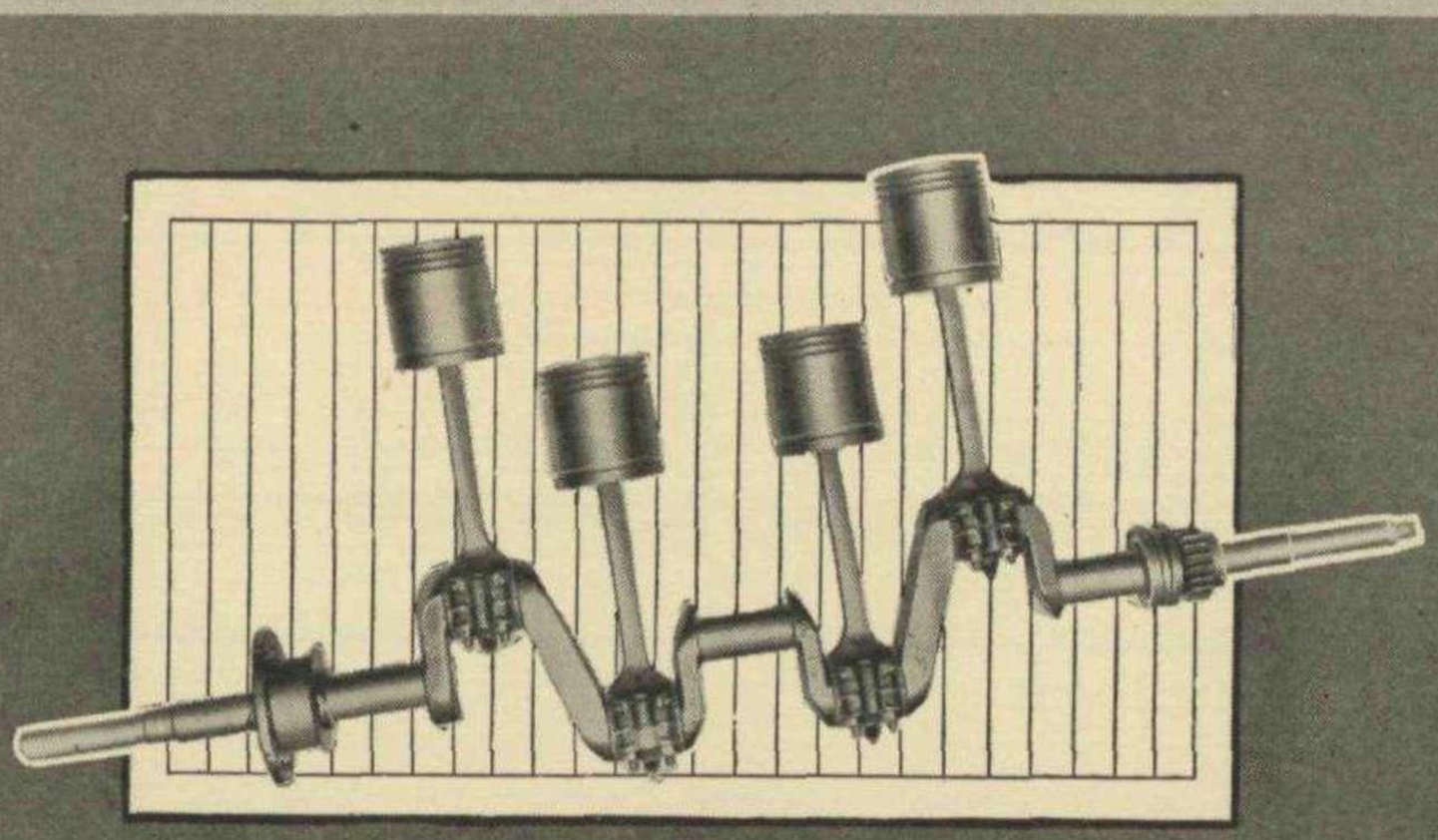


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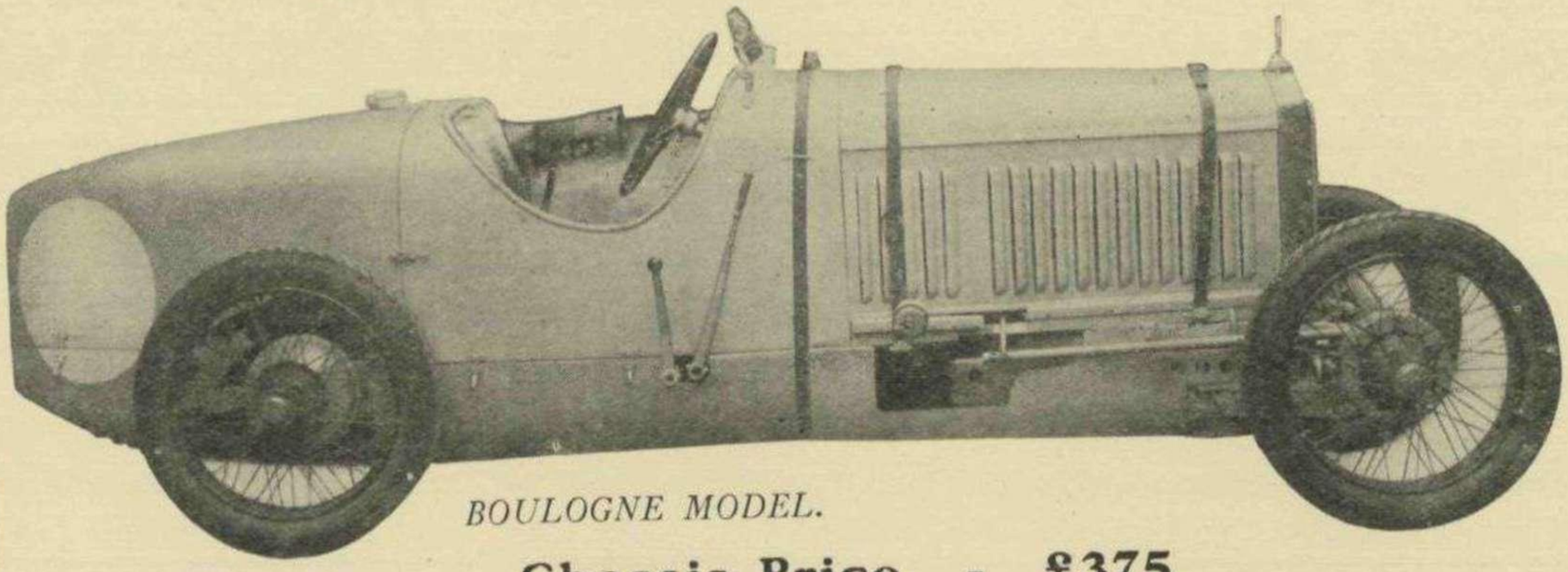
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No. 4. VOL. 3.

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

OCTOBER, 1926.

EDITORIAL NOTES.

Ramblings, Rumours and Reminiscences.

Being Asides About All Sorts of Things.

WHAT a wonderful time for all motorists is Show-time and curiously does the great exhibition cause one to look back to the times when the whole motor industry was a very different affair from that which we know to-day.

Though the general interest in the exhibition has a far greater public appeal than it did of yore, it is in many ways less interesting than in the period when sensational designs, entirely new machines, to say nothing of weird inventions, astounded a public already more or less accustomed to extraordinary developments.

As a youngster I remember assisting at the first Automobile Show held at the Royal Agricultural Hall at Islington, when the number of exhibitors was so small that a very large portion of the main hall was allocated as an arena, round which demonstrations of cars took place every day. At that time demonstrators were divided into two classes, namely those who wore silk hats and those who did not. For some reason, which I was never able to fathom it was considered the thing to dress up in faultless morning attire in order to masquerade as a real expert, though there were certain dissentients who plied their trade in a kind of undress yachting costume, complete with close-fitting peaked caps, a form of apparel affected by such stalwarts as S. F. Edge and Charlie Jarrott, but in the main, exhibitors sought to conceal the shortcomings of those veteran cars behind their own personal adornment.

But, nevertheless, the Show was a Show in those bygone days and some real excitement was to be obtained for the modest shilling charged for admission. I remember how Charles Friswell (afterwards Sir Charles) making a sensational appearance in the arena at the wheel of a racing Peugeot, which he started by the aid of a thing he called a "toothpick." This was for holding down the atmospheric inlet valves whilst the starting handle was cranked and when the engine was induced to perform, a young pandemonium broke forth with the result that everyone in the Hall rushed away from the stands to see what was happening.

Charles held his own in racing round the arena, until one morning a very fat young man named Barber made his appearance on a little Stanley steam car and promptly proceeded to make rings round Mr. Friswell, much to the delight of a sporting crowd, which yelled with delight to see the diminutive steamer belching forth flames and steam under the direction of its driver, who apparently desired to make a Grand Finale by bursting his boiler.

Of course nobody much bought any cars at the Show, it was merely a gigantic spectacle and served as very good propaganda by which the public were instructed as to the mysteries of motor mechanism, but even the youngest and least informed of the exhibitors' assistants were

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EDITORIAL NOTES—continued.

not unduly worried, because no laymen had the remotest ideas as to motor mechanism. How different to-day, when every schoolboy knows everything about supercharging—or thinks he does, which is perhaps worse—and a stand attendant has to be very careful lest he is bowled out in technics by some country farmer, who has come up to buy a Morris Cowley.

* * *

Modern shows are little more than market places for prospective car purchasers, but one cannot help being struck by the extraordinary paucity of really useful literature distributed from the stands. It always seems to me that catalogues are prepared either by (A) members of the firms drawing office staff or (B) their advertising agents. In the first case the pages are mostly devoted to very scratchy specifications and in the latter by literature that may be more or less accurately described under the generic term of " tripe."

Every year manufacturers have a wonderful chance of informing the public as to the vitally interesting parts of their cars, but on the whole the cataloguing of the Show is as weak as it was in pre-war days. Not that the catalogues are not very elaborate, for many are produced at enormous cost, but as far as the prospective purchaser is concerned they are of very little value.

* * *

As one who has for many years endeavoured to extract information from the exhibitors for Press purposes, the lack of interest displayed by some firms is nothing short of marvellous. It is indeed a matter of great surprise that the Show reports are as accurate as they are and no one who has never tackled the job can have the least idea as to the difficulties in getting the required information from people on the stands, few of whom seem to have the remotest idea as to the exact contents of the packing cases which arrive but a few hours in advance of the private view day.

* * *

At this time of the year one's thoughts naturally turn to the great question of mass production, without which it is impossible to produce cars at anything like the price the public are prepared to pay. But, this system of manufacture has, it seems to me, a very important influence upon after purchase service. If we go through any motor factory organised on modern lines, we see how every man-jack of the concern has his own little bit of a job to do and no doubt he does it extraordinarily well, else the *sack* would be his portion. As a method of production, the mass principle is undoubtedly the right thing, but I always shudder to think where the repair mechanics of the future are coming from. Modern conditions do not tend towards the cultivation of the all-round knowledge, so necessary in repair operations. The man who bolts the gear box to the engine knows nothing about the action of the carburettor, having little time or inclination to learn. The art of scraping bearings is fast disappearing among the limbo of forgotten things, so where oh ! where are we to get mechanics to perform those intricate adjustments which become so necessary from time to time ?

The average motorist is quite content to run his car for a year until funny noises become objectionable and the machinery ceases to work with its original sweetness. Then, off he goes to the nearest agent with the partial wreck and haggles over the price to be allowed for it in part payment for a new model, but the really keen and sporting motorist abhors such a procedure, preferring to keep his bus in good tune by regular adjustments and renewals. As the years go by, the problem of the repair mechanic becomes more and more acute and modern methods of manufacture, whilst helping the purchasers of new cars, certainly tend towards a scarcity of really all-round mechanics, such as could be found in great numbers a few years ago.

* * *

It is rather alarming to pick up any programme of a B.A.R.C. race meeting and notice how few of the competing cars are of British manufacture. If we neglect the " Specials " or non-production models, the British industry may be said to be practically unrepresented on the track, which is very sad. It cannot be that our manufacturers know all there is to know about the type of machine beloved by the sporting driver, but year after year the great opportunities of improving the breed (to use a hackneyed expression) are studiously neglected. It is useless to argue that sporting cars are not wanted because we know that the demand exists and always will exist, in spite of grandmotherly legislation and kill-joy trade organisations.

This year Bugatti has found a very good market in this country and now America has realised the fact that we are being starved for sporting cars, hence the threatened invasion by the Stutz car, which is a very good proposition and is backed by an organisation formed of practical racing men and a very enviable list of racing successes in the country of its origin.

The phase of competition motoring is far from losing ground and if we cannot buy British cars with which to participate in the great pastime, well, it will have to be Continental or American machines.

* * *

If rumour is correct the Stutz people are not alone in having designs upon the British sporting car market, for I learn that a new Marmon is under weigh, which, built in strict accordance with the demands of the sporting driver will be capable of maintaining over 70 m.p.h. under ordinary road conditions.

* * *

In our last issue an interesting letter from Mr. J. R. Simpson was very welcome as expressing the views of the type of reader for whom *Motor Sport* makes a special appeal. Unless readers send us their views as to the character of the contents of the various issues, there is always a chance of drifting automatically into a kind of standard list of contents, some items of which may be more interesting than others.

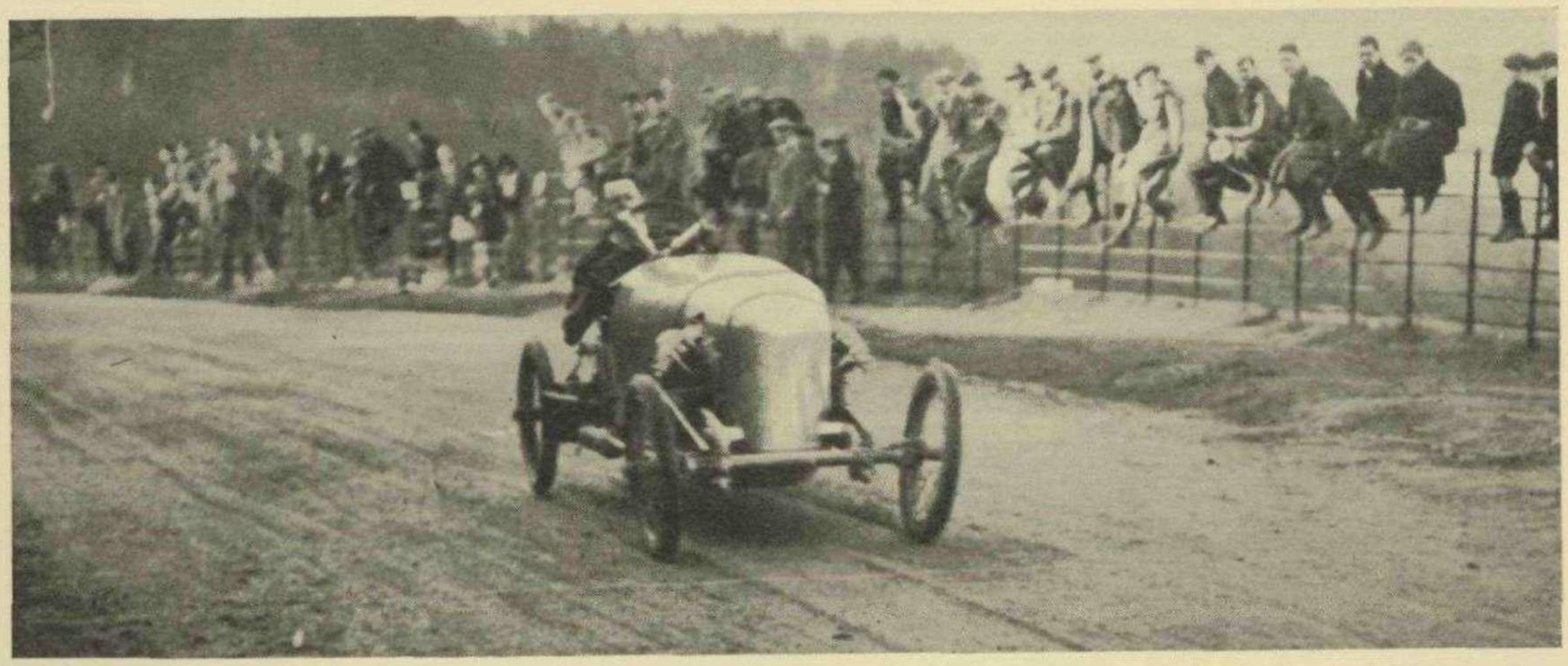
As we are always anxious to make our pages of the greatest value to sporting motorists, it is very helpful to receive letters which indicate quite clearly the kind of contributions that are best received.

We are not averse to criticism, especially of a constructive nature, therefore any views on the subject our readers may care to express are certain to receive due consideration.

LEADING MOTOR CLUBS.

No. 1.—The Cambridge University Motor-Cycle Club.

[Under this heading a series of illustrated articles will be published from time to time, dealing with the early history and interesting items connected with motor and motor-cycle clubs throughout the country, with a view to encouraging local interest in the clubs concerned and in the sport of motoring generally.]



THE C.U.M.C.C., as such, is a post-war club, but it will be well within the scope of this article to deal with the two earlier clubs, formed at Cambridge before the war, and to which the present body really owes its parentage.

The first of these earlier clubs was founded in 1902, largely by the efforts of H. H. Gregory of St. John's College (now chief technical expert of the R.A.C.). The first President of the club, known as the Cambridge University Automobile Club, was Professor Inglis, and premises with garage accommodation were secured in Jesus Lane on a site now occupied by Messrs. Marshall's motor showrooms. As might be expected, at such an early date in the annals of motoring, the membership was very small, owing to the rarity, high cost, and generally unreliable nature of the motors of the day, but among the club "stud" were a motor-cycle built for himself by the secretary, W. Gregory, a locomobile steamer belonging to H. M. Budgett, a Lucas valveless, belonging to the brother of its designer and a large M.M.C. This small but select band used to foregather regularly with great enthusiasm every Sunday morning, and it was a point of honour that something should be dismantled, whether it needed it or not, though naturally, honour seldom required any stretching in those days!

Famous Names.

It is interesting to note that one of the most prominent members of this club was H. R. Ricardo, of Trinity, now one of our most brilliant and prolific designers, who at that time owned a steam car and a 10 h.p. motor-cycle.

The C.U.A.C. lasted for over ten years, but as is so often the way, enthusiasm waned and the garage had to be given up, besides which few men could afford cars and very few motor-cycles existed. However, during the period of its existence many interesting events took place, such as hill climbs in the Luton district and speed trials. One of the latter events was held on the St. Alban's grass track and was won by Bowen, now Wing-Commander of the C.U. Air Squadron, who just beat J. T. C. Moore-Brabazon (the present Parliamentary Secretary to the Ministry of Transport).

It appears that the only pre-war Inter-Varsity contest was a car race held at Brooklands and won by H. W. Cook of Oxford on a Vauxhall, a *marque* on which he has since made quite a name for himself.

The Second Club.

On the demise of this club, a new body was formed in 1913, chiefly for motor-cyclists; no official garage existed, but the club had headquarters in Thompson's Lane. This second club promoted several reliability trials and in 1914 arranged a most successful Inter-Varsity Brooklands meeting when races for cars and motor-cycles were held. Past members of the club were allowed to enter and most of the car races were won by Lionel Martin, at that time driving a Singer.

Soon after this meeting, war broke out and most of the club members enlisted temporarily as dispatch riders, returning later for their commissions.

