cursed with a clay surface than to make the ascent of "Wally's Terror" with a good surface.

With thirty-five hundredweight on her back, the Ford simply refused to look at the first bend and without wasting time the unshipping of a case was attempted; this was no mean task even in the daytime for four men to take on, and it proved to be every bit as much as we could manage at night, standing up to our knees in a very sticky compound. Eventually, the case was laid to rest by the roadside and the Ford continued her way after the usual inducements of sacks and planks had been laid under her wheels. After taking the next two bends with only one stop on each she finally dug herself right in on the worst hairpin. Here it was decided to leave her but, as she occupied all the road, we attempted to reverse her nearer to the edge in order to allow for the passage of the bullocks which we should have to obtain in the morning to extricate her. In manœuvring, the writer was at the wheel and one of the men directed operations which unfortunately resulted in one wheel going over the edge of the road; luckily, in this place, the cliff did not drop suddenly, nevertheless, the drop gave a frightful tilt to the lorry. Another couple of feet would have resulted in disaster; secretly we were all wishing by this time that the old bus would go over the edge, in fact, one man strongly advocated pushing her over, and he was an insurance agent!

A weary tramp home over miles of clay and bog brought us back at 2 a.m. to find our women-folk waiting us eagerly, as it was the season when swaggies



BUT, OVERSEAS, BULLOCK TEAMS ARE OFTEN NEEDED.

ABOUT COLONIAL SECTIONS—continued.

or tramps are out of work and these sometimes terrorise a neighbourhood for days unless they are fed handsomely. In our case the nearest policeman was about twenty miles away.

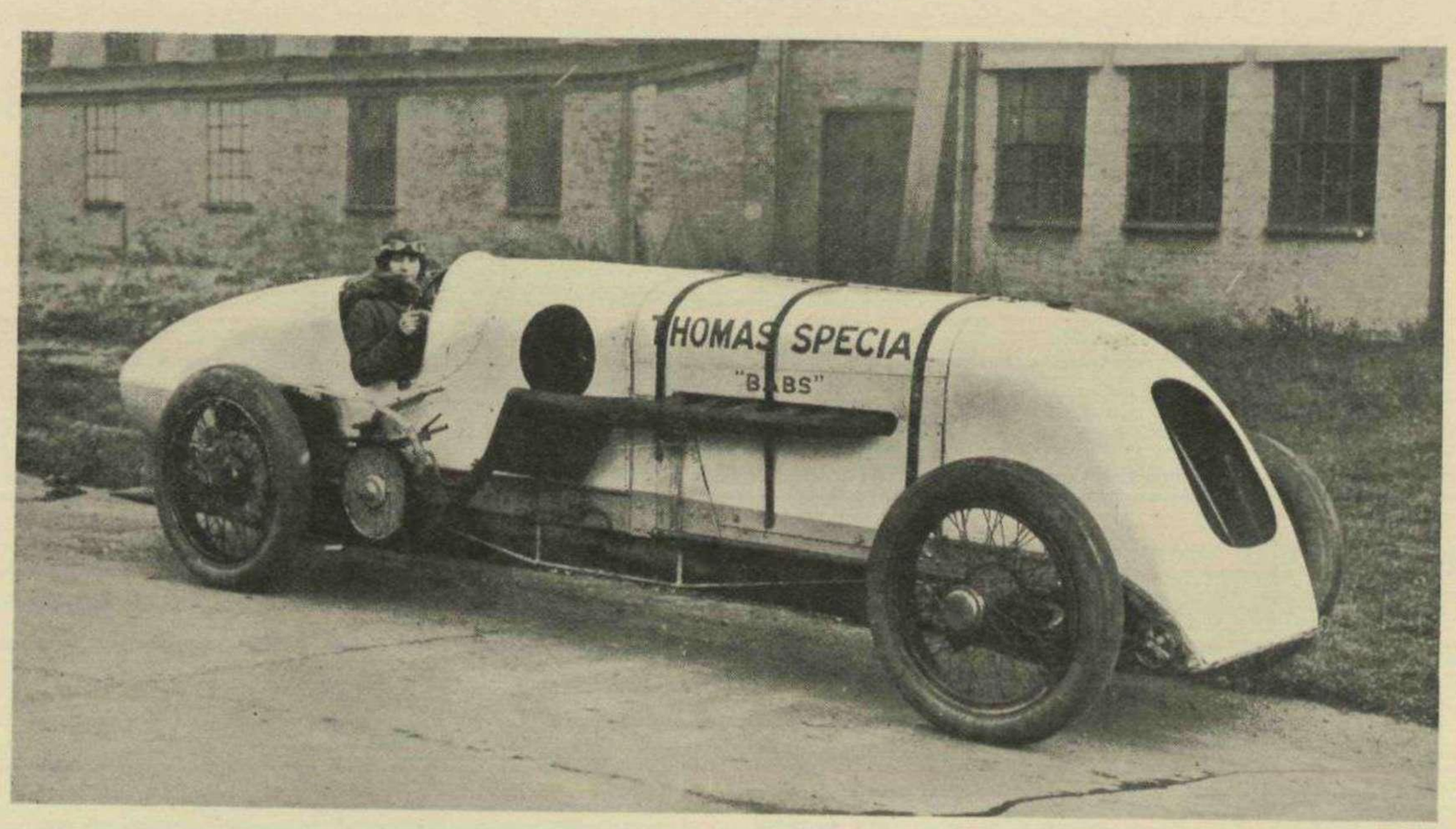
Morning saw us eager to extricate the Ford, but enquiries elicited the fact that the bullocks were away hauling timber, so we perforce had to persuade the Ford to pull herself out. This she did under the influence of a 6-volt accumulator and with the aid of her younger sister, a small light van. It took us eight hours to get her clear away and then we got bogged four times on the return journey.

All of which may give some idea of the real conditions prevailing in the colonies. We used over that thirty miles some eight gallons of water, one gallon of oil and six gallons of petrol and the sole of my shoe was burnt right through by continuously holding down the low gear pedal which is, of course, quite adjacent to the exhaust pipe on an English Ford.

Motor-cycling on most clay roads out there is not practicable in the winter as the wheel will not drive unless in a rut and, of course, no bike has sufficient clearance for that. Folding foot-rests are essential for the work and the clearance should be as great as possible even for summer travelling. A twin-cylinder or a four is desirable, for, although a single may give good service, the country really demands something with a greater reserve of power. Balloon tyres are a necessity except for town work and a very low bottom gear is needed for pulling out of bad places. When the writer was in Auckland, a 8-h.p. B.S.A. and sidecar or a 8-h.p. Sunbeam and sidecar cost £250, whereas a Henderson and sidecar only cost £165 and without a shadow of doubt the latter was infinitely preferable for the district, and, in fact, more were ordered than could be obtained.

The English machines are very popular further south and in Australia, but in the north with its acres of untouched bush the heavier machine is demanded.

One last word, there was a bog in the M.C.C. Sporting Trial last year; that bog is typical of real colonial stuff, only it is encountered all the time for some of the tracks are in just such a state all the winter, which accounts for the fact that the Ford is the only usable vehicle, on account of its power, weight ratio and high clearance. Regrettable as it may seem the English car has yet to be produced that could really be of any use at all under circumstances which are daily encountered if one lives inland in a clay district.



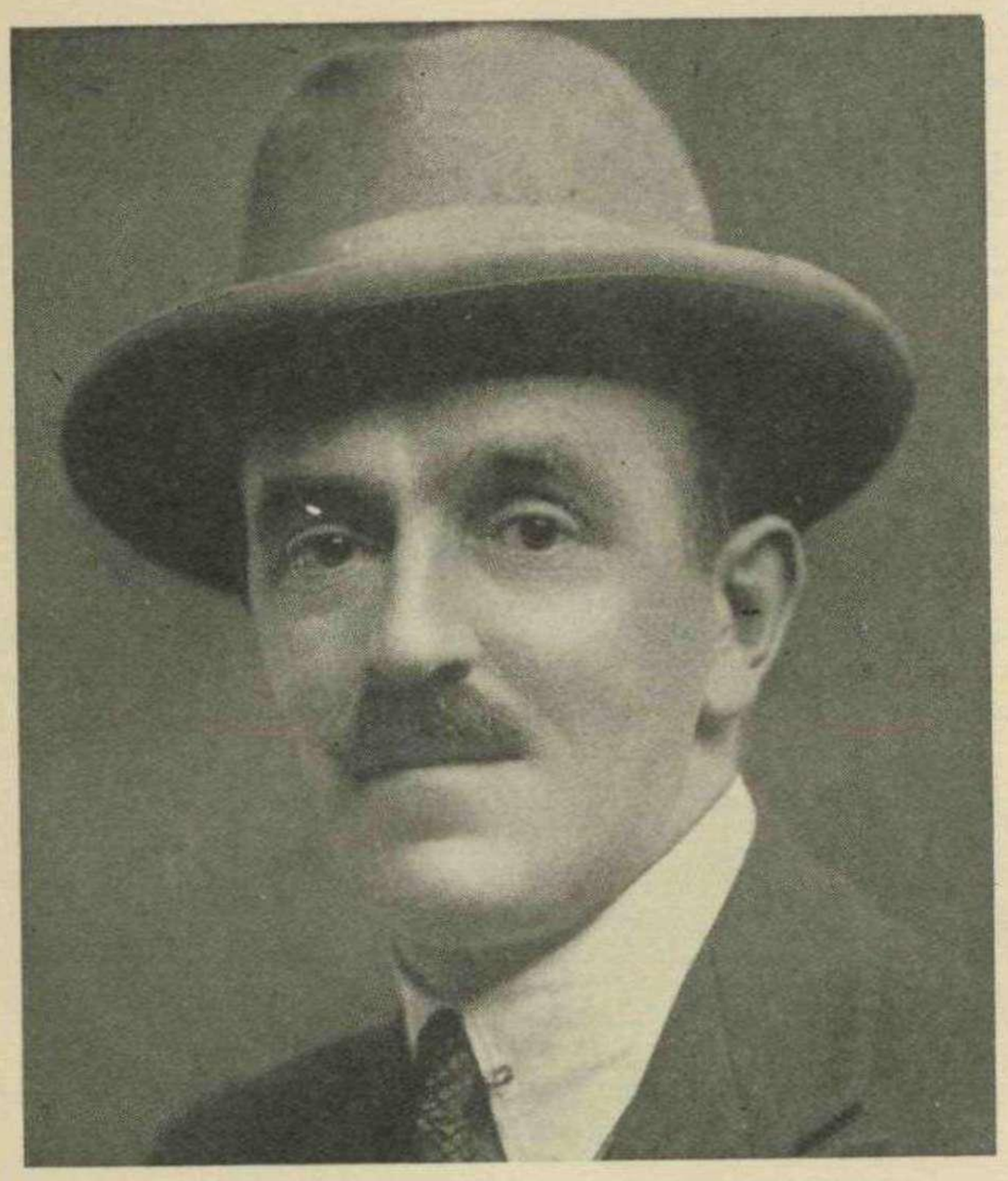
MRS. BROWNE, WIFE OF THE FAMOUS AMERICAN SPEEDMAN, ON J. PARRY-THOMAS'S "BABS."

"WELL DONE, CRANMORE!"

In winning the Colmore Cup for the second year in succession, P. B. Cranmore has won this coveted trophy outright. He drove a 349 c.c. B.S.A. sidecar through this strenuous trial and gained a figure of merit of 150·69. Congratulations!

THE BOULOGNE WEEK.

This meeting will take place from August 26th—29th inclusive, and a big entry is expected. A Franco-British committee has already been formed to organise the event and work has been commenced in drawing up the preliminary arrangements.



MOTORING SPORTSMEN.

M. Armand Bovier.

By THE EDITOR.

IT was only with the greatest amount of persuasion that M. Armand Bovier consented to appear as a "Motoring Sportsman" in our series of reviews of notable personages in the racing world. One of his arguments was that he had not actually participated in many races, his energies having been confined principally to the technical development of small racing cars and the organisation of team work.

As the technical and organising side of racing is just as important as the more spectacular phases, we feel that our readers will welcome the opportunity of knowing more of one who is naturally of a very retiring disposition, though we may venture to state at the outset that the Salmson car owes a great deal to his personal efforts.

M. Armand Bovier was educated at L'Ecole Industriel, Paris, where he went through a very complete course of theoretical and practical training. In the year 1899 he was apprenticed to MM. Lacoste et Batnan, who may be remembered by some of our readers as the manufacturers of the Lacoste car, one of the pioneer French machines. At the termination of his indentures, he gained a post as chief tester to Mm. Joseph Prunel et Cie, constructors of the "J.P." car, and for two or three years extended his practical knowledge of automobile engineering in these works.

Like many other men of wide technical experience, M. Bovier did not hold to the belief that "the rolling stone gathers no moss," and by making several changes in the early stages of his career, he gathered something far more valuable than moss in the shape of a very extensive knowledge of all branches of the motor industry. A thirst for adventure in 1901 led him to accept a position as engineer in charge of a large fleet of automobiles belonging to a high official personage in the Russian Government and for two years his activities were transferred to remote outposts of the Russian Empire, where motor cars were regarded by the peasants as "Devil machines." Whilst in Russia M. Bovier learned many things about the need for mechanical reliability, for it was no mean achievement to keep a fleet of early motor vehicles in constant service in places remote from civilisation, where no workshop facilities were available.

Early Engineering Experience.

It is a matter, therefore, for little surprise that M. Bovier cultivated something of an inventive bent and on returning to France saw opportunities in experimental engineering. He started in Paris on his own account with a small but well-equipped workshop and placed his resources at the disposal of those who had inventions that needed development. Unfortunately, however, he was not long in discovering that the way of the inventor is hard and his money is hard to get, so he decided to return to the more stable motor industry and became associated in a technical capacity with the Th. Schneider Company in Paris, where he was largely responsible for developing the designs and production of that firm's racing cars. When M. Th. Schneider severed his connection with the older company to take a more active interest in racing car work, M. Bovier came to England to represent the new models until he started once again in his own factory at Kilburn, where under the name of R. Bovier and Co. he was engaged in the manufacture of Gnome aero engines.

At the outbreak of War he was called to the Colours and was detailed to serve as Lieutenant in charge of a detachment of armoured cars attached to the Corps de Cavalerie Independent, which operated on the Belgian front. M. Bovier would not give any details of his military service, explaining that he had done no more than others in the service of his country, but, nevertheless, he was decorated with the *Croix de Guerre* and collected a sufficient number of wounds to warrant his being invalided out of the service.

Developing Aero Engines.

Returning to England, he resumed control of the factory at Kilburn, and was very successful in handling War Office contracts for the manufacture of Gnome and Rhone aero engines, as well as complete A.B.C. aero engines and component parts for the latter make.

Still maintaining an active interest in the progress of the motor car industry, he was one of the first persons to realise the enormous possibilities for the future of the light car and it was largely through his instrumentality that the "G.N." car was introduced to the notice

MOTORING SPORTSMEN—continued.

of Société des Moteurs Salmson, who at that time were engaged in the manufacture of aeroplane engines. As a result, the French patents of the "G.N." were purchased and about 10,000 of these machines were built and sold in France. As a matter of fact, the Salmson car is a direct linear descendant from the "G.N." and with a four-cylinder engine rapidly became popular both in France and in this country.

In his capacity of director of the French Company, M. Bovier introduced various improvements in the Salmson engine and incorporated much of his experience as a constructor of aeroplane motors. The nature of his success in a technical direction can be judged from the fact that the very first Salmson car made was entered in the French Grand Prix des Voiturettes in 1921 and won the race in a particularly brilliant fashion, M. Bovier being present to witness the success of his achievement.

The same car, driven by Lombard, ran second in the Two Hundred Miles race (1,100 c.c. class) at Brooklands in 1921, and since then trophies have fallen to the Salmson with consistent regularity, this race being won by them four years in succession.