On the resumption of more or less normal University life after the "Great Unpleasantness," the present club was formed by a group of keen ex-service men, among whom G. A. Jenkin of Trinity was a leading light. Jenkin was the first secretary and it is largely due to his efforts that the Inter-Varsity Hill climb has become a recognised annual fixture. The electrical timing gear at present used by the club was made at this time by A. S. Brereton, son of Lieut.-Col. Brereton

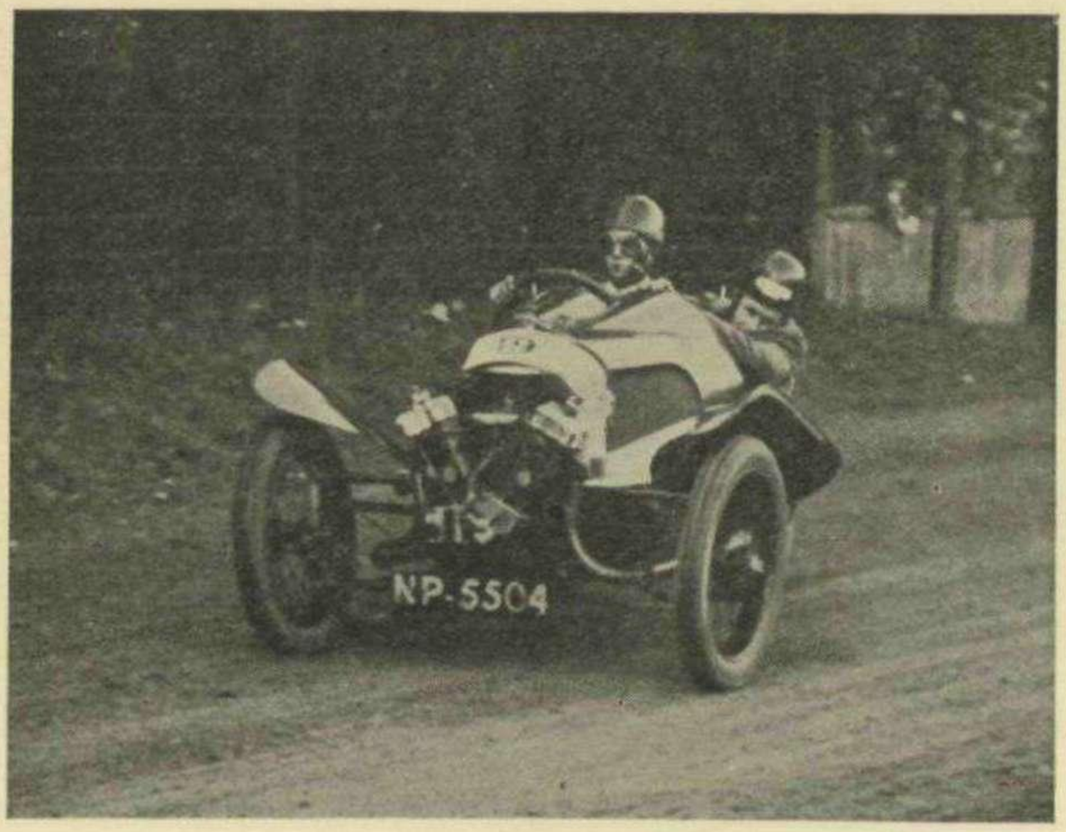
LEADING MOTOR CLUBS—continued.



THE RIDING ABILITY OF THE LATE J. T. A. TEMPLE CAN BE READILY APPRECIATED FROM THIS PHOTOGRAPH.

of the A.C.U. The first President of the post-war club was the Dean of Clare, now a Colonial Bishop in Australia. During the first few years of its existence the club suffered several defeats at the hands of Oxford, the most prominent thorn in its flesh being I. P. Riddoch of the O.U.M.C., whose "90-bore" Zenith usually swept the board at the annual hill climb. These climbs were usually held at Aston-Clinton or Kop Hills and we have vivid recollections of S. J. Bassett ascending the latter hill at an amazing speed on an (apparently) ordinary $2\frac{3}{4}$ h.p. Douglas and winning the 350 c.c. class for Cambridge. Bassett's tuning ability has been even better shown since then as he has attained nearly 90 m.p.h. on a 3 h.p. A.B.C., and is now a prominent performer on racing Austin 7's.

On one occasion an Inter-Varsity flat speed trial was held, when Cambridge lured Oxford to the wilds of Harling Common near Thetford, in the hope that their rivals would be unable to repeat their performance so far from home. In spite of good work by J. G. Good-



R. R. JACKSON DRIVING HIS VERY FAST MORGAN AT ASTON CLINTON IN 1925.



B. E. LEWIS COMPETING IN A C.U.M.C.C. HILL CLIMB ON THE "RODEO SPECIAL" FRAZER-NASH.

LEADING MOTOR CLUBS—continued.

enough and O. G. Smart on Nortons, Oxford again won, largely due to the efforts of Riddoch and Harwood on Zenith's and P. G. Kennedy on his Norton.

It was not until 1923 that the Cambridge Club turned the tables and started the series of annual wins that have lasted till the present date. It will not be underrating many fine riders if we say that these victories were almost entirely due to the late J. T. A. Temple of Pembroke. Starting with a side-valve Norton, "Flop" as he was affectionately called, showed that he possessed tuning and riding ability far and away above the ordinary, not only in Inter-Varsity events but against well-known trade riders with far greater resources behind them. His Norton was eventually rebuilt with an o.h.v. engine in which form it continued to hold its own with more modern machines in open competition. Altogether Temple made fastest time in three consecutive Inter-Varsity hill climbs besides numerous



A. Pershouse (596 cc Scott) Does a Sensational Jump at the Bury St. Edmunds Speed Trials, Icworth Park, 1926.



Only Just! R. C. Symondson Cornering at Icworth Park T.T. 1926.

successes in ordinary Varsity, Public Schools and Essex Club events.

A rider of such ability was naturally greatly fancied for a win in the Amateur T.T., but as is well known Temple met his death in most tragic manner while practising for this event last year.

The performances of Temple, however, must not be allowed to completely overshadow other members who also did their share of quick travelling, perhaps the most prominent being H. S. Eaton (G.N.), B. E. Lewis (Frazer Nash) and R. T. T. Spencer (A.J.S.), while during the last year or two, several new stars in R. R. Jackson and C. A. S. Prowse (Morgans), E. C. Fernihough (New Imperial), S. Wilkinson (Cotton) and R. C. Symondson (Brough Superior) have all shown remarkable skill in high speed work.

The present year has been notable chiefly for an influx of fast Scotts into the club, owned by A. Pershouse, M. Mavrogordato and R. P. H. Stables among others, all of which seem to be unduly fast and all of which have met with deserved success in various parts of the country. During the last few years no very great enthusiasm has been displayed for reliability trials, members seem afraid to get their machines dirty, however, the really zealous riders have enjoyed some good mud "plugging" now and again, sometimes on their own, sometimes in competition with other clubs. Among the most successful trials riders three or four have since become quite well-known in open competition, particularly F. J. R. "Bonzo" Heath (Henderson), the Wills and the Belfields and E. W. T. Howard who ride various types of machine, with a distinct preference for the American species. At the present moment some very enthusiastic people are at the head of affairs, G. F. Simond (trials secretary), has an inexhaustible supply of energy for promoting this that and the other, while C. A. C. Birkin, the hon. sec., is an all round rider and driver of considerable ability as he has shown on numerous occasions.

It will be seen therefore that the C.U.M.C.C., past and present, has always been a "breeding ground" for many of the best known and most enthusiastic figures in the world of Motoring Sport and bids fair to continue the supply so long as it exists. In conclusion we feel sure that all members will join in paying tribute to the popular President, F. J. Dykes, Esq., whose tact and steady guidance has so often helped inexperienced and sometimes over-exuberant committees out of those little difficulties into which they so often plunge themselves.

THE SPORTSMAN'S OLYMPIAD.

Where to look for "FAST MOTORS" at the Show.

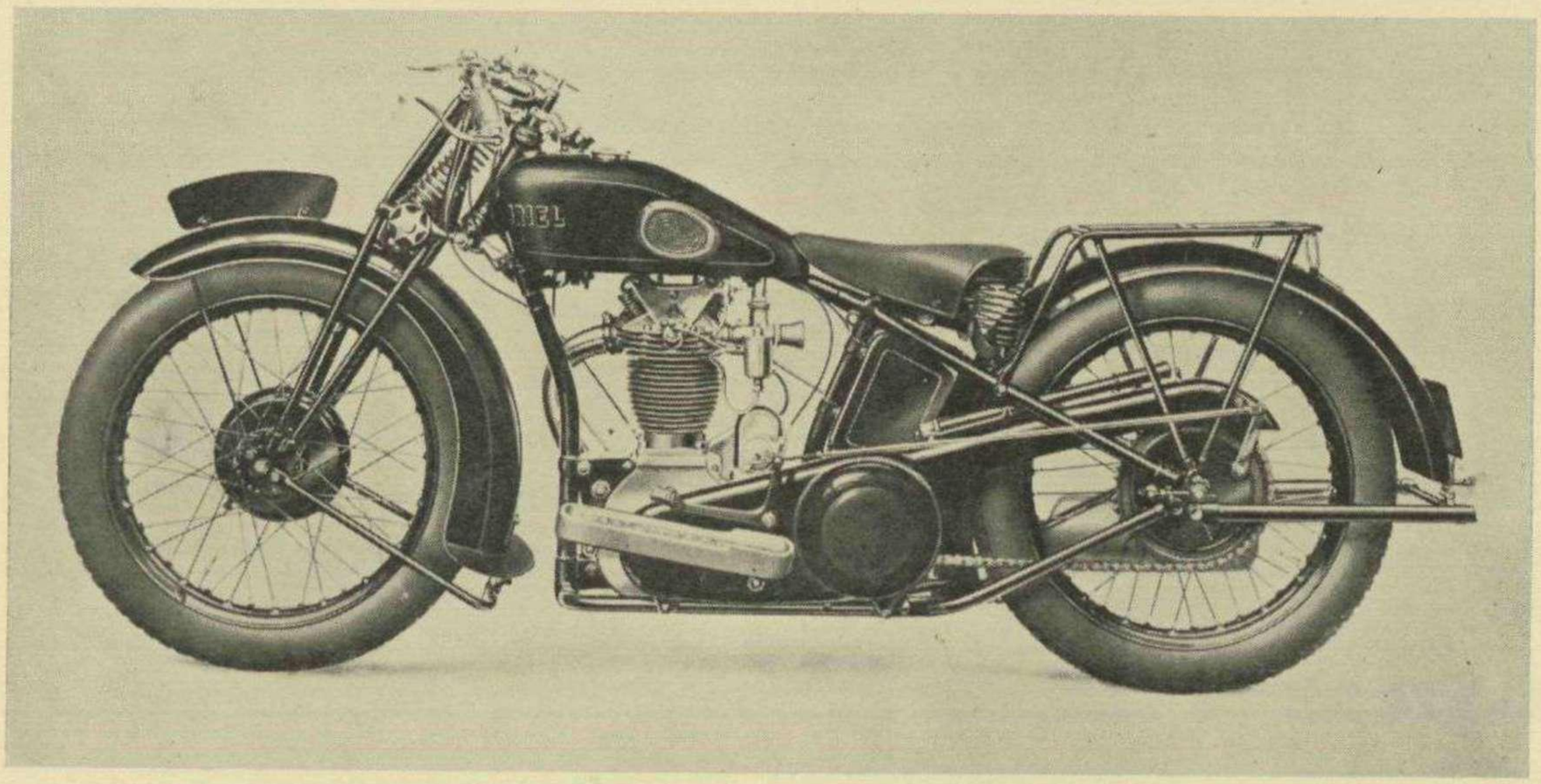
IN spite of the ban on hill-climbs and the very limited number of speed events held on the road during the current year, the demand for machines of the "greyhound" class continues to increase.

In spite, too, of increasing police antagonism to speed and its almost inevitable attendant—noise, we find makers guaranteeing even better performances and producing even more "hotstuff" designs. Where it is all leading to one cannot tell, but it is very evident that the demand for sports models is a real factor to be reckoned with by the makers, when scarcely a stand at Olympia will be without its sports, super-sports, or T.T. model.

Another surprising feature is that so many makers, during recent years, who hitherto had been known only as producers of reliable plodders of the "sit up and beg," side valve type, have now turned their attention to the "o.h.v. 27 inch" saddle height, with steering damper sort of affair, and, furthermore, have succeeded in turning out some really attractive machines.

Alphabetically speaking, the premier example of this is the Ariel, than which there was nothing more "touring" and "reliable" until last year. Then it was that the new engines appeared, one o.h.v. and one s.v., but both remarkably "fruity." Apparently it was quickly realised that a frame that is good at 50 m.p.h. is not necessarily good at 80 m.p.h. therefore the 1927 Ariel has a completely up-to-date cradle frame with a very low-saddle position and a stumpy tank encasing the single top-tube; further features of modern practice include a steering damper, 7-inch brakes, and lastly, a very efficient silencer, the whole machine, of which various models are made, selling at prices between £45 and £55, thus representing really remarkable value for money.

Another firm which, except for one ill-fated splash in 1921, has only just begun to nibble at the idea of something really fast, is our old friend the B.S.A. On Stand 20 we find the popular 350 c.c. o.h.v. B.S.A., which we reviewed last month, and which has proved very popular for fast touring and trials work to say nothing of motor-cycle football! The new 493 c.c. o.h.v. machine, however, should really attract the Brooklands, T.T. and Southport fiend, as its design incorporates so many features desired by this fraternity.



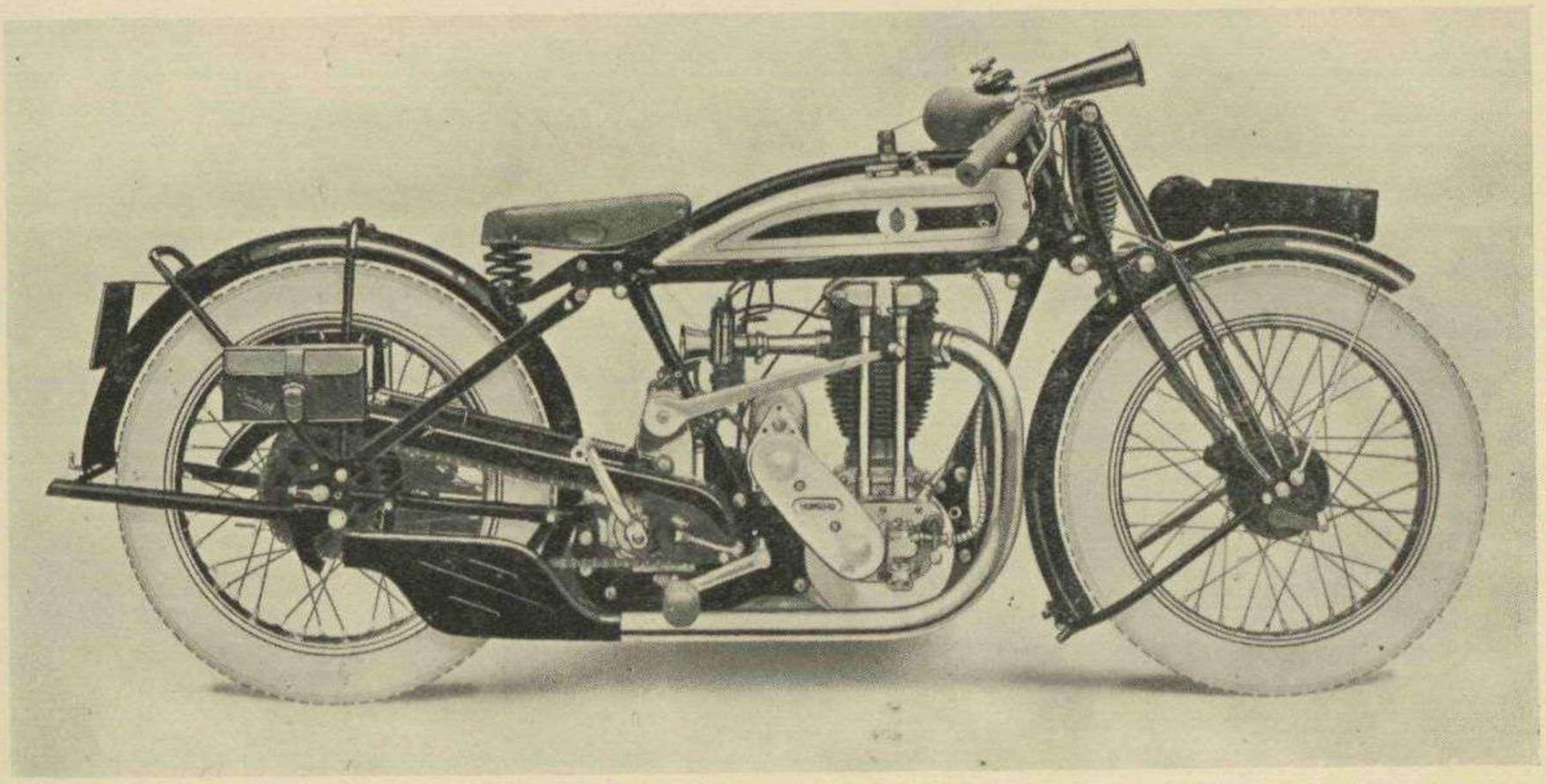
STARTLING CHANGES IN ARIEL DESIGN ARE SEEN ON THIS 1927 DE LUXE SPORTS MODEL.

To begin with, it has a lubrication system, as opposed to "a pump or other suitable device" for inserting oil into the crankcase. Oil is pumped from the sump under pressure to main and big end bearings and timing gear. Lubrication is also provided for the o.h.v. gear and the primary chain.

As regards the machine itself, this has an inclined engine in a duplex cradle frame, with a saddle height of only 25 inches. Apart from these features, everything else conforms to modern racing practise, and the price is £65, which is in keeping with the reasonable prices charged for all B.S.A. models.

In pre-war days the Triumph company used to be most successful in speed events with their standard sports models, and on the introduction of the four-valve machine there were many who hoped for a revival of this policy. However, the model R did not seem quite

THE SPORTSMAN'S OLYMPIAD—continued.



THE NEW T.T. TRIUMPH IN ITS PRODUCTION FORM.