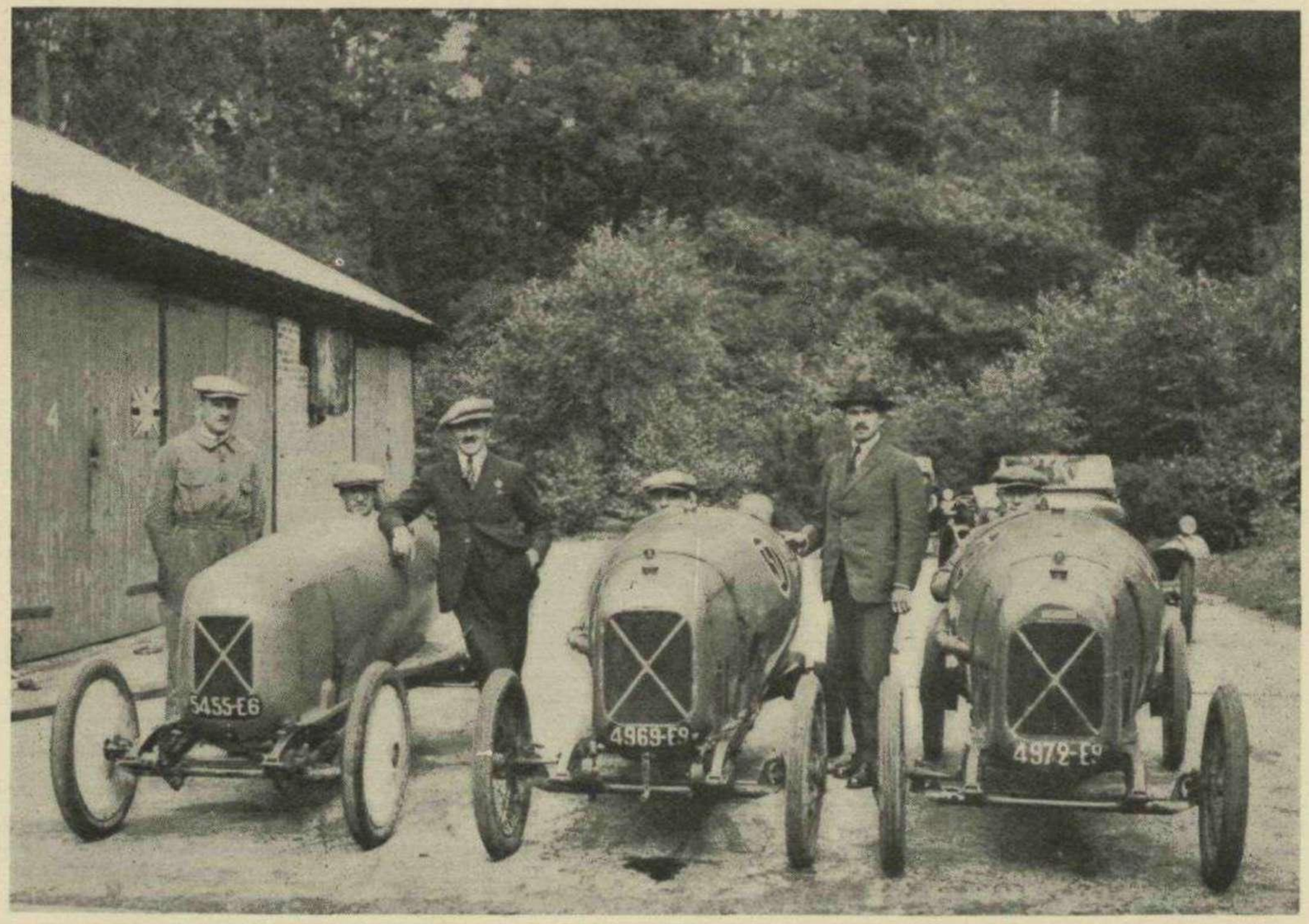
The first successes of the Salmson in this country aroused the greatest interest amongst racing men and it was not long before heavy demands were made upon the French factory for their models both for racing and competition events, and since that time M. Bovier has been busy as the British concessionaire for the make.

Notwithstanding the excellence of the little car, its racing success has been due in no small measure to M. Bovier's ability as a team organiser. Perhaps British drivers regret that Frenchmen are usually brought specially from Paris to take part in the big racing events, though, of course, Mr. George Newman, to quote one instance, has on occasions acted as a member of the Salmson team.

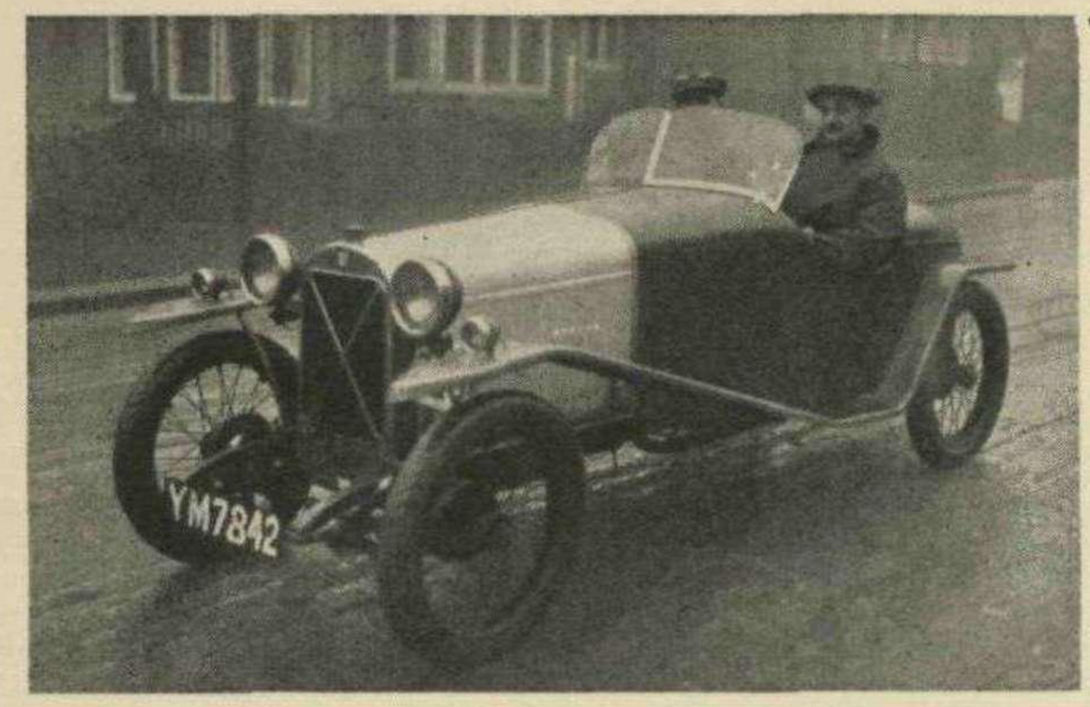
M. Bovier's experience as a racing driver has been confined to the early Continental events, his principal recollection being that of driving a Ravel car in the first Circuit de Boulogne, when his machine caught fire and was completely destroyed. He also took part in several Tours de France and other classic reliability trials on the Continent.

M. Bovier has been closely associated with the perfecting of the supercharged Salmson, which is capable of a speed of 120 miles per hour and took the World's records at Montlhery last year by setting up the speed of 113 m.p.h. for the flying kilometre and 110.5 m.p.h. for the flying mile.

It is hoped that three of these cars will be entered for the British Grand Prix at Brooklands in August, and even though they may have difficulty in maintaining the speeds expected to be set up by the larger cars, M. Bovier is at least confident of putting up a good show and to demonstrate once again that Salmson regularity is difficult to surpass. A further development in which M. Bovier is interested is a new eight-cylindered engine of a modified two-stroke type fitted with a supercharger, which it is expected will create a great sensation when it appears.



M. Bovier with the Salmson Team for the J.C.C. 200 Mile Race.
Left to Right: M. Lombard, M. Bueno, M. Bovier, M. Benoist, M. Petit (Designer), and M. Devaux.



THE SALMSON "GRAND SPORTS" USED BY A MEMBER OF OUR STAFF IN THE COLMORE CUP TRIAL.

The Colmore Cup Trial.

Observations by a Car Competitor.

[*The Sutton Coldfield and North Birmingham Club made a very good send-off for the* 1926 *competitions season by organising the Colmore Cup Trial, which was held over a stiff route in the Cotswold Hills on Saturday, February* 13*th. Following our usual practice of recording these events, we detailed a member of our staff to enter the competition, his report being given below.*—EDITOR.]

THE Colmore Cup Trial is certainly a very exciting kind of competition and, unlike some of the bigger classics, is more of a mud-slinging contest than a semi-touring event. On receiving the route card, it became obvious that the machine required for the job would be something light, speedy and with good road holding qualities, and I therefore consider myself fortunate in securing a Grand Sports Salmson from M. Armand Bovier, who handles the concession for this popular little speed model.

As there was no time to prepare the car in any way for the cross-country work, it had to be taken straight from demonstration duties, and on the Friday night previous to the event my passenger and I set off for Stratford-on-Avon, intending to put in a good night's rest in Shakespeare's town in preparation for anything the S.C.N.B.C. might have in store.

On the road, however, we encountered the inevitable unfortunate who succeeds in breaking down on the way to the start, and midnight found us struggling to aid a sidecar competitor who had broken his chain and had nothing much in the way of tools.

At 1 a.m. on Saturday morning we arrived in a deserted town as far as the streets were concerned, but apparently a Colmore Cup competitor slumbered peacefully in every available bed. Our sidecar friends made a reconnaissance to find a room; Jim, my mechanic, rolled up in both seats of the Salmson, whilst I found shelter from the night air on a convenient doorstep, ready to welcome the dawn. Thirteen is supposed to be an unlucky number, but in the early hours of February 13th we routed out Mr. Tom Morris, a keen motorist, who runs a bakery and the Fountain Café, where we turned in for a few hours' sleep. At 7.30 a.m. we rose and proceeded to excite the Salmson engine into action, but, sad to relate, it had been tuned for speed and we could not jerk the handle over the high compression, plus an excessively advanced mag.

"What about retarding the mag.?" asked Jim. We looked at the coupling and saw that there was nothing doing: and, offering up a prayer about those eight seconds in which the start from cold had to be made at Cheltenham, got some assistance to do a racing start by pushing the car.

At the Start.

As usual, Rex Mundey was present at the start in the guise of a ministering angel dispensing K.L.G. plugs, which he extracted from his smart looking Riley Sports, and we were very glad to fit a new set of "J1's," which made the starting a bit easier, and though we arrived at the post very late were able to make up time long before the first check was reached, thanks to the speed of the Salmson. Victor Walsgrove on his Brooklands Riley was just in front of us and we were followed by the Amilcar team in the hands of F. H. and R. C. Porter and S. E. Ellis, these three drivers keeping well together and putting up an excellent show throughout. The run to Aston Hill was easy, but a considerable delay took place over the acceleration and brake tests at this point. Here, also, some of the competitors were confused by too many helpers, some of whom gesticulated at the wrong time, which resulted in several drivers pulling up before the lines had actually been crossed. The next incident was the visit to the weighbridge at Campden, where we were informed that the Salmson, all on with two passengers weighing 10 st. 9 lbs. and 14 st. respectively, turned the scale at 14 cwt. 2 qrs. 7 lbs., a veritable featherweight among 1,100 c.c. cars.

Leaving the weighbridge we saw several competitors gaily travelling in what appeared to be the wrong



J. C. CHIPPENDALE (MORGAN) CAUSES SOME EXCITEMENT IN GYPSY LANE.

THE COLMORE CUP TRIAL—continued.

direction and we suffered from a momentary attack of " wind up," but it was only the others *en route* for the weighbridge.

Twenty-six miles out we ran into the picturesque town of Broadway, one of the most beautiful places in the country, with its quaint Tudor House and Lygon Arms Hotel, but at the moment we were more concerned with the mechanical science than art, so hurried on after Walsgrove, who desecrated the place with the smell of Castrol " R."

At Little Buckland Hill.

In reading various reports since the trial, we could not help being amused at the descriptions of scribes sitting in comfort at various points of 'vantage. " No trouble," they say, " was met with at this or that hill, and as a test it is not serious." But let them get in a car and have a go at some of the Colmore Trial hills, and I venture to think they would come back with

A Study in Tyre Pressures.

Whilst waiting for the route to clear at one of the hills some comedian suggested it would be a good plan to lower the pressure of the rear tyres and—" no names, no pack drill "—one well-known competition driver fell to it. The same driver was seen to be changing his tyres later because they would not hold up to fast going with less than their proper amount of air pressure. The ruts alone were sufficient to tear any under-inflated tyre from its rim, and over and over again I blessed the good Armand Bovier for sending me out with security bolts, even though I cursed his tuners later for something else.

Between the principal hills lay tracks of country more suitable for caterpillar tractors than wheeled vehicles, and every chassis was distorted in a way that would have given its designers forty fits and then a few odd nightmares. One speaks glibly at times of " momentary flexion of the frame," but when one is travelling with



THE SALMSON ON ROUGH STUFF IN GYPSY LANE.



B. MORRIS (RHODE) MAKES A GOOD PASSAGE OVER A RUTTY SECTION.

different views. The hills chosen were, in my humble opinion, nothing short of murder for most of the cars, and the only way to get up them was to start dead slow and then " tread on it " all the time on bottom gear, trusting to the good St. Christopher to keep the car on an even keel in the rutty road.

At any rate, one got quite a few thrills when travelling up the Bucklands with the engine turning over at 4,500 in bottom gear, and the little motor stood up to it too, only once giving that pathetic little cut-out indicating valve spring weakness at abnormally high speeds.

Our method of attacking the hills by sheer velocity had one disadvantage, however, for there was no possible chance of passing slower vehicles, and on one occasion the Salmson had to stop—I think it was on Old Stanway —whilst a boiling and protesting touring car was being pushed up. True, we were allowed another go, but the fun of that particular climb suffered by going up at a reduced speed.

two wheels in a rut from 10 in. to 12 in. deep and the two on the other side riding that much higher, the thing becomes a reality. Theoretically speaking, every car in the event ought to have broken its back at least four times, but still the majority kept on, and, what is more, came back for another helping after lunch.

Gypsy Lane found all the competitors delayed once more and many of the car drivers had difficulties with wheel spin, some not giving their cars a chance of taking up the drive by too violent acceleration before the wheels began to move. The Salmson caused no anxiety whatever on the outward journey, and we eventually checked in at Cheltenham with nothing more serious amiss than a loose wing and a few loose body bolts, which allowed the tail to bump against the right-hand brake drum.

As everyone was very late at the Plough Inn a proper lunch was out of the question, but we discovered a little oyster shop presided over by a genial Irishman named

THE COLMORE CUP TRIAL—continued.



A. C. R. Squillario (Calthorpe) Ready for Emergencies.



An Unusual Riding Position Adopted by F. Whitworth (Rudge).

Pat, who served up a couple of dozen of the best, which went down well with the conventional brown bread and stout.

Gold Medal or Broken Wrist.

Thus fortified we hastened back to the Plough and as Jim said, it was a case of " swing or bust," as we knew the high compression engine to be a beast to start from previous experience. It was a case of a "gold" or a broken wrist, and as the marshal counted out the fatal seconds we saw our hopes fade away. You see, the engine was tuned too fine for touring conditions and the combination of a weak mixture, ultra-high compression, early ignition plus an inadequate starting handle spoilt all chances of a quick start; thus we were utterly " done in." But what does it matter ? We had a thoroughly good day's sport, even if we did not figure amongst the gilded ones.

The Return Journey.

Four and a half miles out of Cheltenham the notorious Gambles Lane was reached, which, according to one report, " proved of no consequence as far as ability to climb was concerned." *In point of fact, though we* reached the top without stopping, the rear wheels were spinning violently, far more so than on any of the other hills, and I am sure that all competitors will agree that Gambles Lane was a positive teaser, and as far as general conditions were concerned put all the others in the shade. The stop and restart on Bushcombe called for plenty of power and most careful manipulation of the brakes, clutch and accelerator, whilst the second ascent of Stanway and Buckland hills was rendered more difficult than before owing to the additional churning of the foot deep mud made by the passage of all the competing machines.

Eventually we pulled into Stratford, handed in our delay cards and signed off after a thoroughly enjoyable day. The whole route was admirably marked and except for a little crowding on some of the hills the spectators gave the riders plenty of chance. The motor cycle contingent certainly deserved "golds" for completing the course at all, and I think special awards should go to the manufacturers of successful cars and motor cycles for building such machines as are capable of standing up to the rigours of a Colmore Cup Trial.

THE LONDON-LAND'S END TRIAL.

The Motor Cycling Club will hold its 14th London-Land's End Trial at Easter, commencing from Slough at 10 p.m. on Good Friday night and finishing at the same place on Saturday evening. Very minor alterations have been included in the route, the test hills being as before and comprise Porlock, Lynmouth, Beggar's Roost and Bluehill's Mine. In this year's trial definite averages must be maintained up Porlock Hill, and cars in the 750 c.c. and 1,100 c.c. classes will be required to average 13 m.p.h. from a standing start from the first bend to a distance of half a mile up the hill. The 1,500 c.c. and 1,750 c.c. classes will be required to travel over the same distance at an average speed of 14½ m.p.h., and the two litre class at an average speed of 16 m.p.h.

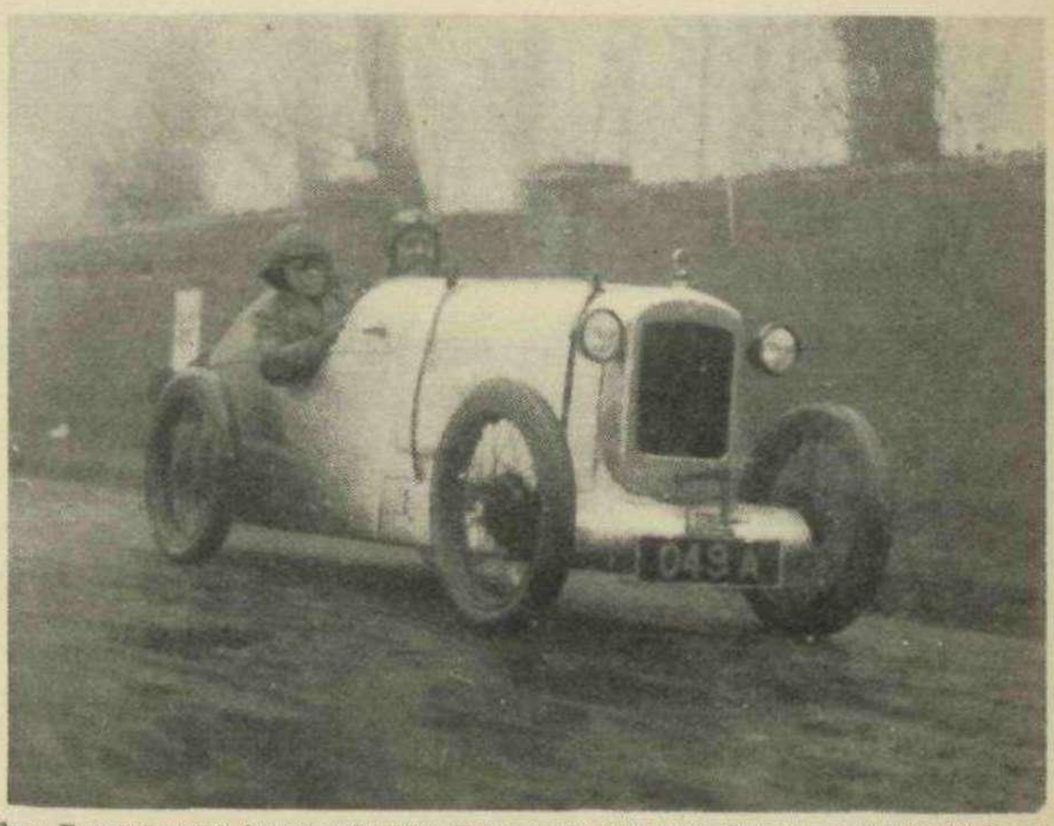
The 1,750 c.c. class is a new category introduced into this event by the committee of the M.C.C. to permit members with vehicles of this capacity to compete with some chance of success. Entries close on March 8th and should be made to F. T. Bidlake, 86, North End Road, London, N.W.11.

At the Monte Carlo Rally the six-cylinder A-C car driven by the Hon. V. A. Bruce and Mr. W. J. Brunell from John o' Groats, a distance of 1,528 miles, won the first prize of 25,000 francs on a formula in which distance covered, engine size, number of passengers and regularity of running were taken into consideration. Forty-five cars starting from 18 different positions competed. The same car won the first prize in the Cote du Mont des Mules Hill Climb, using Castrol " XL " throughout.

Recent Sporting E



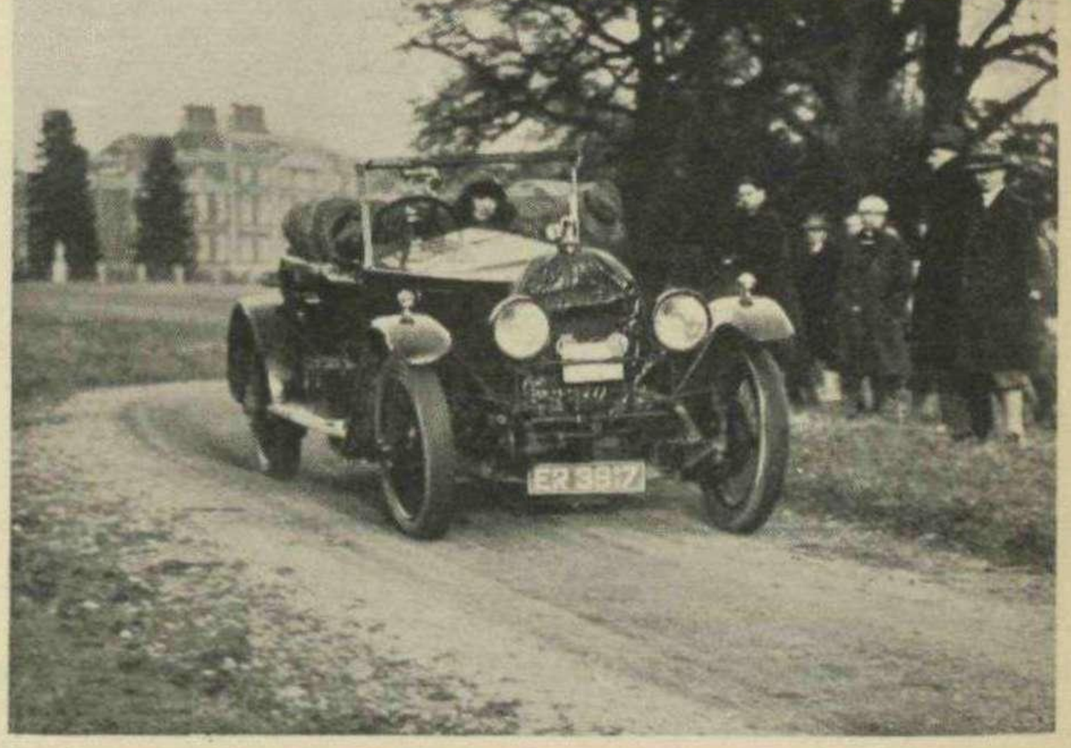
G. L. Beston (Sunbeam s/c.) Climbing Gypsy Lane in the Colmore Cup Trial.



The Brooklands Austin Seven Described in this Issue of "Motor Sport."



C. Aschan (348 A.J.S.) who made Fastest Time of the Day at the Cambridge University Speed Trials.



H. Martineau (Vauxhall) Rounding the Bend in the C.U.M.C.C. Speed Trials. He made the Fastest Car Time.

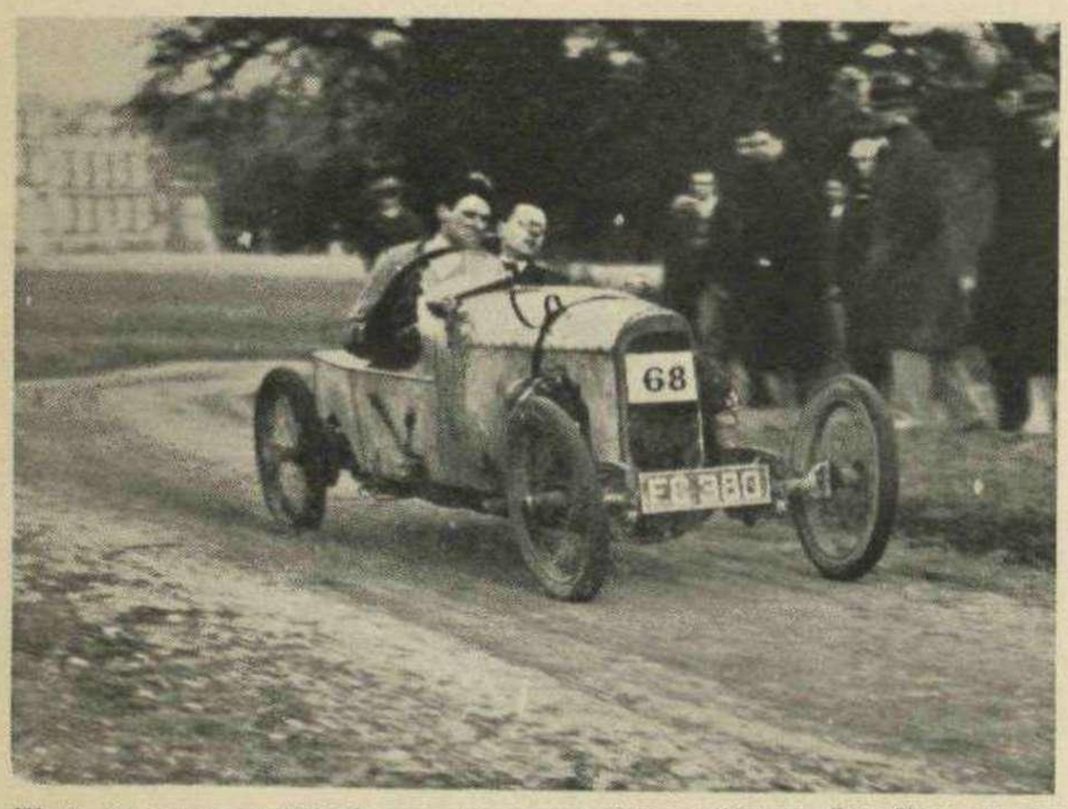


General View of the Cars in the Enclosure at the Cambridge University Steeplechases at Cottenham.

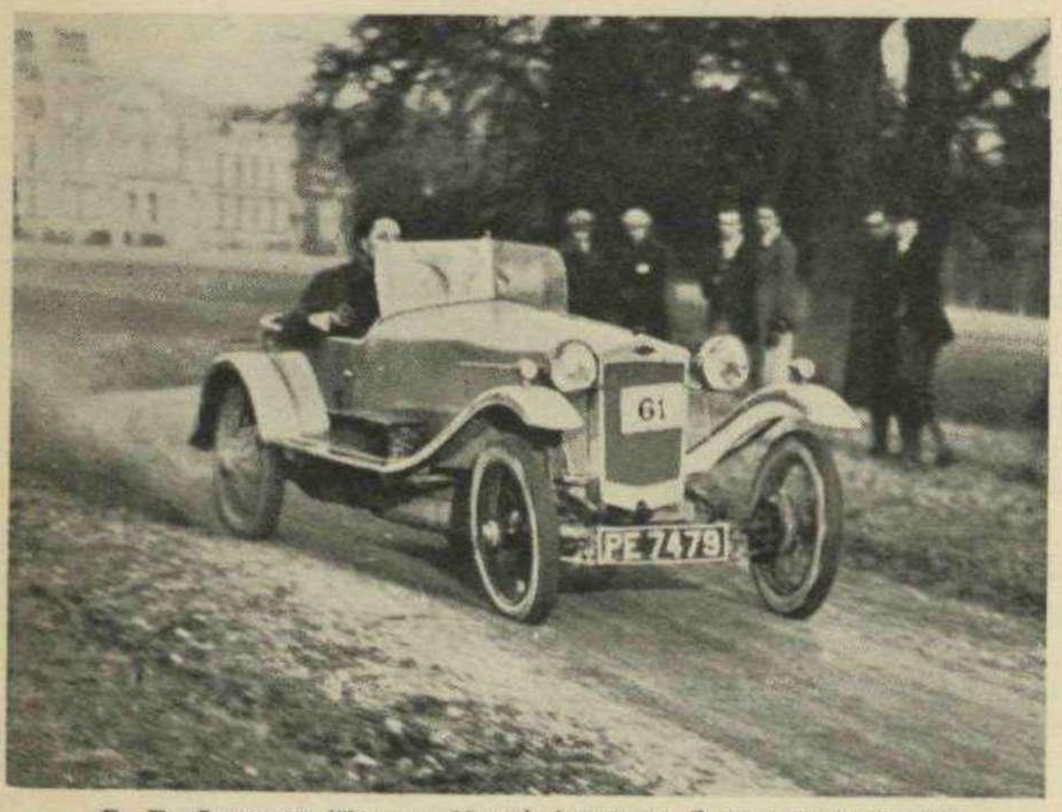


Miss Betty Debenham (249 B.S.A.) Starting in the Essex Motor Club's One Day Winter Trial.

Events in Pictures



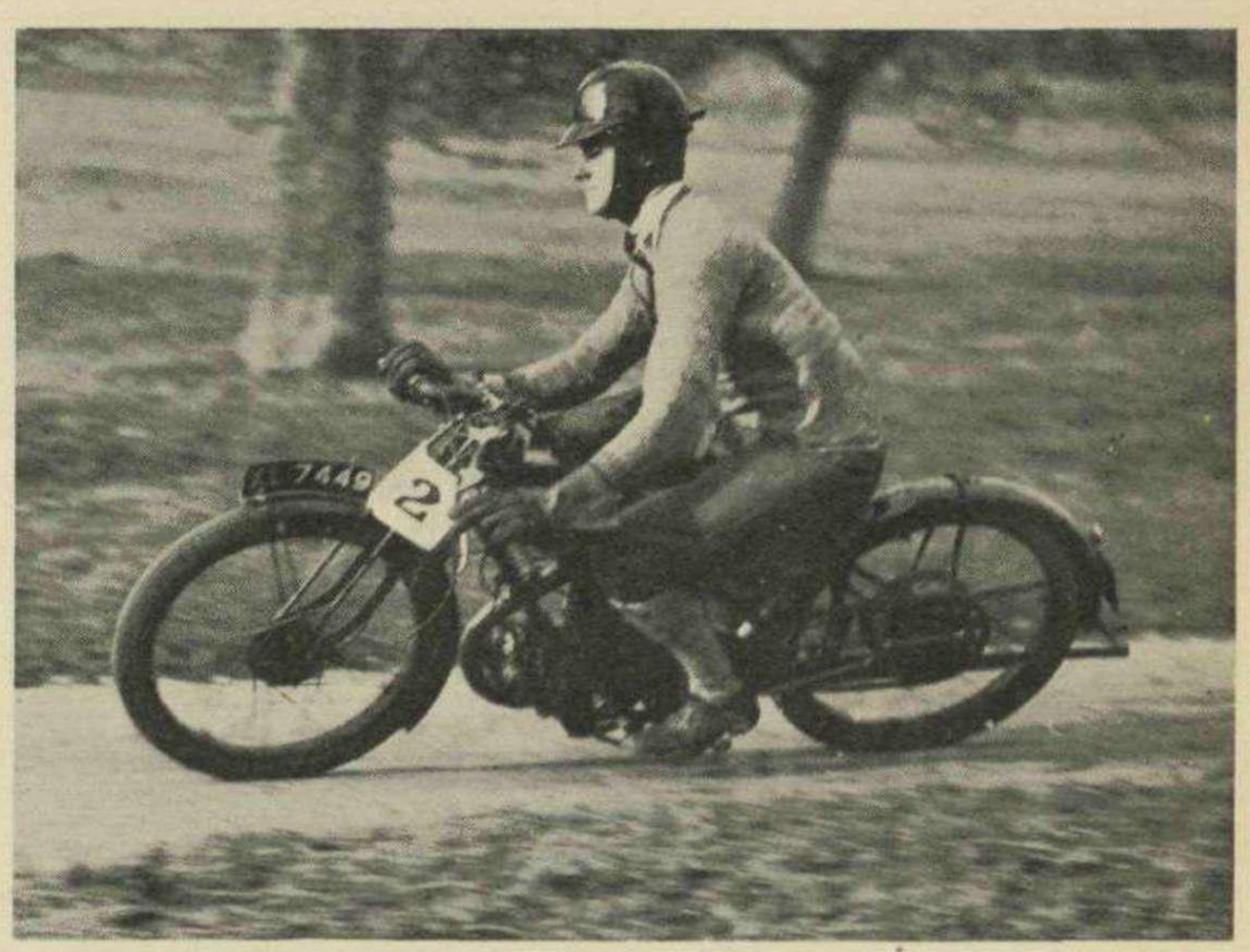
W. S. Braidwood (G.N.) who made the Fastest Light Car Time in the Cambridge Speed Trials.