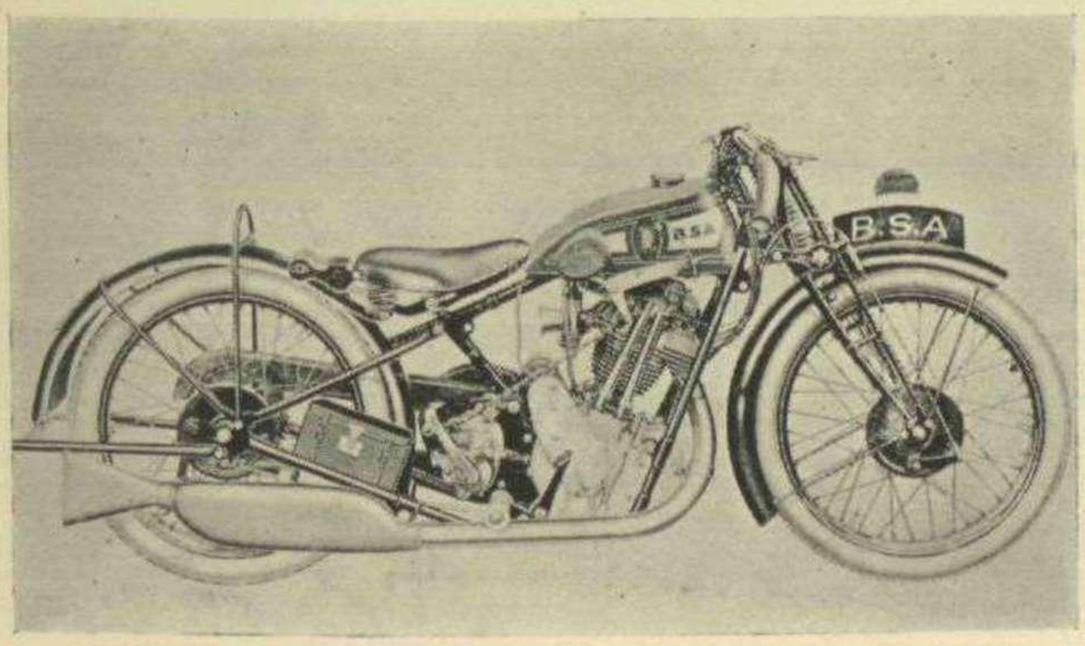
right for ultra racing speeds, so that it is now considered as a reliable fast touring machine, while for 1927 the new Horsman type two-valve machine is produced to cater for the speed-man. From observation it is clear that Horsman's own machine without steering damper is easily one of the steadiest on the track, and compared with most machines extraordinarily reliable. If the production machine embodies these traits it should seriously threaten some of the old established leaders in the 500 c.c. sports class. The price of £66, too, is distinctly competitive.

True to their recent policy, the Scott Motor-cycle Company are marketing their latest I.O.M. model, embodying the lessons of the 1926 T.T. This very interesting machine has the usual Flying Squirrel type of engine with high compression aluminium pistons and water cooled cylinder heads; the carburettor, however, is now bolted directly on to the crankcase, as on the T.T. machines. The three-speed gear box is fitted, and the new type forks and duplex triangulated frame with detachable tank and top tube.

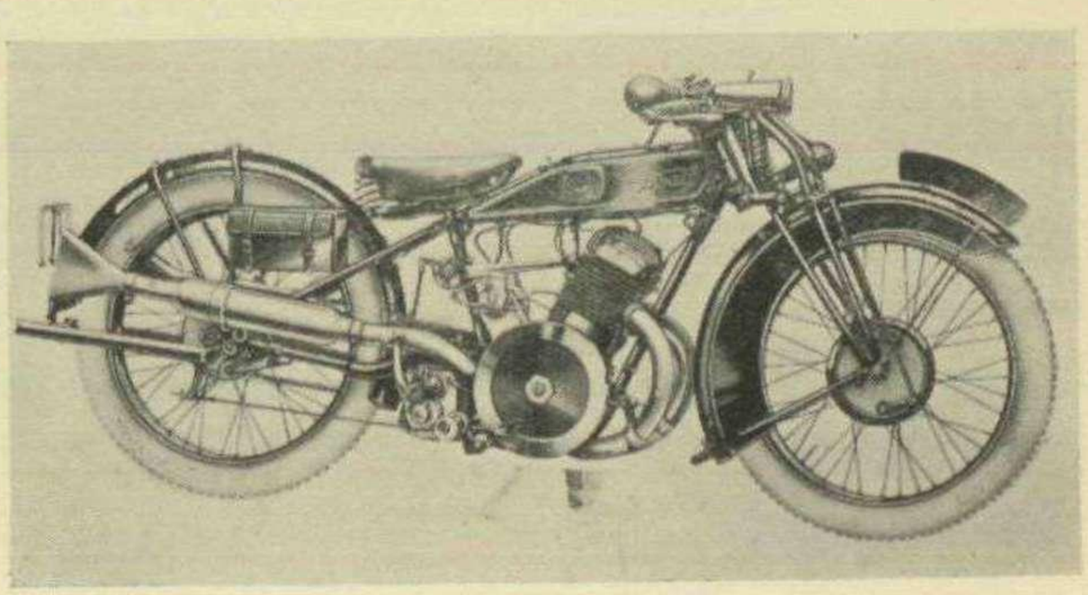
The engine is lubricated by a mechanical pump driven from the magneto shaft. The price with the 498 c.c. engine is 89 guineas.

The only other big two-stroke is, of course, the Dunelt, with its well known truncated piston system. This machine, apart from minor improvements, remains practically unaltered for 1927. It will be remembered that one of these models performed extraordinarily well in the last sidecar T.T. Messrs. Dunford and Elliott are also showing a super-sports model of the 250 c.c. lightweight which has a remarkably high performance. The prices of these two models are £59 10s. and £38 10s. respectively.

A marque that has recently attracted the eye of the sporting fraternity to a considerable degree is the McEvoy. For 1927 the makers are adding a model

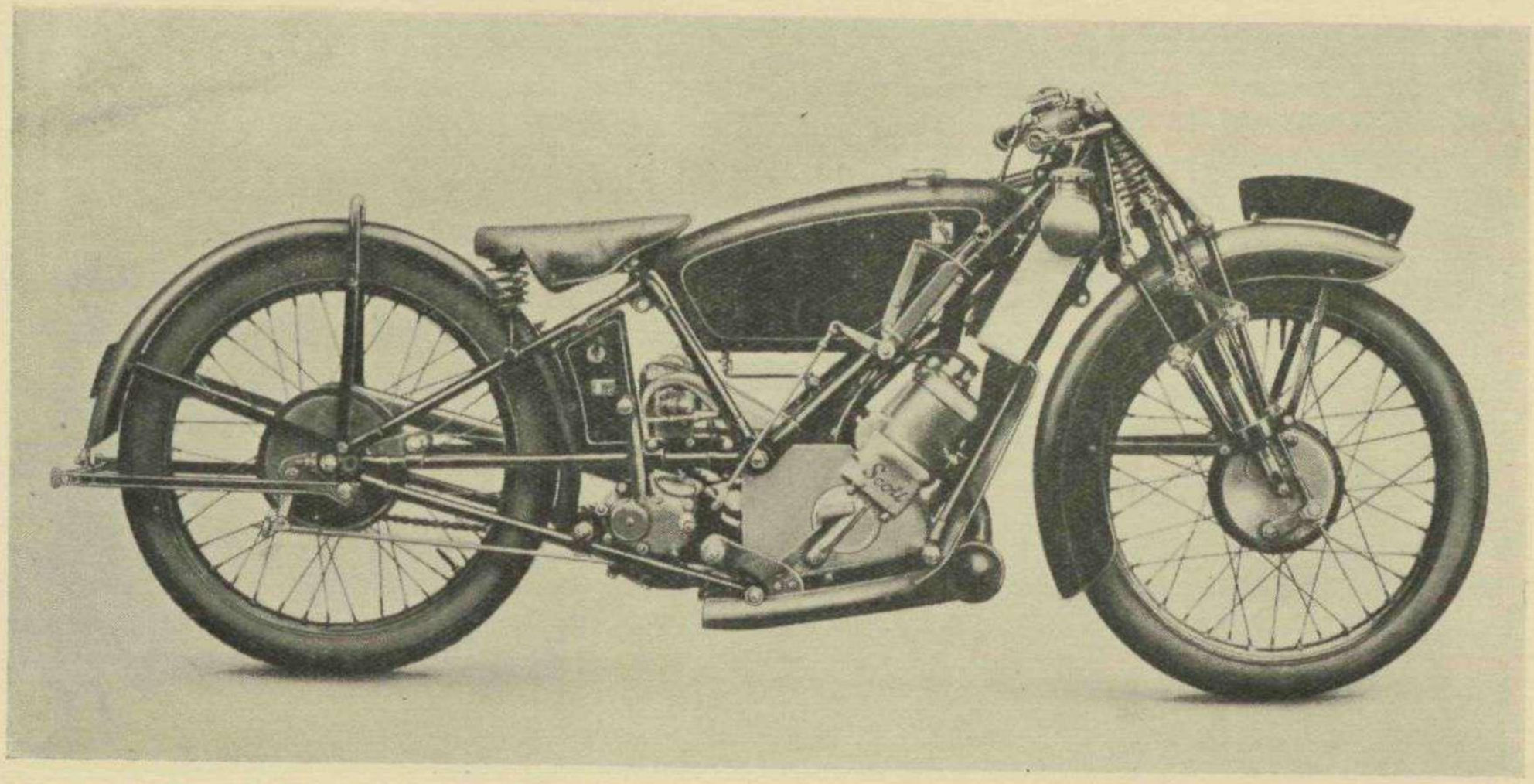


THE REMARKABLE NEW 493 C.C. B.S.A. O.H.V. MODEL.



THE 249 C.C. DUNELT, A SMALL MACHINE WITH A FINE PERFORMANCE.

THE SPORTSMAN'S OLYMPIAD—continued.

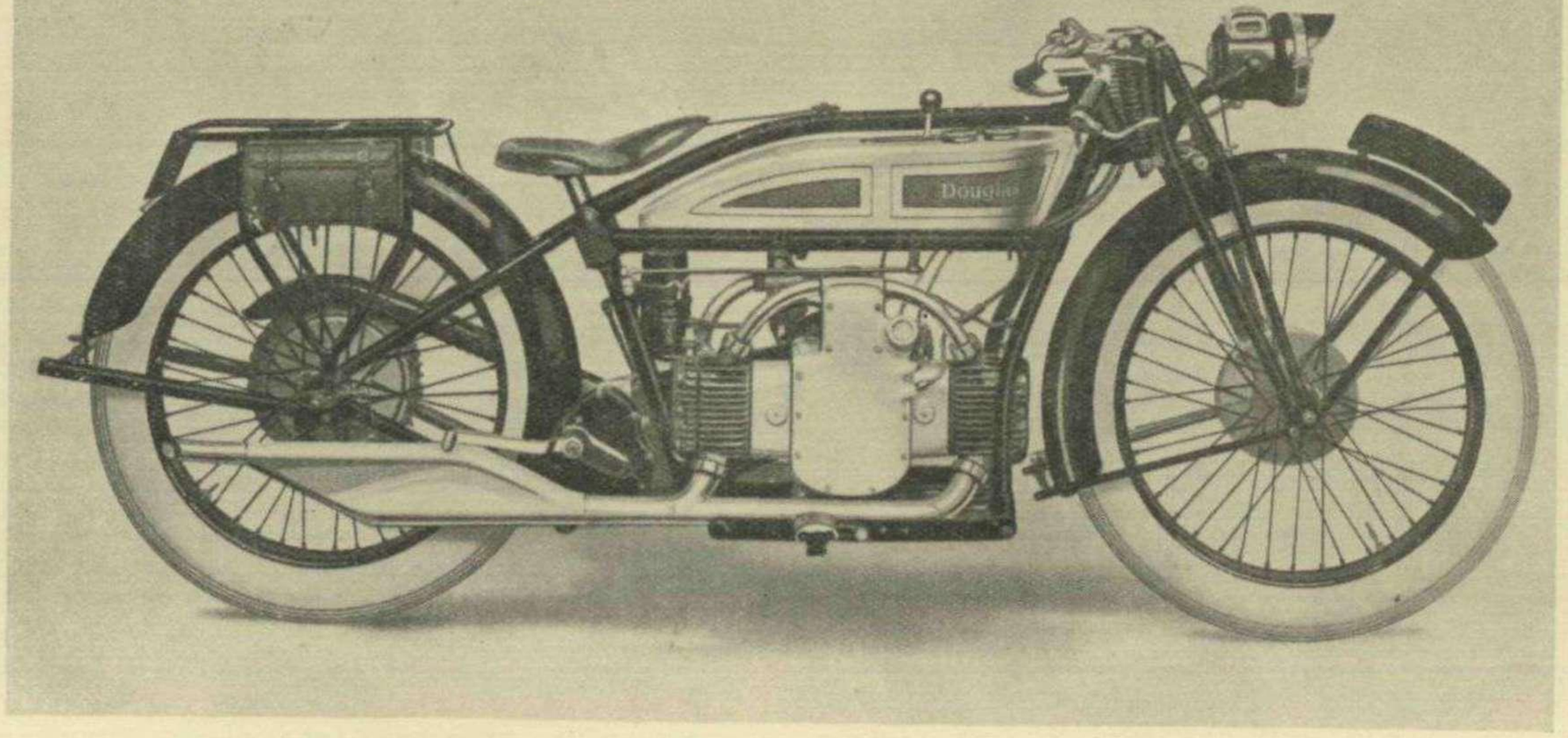


FOR 1927 THE FLYING SQUIRREL HAS 3-SPEEDS AND IS MODELLED ON THE T.T. MACHINE.

fitted with the 8-45 h.p. J.A.P. engine as used by G. W. Patchett in his sensational speed stunts at Brooklands and elsewhere. McEvoy prices have always been competitive, and this year they are better than ever ; the popular " Vulpine " model sells at £99, while the o.h.v. J.A.P. big twin costs £135 ; these, together with the other models, will be on Stand 87.

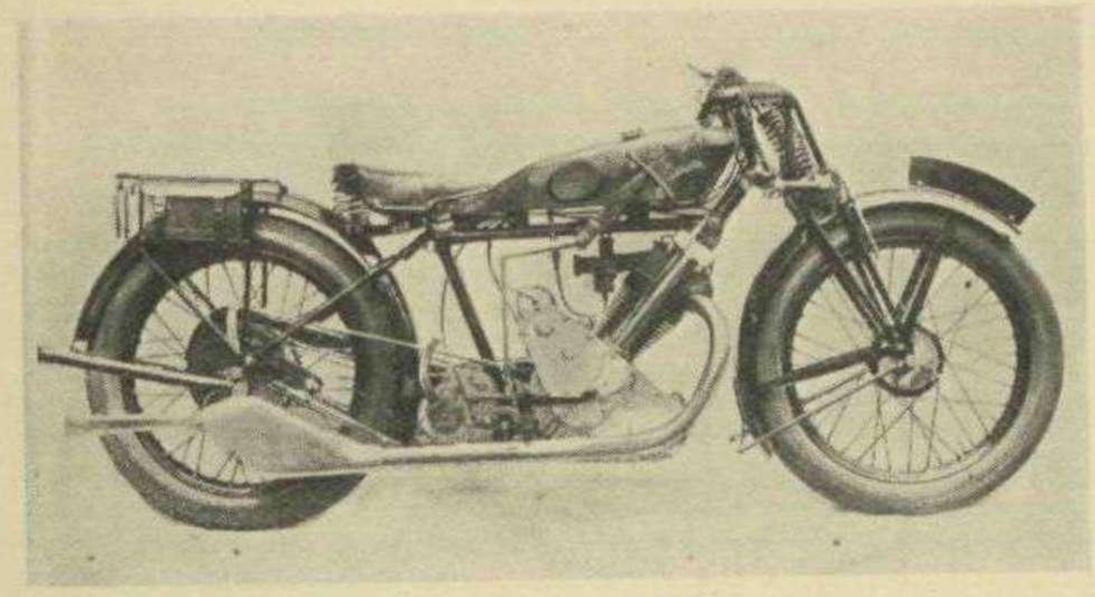
Messrs. Douglas Motors have always believed in racing, and to this end they market the special o.h.v. I.O.M. machines in 500 c.c. and 600 c.c. forms. The bulk of their output, however, consists of purely touring machines ; but this year, however, they are showing " sports " models as distinct from racing machines. The chief sensation is the new 600 c.c. E.W. Model, which closely resembles the wonderful 1926 E.W. in appearance, but has, of course, a larger engine, embodying detachable cylinder heads. For the trials man desirous of all the excellent E.W. features plus a little extra power, the 600 c.c. model should approach very near the ideal.

Great interest is sure to be aroused by the announcement of the first super-charged motor-cycle available to the public. This bold step has been taken by the Coventry Victor firm, who are always well to the fore with bright ideas. A " Berk " supercharger is fitted to one of the well known 500 c.c. o.h.v. models, and pro-



THE NEW 600 C.C. E. W. DOUGLAS SPORTS MODEL, CAPABLE OF APPROXIMATELY 80 M.P.H.

THE SPORTSMAN'S OLYMPIAD—continued.



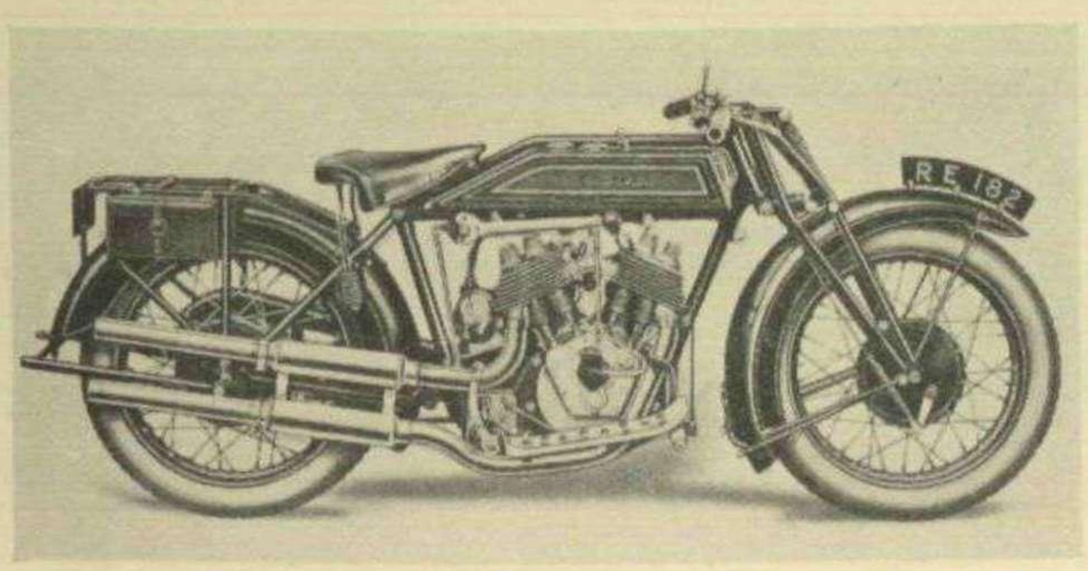
THE 1927 P & M PANTHER OF IMPROVED APPEARANCE.

vided the necessary strengthening of the engine has been carried out, a very remarkable machine should result. The other "talking point" on this stand is a new silencer, which is claimed to be very effective, and which is also marketed separately as a proprietary article.

Since *Motor Sport* road tested the 350 c.c. Royal Enfield J.A.P., this company has produced a similar model embodying an o.h.v. engine of its own design. The chief feature of the design is the neatly enclosed and lubricated overhead valve gear, a feature that should occupy designers' attention far more than it does at present. The Royal Enfield big twin sports machine is also shown—but is the same as last year's model barring a few minor improvements.

A longer taper to the rear end of the tank, resulting in a greatly improved appearance, will be noticed on the various P. & M. Panther models. Some of these machines are supplied with speed guarantees varying from 75 m.p.h. to 90 m.p.h., and provided that the makers have learnt their lesson from the T.T., an always excellent machine should have advanced one step nearer perfection.

Attractive as the Panther may be, it is probable that it will be somewhat outshone in interest by the new "Cuckoo in the Nest" that has been hatched at Cleckheaton. The new Bradshaw effort is, of course, referred to, and as is usual with this gentleman's productions, a furore of excitement and interest is anticipated. As is well known, this is a 250 c.c. V turn with 4 speeds, arranged somewhat on the lines of the late lamented A.B.C. Further to add to its interest is the price, which will be in the neighbourhood of £50.