R. R. Jackson (Frazer Nash) Another Competitor in the Cambridge Speed Trials.



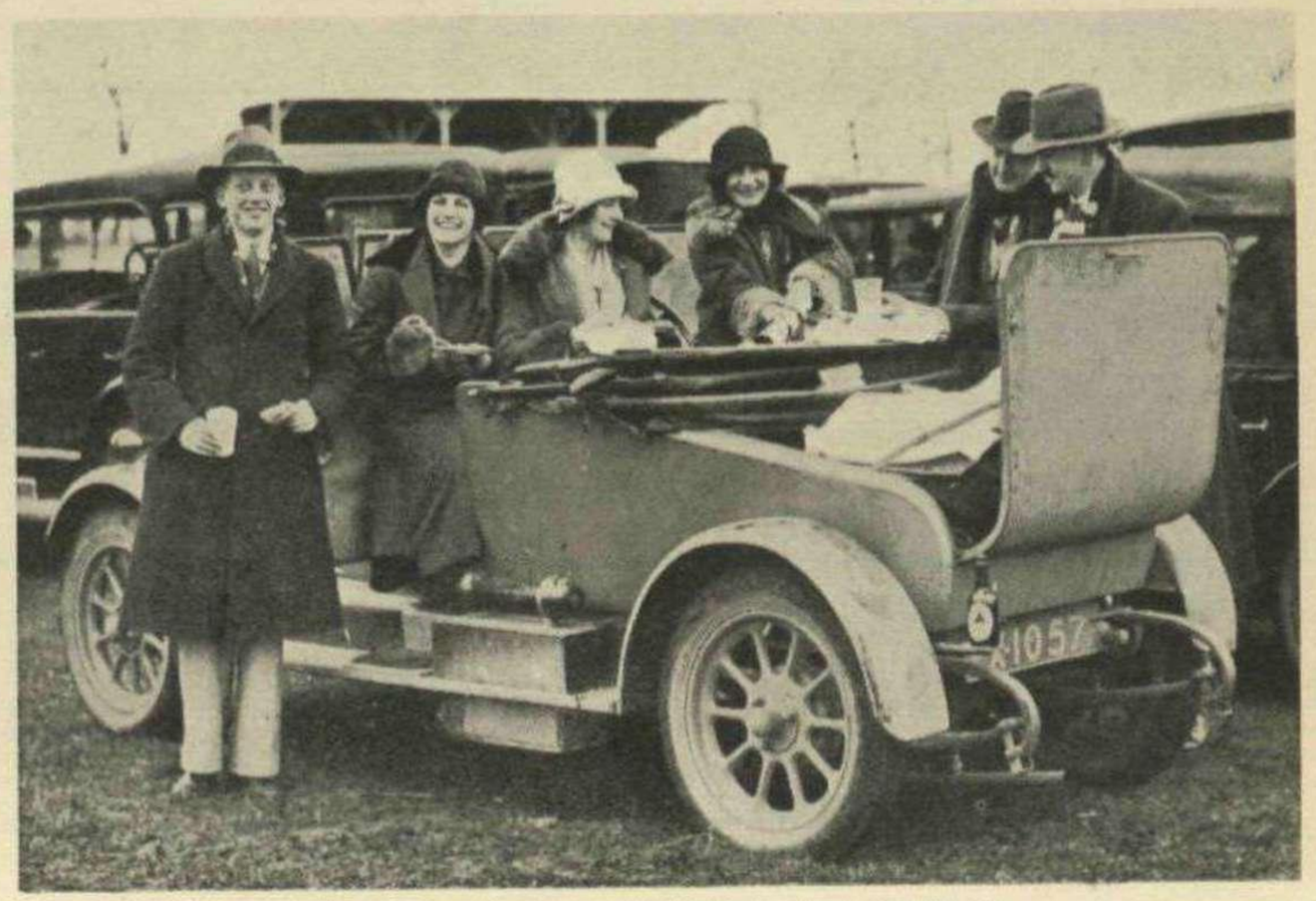
H. E. Tatlow (Lea-Francis) well among the Slime on Gypsy Lane in the Colmore Cup Trial.



W. S. Braidwood (A.J.S.) Cornering Fast in the Cambridge University Speed Trials.



S. E. Ellis (Amilcar) Corrects a Skid in the Colmore Cup Trial.



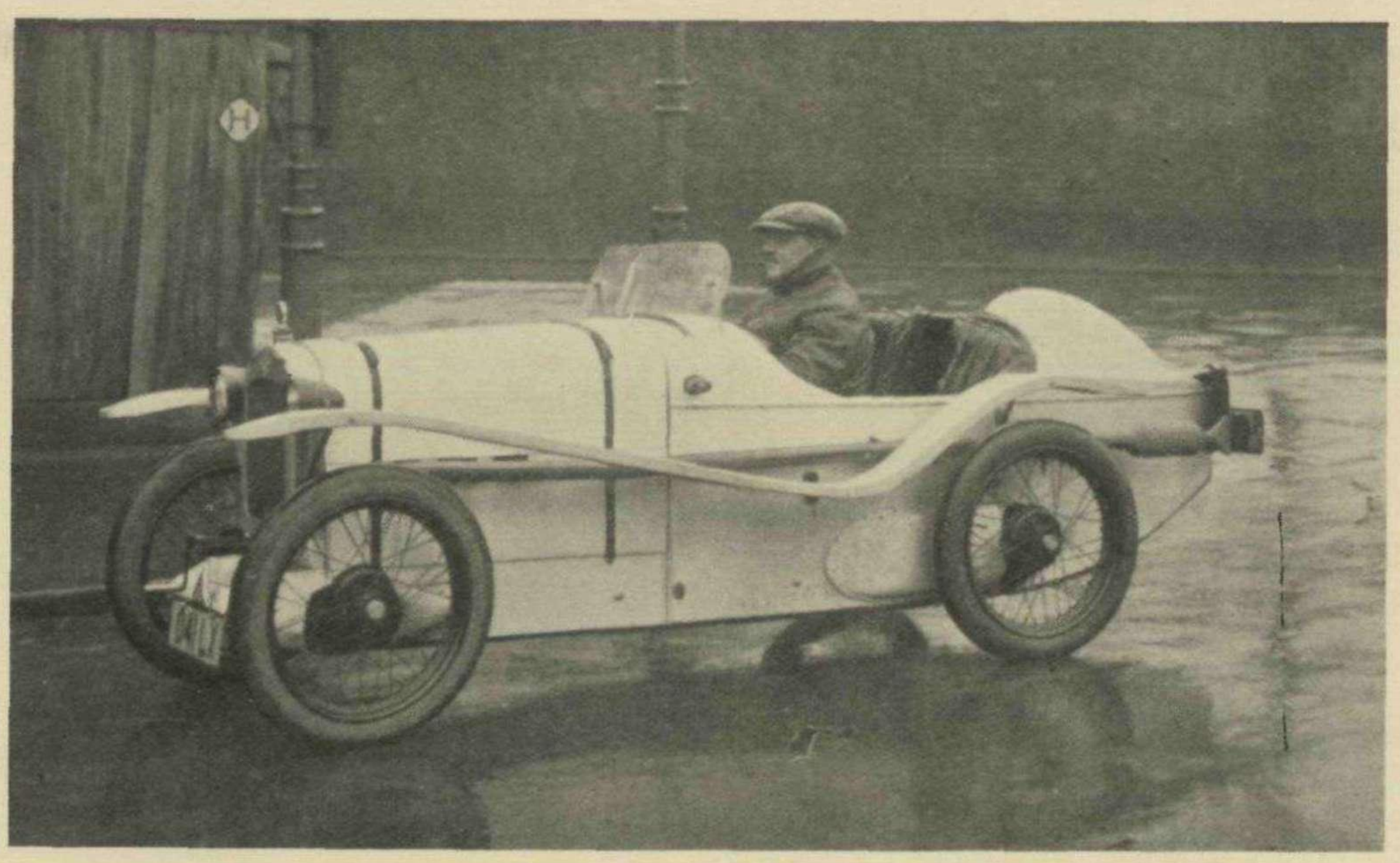
Picnic Party at the Cottenham Steeplechases.

THE AUSTIN SEVEN "BROOKLANDS" SUPER-SPORTS MODEL.

Further Details Concerning the Interesting "Speed-Mite."

THE commencement of a new racing season provides a fitting opportunity of drawing the attention of our readers to the Austin Seven "Brooklands" Super-Sports Model, which since we reviewed it last year has undergone various improvements, resulting from the many successful events in which it has participated.

As our readers are aware, this model is specifically intended for racing purposes, and though it can be used for fast touring work, the makers do not recommend it for ordinary road work; and, in fact, now list a special model for road competitions, which is known as the Austin Cup Model, and which we hope to review in connection with the forthcoming London-Land's End Trial.



THE AUSTIN SEVEN "BROOKLANDS" MODEL. NOTE REFLECTION OF STREAMLINING BENEATH CAR ON WET ROAD SURFACE.

With regard to the main features of the chassis, very few modifications have been found necessary, and the general methods of hotting the engine, carried out by Messrs. Gordon England, Ltd., remain much the same as heretofore.

Specification Details.—For the benefit of new readers, we give a few details of the specification, together with the more recent modifications.

The engine has a capacity of 747.5 cubic centimetres, the cylinders measuring 56 mm. bore by 76 mm. stroke, so that the car can be entered in any sporting events of the 750 category.

In addition to a careful polishing of the parts, a special high compression cylinder head is fitted, extra light pistons, a high lift camshaft and modified timing gears. To enable the engine to maintain very high speeds, special K.E. valves are fitted, and these are provided with double valve springs and special tappets.

In place of the two Zenith Carburettors used on the former models, the makers have adopted a single Solex, size 30 mm., and the induction pipe has been improved to create greater turbulence of the mixture.

Perhaps the most important modification of the engine is an improved lubrication system, for with the standard arrangement there was a certain amount of difficulty in ensuring the oil supply to No. 3 big-end when high speeds were kept up for long periods.

Even though the pressure of the oil supply was increased, this did not altogether cure the difficulty, but in a way created fresh problems in keeping the plugs clean. For a long time a solution appeared difficult, until it was discovered that the centrifugal force of the crankshaft at high speeds was so great as to overcome the pressure of the oil in certain of the crankshaft ducts, which led to the introduction of special pipes arranged circumferentially on the crankwebs, so that the centrifugal force assists the flow of oil to all the bearings. This feature has resulted in a reduction of no less than 10 lbs. per square inch in the pressure of the oil supply, thus reducing the oil consumption and keeping the engine cleaner.

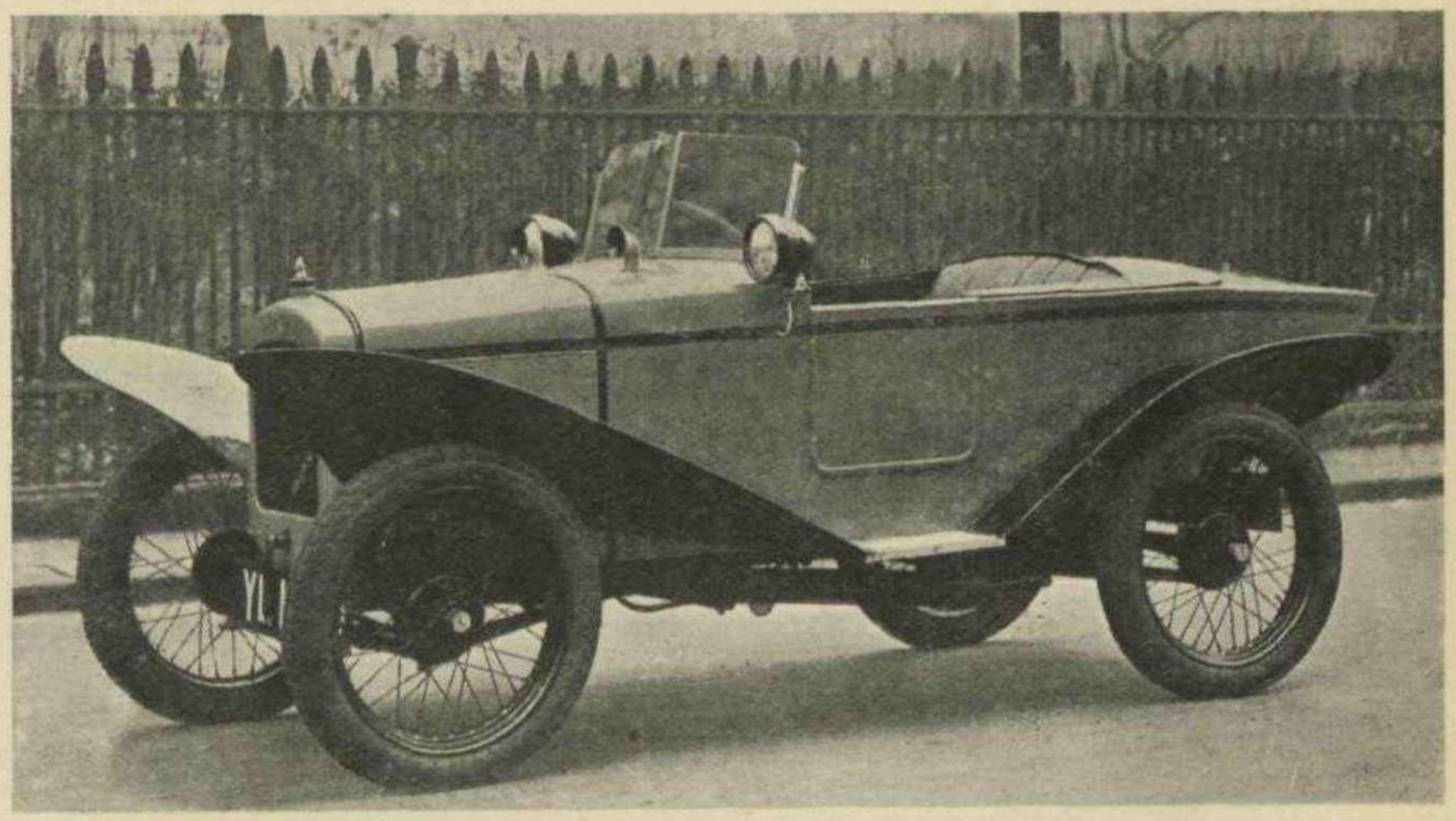
The Austin Seven

"Burghley" Sports Model

(Regd. No. 711009).

£175

55 m.p.h.
50 m.p.g.



Brief Specification of "Burghley" Body.

Standard colour—buff with tobac wings, grey or black with scarlet splayed or raked wings, any other colours to choice. Rear squab is hinged to fold for ard, and spare wheel, tools, &c. are stored in tail, with room for small luggage. Special raked steering. Door to either side. Ample leg room. "V" or straight screen as desired. 4-piece bonnet. Hood folds away and is concealed when down. Specially fitted exhaust extending level with tail to order. The tail is decked with polished satin walnut planking. Batteries and extra tool carrier under seat, easily accessible. "Boyce" Motormeter with wings. Blank No. Plates are provided. The dash contains electric lighting and engine switches, air control, speedometer, oil guage and locker.

Extras.	£	s.	d.
Fitted with A.C.E. Aluminium Discs,	7	10	0
Fitted with A.C.E. Steel Discs ..	6	0	0
Rigid Side Curtains	2	5	0

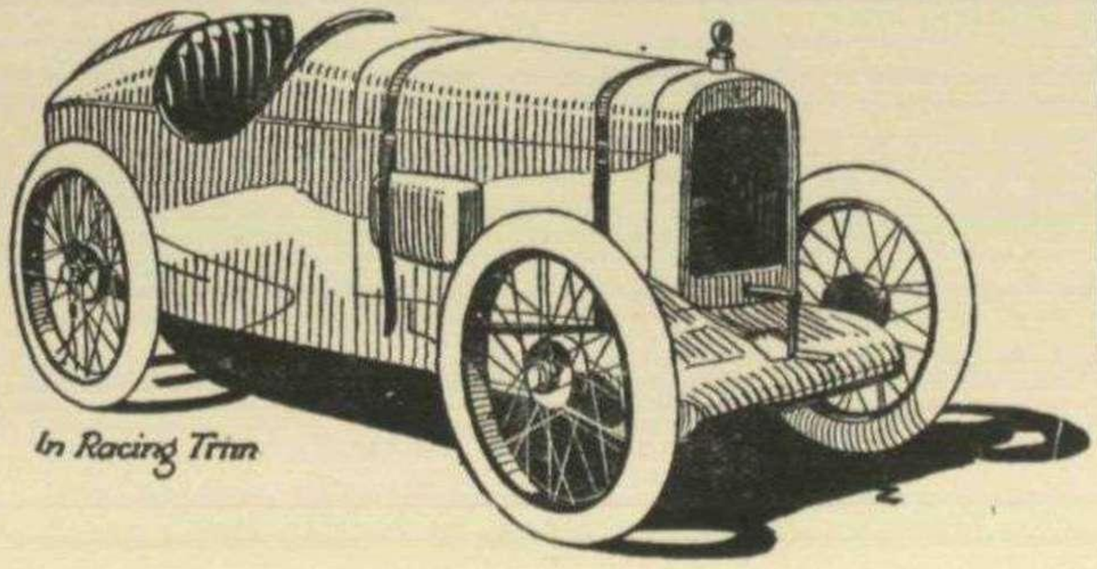
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PART EXCHANGES.

The "BURGHLEY" and other Austin models may be purchased on Deferred Payments over 12 months.

Supplied solely by **WILSON MOTORS, 7, Eccleston St., Buckingham Palace Road, Victoria, S.W.1.**

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Further successes for The Austin Seven



In Racing Trim

Madrid this time!

At the Motor Races in Madrid, held on January 23rd, and organised by the Royal Motor Cycling Club of Cataluna, J. M. PLANAS driving an AUSTIN SEVEN gained FIRST PLACE in both the 750 c.c. and 1,100 c.c. Light Car Classes, with average speeds of 109·173 k.p.h. and 110·6 k.p.h. respectively.

"Easily the best small car in the world."

PRICES at Works:—

STANDARD TOURING MODEL..... **£149**
STANDARD SPORTS (50 m p.h.) **£159**
BROOKLANDS SUPER SPORTS..... **£265**

Send for Catalogue to-day.

The AUSTIN MOTOR CO., Ltd.
LONGBRIDGE, BIRMINGHAM

LONDON: 479-483, OXFORD ST., W.1 (*nr. Marble Arch*)

LATEST AUSTIN SUCCESS. In the Colmore Cup Trial held on Sat., Feb. 13th, comprising 100 miles of exacting tests, difficult hills and country of Colonial severity, Austin Seven cars secured four GOLD MEDALS and TEAM PRIZE.

THE AUSTIN SEVEN "BROOKLANDS" SUPER-SPORTS MODEL—continued.

While following the same principles as before, the bodywork also has undergone various small improvements, and is of patent construction, framed in three-ply and white wood. All the panelling is of aluminium, which is now finished with varnish. Beneath the body is a detachable streamline undershield, and streamline faring is also fitted over the front axle. It has been proved by actual tests that the wind-resistance reducing properties of the body actually give a substantial increase of speed, and that the mere fitting of wings, hood and a small windscreen reduce the speed of the car by as much as ten miles per hour.

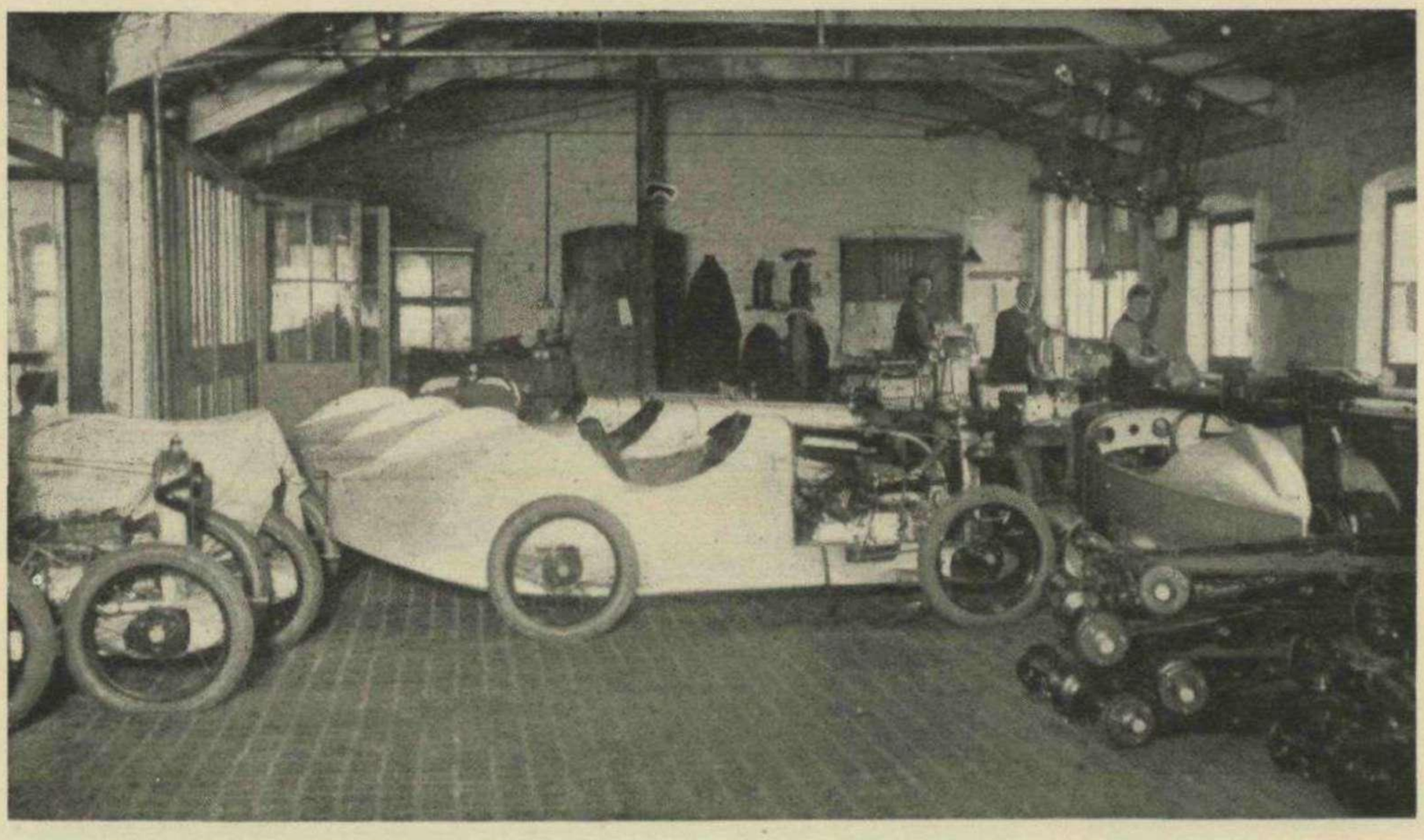
A special crown wheel and pinion are fitted to the rear axle, which gives the following gear ratios:—First gear, 14.5 to 1; second gear, 8.17 to 1, and top gear, 4.4 to 1.

float. For racing, a 24 choke and 130 main jet may be used.

Adjustment for the tappets is obtained by varying the thickness of the pad fitting into the top of each tappet. To increase the clearance, these pads should be rubbed down on a sheet of emery cloth placed on a flat surface, an operation that may be required occasionally after valve grinding operations. The normal clearance for the exhaust valves should be .010 in., and for the inlet valves, .006 in.

Notes on Performance..

The performance of the Austin Seven "Brooklands" Super-Sports Model is so well known that there is really no need to occupy space in further comments in this direction. Its long list of successes speaks



VIEW OF "BROOKLANDS" SEVEN DEPARTMENT IN MESSRS. GORDON ENGLAND, LTD., WORKS.

Every car is sold with a Brooklands certificate that it has accomplished 75 miles per hour before delivery. Thirty miles per hour is obtainable on bottom gear and fifty-five miles per hour on second gear.

The engine develops full power at its maximum number of revolutions, which is approximately 5,000 per minute, and for the best results Aviation petrol is recommended and Castrol "R" for lubrication.

The engine is naturally very sensitive to the ignition, and the best results are obtained by setting the contact points of the magneto to break at 2½ in. before top dead centre, measured on the flywheel rim, with the contact breaker in the fully advanced position. This setting gives the best normal results, though slight variations may be found to be beneficial for special purposes on individual engines.

The standard setting for the Solex carburettor is a 22 choke, 110 main jet and 50 pilot jet, using a 47 gramme

volumes, and is far greater praise of the general excellence of this wonderful little machine than anything we can say about it.

We submitted one of the newest examples to a series of tests extending over a week-end recently, and find nothing but appreciation with regard to every detail.

For this reason we hesitate to offer any further comments, for nothing is so boring to read as a reiteration of "excellent, excellent, excellent," even though in this particular instance it happens to be merited.

Hitherto we have been able to find some points for comments of a critical nature in every make of car handled during our tests, but must frankly admit the "Brooklands" Austin stumped us altogether, which, after all, is perhaps the best testimony that we can offer.

SPORTING CARS ON TEST.

THE A.C. SIX-CYLINDER MONTLHERY SPORTS.

By RICHARD TWELVETREES.

WITH the remarkable achievements of the six-cylinder A.C. on the Montlhery Track still fresh in the memory of our readers, a few observations on the performance of the standard Montlhery Sports model will doubtless prove of interest, though at this season of the year one has to forego the maximum speed tests, which can only be carried out satisfactorily on the Brooklands track.

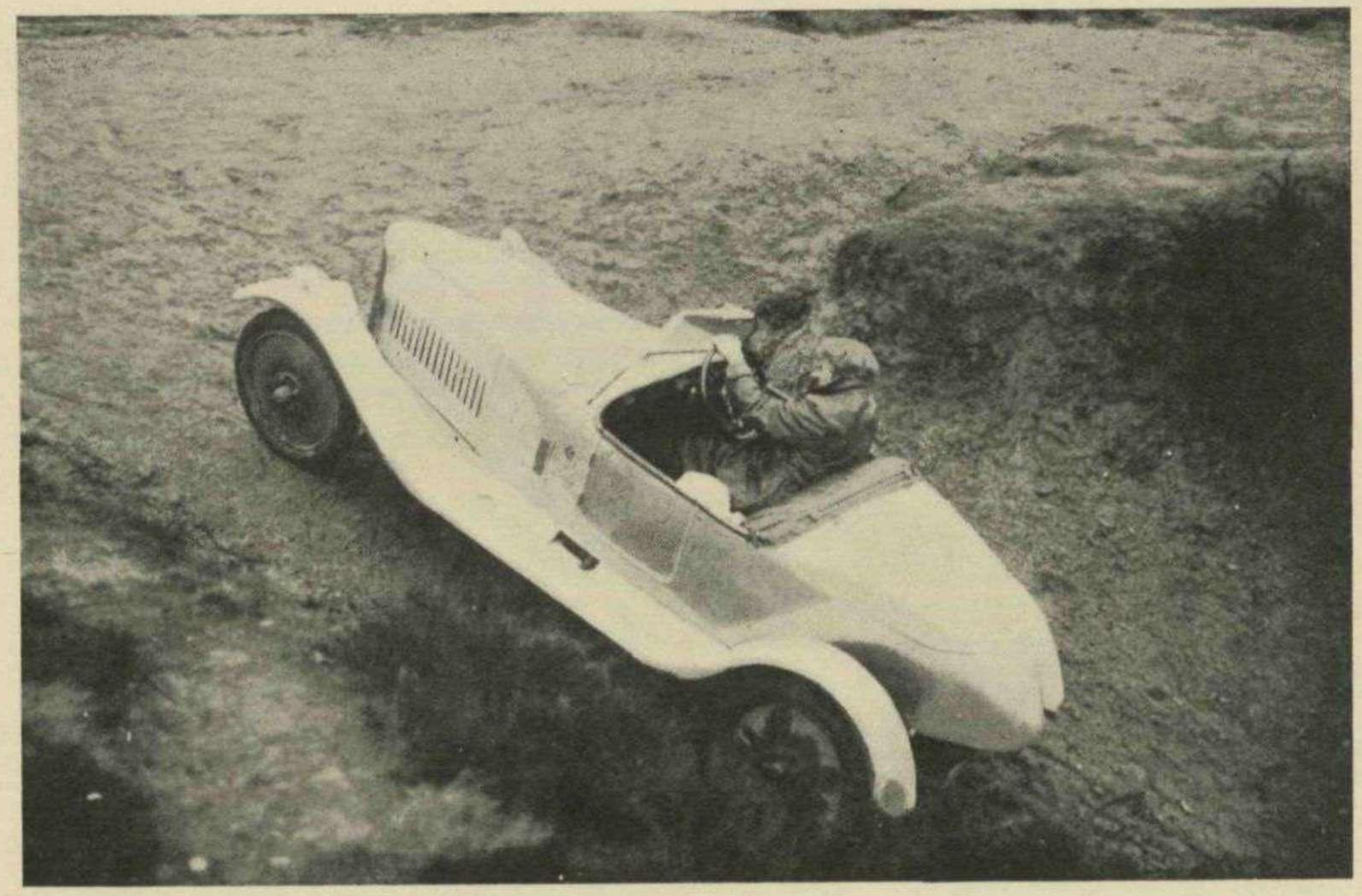
Eighty-five m.p.h. Guaranteed.

The model under review is very interesting from the sporting point of view, as it is one of the cars for which the purchaser can obtain an 85 m.p.h. certificate before taking delivery and, as I shall point out in these notes, the "flat out" speed is not gained at the sacrifice of other features which make up an ideal specification for a sports car. The actual example submitted for our test was the first of its series and having been used for demonstration purposes for a period of eleven months, had already put up a mileage of approximately 22,856 miles.

At the time of the test the weather conditions were the reverse of ideal and, as the tyres were somewhat worn, the car exhibited some inclination to skid on the greasy surfaces in town. These minor skids were rather intriguing in a way, as they demonstrated the easy manner by which the steering and general balance of the chassis permitted accurate correction. In fact, with a little practice, I found it possible to take many corners by the aid of timely skids, though this is not to be recommended as a habit.

Bitter experience has caused me to look suspiciously on a sports car with a noisy exhaust, but for ordinary traffic driving the A.C. is absolutely blameless in this respect, having a really remarkable top gear performance and a smoothness of running that would be hard to beat.

In my opinion, the second gear is far too noisy, partly due, however, to the amount of wear to which the car had been submitted and, partly, I suspect, to design. The criticisms I have to offer are recorded as they appeared to me, for having pointed out the exact conditions under which the test was made, I am going ahead with a clear conscience.



THE A.C. MONTLHERY SIX ON THE STEEPEST PORTION OF LEITH HILL.

As far as one could see, there was nothing much wrong with the clutch, which took up the drive very sweetly until one had to make a quick change with the engine revving fast. Then there was a slight hesitation after the pedal was released, possibly due to want of adjustment, but whatever the reason the fault was there. The gear change is good, though, personally, I should prefer a shorter movement from second to top instead of having to pull the lever through a distance of ten inches.

I was not able to commend the front wheel brakes, because they, too, were not particularly well adjusted,

SPORTING CARS ON TEST—continued.



A Practical Test of the Suspension System.

but though I can give no figures as to the full retardation, they worked smoothly and without snatch.