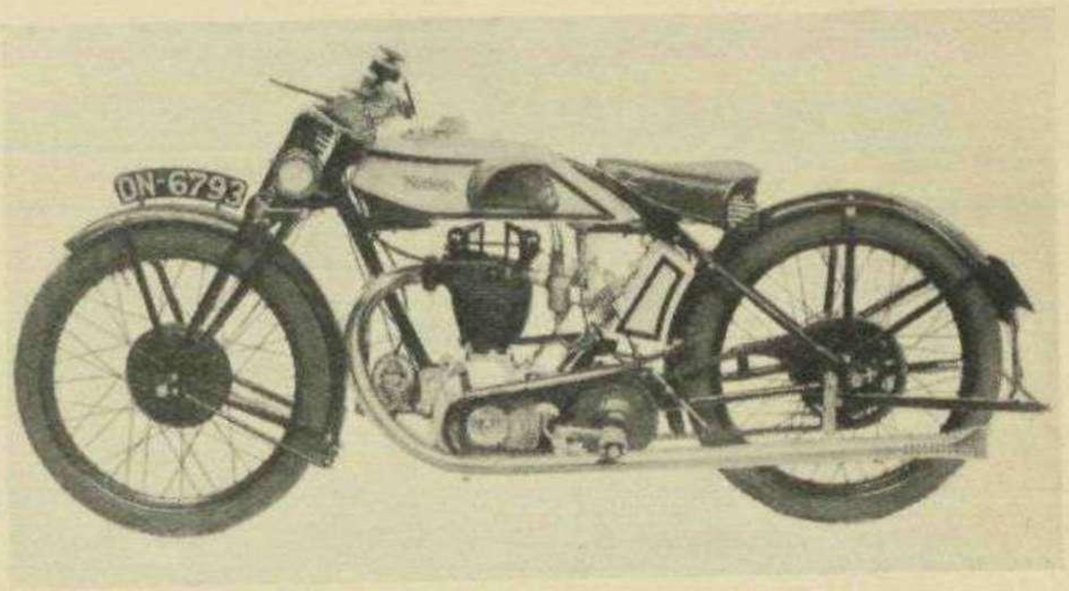
THE 8-H.P. SPORTS ROYAL ENFIELD.

Perhaps the premier sporting single in the world, the o.h.v. Norton, remains practically unchanged, though an exact T.T. replica is now obtainable, with the special lubrication and large tank. Other interesting models on this stand are the 4-speed 490 c.c. o.h.v. machine and an extremely massive and sturdy outfit embodying the 588 c.c. o.h.v. engine and 4-speed gear in the "big 4" frame.

Of the other firms likely to produce sports models made "under one roof" little can be said at the moment, as their policies have yet to be disclosed; however, it may safely be prophesied that Sunbeam, A.J.S. and James will have just as an attractive display of sporting machines as ever, plus those little refinements that appear from time to time, and which tend to enhance their value.

Among various last minute disclosures, of which details (in the usual pre-show rush) are not yet available, are several startling announcements from makers of popular two stroke machines.

In collaboration with the Villiers Engineering Company Messrs. Francis and Barnett are producing a novel 344 cc. twin two-stroke. This will have the two cylinders arranged vertically in a monobloc casting with the crankshaft lying along the centre line of the machine.



THE T.T. REPLICA NORTON NOW AVAILABLE TO THE PUBLIC.

The other surprise emanates from Messrs. Butterfields, Ltd., who, of course, are well known as producers of the Levis 2-stroke. All we can say at the moment is that the new Levis will be a 350 cc. o.h.v. fourstroke, and that if it is as good in its class as the 2-stroke Levis is in its class it will be very good indeed.

In conclusion, of course there is a host of machines which for want of a better name must be classed as assembled jobs. The name must not be taken as derogatory, since some real thoroughbreds fall into this class; J.A.P., Blackburne and Bradshaw engines are most popular, while most gearboxes are either Sturmey Archer or Burman. Round these units many attractive lay-outs have been evolved, and it will be sufficient to remind show visitors that such famous names as H.R.D., Brough-Superior, Zenith and O.K. are the most noteworthy in this class.

With such a galaxy before him, the show visitor may well find it hard to choose his mount for 1927, but it is quite certain that he cannot possibly complain of lack of variety or limitation of choice.



MOTORING SPORTSMEN.

Major F. B. Halford.

By THE EDITOR.

TO most of our readers Frank Bernard Halford is known as the brilliant young driver, who has earned the keen approval of Brooklands habituees at the wheel of a beautiful looking car known as the Halford Special. Beyond that very few people are aware of his other attainments, which as we discovered recently are very considerable.

With the absence of convention for which interviewers are said to be notorious, we burst in upon him the other day just as he was engaged in a job of work at the works of A.D.C. Aircraft Ltd., at Waddon, where his own office is situated, for Major Halford carries on a very large business as an independent consultant and designer of all types of engines for aircraft, motor cars and motor cycles. In fact, if you give him a piece of paper, some pencils, some slide rules and a few things of that kind, then leave him for a few minutes, he will produce a design for any kind of engine with any requisite number of horses that may be desired.

On the day we visited him he was just starting to register the power curves, during a week's continuous test of the new Cirrus Mark II aero engine which he has designed for the company mentioned above, but we managed to induce him to leave the fascinating roar of his wonderful engine to tell us a few interesting details of his career to be duly handed on to our readers.

Personally, we would have preferred to linger in the test house and with a reluctance evidently shared by our victim, retired to a more quiet spot to proceed with the inquisition.

Major Halford was educated at Felsted in Essex and was turned out with a first class public school education, with which he entered Nottingham University to take up engineering studies. With a half apologetical smile he confessed that no diplomas came his way and that later the membership of learned bodies made no appeal to his imagination, so Major Halford carries no string of letters after his name and as far as we can see they would be more or less useless appendages in his case, as he possesses such a vast knowledge of that particular phase of the profession he has adopted.

Early Technical Experiences.

On leaving Nottingham, Major Halford turned his thoughts towards aviation and in 1912 joined the Bristol School of Flying at Brooklands and on concluding his course became Assistant Instructor. His principal job was to teach flying and many who have since become well-known aviators passed under his tuition. Needless to say some of his pupils gave a certain amount of anxiety, but the star turn among his young hopefuls was an individual suffering from the distressing malady of *delirium tremens*, which we understand is not exactly one of the most desirable qualifications for a would-be aviator. The pupil did not show any symptoms of his sad affliction until he was occupying the pilot's seat at a height of several thousand feet and Halford had no end of a time in trying to persuade him that the earth was a very fair place and far less draughty than the upper regions.

We do not know whether this incident had anything to do with it, but soon after Major Halford turned his attention to the purely technical side of aviation and went to Farnborough as one of the first engineers to be engaged in the work of the Aeronautical Inspection Department, which kept him busy until the outbreak of the War. He then joined up with the Flying Corps and went overseas in September 1914 as a pilot, but appreciating his technical value, his superior officers transferred him to a special service and for a long time Major Halford acted as a kind of technical liaison officer between the British and French air services.

Developing a Famous Aero Engine.

In the year 1916, Major Halford received orders to return to England, when together with Mr. T. C. Pullinger, the Managing Director of the Arrol-Johnson Company, he produced the famous Beardmore engine known as the B.H.P. (Beardmore, Halford, Pullinger). This engine was afterwards known as the Siddeley-Puma engine, of which 7,000 were built during the war.

Several other engines owed their design to Halford but few actually reached the production stage on the declaration of the Armistice.

MOTORING SPORTSMEN—continued.

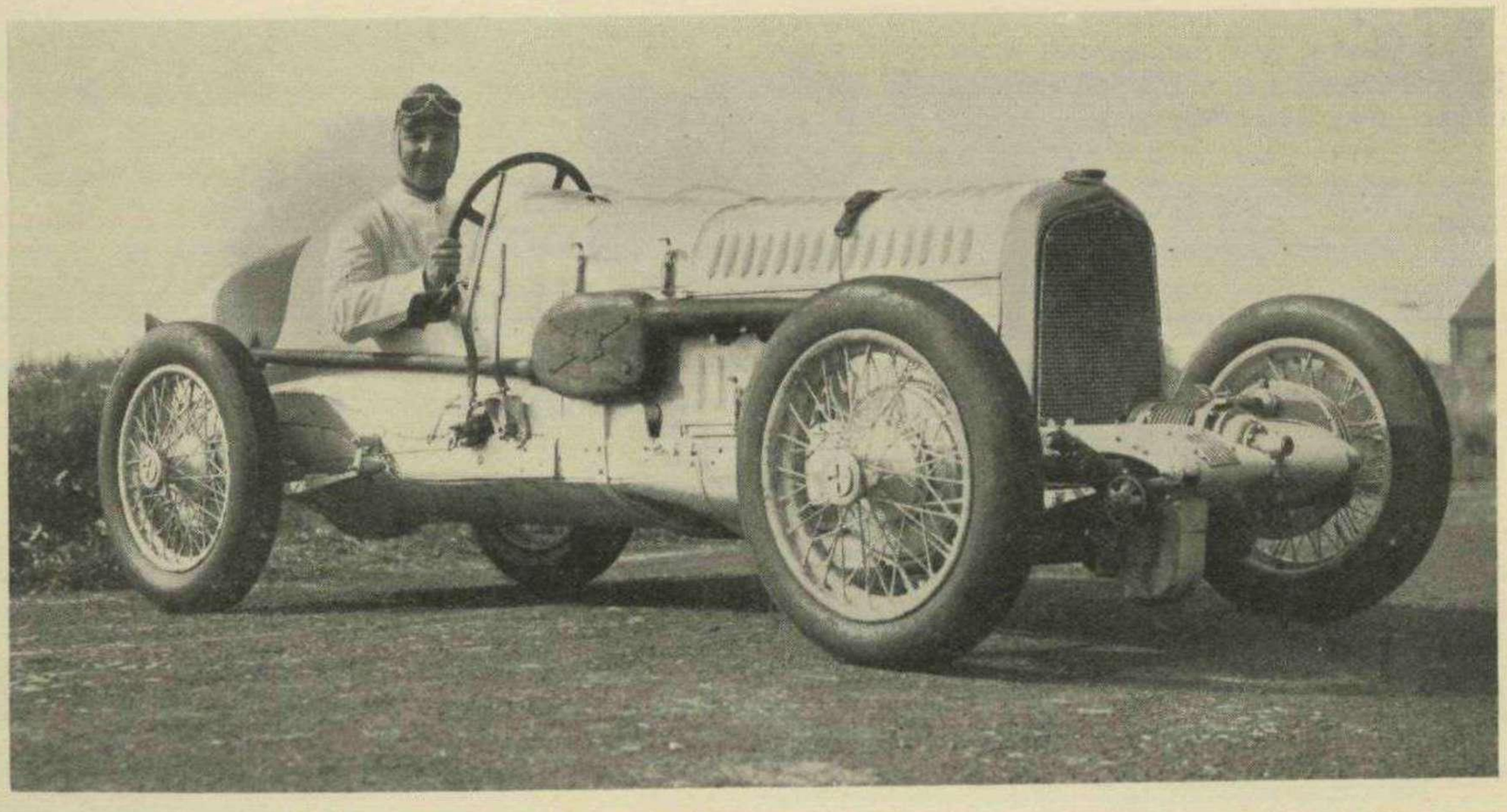
After demobilisation, Major Halford joined Messrs. Ricardo & Co., the famous firm of consulting engineers and for two years was their representative in America, where he negotiated the sale of Ricardo patents and designs. Returning to the London office in 1921, he resumed design work and assisted in the development of many engines for aircraft, cars and motor cycles. Our motor cycling readers will not need reminding that this brilliant young designer achieved fame on two wheels by gaining the 500 cc. hour record at Brooklands on a Ricardo-Triumph engine, for the design of which he was in part responsible.

On the Track.

Major Halford belongs to that rare class of men in whom great technical ability is combined with the highly developed nerve and skill necessary to achieve success on the track. His first notable performance at Brooklands was on the Alvis racer, which he piloted to the fourth place in the J.C.C. Two Hundred Miles race of 1924. He then proved himself to be a driver of no ordinary attainment, though he never makes any attempts to "play to the gallery."

Shortly after the 1924 Two Hundred Miles Race, Major Halford realised that there were considerable opportunities as an independent consulting engineer and leaving Ricardo, determined to branch out on his account. For obvious reasons one cannot indicate the actual firms for whom he acts as consultant, but we may assure our readers that Halford's brains find expression in many of the best known aero engine designs of to-day.

We are at liberty, however, to state that the "Cirrus" engine used in the de Haviland "Moth" was designed by Major Halford, as well as the 300 h.p. "Nimbus" water-cooled engine recently produced by A.D.C. Aircraft Ltd.



MAJOR HALFORD AT THE WHEEL OF THE "HALFORD SPECIAL" WHICH HE DESIGNED AND BUILT.

The Halford Special.

Details of the famous supercharged Halford Special, would alone serve as the subject of a special article and when opportunity permits, we are promised a full technical description of the machine. At present, however, we must confine our remarks in stating that when it first ran in last years Two Hundred it was capable of about 108 m.p.h. and ran into 5th place, since when certain improvements have been made by which it is capable of a maximum speed of over 121 m.p.h.

The remarkable performance of the car and its driver in the R.A.C. Grand Prix is still fresh in the memory of our readers, when the unfortunate collapse of a rear bevel wheel placed it hors de combat, just as it was giving the gravest anxiety to the victorious Delage drivers.

Without knowing anything of its designer and driver, the Halford Special must be looked upon as a wonder, but as soon as one is privileged to learn something about this truly remarkable young engineer, it ceases to be a matter of surprise, for if Halford cannot design a car, nobody can.

Those of us who know that one or two master minds are behind the designs of famous Continental racing engines will not be at all surprised if, in the very near future, firms wishing to develop engines on the lines of real efficiency, will be literally falling over themselves to secure the services and advice of this young man, whose achievements to date are likely to be eclipsed by those for which the future must certainly hold for him.

C



A FEW YEARS OF THRILLS AND SPILLS.

By ERIC PEACOCK.

(Readers of MOTOR SPORT will be interested in this article by the well-known one-armed trick rider and variety artist, who performs such amazing stunts on a motor cycle).

EVEN whilst at school I had a desire to go on the stage, but receiving no encouragement from the " folks," either financial or otherwise, I had to follow my second ambition of going into the motor business, until I had saved sufficient " doings " to purchase the necessary props, which consist of two Velocette motor-cycles and a Watsonian sidecar. Although two machines are always travelled, I use one only, the second being a standby, because in the event of, say, only a sooted plug, there is no time for adjustments when a few thousand people are expecting you to " get on with it."

The machines were chosen for their oiling system and exceptionally strong frame, which were particularly suitable for the type of work in view. Although I did not know it at the time, I was to bless that mechanical oil-feed.

Fuel Restrictions.

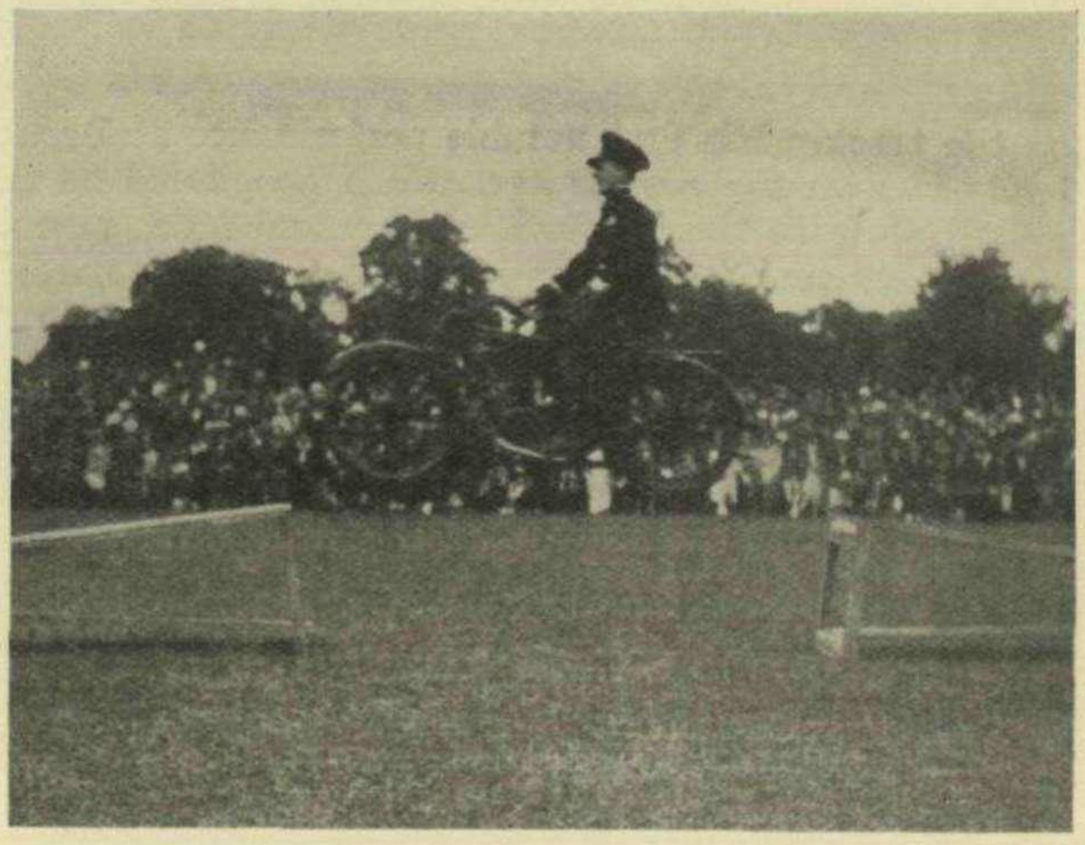
Where I should have been with " petroil " lubrication I don't know, because I found on my first visit to London that the fire regulations allow only half a pint of petrol, which must be soaked in some absorbent material. Now that everything is fixed up, it is remarkably simple, but I must confess to having missed a few nights' sleep before a really workable idea materialised. The container had to be detachable too, otherwise,the machines would have had to be kept *outside* the theatre. Then I had to get used to the altered driving conditions, and this took some weeks. However, we got it more or less perfect in time, and the only trouble I have now is when the wick loses its absorbent qualities and causes the engine to " spit-back " half way through the show. For safety's sake, I have a spare tank ready filled standing at the side of the stage during each performance. The Watsonian was chosen on account of its lightness, strength and quick fittings. I think I must hold the record for fitting sidecars, for without any assistance, I can fix it up in less than a minute. The nuts of course are only finger tight.

My motoring record dates back officially to 1913, although I was fined in 1912 for driving without a licence and being under age. An ambitious constable noted my youthful appearance, and that was that.

In 1916, I ran away from school and started driving a motor-van, much to everybody's disgust, but that job did not last long, and the same year I donned a suit of over-alls and started overhauling motor-bikes for a firm in Barrow-in-Furness. After two years of transfering grime and grease from refractory machines to myself, I graduated into the sales-department and managed to make one collar last all day. During this period I had a bike of my own, and entered for several competitions, amongst which was the Open Hill Climb at Orton Scar near Kendal. In 1920, I made the fastest time in the 500 class on a Norton. Unfortunately in the same event the following year, poor Guy Jefferies was killed.

Starting a New Career.

By the early part of 1921, I had managed to save enough money to start my present act, and in August of that year, severed my connection with the old firm and started rehearsing at a local music-hall. As a youngster of five or six, I could ride a tricycle on two-wheels and in later years could balance a sidecar in the air indefinitely, but when I started to run round a stage, there seemed to be no room for anything. Ask Graham Walker, who tried my bike at the Villa Marina in Douglas during the T.T. week in 1923 ! After a couple of months' hard practice I thought I had achieved wonders by doing a figure eight without dropping the sidecar wheel. Now I can do a double figure eight round three times in a nineteen foot square. Practice certainly makes perfect, but practice is often painful. My an-



THIS JUMPING ACT REQUIRES NERVE AND GOOD JUDGMENT.

THRILLS AND SPILLS—continued.

atomy looked sun-burnt in places during the first few months. I remember being in the sidecar once when the foot-board rod caught in a hole in the stage and the outfit overturned, depositing your humble onto a bunch of keys from a height of something like three feet. After that I called it a day and could not think of motor-cycles for a couple of days. One of Mr. Moseley's Float-on-Air Cushions could have been usefully employed in those early days, but it would not have been fixed to the saddle.

Funny how new tricks suggest themselves at times. One morning during practice, a spectator expressed a desire to have a ride in the sidecar. Thinking to put the wind up him, I did a really hefty right-hand turn, without keeping my weight over the back wheel, with the result that the latter reared up and almost deposited us both into the orchestra pit. Now I can ride in this position as long as the machine will keep going.

My first week in front of the public went through without a hitch or accident. Wish I could say the same of all those that have followed. Slippery stages are my biggest dread. I struck a very bad sample over in Liege when I had a lady assistant. She was doing a balance with her head in my shoulder and her feet in the air, when both wheels went at once. I immediately lost all interest in the proceedings for thirty seconds. Not a long time perhaps, but when the orchestra stopped playing and there was dead silence, believe me, it seemed a lifetime. We managed to carry on with the show, however, and the audience thought we were wonderful. So did I. The Forum Theatre in Liege is a wonderful place, and we worked the act in the middle of a revue. The scenery was very appropriate—an 18th century village setting. There were approximately fifty villagers present when I made my entrance, but three minutes later, it might have been a flag day in Aberdeen. That is only a rather be-whiskered gag though. I am writing this in Aberdeen, and must say that everybody I have come into contact with this week has been exceptionally nice, like the town itself.

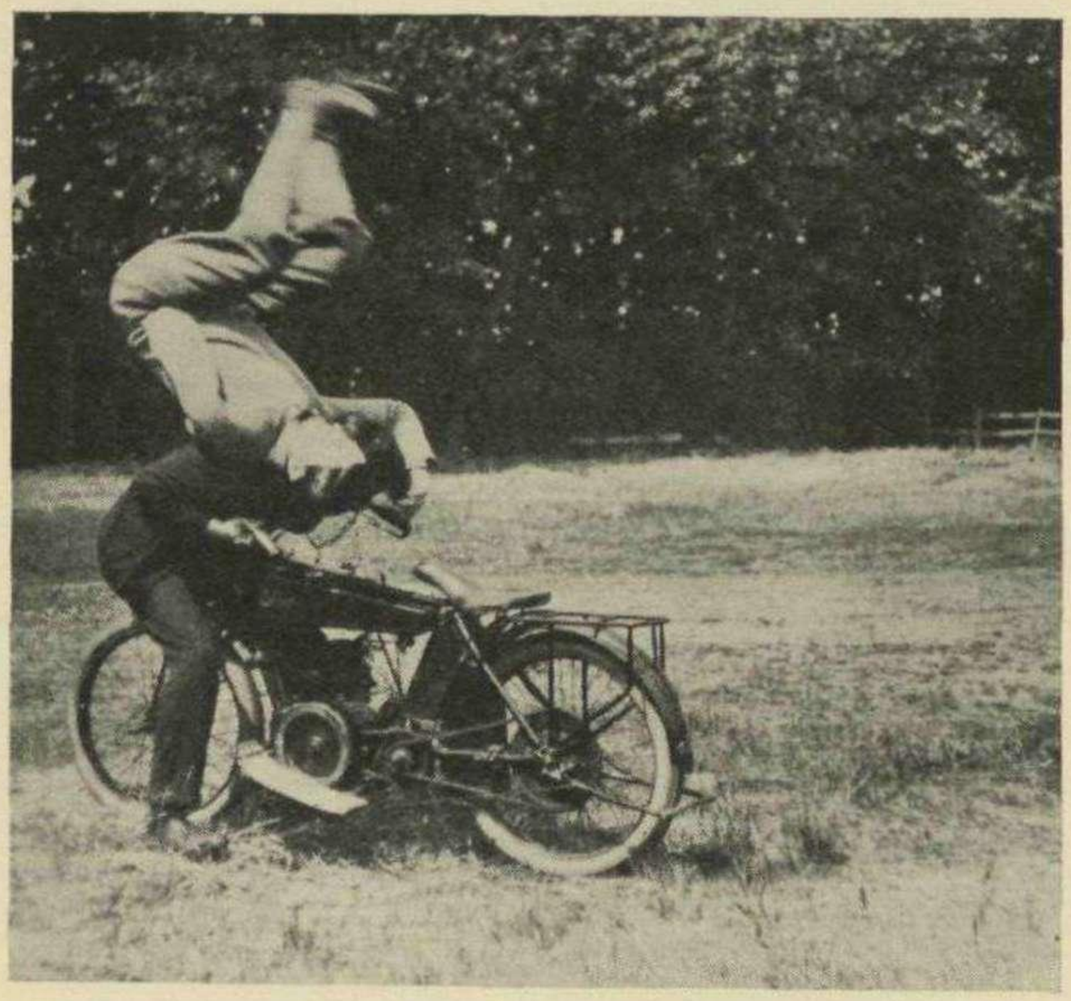
Last week I was in Preston, and as I do all my travelling by road, you will see that I had my fair share of fresh air on Sunday. I run a car (when I have any money), with a bike strapped onto each running-board, and the sidecar in the back seat. Looks like a first class breakdown waggon rolling along, and attracts quite a lot of attention. One garage proprietor wanted to know where the blood was. (Morbid sort of merchant). And another asked me if I didn't trust cars in general and my own in particular. I can always think up a witty reply to these inquisitive people, but unfortunately it usually strikes me a few miles up the road. In spite of long journeys and bad weather, I should hate to go back to train travelling, and although 200 miles of country is enough for anyone to look at in one day, I have frequently done well over 300 without any ill-effects.



A Spectacular Balancing Feat.

Lady Musical-Directors are the exception rather than the rule, and I have only met one so far, and I don't think she was very glad to see me either. Very few orchestras are, and you can hardly blame them. I used to have a habit of running down to the footlights rather quickly, and stopping right on top of them. This lady stuck it up to the point, then let out an unearthly yell and collapsed over the back of her chair. Perhaps there is something wrong with my sense of humour, but this disappearing trick handed me a grin, and several more to the audience. After the first shock, the lady cheered up somewhat, but each night when my Velocette started

THRILLS AND SPILLS—continued.



A RATHER COMPLICATED BUT VERY AMUSING STUNT.

up, she sought refuge behind the cornet player, leaving the orchestra to make its own time. This happened just at the time when the *Daily Mail* introduced their free insurance, so we got a few laughs on that.

In Paris the authorities are very hot on fire restrictions, and the fire-men, all complete with their polished brass helmets, were rather upset to see a "motor-cyclette" upon the stage. One night when the first turn was "on," these upholders of the public safety went round my auxiliary tanks with matches. Fortunately for everybody in the theatre, the tanks were as represented, otherwise there would have been no show *that* night. How the machines ran on their "essence" beats me, I think paraffin vaporises more easily. On the Continent, smoking is prohibited even in the dressing rooms, and as I did not relish spending so much time without a cigarette, I put one into the set, and lit it whilst driving with my feet. Being part of the show, they said nothing. Punctures are not very frequent, but occasionally there are a few odd tacks lying about, and I just managed to finish one night at the Alhambra, Paris, when my front tyre went down. I mended that and then told the stage-manager a few things in English, but I'm not going to say it was good English.

There is one thing about this life, you certainly do see the world, and sometimes get paid for it. I say sometimes, because I signed my Continental contracts when the franc was fifty to the pound. When I got back to England they had depreciated to 90. My assistant was paid in the equivalent of English money, so I was lucky not to be owing myself something. It is very nice on the other side of the Channel for a change, but I should not care to be over there too long. I have never played in Germany, although I should very much like to visit that country. Perhaps we will some day.

I am rehearsing a new act with a bath-chair against the time when I shall be too old to climb on board a motor-bike.

CURLEY FREDERICKS ESTABLISHES NEW WORLD'S RECORD.

U.S.A. Youth makes 120 miles Per Hour for One and One-Quarter Mile Track at Rockingham Speedway, Salem, N.H.

Curley Fredericks, a young Denver, Colo., motorcycle racer, established a new world's record last Saturday, August 21st, at the Rockingham Speedway, Salem, N.H., when he rode an Indian around the one and one-quarter mile track in the time of 37 2-5th seconds which is at the rate of 120.3 miles per hour. This is the fastest time in history that a motorcycle has ever attained a speed of better than two miles a minute on a circular track.

Eight timers held watches while Fredericks circled the broad track oval on his breath-taking ride and all their times checked accurately so there is no question as to the soundness of this record, which is officially sanctioned by the American Motor-cycle Association. The old record of 117.4 miles per hour was officially smashed on the previous day by Jim Davis of Columbus, Ohio, also on an Indian. Davis made the time of 118 miles per hour and was hailed as a sure record smasher. However, Fredericks' performance on Saturday superseded the Ohio boy's record.

Fredericks not only established a new record but also took first places in both the 25 Mile Races, his best time being 14 minutes and 29 seconds at an average speed of 104 miles per hour.

The Stelvio Pass as a Race Course.

A hill climb was held recently up the famous Stelvio pass, from Spondigna to the top of the serpentine pass. The favourite was Morel on an Amilcar, but he was unfortunately disqualified as the ballast which he had to carry in accordance with the regulations became disconnected. The best time was made by Montarini on a 1500 c.c. Bugatti in 31m. 30s. Piacci was the winner in the 1100 c.c. class and Rosa (O.M.) in the 1500 c.c. touring class. The two-litre touring class was won by Puccini (O.M.) and the unlimited class by Strazza on a Lancia. It is considered that this hill-climb is one of the most sporting that has ever taken place as the gradient is very stiff and the number of turns make ascent difficult.

The Reappearance of the A.B.C.

Motor cycle readers will learn with great interest that that very efficient machine, the A.B.C. is shortly to make its reappearance in a still further improved form, for according to latest information Messrs. Phelon & Moore, Ltd., of "Panther" fame, have secured the rights for its manufacture. The new model is to have a 60 degree engine of 250 c.c. set across the frame, with a unit gearbox and the weight will be under 200 lbs. The price, it is understood, will not exceed £60 and though the production will not be on a large scale for some time, deliveries may be expected in the NewYear.

OBSERVATIONS ON THE SIX DAYS' TRIAL.

Extracts from the Official Report on the Results of the Recent International Test.

IN their introduction to the official report, the A.C.U. stewards state that, in their opinion, the course as a whole was more strenuous than in any previous trial of the series, and that although the number of retirements was considerably less, the route was well chosen and a severe test for both the vehicles and their drivers. They record the fact that the condition of the machines which finished was generally much better than in previous years, and that the standard of driving also showed a considerable improvement. A great deal of tyre trouble was experienced, and it would certainly appear that the tyres are the least reliable part of the modern motor cycle.

From a Technical Point of View.

The salient features of the report by the Chief Technical Observer, Prof. A. M. Low, M.I.A.E., are as follows :—

Although the total distance covered was approximately 800 miles, that distance was probably equivalent to 5,000 miles of average touring. The surfaces encountered were rough, and the average hill gradient was approximately 40 per cent. higher than would have been encountered on ordinary main roads. The road holding capabilities and frame strength of the modern machine were demonstrated by the ability of over 70 per cent. to complete the course without damage to frames or working cycle parts. On account of the tortuous nature of the route the riding conditions subjected every control and accessory to a searching test, which the high standard of driving maintained by the riders could not counteract.

Few Departures from Standard.

Although the use of standard machines was not called for by the regulations, examples of departure from commercial design and equipment were in the minority. There was a noticeable tendency towards the lowering of the centre of gravity by improved methods of cradling the engine and by the use of duplex frames, with a general improvement in the necessary degree of rigidity. In most cases frames were so designed that flexing could not produce an increase of vibration or lack of steadiness. It is worthy of mention and was observable upon several occasions that road holding capabilities were not always secured by low engine position. The ground clearances of some machines were rather low for use over rough country, but the adoption of a unit system of construction is providing a satisfactory compromise.

Engine Details.

It is only possible to indicate briefly the many technical details in which engines have improved during the year. More care would appear to have been devoted to the arrangement of cooling fins. That an engine may be capable of operation without loss of power for long periods on low gear was amply demonstrated, and it was most noticeable that those engines which could maintain a low temperature were more reliable, clean, and silent. These qualities are of the utmost importance, and it is unfortunate that such minor points of design as the provision of extra heavy engine lugs, the enclosure of sprockets, and overhead gear lubrication, should have been largely confined to the heavier classes. Proper enclosure of all working parts can undoubtedly be achieved, and with the increase of power-weight ratio some slight consequent sacrifice of efficiency is of less importance than general comfort. Lubrication systems are now satisfactory, but more positive methods for transmission lubrication are becoming desirable on all machines. The increasing popularity of the motor cycle amongst all classes or unskilled riders, renders it necessary that direct control of lubrication should be removed from the hands of the driver.

Silence.

Although there is a general improvement in the degree of silence of most motor cycles, increased engine efficiency renders this quality more difficult to attain. As has been consistently urged in these reports, it is essential for a further improvement in the degree of silence to be accomplished, only the relatively small number of motor cycles at present on the road has rendered their noise in any way tolerable. Mechanical noise has been reduced. All exposed working parts lead to noise, which is objectionable, unnecessary and inefficient. Much more attention might be given to the incorporation of silencers as a normal part of the engine design, as it is practicable to reduce the silencer capacity to convenient limits by breaking the wave frontage of the exhaust discharge.

A NOVEL EXHIBITION AT OLYMPIA.

Alexander Duckham & Co.'s exhibit of non-gumming, non-freezing 'ADCOL' lubricants includes a petrol engine turning at high speed and illustrating one way in which unsuitable oil reduces efficiency. The valve mechanism can be examined by means of a special lamp, which renders visible the action of rapidly moving parts somewhat in the same way as the slow-motion cinema does. Thus the delayed closing of a badly lubricated valve can be watched, although actually it occupies only a few thousandths of a second.

A SILENCER PROSECUTION.

A prosecution of a Zenith rider of a 6-80 Zenith fitted with the maker's standard silencer was heard a few days ago.

The Bench were invited to hear a demonstration but after hearing arguments by Mr. H. R. Briant of the A.A. and evidence by Mr. F. W. Barnes of Zenith Motors Ltd., they dismissed the case as they were satisfied that the Silencer conformed to the Act.

THE AUTUMN MEETING OF THE BROOKLANDS AUTOMOBILE RACING CLUB.



THE FORTY-FIRST 75 M.P.H. SHORT HANDICAP.

THE closing meeting of the B.A.R.C. produced some very good racing, of which the outstanding feature was the performance of J. P. Parry Thomas, who at the wheel of his Leyland-Thomas created a new record for the fastest race ever run on the track, and for the fastest standing lap.

Notwithstanding the excellent programme, the meeting did not draw anything like the expected crowd, and from the attendance it would appear that there is room for a " Brighter Brooklands " movement.

The Forty-First 75 m.p.h Short Handicap.

The first car to get away was a 7 h.p. Fiat driven by E. Longden, which with a start of 1m. 38secs. held his lead for three parts of a lap when he was overtaken by A. Whale on his ancient single seater Calthorpe. At the end of the first lap the latter held a good lead, being followed by the little Fiat, a four-seater Alvis piloted by J. W. Warner, J. Taylor's Bugatti, and Captain A. Whaite on his speedy Austin Seven.

In spite of the fact that Taylor's Bugatti and Gillow's Riley were at the top of their form, Whale managed to show a clean pair of heels, and though challenged strongly by the two last-named cars when nearing the finishing line, gained a well deserved victory at an average speed of 77.61 m.p.h.

The Fifty-First 100 m.p.h. Short Handicap.

Nine starters lined up for this race, with J. G. P. Thomas (Leyland-Thomas) scratch. Profiting by their starts, E. L. Meeson (30-98 Vauxhall) and E. Poppe on his much improved Rover found themselves very well matched, and indulged in an exciting little tussle. At the end of the first lap the Rover was leading, the Vauxhall and two Bugattis following closely. When on the Byfleet banking on the second lap Meeson brought his car along at a very fast pace, and overtook Poppe, increasing his lead to six lengths when the fork was reached. Staniland (Bugatti), Newman (3-Litre Austro Daimler) and Densham (Bugatti) following in the order named, with Thomas bringing up the rear in his characteristic style, but as so often happens his handicap proved too great. Meeson maintained a comfortable lead and beat the Rover by 40 yards, Staniland (Bugatti) running into the third place. Meeson's speed on the Vauxhall was 95.13 m.p.h.

The Twenty-Sixth 90 m.p.h. Short Handicap.

J. G. P. Thomas fulfilled the role of scratch man competing in the race at the wheel of Mr. F. L. Rapson's Lanchester. At the end of the first lap Captain A. Waite was leading on his Austen Seven, followed by G. N. Norris (Lea-Francis), J. Taylor (Bugatti), A. B. Elford (Amilcar), and Capt. Campbell (Bugatti). Capt. Campbell's Bugatti has a new type of front axle guided locomotive type blocks and with cantilever front springs, a modification which appears to improve the track holding abilities of the car. On entering the railway straight Waite was still leading, but Taylor had beaten Norris for the second place, and eventually won by 15 yards from Poppe. The winner's speed averaged 89.44m. p.h.

The Thirty-Sixth Lightening Short Hanicap.

This race only attracted four starters, who were George Newman (Austro-Daimler), 38 secs., J. D. Barclay (T. T. Vauxhall), 30 secs., Kaye Don (Sunbeam), 24 secs., and J. G. P. Thomas (Leyland Thomas), scratch. At first it appeared that Newman would be able to win as for nearly two laps he led from Barclay and Kaye Don, but shortly the latter took the lead until Thomas, who had been watching his opportunity, streaked down from the banking and won by 10 yards from Kaye Don at 115.97 m.p.h.

The Forty-First 75 m.p.h. Long Handicap.

As fifteen competitors lined up for this event the spectators were treated to a prolonged sorting out

THE AUTUMN MEETING OF THE B.A.R.C.—continued.

process, but at the end of the first lap J. W. Warner (Alvis) was running well ahead on the field, with G. Duller (Austin Seven), R. F. Oats (O.M.), A. E. Whale (Calthorpe), and Capt. A. J. Miller (Wolseley) following in a close bunch. The cars were still in close company when the fork was passed for the second time, when Duller was leading from Oats and Vernon Balls' Amilcar. On reaching the railway straight a ding-dong battle ensued between Duller and Balls, and the last-named worked into first place when Purdy on his Bugatti swept through the field, followed by E. Poppe and a bunch of eight other competitors. At this stage Purdy's speed enabled him to run home a good winner at 96.41 m.p.h., with Poppe (Rover) and G. N. Norris (Lea-Francis) second and third respectively.

The Fiftieth 100 m.p.h. Long Handicap.