With these preliminary observations, I proceeded through town and made for Dorking to try the A.C. car up the well-known Zig-Zag at Box Hill, which at this time of the year makes quite a good test for any car. The surface was if anything worse than usual and deep ruts cut up the road between the first and second hair-pin bends. The first climb was made from a standing start at the main road, the timed portion extending to a point opposite the stone parapet on the summit. In spite of the stony surface the car attained a speed of over 40 miles per hour up to the first bend and the corner was rounded at a good speed on first gear, first gear being used until a speed of 30 was reached on the next sloping section. The second hairpin was approached at 40 on second and rounded on first, though, as a matter of fact, this drop down was not really necessary.

The car took the corner very well, the steering lock leaving plenty of room without endangering impact with the bank on the left hand side. The third hair-pin was taken in a similar manner, and the total time occupied in climbing was 3 minutes 30 2-5 seconds. On the second try this was reduced to 3 minutes 28 seconds, which shows that the ratios selected for the three-speed gear box are about right.

Then followed some acceleration tests from which the results given below were obtained. On first gear, the car reached a speed of 40 m.p.h. in 14 seconds from a standing start. By going through the gears, 50 m.p.h. was attained in 15 seconds and in 18 3-5 seconds the speedometer went round to 65 m.p.h. whilst still accelerating. Owing to the condition of the road it was impossible to go much faster, but I should say the maximum road speed was a little over 75 m.p.h. A little later Pebblecombe was climbed at 30 m.p.h., finishing up on first gear, with the engine turning over happily at a very high number of revolutions per minute.

Excellent Performance on Leith Hill.

Running out to Leith Hill, I was a little doubtful whether the car would surmount the formidable lane favoured by daring motor cyclists as an acid test, thinking this would prove a little too severe for a car with a high maximum speed, but the result showed that my fears were groundless, for the A.C. slithered through the slosh at the bottom and, warming up to its work as the more stony part of the lane was reached, trickled over the top with some power to spare.

The accompanying photograph gives an accurate idea of the gradient, the picture not being faked in any way, as may be seen from the level ground bearing away to the right.

The climb of this hill was really quite impressive and followed as it was by a trip across the heath towards Coldharbour, proved that the speedy little car was capable of acquitting itself with honours over an extremely rough " colonial section," a fact which caused me not a little degree of surprise.

Another point that should be mentioned is the marked efficiency of the suspension system, which may be said to have had a thoroughly good test during the trip from the top of Leith Hill to Coldharbour. Though the ruts in places were so deep that once I got out to see whether there was enough clearance for the bottom of the crankcase, the riding was extraordinarily smooth and almost made one forget the nature of the ground being traversed. Not only did the suspension give practical immunity from road shocks, but also carried the chassis in such a way that the bodywork showed no signs of stressing, even on the roughest surfaces, and during the whole test I did not detect a single squeak or jar, though the car might have well been excused had it offered protests of this nature.

Good Touring Qualities.

Having completed the circus part of the performance I gave myself a treat in the shape of a long run on good main roads and then found the A.C. to run with great docility, the ease of travel being quite unusual in a machine capable of high speeds. The six-cylinder engine certainly gives a very remarkable degree of flexibility, and one can drive on top gear over all ordinary main roads without the slightest trouble; though perhaps this quality tends to encourage what



Rounding the Second Bend on Box Hill.

More International Records

on

"BP"

The British Petrol

Mr. E. A. D. Eldridge driving his 1,000 c.c. Eldridge-Special at Montlhery on December 13th and December 22nd, established the following International (Class) Records:—

2,000 c.c. Class.				*1,500 c.c. Class.*	
193·228	k.p.h.	5	Kilos	195·652	k.p.h.
196·014	„	10	„	195·439	„
121·750	m.p.h.	5	Miles	121·367	m.p.h.
121·654	„	10	„	121·105	„

The above results are especially interesting in view of the consistency in the speeds put up by Mr. Eldridge driving the same car, but on two different occasions, and are a tribute to the uniformity of "BP."

Use "BP" The British Petrol

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ANGLO-PERSIAN OIL CO. LTD.

SPORTING CARS ON TEST—continued.

I may term " lazy " methods of driving. The designers of the car have evidently succeeded in their aims to produce a fast car with a comprehensive top gear performance, and those who like this method of driving will certainly find their ideal in the six-cylinder A.C.

The Marles steering is light and accurate, the controls are all located in very convenient positions, whilst one can drive for hours on end without experiencing the slightest fatigue.

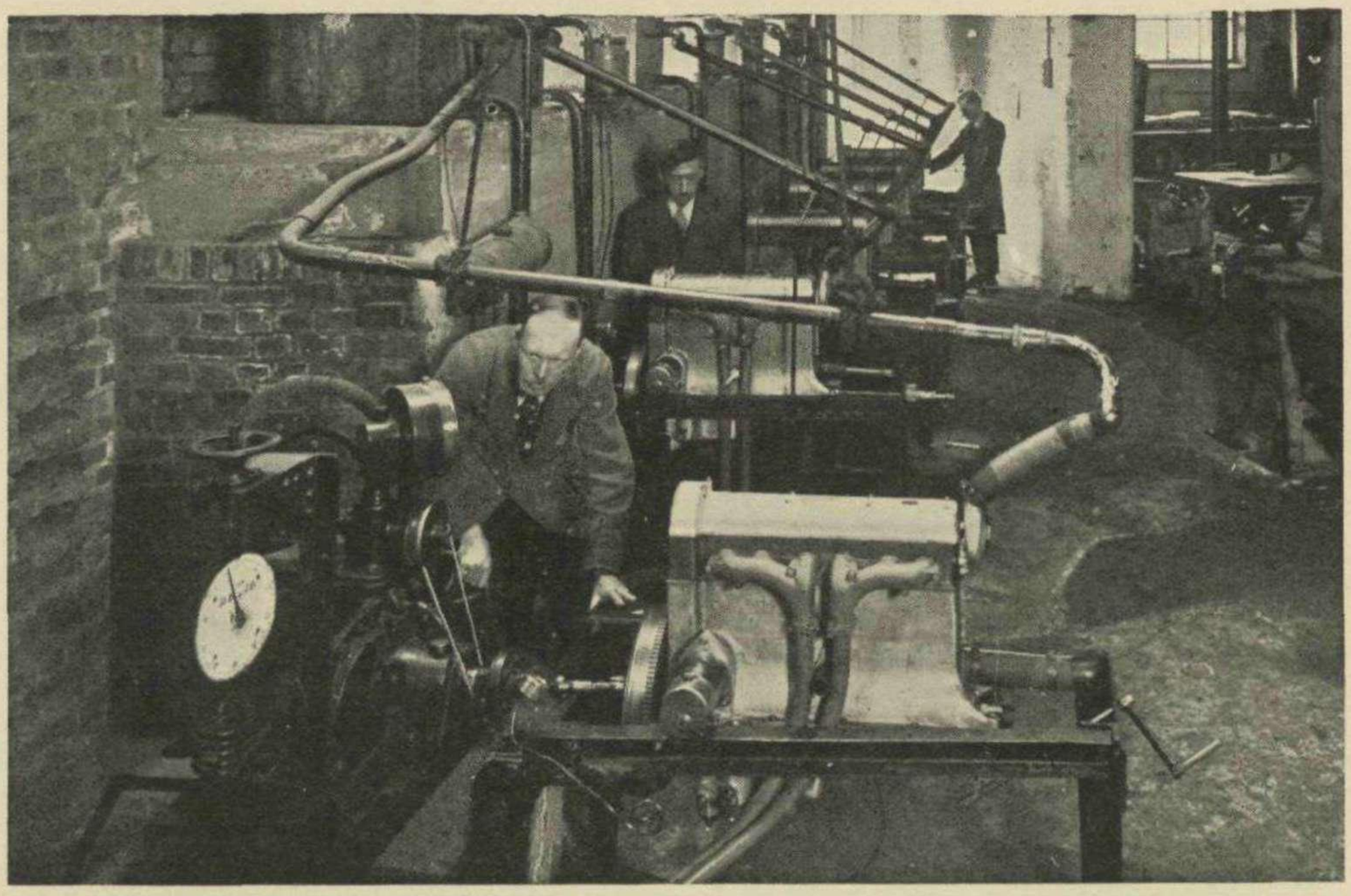
Technical Details.

As the A.C. chassis possesses certain features not commonly found in other makes, I will conclude my brief review with a few technical details. The car has a very good power to weight ratio, the total weight of the chassis being only a little over 9 cwt., though the engine is capable of developing 66 h.p. Unlike many sports cars, the mechanism has been designed with the definite object of providing continued reliability and there seems to be very little likely to get out of order, whilst the whole lubrication system is practically automatic, only three greasers being found on the chassis.

A particularly neat lay-out characterises the engine, of which the detachable head and valve gear can be removed without interfering with the valve timing or operating mechanism, and a special method of keeping the camshaft chain in correct tension is another good point in the design of the power unit.

The clean lay-out of the engine has not been gained at the sacrifice of accessibility and all parts likely to need adjustment are arranged with due consideration for the owner-driver.

As the car is intended to be driven mostly on top gear, a very large diameter single plate clutch is provided, having ample means for adjustment and presenting exceptionally generous wearing surfaces. Considerable care has been devoted to the design and construction of the rear axle, which, combined with the change speed gear and torque tube, forms a single unit. Three forward speeds are provided, together with a worm final drive and differential gear, the disposition of the mechanism in this way tending to increase wheel adhesion when steep and slippery slopes are tackled. The ratios of the gears are as follows:—first gear, 11.7 to 1; second gear, 6.3 to 1; top gear, 4 to 1; and reverse 15 to 1.



TESTING A BATCH OF A.C. SPORTS ENGINES AT THAMES DITTON.

The Montlhery model A.C. provides another example of the beneficial influence of racing on standard design, and though the makers do not appear to have gone to any extreme limits, the A.C. undoubtedly represents a high ideal of light car engineering in which the demands of the sporting driver and the requirements of the long-distance tourer have been skilfully combined without over emphasising any of the respective characteristics.

The Court Treatt expedition, which arrived at Cairo recently after covering 14,732 miles in 16 months, used Wakefield Castrol throughout their pioneer motor car journey from end to end of Africa.

The CAMBRIDGE UNIVERSITY SPEED TRIAL.

Speed Event to Select Team for the Inter-Varsity Hill Climb.

The Cambridge University M.C.C. held a Speed Trial at Wimpole Hall on February 13th, for the purpose of selecting a team for the Inter-Varsity Hill Climb at Henley Park on March 6th.

The course, which was just short of half a mile in length, had a fairly sharp right and left hand bend with reverse camber, which produced some very fine corner work. The first man away, E. W. H. Dobson (498 A.J.S.), was not over impressive, and his performance was improved upon by R.P.H. Stables (498 Scott) who took the corner at a finely judged speed. The fastest motor cycle time was made by C. Aschan (348 A.J.S.) and E. C. Fernihough showed that his old side valve 249 c.c. New Imperial was still good for high speeds.

F. J. R. Heath (1,301 Henderson) accelerated at an astonishing pace but did not reach any great speed, his engine apparently suffering from oily plugs. M. N. Mavrogordato (498 Scott) covered the course very neatly, but had not enough speed, whilst L. I. Leslie on a similar machine, with one cylinder out of action, put up a fearful wheel wobble, which he corrected skilfully without reducing his pace.

J. R. Simpson (348 New Gerrard) and R. C. Symondson (Brough S.S.100) made very fast runs, the latter trying his machine out for the first time.

In the three-wheel class, E. C. Fernihough created something of a sensation by turning up with a home-built Fernihough-Morgan fitted with a 499 c.c. single port J.A.P. engine, which despite its weird appearance and gymnastic performance, covered the course at a remarkable speed.

G. M. Leitch was the star turn in the sidecar class on his 348 Cotton.

The results of the Trials were as follows:—

SOLO.

350 c.c.—1, C. Aschan (A.J.S.), 24⅕s. (=55.1 m.p.h.; fastest time of day); 2, J. R. Simpson (New Gerrard), 25.9s.; 3, E. C. Fernihough (249 New Imperial), 26.3s.

500 c.c.—1, C. Aschan (348 A.J.S.), 24⅕s.; 2, R. P. H. Stables (Scott), 25½s.; 3, A. Shortus (348 Cotton), 26.4s.

UNLIMITED.—1, R. C. Symondson (Brough Superior), 25.1s.; 2, R. P. H. Stables (498 Scott), 25.5s.; 3, A. Shortus (348 Cotton), 26.4s.

SIDECAR.

600 c.c.—1, E. C. Fernihough (490 Morgan), 28.7s.; 2, G. M. Leitch (348 Cotton sc.), 34.8s.; 3, C. H. Burder (348 Cotton sc.), 35.3s.

UNLIMITED.—1, E. C. Fernihough (490 Morgan), 28.7s.; 2, S. S. H. Sitwell (998 Montgomery sc.), 35.4s.

CARS UNDER 1,500 c.c.

1.	W. S. Braidwood (G.N.)	28.5s.
2.	R. R. Jackson (Frazer Nash)	29.4s.
3.	N. Walduck (Alvis)	29.6s.

UNLIMITED CARS.

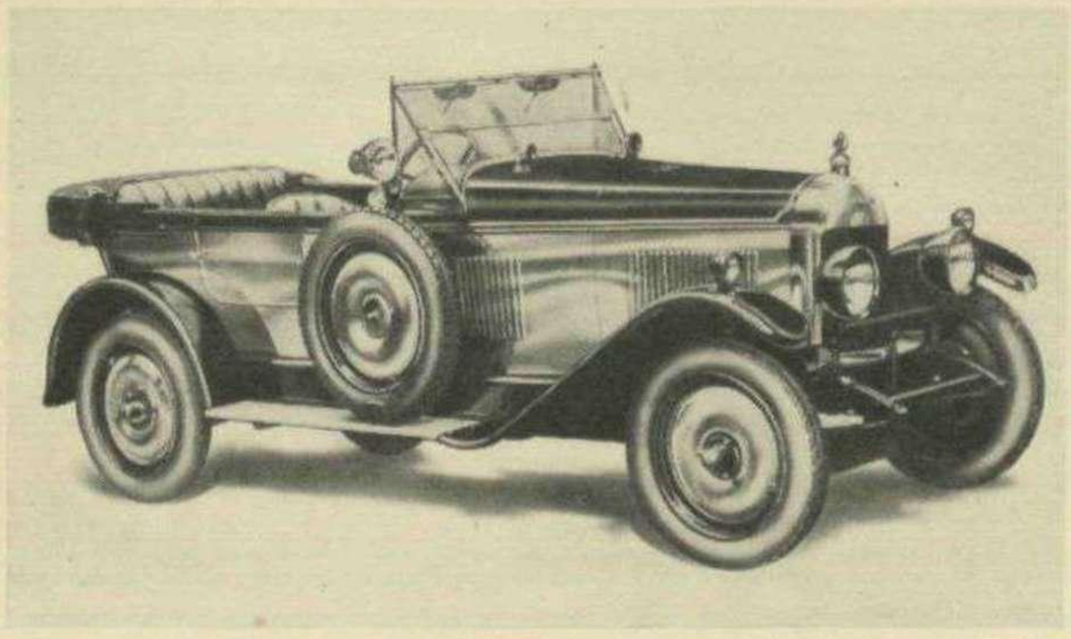
1.	H. Martineau (Vauxhall)	28.1s.
2.	W. S. Braidwood (G.N.)	28.5s.

(*See Illustrations on page* 306.)

SUNBEAMS for the GRAND PRIX DE ROME.

Major H. O. B. Segrave and Count Masetti will drive two of last year's two-litre Grand Prix Sunbeams in the Grand Prix de Rome, which takes place on March 28th.

At the Miramas track, on the same date, two of the 1,500 c.c. Brooklands Darracqs, together with a single-seater, will run in the Hartford Cup. Albert Divo will drive one of the machines and two new drivers will act as substitutes for Segrave and Masetti.



The M.G. SUPER-SPORTS CAR, recently supplied by The Morris Garages, Oxford, to H.R.H. The Crown Prince of Spain. The car is perfectly standard in all respects and similar to the model fully described in our issue of October, 1925.

BOON & PORTER, LTD., AND AMILCARS.

Messrs. Boon & Porter, Ltd., announce that they have been appointed sole concessionaires for England, Scotland, Wales and Northern Ireland.

An entirely new model 9 h.p. Touring Car, additional to the Grand Sport, will be shortly available as a four-seater semi-Weymann Touring Car, and full four-seater Weymann Saloon, and although of small capacity are capable of very high speeds.

The Firm are shortly making considerable additions to their premises in order to ensure the most efficient service being available for Amilcars in this country.

A SMART CAPTURE.

An R.A.C. Guide was asked by a motor cyclist for some oil. The Guide noticed that his license had expired 30th September, 1925, and drew the rider's attention to the fact. Being suspicious, however, that all was not in order, the Guide had him stopped further down the road by the Police, and on being interrogated he admitted that the outfit was stolen.

A 12-CYLINDER 1,100 c.c. ITALA.

It is reported that in all probability a new twelve-cylindered Itala racer of 1,100 c.c. capacity will be entered for the second Italian Cyclecar Grand Prix and be capable of a speed of over 100 miles per hour.

MONTHLY BULLETIN
OF

The British Motor-Cycle Racing Club

(Affiliated to the Auto-Cycle Union).

Headquarters :
BROOKLANDS MOTOR COURSE, WEYBRIDGE
President :
COLONEL F. LINDSAY LLOYD, C.M.G., C.B.E.

Vice-President :
PROFESSOR A. M. LOW, D.Sc., A.C.G.I.
Hon. Secretary :
A. GEO. REYNOLDS, 95, Fillebrook Road, Leytonstone, E.11.

Under this heading will be reported from month to month the doings and features of the World's Premier Racing Club.

MUCH appreciation has been expressed, both by members of the B.M.C.R.C. and followers interested in Speed and Track events, at the appearance of these monthly notes reporting the activities of the Club.

* * * *

The Opening Meeting of the season takes place on Saturday, March 20th, commencing at 2 p.m. Nine events have been arranged for and entries are already very promising for a successful afternoon.

* * * *

The Committee, in fixing the events for the Opening Meeting, had in mind the full encouragement for the "new man" making his début at speed. Although named a Novice Handicap, open to riders unconnected with the trade, the entry list will include some of the older hands, but who to be eligible to compete must conform to the regulation and be the bona fide owner of the machine ridden and not been placed as a first prize winner in any B.M.C.R.C. race held during the season of 1925.

* * * *

The race of the afternoon will probably be the 3-Lap Expert Handicap, confined to trade riders whose speeds are fairly well known to the handicapper, and should provide a good finish over the line.

* * * *

The three Scratch Races for the solo machines, 350 c.c., 500 c.c. and 1,000 c.c., always create a large amount of interest, which will in no way be lessened as there are several new designs of engines, and in some instances an old hand will be competing with a machine that has not previously been favoured with expert handling.

* * * *

The Track will be opened on Monday, March 8th, and will be available for practising any day for Motor Cycles excepting Mondays and Thursdays.

* * * *

Many enquiries are made as to the exact definition of a Private Member of the Club. The rule is, that a Private Owner must in no way be interested in the motor industry or employed directly or indirectly by any agent in such trade. It is generally recognised that a Private Member has not the same time to use the track as a Trade representative, and therefore the subscription is reduced owing to this fact. Races that are confined to Private Members must be competed for on machines which are their own property, but a Private Member is not excluded from being nominated as a rider by any entrant member in races that are not confined to bona fide private owners riding machines their own property. In such cases Private Members driving machines so nominated are entitled to score their markings for the aggregate Cups offered.

* * * *

In accordance with the New Competition Rules issued by the Auto-Cycle Union, the B.M.C.R.C. is now affiliated to the governing body as a Non-Territorial Club and represented direct on the General Council. At the last Committee Meeting Mr. H. Le Vack was appointed as the Club's delegate.

* * * *

The activities of some of the clubs which in past seasons have promoted speed events at the track have been curtailed owing to the agreement made as the result of the action taken by Brooklands residents. The Club has arranged that invitations will be given to certain clubs to put up a race to be included in the programmes confined to its own members.

* * * *

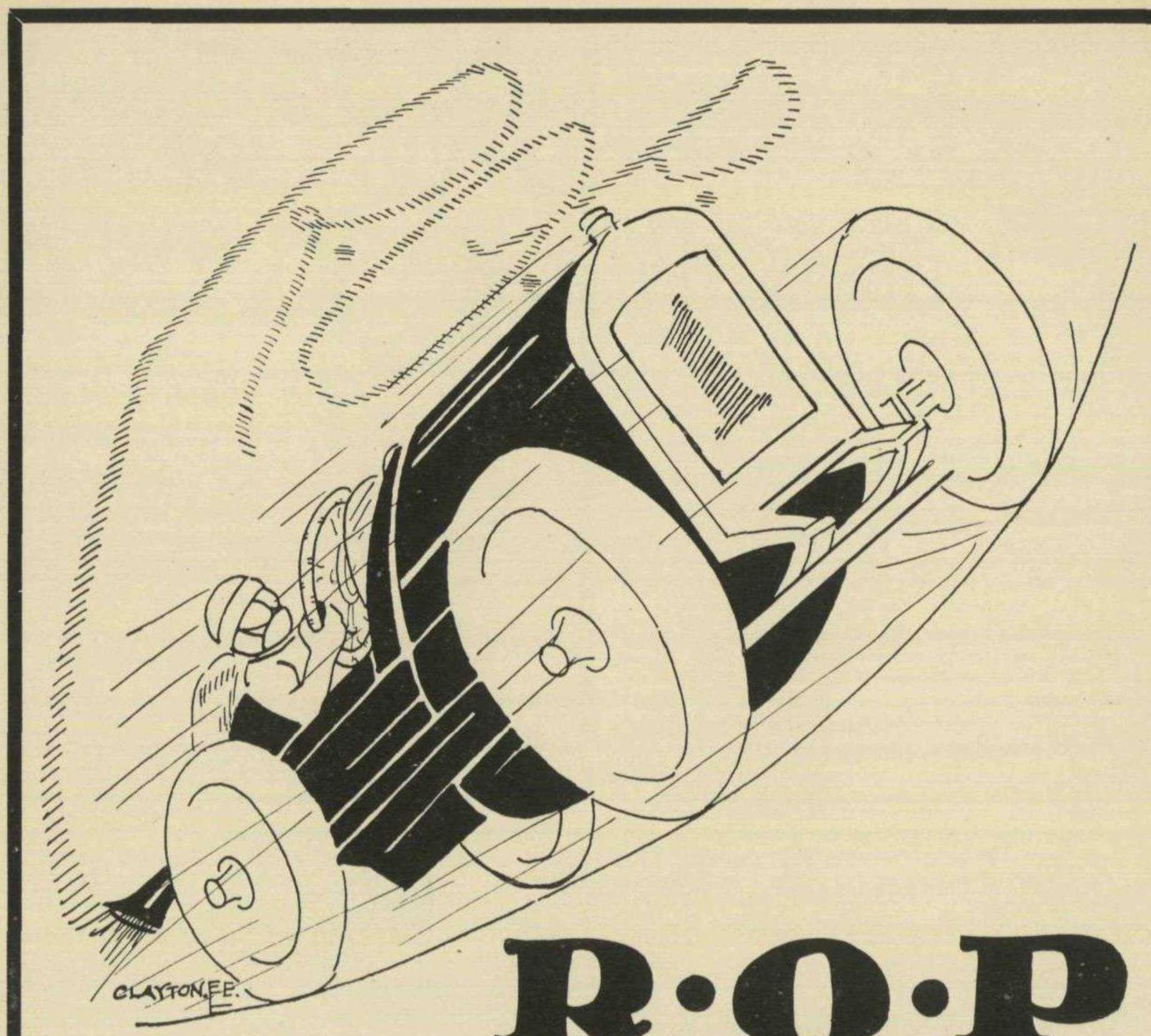
It was mentioned in the February issue of these notes that some of the long-distance classics held by Continental riders should disappear from the book of records before its next issue. It is hoped that this will be so, as an early attempt is being made as soon as the track settles down after its "Annual."

* * * *

The Club has again been very generously promised valuable silver cups for competition during the year and prizes of considerable value have been offered by the following gentlemen :—Sir Chas. Wakefield, the Proprietors of Brooklands, Messrs. J. A. Prestwich, E. J. Pittock, Walker Bros., H. J. Knight, H. W. Mathers, R. M. N. Spring, E. J. Anderson, F. R. G. Spikins, D. R. O'Donovan, G. E. Tottey, J. Linton, Arnold Hill, Col. R. N. Stewart, West Kent Club, J. S. Worters, Rex Munday, J. A. Welch, A. W. Russell, J. M. Noakes, the Manager, Café Royal, R. Newitt, Barlow Tyler, Dobson and Sons, H. Le Vack, C. G. Pullin, R. Harveyson, H. L. Buckley, *The Motor Cycle.*

* * * *

A few booklets are still to be had on application, giving a full list of 1925 prize winners with the speed of races at which they were won and fastest lap speeds. This is a very useful list and will give the answer to the question so often asked by prospective members as to whether a machine is fast enough.



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in the Lilac can!
The SPIRIT for SPEED

RUSSIAN MOTOR SPIRIT

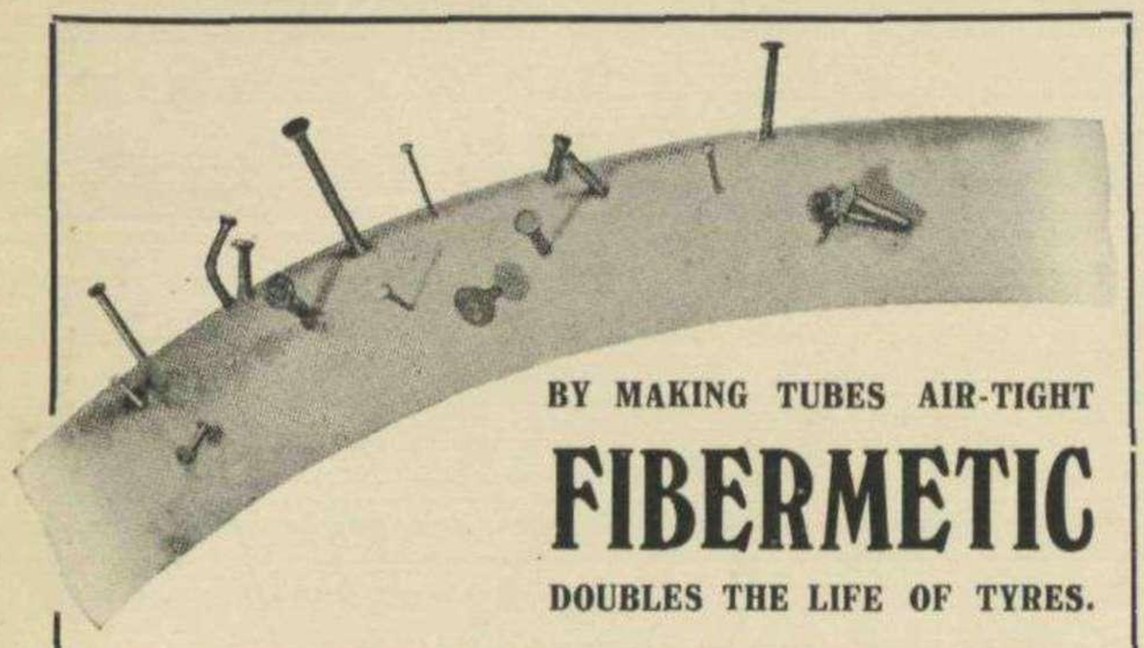
IN BULK, BARRELS, OR CANS. GUARANTEED STRAIGHT RUN, HIGH MILEAGE PER GALLON, PRE-WAR QUALITY

OUR GRADES	**AVIATION SPIRIT.**	
	LIGHT	**For Sporting and Luxury Cars.**
	MEDIUM	**For Touring and Passenger Cars.**
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BY MAKING TUBES AIR-TIGHT

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DOUBLES THE LIFE OF TYRES.

"Never Goes Bad—Never Stops Functioning"

The Crucial Tests for a Puncture Seal are **TIME** and **MILEAGE.** Spectacular Demonstrations of sticking pins or driving nails into tyres prove nothing. The question always remains **"How long will the preparation keep functioning on the road?"**

PRICE **3/6** per lb., post free, sufficient for Two Cycle Tubes or One Motor Cycle Tube.

For abroad, PRICE **5/-** per lb, to cover extra postage.

To ascertain quantities for Motor Tubes—multiply diameter wheel by diameter tyre by ·018. Example—30×3½×·018=1.89 lbs. per tube approximate. State if required for Cycle. Motor Cycle or Motor Car, and if for Balloons or High Pressure tubes.

TESTED & APPROVED by the Editor of "MOTOR SPORT."

"After a five months test of driving a car with intentionally punctured tyres. During the whole of this time it was not necessary to pump the tyres at all."

A British Invention made by **British Labour** and **Perfect** in its working. Will not freeze in tubes during the most severe Winter, nor go bad in the heat of the Tropics.

With One Treatment of Fibermetic You May Run Your Car or Cycle Two Years or 20,000 Miles without a Flat Tyre!

12 Months Absolute Guarantee—£1,000 paid to anyone disproving our claims.

Entrants for Reliability Trials.

Do not risk your Gold Medal by such a mean thing as a puncture. Insure against this by using Fibermetic. Read testimonial of 6/11/25 in our pamplet. **Where would this Rider have been without Fibermetic?**

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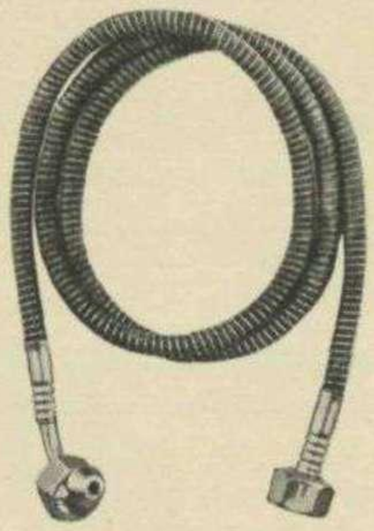
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Round the Clubs



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BASINGSTOKE, Hants. ...	Percy Watson, 1 and 2, Winchester Rd.
BLACKBURN, Lancs. ...	R. Jackson, 24, Cecelia Rd., Feniscliffe.
BLACKPOOL, Lancs.	T. Sharples, Rawcliffe Hall, via Garstang.
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BRIGHTON, Sussex	Lieut.-Commdr. John Havers, Bedford Garage, Bedford Place, Brighton.
BRISTOL, Glos.	T. D. Corpe, Hill View, Churchill, Somerset.
BROMLEY, Kent	F. Wilson Smith, 32, Hammelton Road.
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CARMARTHEN, Carmarthen. ...	J. Jones, Nelson Hotel.
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NORTHALLERTON, Yorks. ...	R. D. Hudson, Old Bank House.
OTLEY, Yorks.	J. H. Holmes, The Garage, Station Road.
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ILKLEY AND DISTRICT M.C.

A satisfactory state of affairs was reported at the annual general meeting on January 29th, at which Mr. H. W. Robinson presided. The activities of the past year were reviewed by the Hon. Secretary (Mr. J. H. Holmes), who referred to the success of the open trial organised for the Yorkshire Centre A.C.U., and mentioned that the Club had won the Yorkshire Centre Team Championship three times in five years. Club events had been supported in a manner that had made them worth while organising, but there was still room for improvement in the matter of entries.

Mr. Herbert Payne was appointed to succeed Mr. Fred Waite as President. Mr. Duxbury retired from the treasurership, which he had occupied for four years, owing to his removal to York, and Mr. Jack Holmes was appointed his successor. Mr. J. H. Holmes was re-elected Hon. Secretary. The committee is composed of the following:—Messrs. W. Bradley, C. Thackray, A. Outtersides, B. Walker, J. D. Lupton, K. Fawcett, J. Hardy, R. Dawson, H. Stephenson and J. L. Booth.