F. L. Meeson (Vauxhall) soon established a good lead from a field of seven, and at the end of the second lap had maintained his position, followed by J. G. P. Thomas (Lanchester), Barclay (T. T. Vauxhall),Malcolm Campbell (Bugatti), and F. C. Clement (Bentley). Meeson maintained his lead throughout, but when passing the fork for the last time Barclay overhauled Thomas, who eased up and finished a very bad third. The winner's speed was 96.37 m.p.h.

The Twenty-Sixth 90 m.p.h. Long Handicap.

G. Duller on a Super-charged Austin Seven was allowed one minute 13 seconds start, and at the end of the second held a good lead from G. N. Norris (Lea-Francis), E. K. Rayson (Bugatti), J. Taylor and H. W. Purdy on similar machines, E. L. Meeson (Vauxhall) and J. G. P. Thomas (Lanchester). As the race drew to a close Duller was stilll leading, but Norris was gradually reducing the distance between them, whilst Purdy and Meeson were well in the running. Tyre trouble spoiled the chances of both Duller and Meeson, leaving Purdy to win at an average speed of 97.31 m.p.h.



A Scene in the Paddock.

The Thirty-Sixth Lightening Long Handicap.

This, the last event of the B.A.R.C. season, was most interesting in that J. G. P. Thomas added further records to his credit. At the end of the first lap F. C. Clement was leading on his Bentley, closely followed by Capt. Campbell on his Bugatti, and Kaye Don (Wolseley Viper). J. D. Barclay drove his T. T. Vauxhall at great speed while Thomas was gradually reducing the distance between his car and the other competitors. Then Capt. Campbell, who was in excellent form, took the lead, and for a time was in front by practically the whole length of the railway straight. Thomas then swept through the rest of the field and started in pursuit of the leader, whom he overtook and won the race by forty yards, Barclay being third a quarter of a mile behind.

Thomas's average speed worked out at 121.20 m.p.h, which is a record speed for any race on the track. He also established a new record for a standing lap at 110.19 m.p.h., and during the race he was officially timed to lap at 127.70 m.p.h.

New Records for Eldridge.

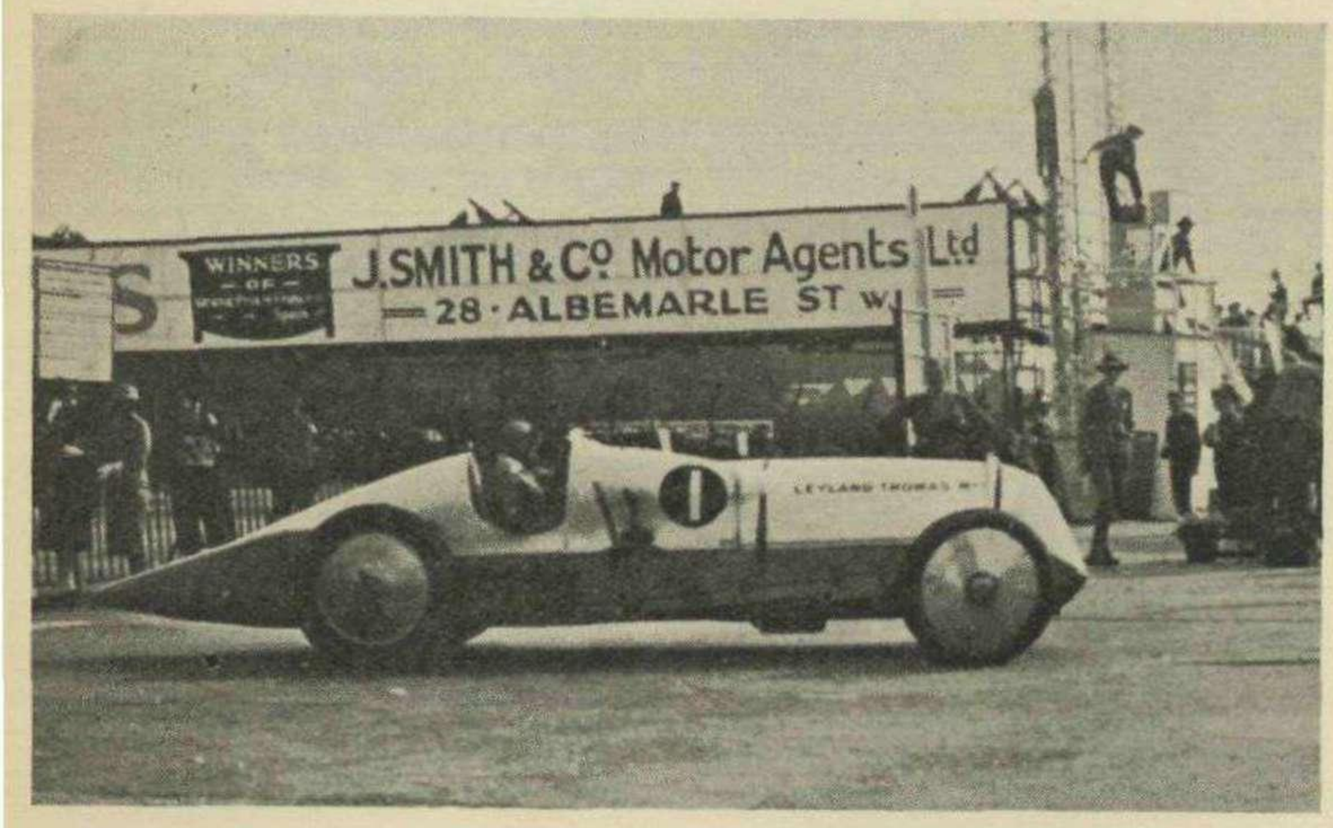
On his return from Indianopolis, E. A. D. Eldridge brought with him a two-litre straight-eight miller racing car, a special crankshaft to transform the engine to a 1500 c.c. model. With the American type of narrow single-seater body Eldridge broke three short-distance class records at Montlhery recently. Five kilometres were covered in 29 5-100s average 125 m.p.h. 59 as compared with the previous record of 1m. 56 70-100s' set up by Staniland on a Bugatti. The five mile record for this class was lowered from 2m. 38 58-100s to 2m. 27 7-100s Elddridge making a speed of 122.38 m.p.h. His time for 10 kilometre being 3m. 4.87-100s or 121 m.p.h. compared with 3m. 59.70-100s.

According to " The Motor Trader " another American car on European lines is promised. It will have a Knight sleeve valve engine and " the speed ability of the European Knight motor cars is incorporated in the new product."

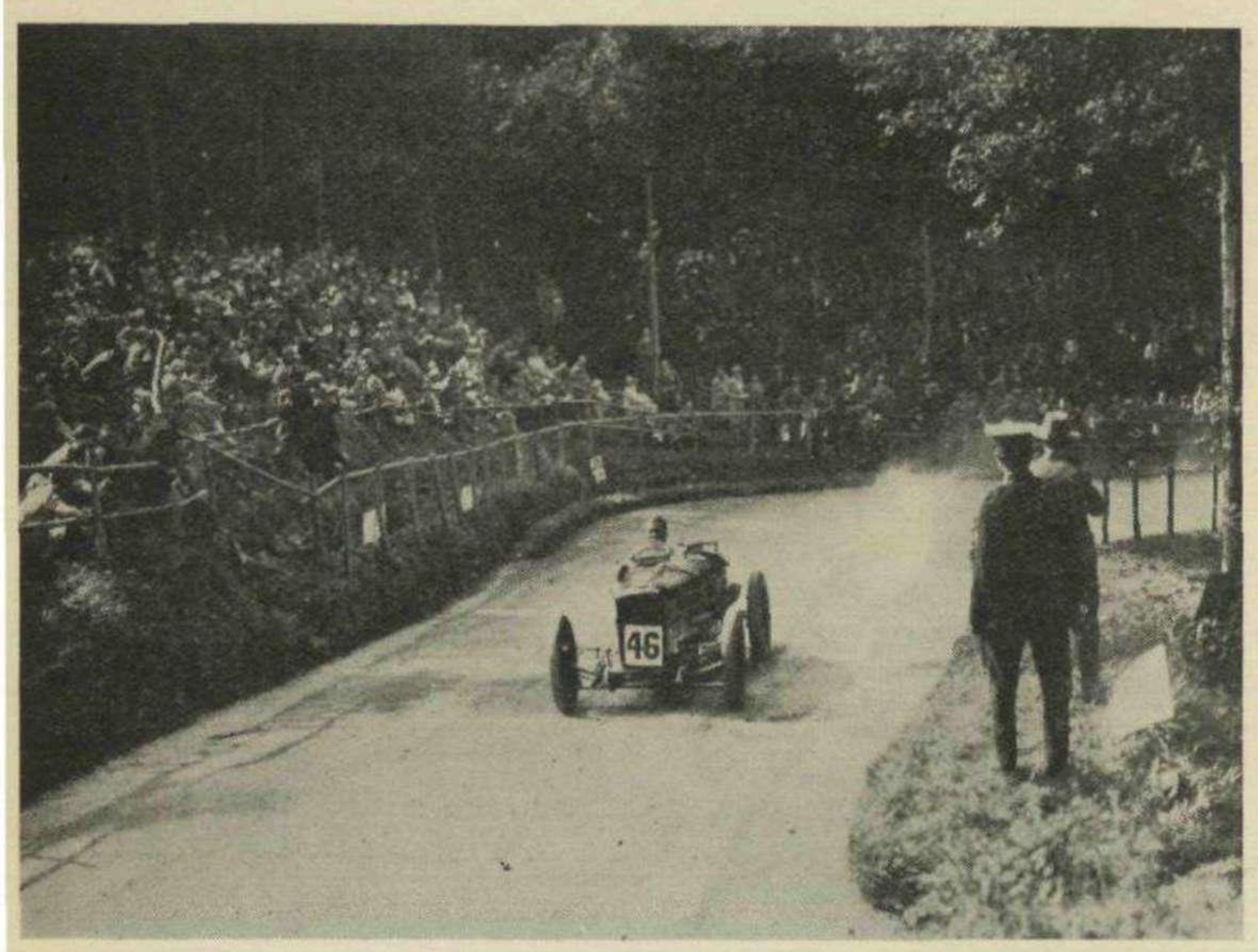
BOGGED.

Many motorists do not appreciate the danger and inconvenience that may be caused by parking their cars or even attempting to turn them, on soft ground. The R.A.C. has dealt with a number of cases this year under its " Get you Home " Service where a car owner has placed his car on a piece of grass by the roadside, or in a drive in a wood, or even on the beach at the seaside, and owing to the fact that the rear wheels have sunk in, has had to be towed out by an R.A.C. relief car. A case recently occurred where the owner of a large car was endeavouring to turn it near Dungeness, and in doing so, got off the hard road, sank up to his axles in the soft shingle, and had to be rescued by the R.A.C. The majority of such accidents could be avoided if drivers would first ascertain the nature of the ground they proposed to use before leaving the actual highway.

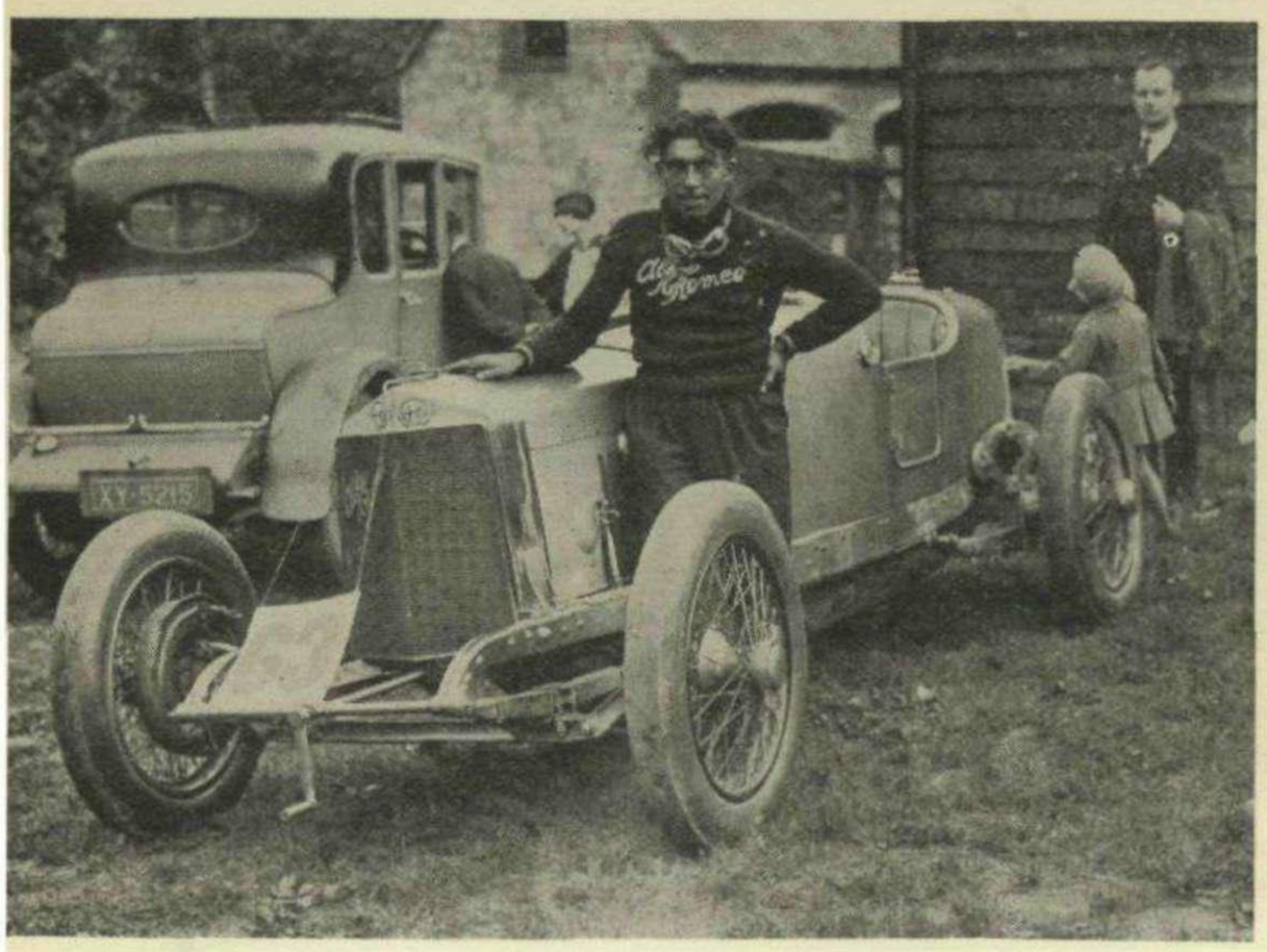
Recent Sporting E



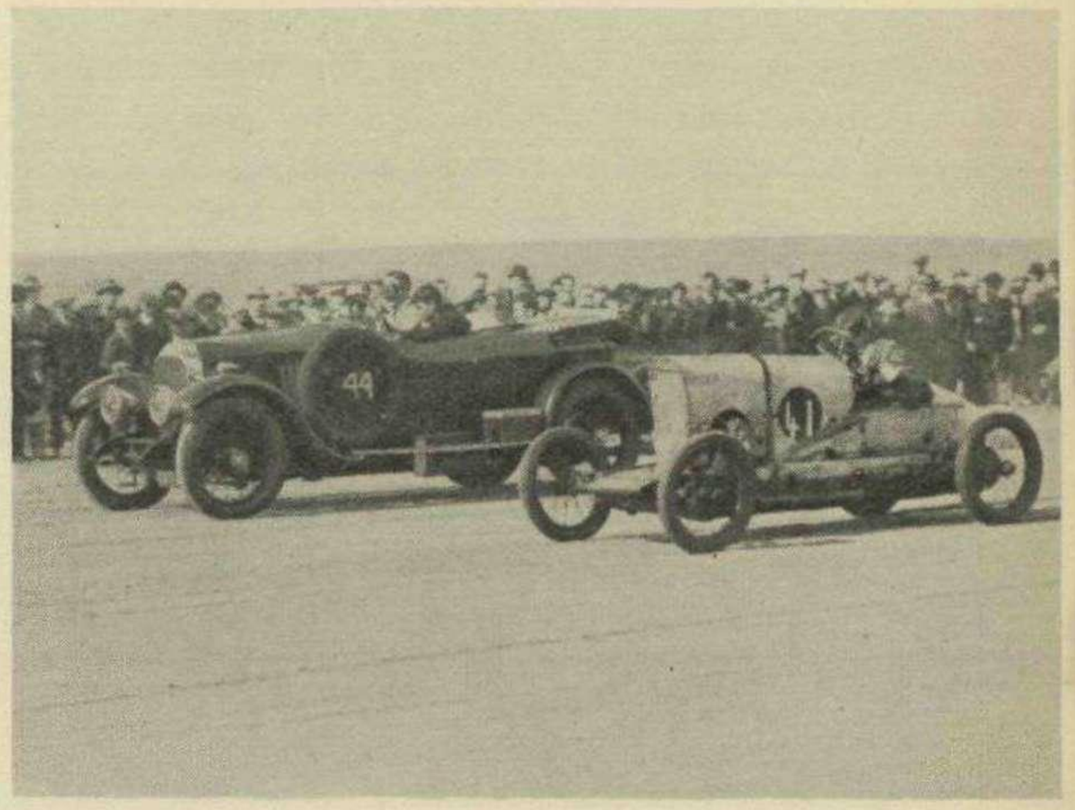
J. G. P. Thomas, who won two races on the Leyland at the Autumn Meeting.



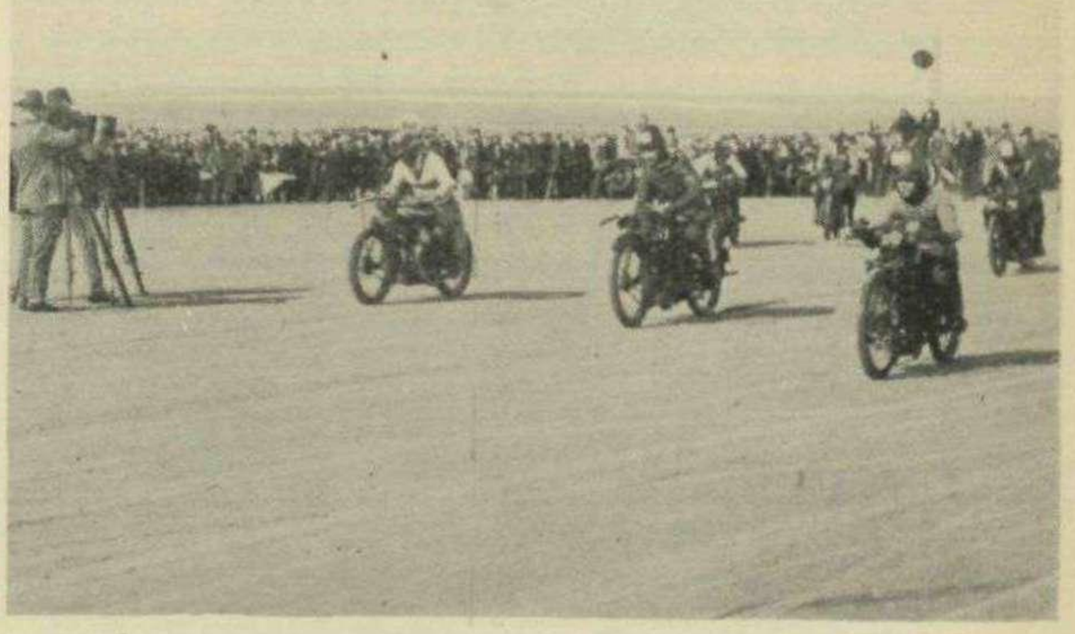
Cyril Paul, now driving a Sunbeam, at Shelsley Walsh.



V. Rosa, who drove an Alfa Romeo at Shelsley Walsh.



D. Higgin and B. H. Davenport competing in the Liverpool M. C. Meeting.



Competitors accelerating off the mark at Southport.

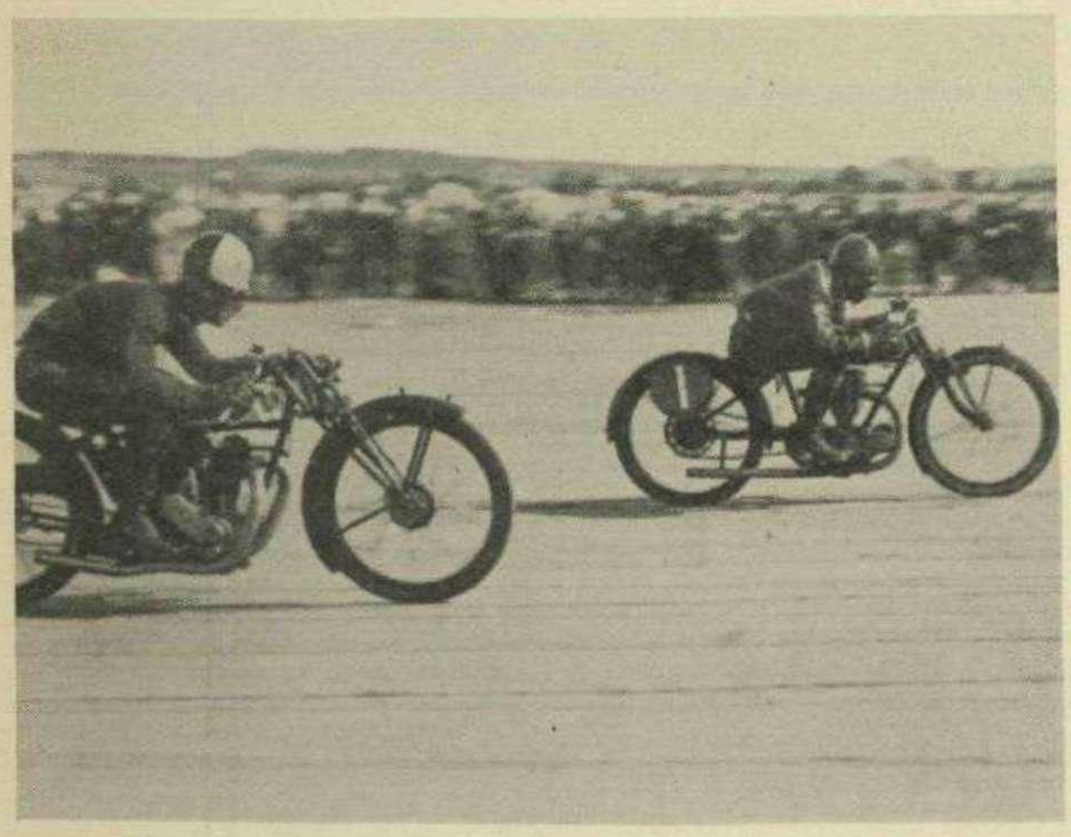


G. Duller (Austin 7) leading competitors under the Members Bridge.

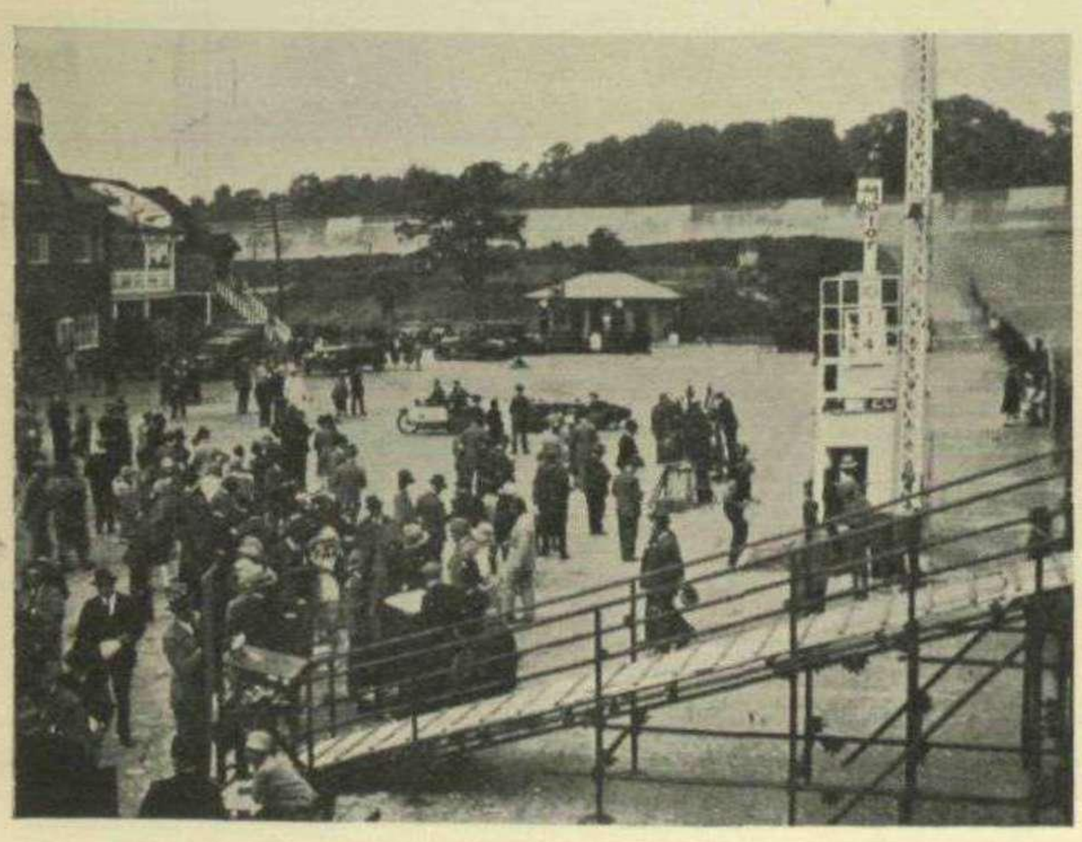
Events in Pictures



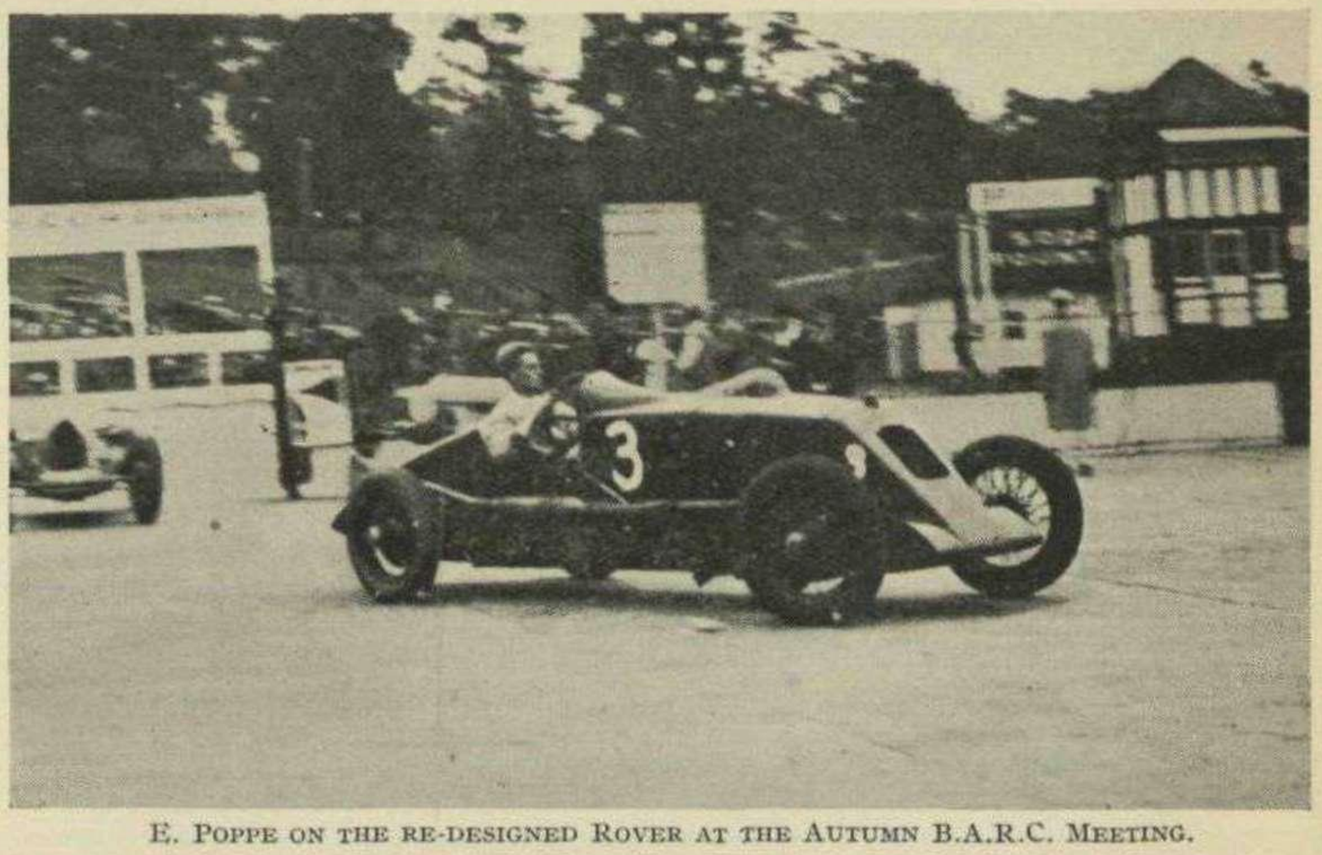
MOTOR CYCLE COMPETITORS STARTING IN A RACE AT SOUTHPORT.



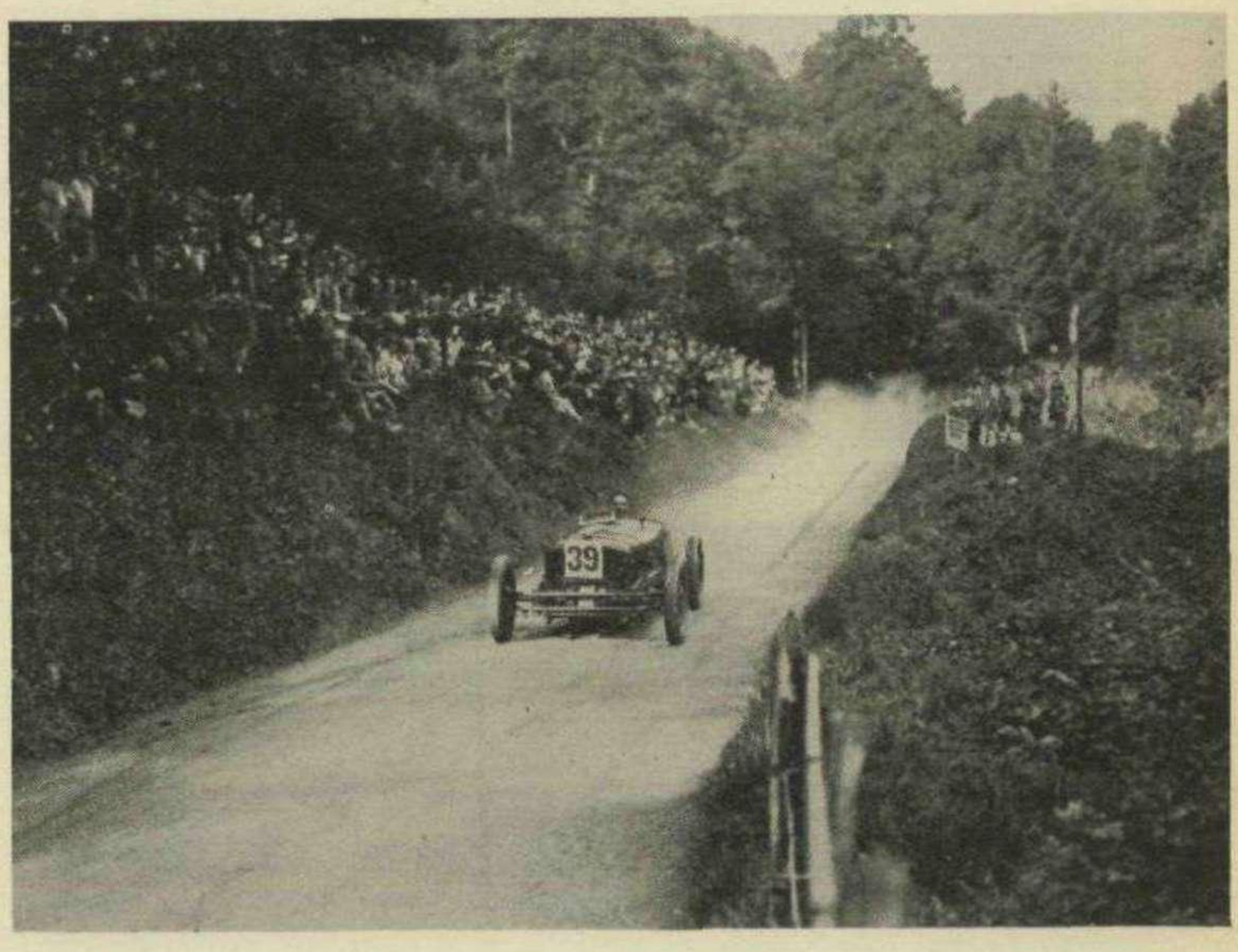
A DUEL BETWEEN RIVAL 350 C.C. TYPES ON SOUTHPORT SANDS.



GENERAL VIEW OF THE PADDOCK AT THE AUTUMN B.A.R.C. MEETING.



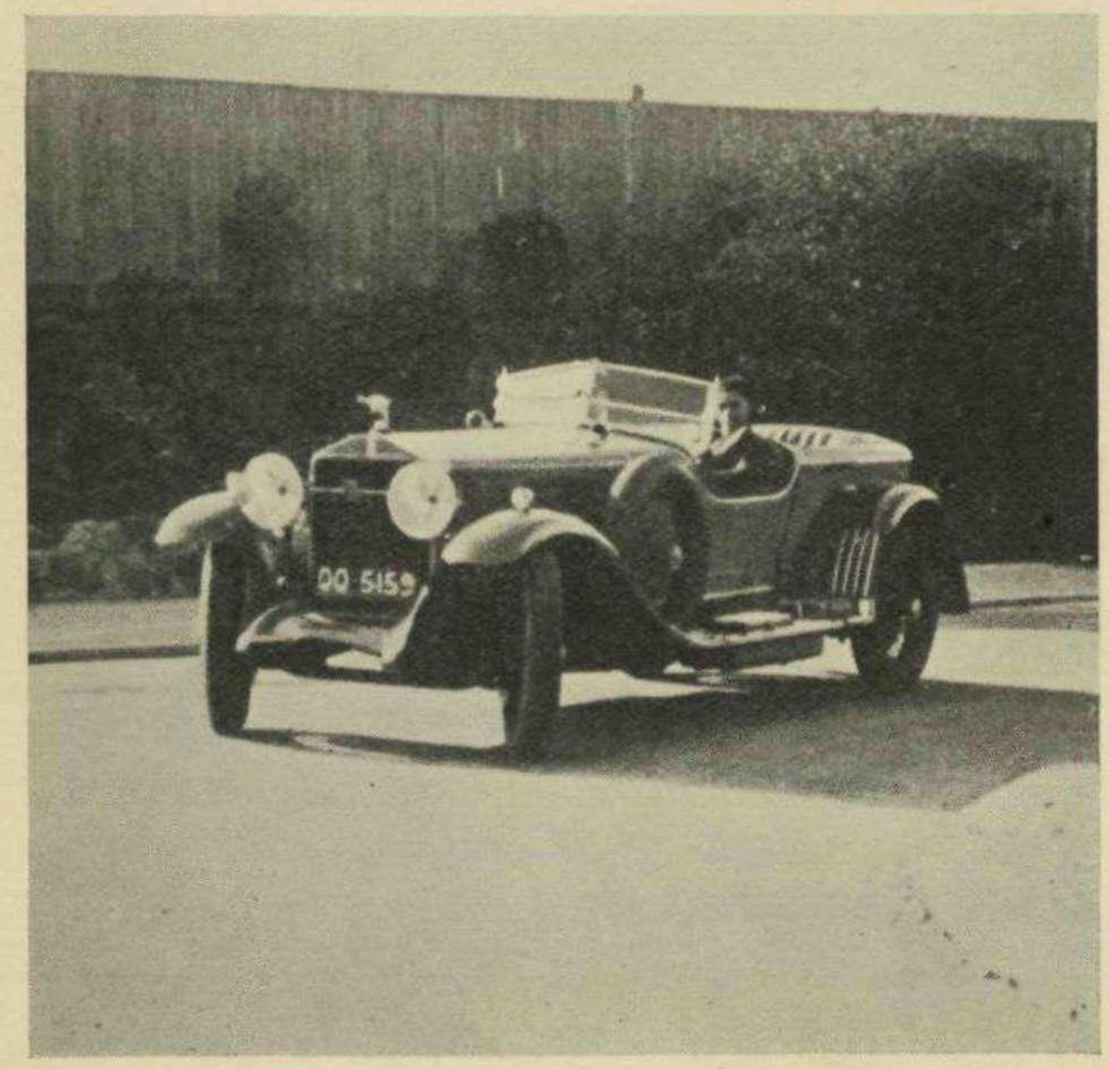
E. POPPE ON THE RE-DESIGNED ROVER AT THE AUTUMN B.A.R.C. MEETING.



THE FRONT WHEEL DRIVE, EIGHT CYLINDER ALVIS AT SHELSLEY WALSH HILL CLIMB.



WELL-KNOWN AT SOUTHPORT, MISS CUNLIFFE ON HER BENTLEY AT SHELSLEY WALSH.



SPORTING CARS ON TEST: THE ISOTTA FRASCHINI.

The Latest Production of a Pioneer Italian Firm.

THANKS to the courtesy of Messrs. Isotta Fraschini (Great Britain) Ltd., of 37, North Audley Street, London, W., we are able to publish particulars of their latest 45 h.p. " Straight Eight " Isotta Fraschini, which is without doubt a superb masterpiece of automobile construction.

As many of our readers are aware, Messrs. Isotta Fraschini, of Milan, Italy, possess a record in automobile construction which is probably unequalled throughout the world. Their first car was built nearly thirty years ago, and, as in pioneer work in those early days, they have been pioneers ever since in the development of research, experiment and construction.

The car which we had the opportunity of testing was the standard Sports model, fitted with a four-seater Sports body, the finish of which was a revelation of comfort and luxury, as may be gathered from the photographs which we reproduce.

To obtain an adequate idea as to the wonderful capabilities of the Isotta Fraschini, one would have to leave the ordinary test routes, no matter how carefully they might be selected, and travel across the channel, where on the straight, wide roads of France or Italy the car could be allowed to travel for long distances at its maximum speed. From this we do not mean to imply that it is not suitable for English roads, but its performance is so immeasurably superior to that of any vehicle likely to be encountered that there is no criterion by which comparisons can be made.