Discussing Sunday trials, Mr. W. Bradley said there was a feeling in the Club that some of the events should take place on Saturday, as some members objected to competing on Sundays. Only one event took place on Saturday last year.

Mr. Reece questioned whether more than 1 per cent. of the members objected to Sunday trials. The chief objection to Saturday trials was finding people who had a morning's liberty to mark the course.

By a substantial majority the meeting decided that in the present year at least three events should take place on Saturday.

Mr. F. Marshall commented on the success of evening trials. Two were held last year and both were well supported. He suggested that more should be organised this year, and it was agreed that this should be a recommendation to the committee.

The Hon. Secretary reported that the Club had again been allotted a date for an open trial by the Yorkshire Centre, this would take place on August 28th. There was a probability of the Club again receiving outside assistance towards the prize fund. Mr. Duxbury expressed disappointment at the Scott Trial being taken over by the Bradford Club as a club event, and pointed out that the Ilkley Club had had more to do with the organisation of this event than any other club.

Opening trial, 1926, March 28th. Hon. Secretary, J. H. Holmes, The Garage, Station Road, Otley, Yorks.

AMILCAR CLUB.

Owing to the great popularity of the Amilcar, it has been suggested that a club should be formed for the benefit of owners.

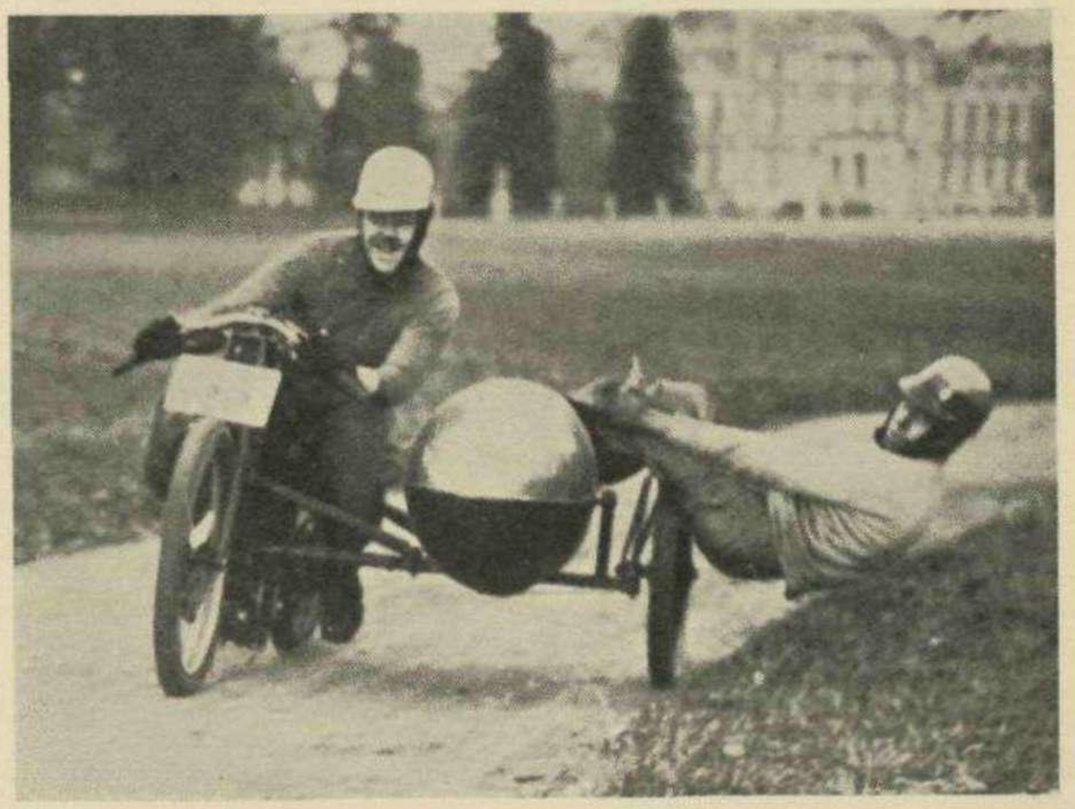
A meeting will be arranged provided that a sufficient number of enthusiasts will communicate with H. Dawson, Peg Woffington's Cottage, Teddington, Middlesex.

Owing to the success of one-car clubs, which already exist, it is felt that this should appeal very strongly to the owners of these real sporting cars.

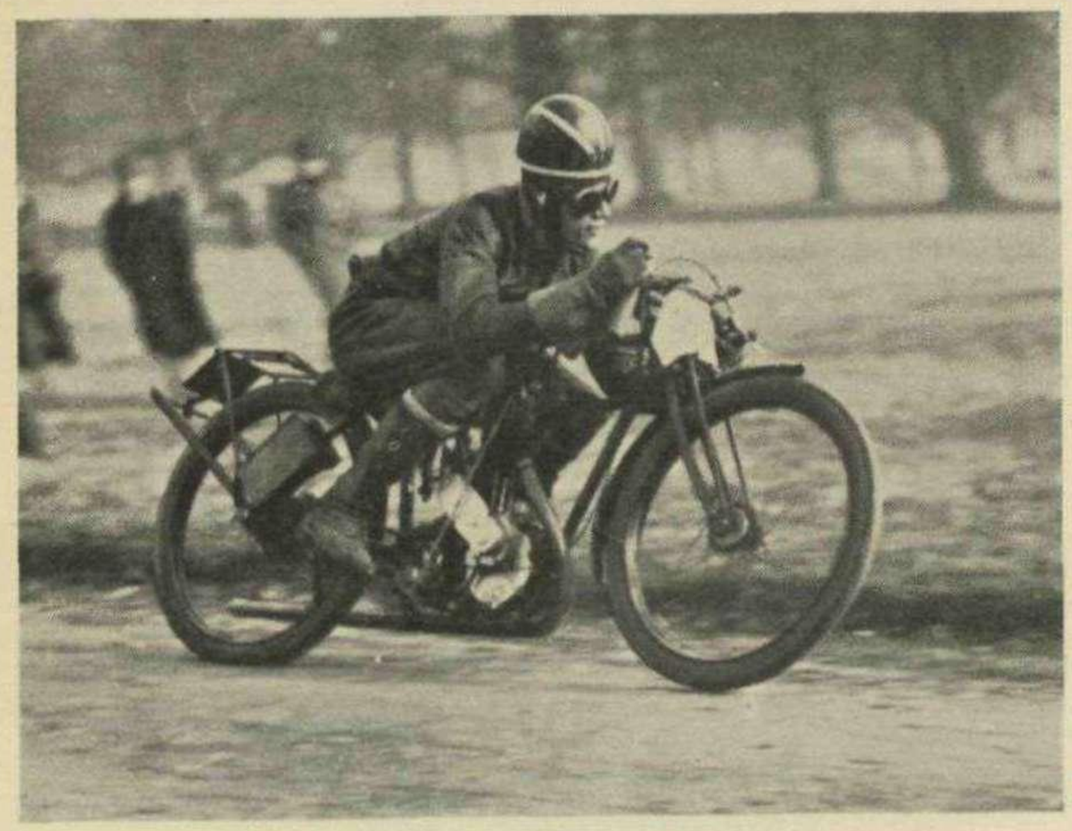
CAMBRIDGE TRIAL PICTURES.



E. W. H. Dobson (498 c.c. A.J.S.) Starting.



G. M. Leitch (348 c.c. Cotton) who was Third in the 600 c.c. s/c. Class.



E. C. Fernihough Obtained Third Place in the 350 c.c. Solo Class on a 249 c.c. New Imperial.



R. P. H. Stables who was very Successful on a 498 c.c. Scott "Flying Squirrel."



C. H. Burder Cornering on his 348 c.c. Cotton s/c.



G. M. Leitch (348 c.c. Cotton) in the Solo Classes.

ROUND THE CLUBS—continued.

WEST OF ENGLAND MOTOR CLUB.

This Club operates over a large area, comprising Devon and most of Somerset and Cornwall, and replaces in point of fact several of the smaller clubs. It attempts to run sporting events in a "posh" manner, and last season witnessed a number of well organised and excellently supported events.

The Club's big Speed Trials at Brentor attracted entries from all parts of England, the fastest time over the flying half-mile of this wonderful course being exactly 18 secs., or 100 m.p.h., by the well-known F. W. Dixon, riding a 750 c.c. Douglas. J. A. Joyce, on his famous A.C., won the cup for the fastest car, at over 90 m.p.h.

The opening event this year will be a Reliability Trial starting at Dousland, near Yelverton (between Plymouth and Tavistock), at 2.30 on Saturday, March 13th. Two laps of a 34 mile course will be completed finishing again at Dousland. Twelve Hills will be observed, but none are of a freak nature, and the course is such that any modern car or motor cycle should negotiate it with ease.

The event is open to several Clubs affiliated to the A.C.U., or applications for membership to the West of England Motor Club should be forwarded to the Secretary. The annual subscription is 15s. and 5s. entrance fee; the fee for the Trial 7s. 6d. (W.E.M.C. members 5s.). Entries close March 6th, or up to starting time on payment of an extra fee. Early entries will however receive their route cards in advance.

A special effort is being made with the organization of the event, which is being run under the Closed Competition Rules of the A.C.U. and R.A.C., and it is expected that a large and representative entry will be obtained.

A Silver Cup will be given for the best performance of the day, Silver medals for all finishing without loss of marks, and Bronzes for all finishing with more than 90 per cent. marks.

There will also be a special set of medals for a team prize. Teams nominated may consist of any three motor vehicles.

Hon. Secretary's address :—

LESLIE MORRISH, Esq.,
Weycroft, Axminster.

BURGHLEY SPORTS AUSTIN.

The Burghley Sports Austin, which is already very popular among sporting owners, has recently been improved with regard to several details, chief of which perhaps is found in the new type of splayed wings, these adding considerably to the appearance of the car.

Instead of the Devil mascot originally fitted to the radiator, a baby Boyce Motormeter with wings is now supplied as standard. Rigid side curtains opening with the doors are now provided, and a small locker is fitted in the facia board.

We hope to give our readers some impressions of a test of this attractive little car in an early issue.

BROOKLANDS YEAR BOOK.

The 1926 edition of the Brooklands Year Book is now available. It contains the fixture list for the coming season, a list of the winners of the principal car races last year, together with their speeds, the whole of the international records, including those made abroad; a complete description of the track, with a number of useful statistics; a list of members, and the new silencer regulation. The book is well printed and the illustrations are topical and interesting. It should be in the hands of everybody who follows the sporting side of motoring.

Price 1s., from the Secretary, B.A.R.C., 83, Pall Mall, London, S.W.

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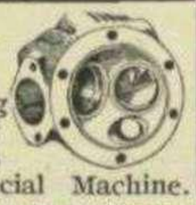


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ROUND THE CLUBS—continued.

THE WEST OF ENGLAND MOTOR CLUB.

The first annual dinner was held at Deller's Café, Exeter, on Saturday, January 23rd. Members came from all parts of the West, and the function can be said to have been a great success. The most interesting item of the evening's proceedings was the presentation of a silver cigarette case to Lieut. H. G. Dobbs on his Isle of Man success.

After dinner there was a well arranged musical programme, followed by the presentation of the chief awards of the season. The winners being :—

Speed Trial.

R.N.E. College Cup—F. W. Dixon.
Treasurer Cup—J. A. Joyce.
Grant Cup—S. Harrison Smith.
Novice Cup—R. E. Kestell.
Pike Cup—G. Ross.

Yeovil-Land's End.

Kite Cup—R. C. Clarke.
Moffat Cup—Honiton No. 2 Team.

Opening Trial.

Duke Cup—W. Peters.

Half-Day Taunton Trial.

South-Western Cup—F. K. M. Knill.
Spiller Cup—J. E. Day.

It is interesting to note that out of the twelve members who rode in the London-Exeter nine gained gold medals and two silver medals.

For the coming season four reliability trials have been arranged, and as these all come early in the year, they ought to be well supported. The first event to take place on March 6th. The Yeovil-Land's End, as usual, will be run at Whitsun. The committee is endeavouring to arrange a speed trial, and have a good stretch of sand in view, easily accessible, and if their efforts are successful it ought to be the event of the year as far as motoring in the West is concerned.

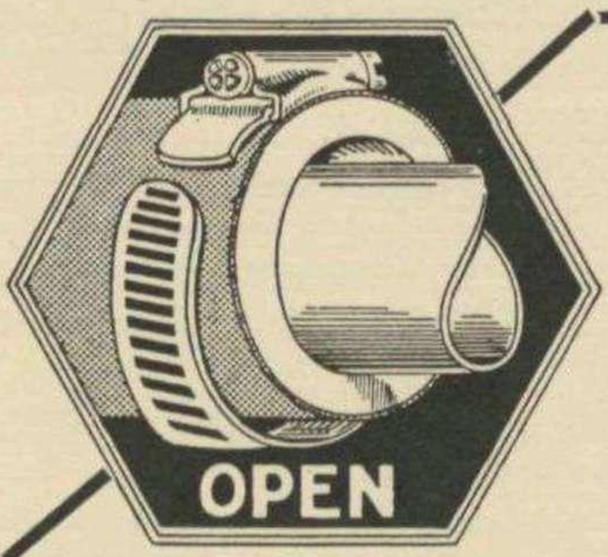
Particulars of all events may be obtained from the Hon. Secretary, Mr. G. L. Morrish, Weycroft, Axminster, Devon.

BRIGHTON AND HOVE MOTOR CLUB.

Events, 1926 (subject to R.A.C. permit), provisionally arranged dates :—

Sun. Mar. 14.	Hewitt Trophy Trial.
Sun. Mar. 28.	Reliability Trial.
Sun. Apr. 11.	Volk Trophy Trial for Solo Motor Cycles only.
Sun. Apr. 25.	Schofield Cup Trial for Cars and Passenger Machines only.
Sun. May 9.	Treasure Hunt. Prizes awarded.
Sat. May 29.	Speed Trials at Lewes.
Sat. June 12.	Gymkhan ,,
Sat. June 26.	Brighton to Beer Trial for the Mayor's Cup.
Sat. June 27.	24 hrs. nominal. *Full moon night* !
Sun. July 4.	Picnic Run and American Hill Climb for Havers Rose Bowl.
Sun. July 11.	Reliability Trial for Schofield Trophy.
Sun. July 25.	" Motoreliability " Trial for Tully Trophy and Gold Medal.
Sun. Aug. 8.	Reliability Trial, Clayton Trophy and Gold Medal.
Sat. Aug. 21.	Speed Trials, Madeira Road (*if permitted*).
Sun. Sept. 5.	Simpson Lee Trophy Trial.
Sun. Sept. 19.	Treasure Hunt.
Sun. Oct. 3.	Bishop Trophy Trial.
Sun. Oct. 17.	Picnic and Surprise Programme.
Sun. Nov. 28.	Winter Trial for Russell and Drewitt Cups.
Sat. Dec. 11.	Annual Dinner, Dance and Prize Distribution.

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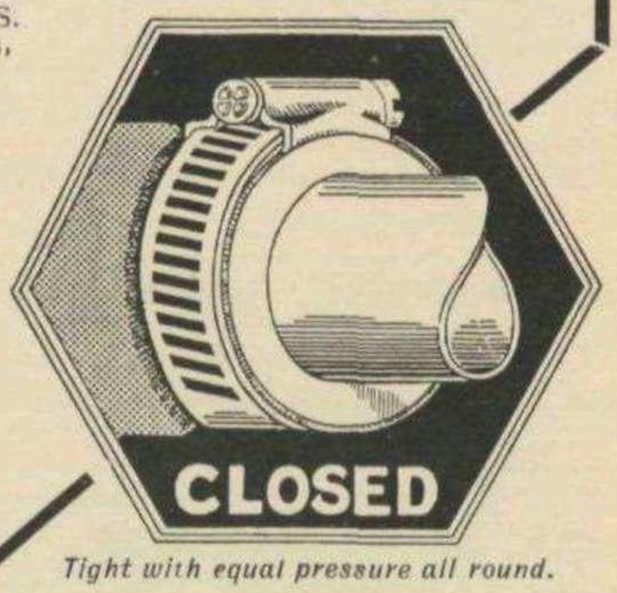
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