The Isotta Fraschini Tester.

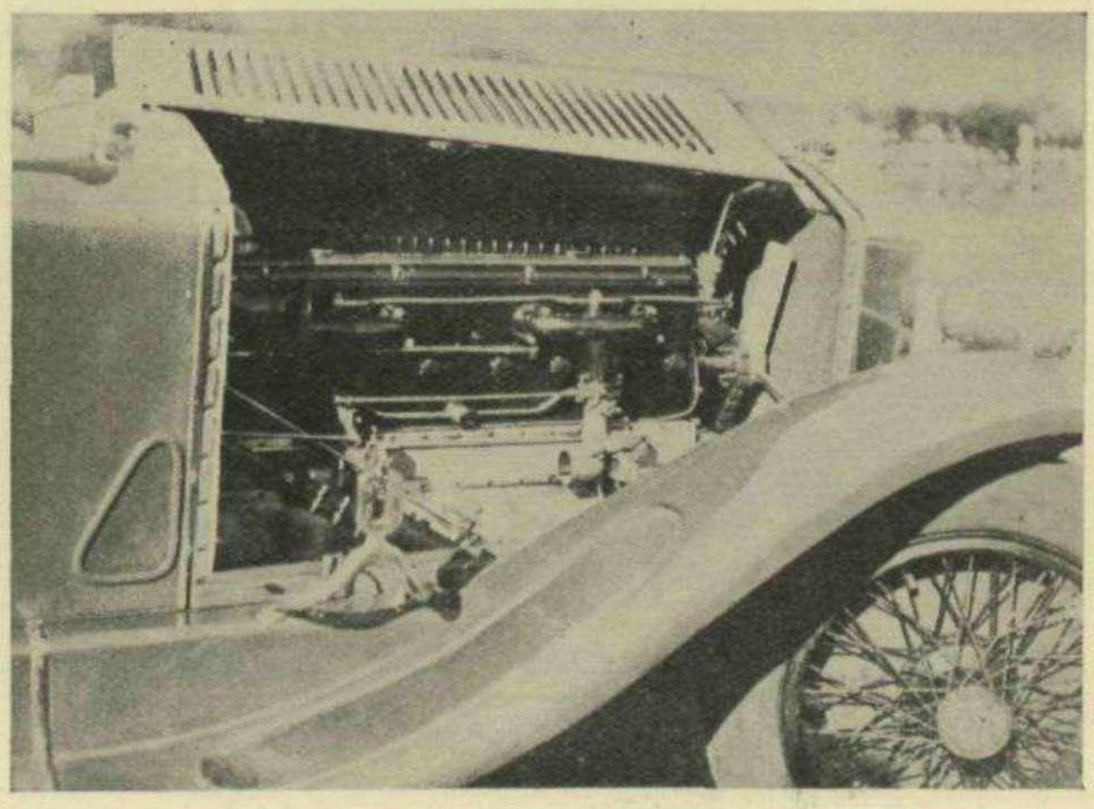
Leaving Town through a series of thickly congested roads, the big car headed its way through the traffic with absolute silence and glided along without the least suspicion of fuss, not even betraying the enormous power hidden beneath the bonnet

What we did notice, however, was that when there was any call for instant acceleration, one felt bodily transported forward in an almost unaccountable way. Some cars accelerate with such a snap that the backs of the seats seem to dig themselves into one's shoulders, others increase speed with an accompaniment of whirring machinery, but the only thing the acceleration of the Isotta Fraschini can be likened to is the gliding of a magic carpet, the sudden increase of speed being so silent and effortless.

As an indication of what may be done in the way of acceleration with this remarkable vehicle it may be remarked that when travelling along one of the new roads and the driver wished to pass a bunch of cars, some of which were capable of quite a respectable turn speed, the needle of the speedometer shot over to 86½ miles per hour within what appeared to be two or three car lengths, and the pace then settled down to a comfortable 55 m.p.h., at which one had the sensation of doing an ordinary " thirty."

With such a degree of acceleration as this, one finds the need of good braking, and the design of the Isotta Fraschini brakes permits a degree of retardation commensurate with the speed. The brakes, which are of the Servo type, operate with great smoothness and certainty. On testing the retardation against the stop watch, we found that when travelling at 80 miles per hour the car could be brought to a standstill without any violent application or trace of skidding in as little as 186 feet, and as we discovered later this could be effected with an extraordinarily small amount of pressure on the brake pedal.

Discussing the matter of brakes, we were informed that four-wheel brakes have been fitted as standard to Isotta Fraschini cars for the last sixteen years, so by



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2nd.	Mr. A. Divo	,, ,,

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1st.	Mr. E. C. Gordon England	Austin Special

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SPORTING CARS ON TEST—continued.

now they can no longer be considered in an experimental stage.

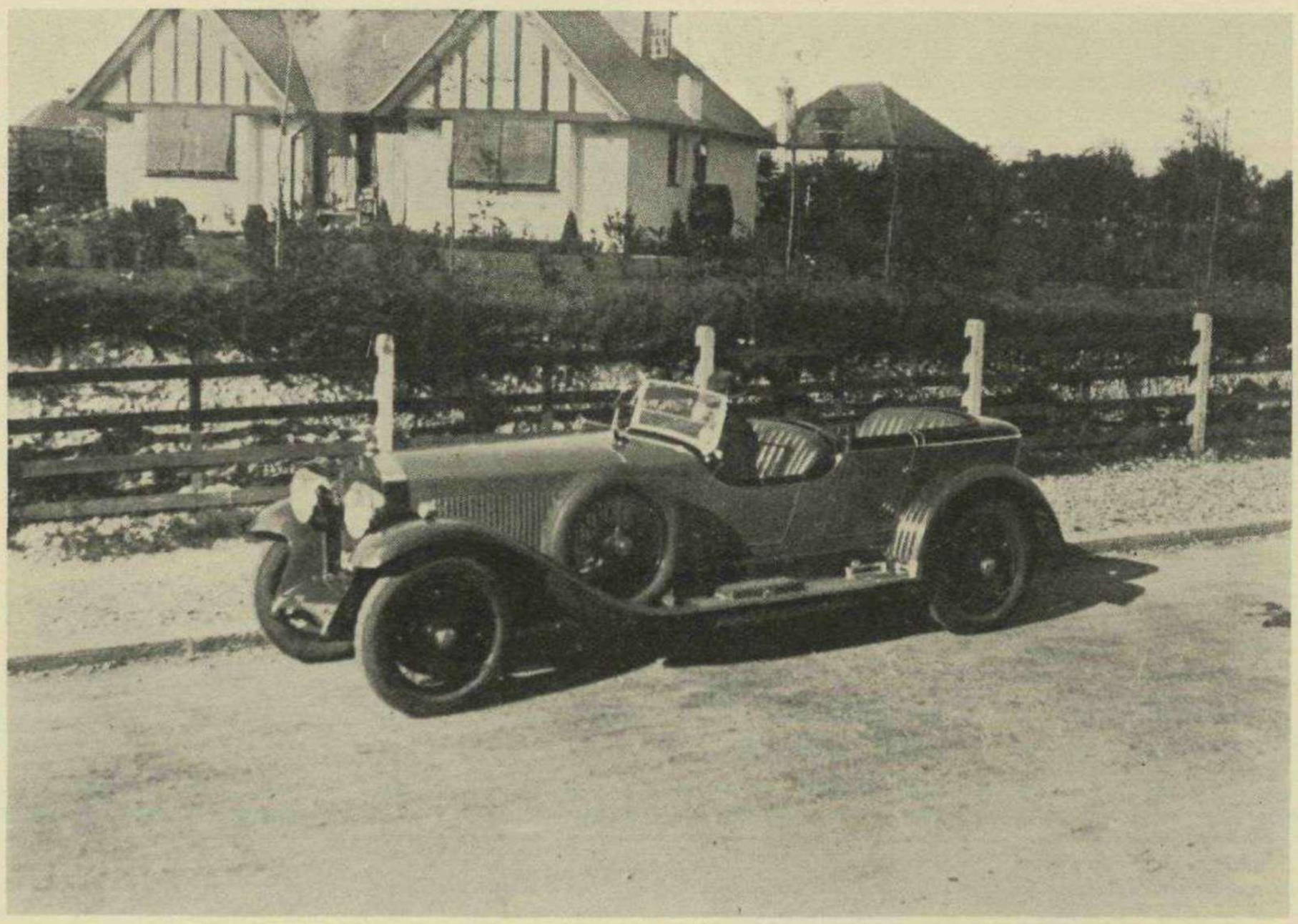
Acceleration Tests.

Having witness what the car could do as to accelerating in ordinary traffic driving conditions, we made for a road where experiments in sheer acceleration could be made without causing undue concern to other road users.

Starting on the level and by using the first and second gears, the speed of 80 miles per hour was reached in 25⅕ seconds. With the first gear alone 35 miles per hour was reached in 7 seconds, and when travelling on top gear at 35 miles per hour the speed of the car was increased to 85 miles per hour in 17⅘ seconds. Unfortunately, there was no opportunity of observing the maximum speed, but this is said to be in the neighbourhood of 104 m.p.h., and judging from the performance we witnessed, this does not appear to be any exaggeration.

Short of climbing Ben Nevis, there seems to be no gradient likely to call for any effort on the part of the engine, and all our ordinary test hills, which we usually regard as something severe, simply disappeared like level ground as we swept up the inclines. In fact, with one's eyes shut, the car might well have been travelling downhill. Having made all the usual observations and got our sensations of wonderment under control, we took a turn at the wheel, expecting to find that so large a car would be somewhat heavy to handle and call for the exercise of more than a usual degree of driving skill. To our surprise the steering felt extremely light and accurate, and once the length of the wheel base was judged, there was no more difficulty in negotiating curves and sharp corners than is the case with touring cars of ordinary dimensions.

Though the acceleration is so wonderful, the engine is very docile, and will tick over to enable the car to run along in quite a ladylike manner at nine miles per hour, at which pace it runs gently and without any suspicion of torque chatter or transmission jerks. Throughout the entire range of speeds there is no period of vibration whatever, and although only three speeds are used, the ratios are so carefully selected that the gears can be changed as easily as though the speeds were selected without the use of toothed gearing at all.



THE LINES OF THE ISOTTA FRASCHINI ARE SUGGESTIVE OF GREAT SPEED.

Technical Details.

As far as the constructional details of the chassis are concerned, one finds no departures from orthodox practice ; but perhaps it would be better to describe the Isotta Fraschini as the orthodox and sets a standard which other manufacturers have tried more or less to copy.

The eight cylinder engine has a remarkably clean exterior, the virtue of accessibility finding excellent expression in the arrangement of all the parts. The cylinders, which are cast monobloc, measure 95 mm. bore by 130 mm. stroke, thus giving an R.A.C. rating of 44.3 h.p., though the power actually developed on the brake is in the neighbourhood of 150 horsepower. The overhead valves are operated by push rods, and are fitted with double springs. A special automatic adjustment is provided for the timing chain, so that the tension always remains correct.

ENTIRELY OF BRITISH ORIGIN AND WORKMANSHIP

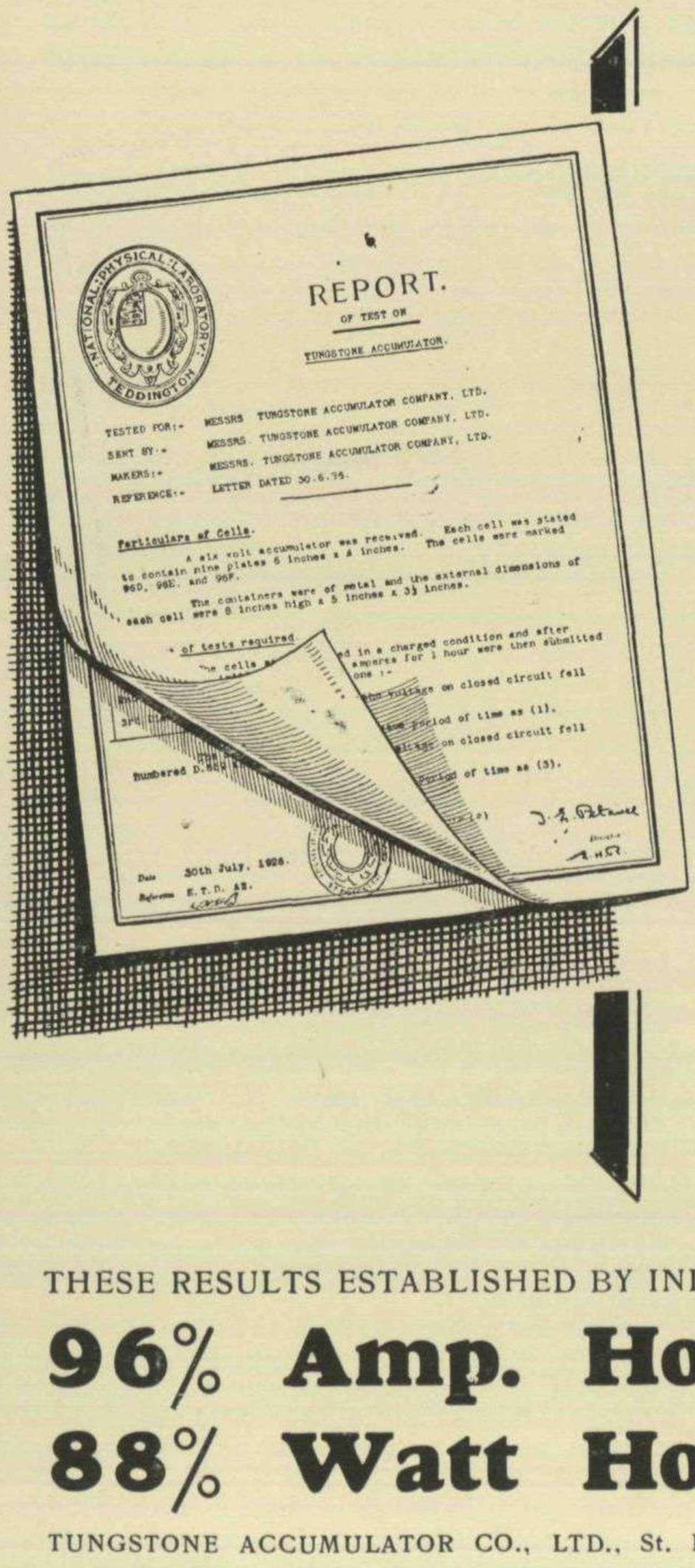
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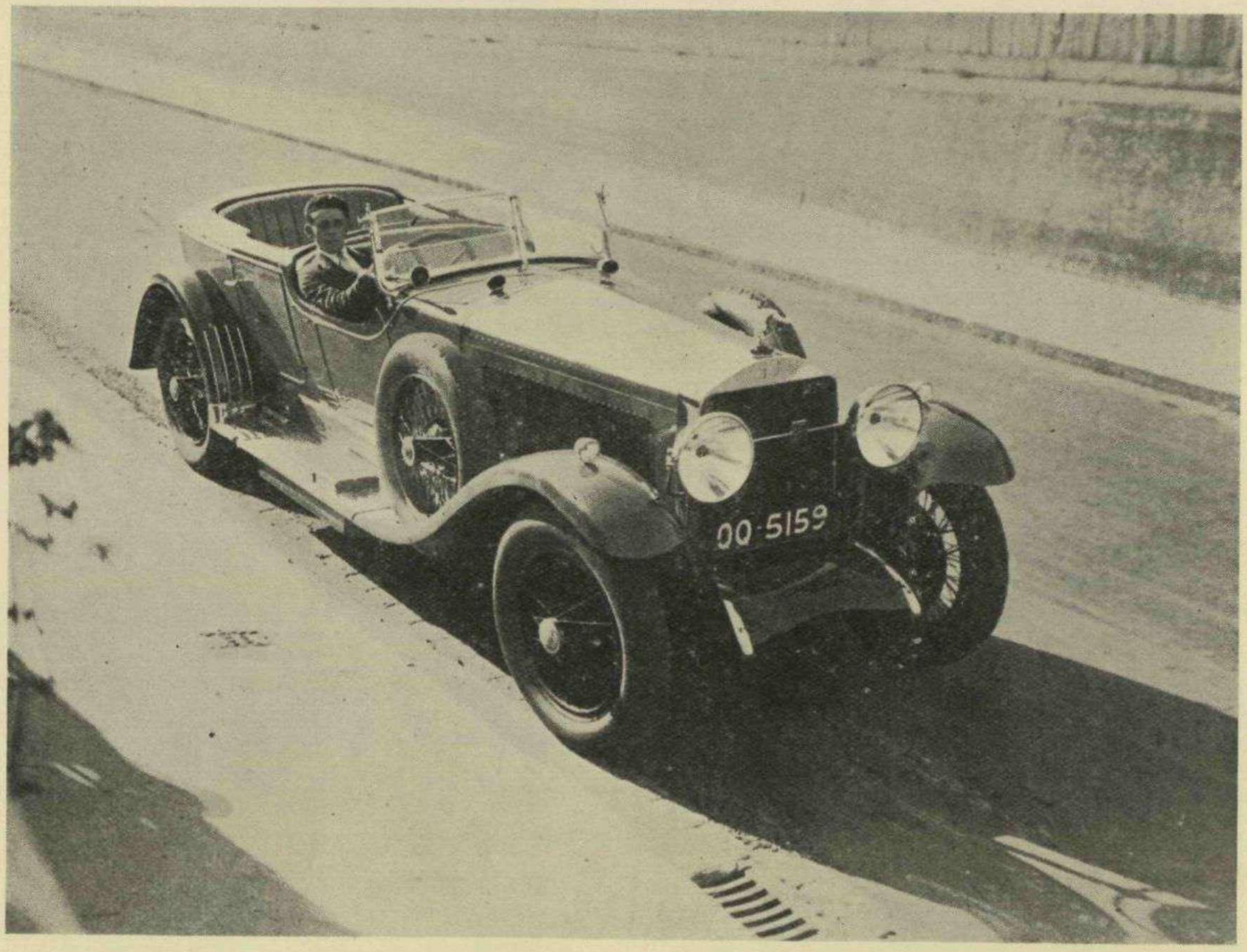
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T.M.76

SPORTING CARS ON TEST—continued.



ANOTHER VIEW OF THIS MOST IMPOSING VEHICLE.

Aluminium alloy pistons are used, these being of a special design to ensure a permanently small working clearance and a low oil consumption.

The crankshaft is a fine piece of engineering, and is forged from chrome nickel steel, heat treated, tested and ground to fine limits, nine bearings of ample dimensions being used for its support in the upper portion of the crankcase. The crankcase is of the usual design, and is attached to the main members of the frame by four arms, the rear arms having been provided with friction dampers.

With so large an engine one might expect a somewhat heavy consumption of oil, but the full pressure system is so arranged that an adequate supply reaches all parts of the engine, and the quantity of oil used is small and works out at 800 to 1,200 miles to the gallon.

Two Zenith triple diffuser carburettors are employed, one to each set of four cylinders, with an inter-connecting pipe between the two. The mixture can be regulated as required for different running conditions by an air control lever mounted above the steering wheel, which also enables the engine to be started readily on cold mornings.

The electrical equipment includes a combined Bosch magneto and dynamo of the latest type, giving an advance of 45 degrees.

Three speeds forward and a reverse are provided by the gear box, which is mounted directly on the bell housing of the engine crankcase, wihch contains a dry plate clutch, consisting of alternate steel and Ferodo faced discs of large diameter.

In other respects the whole chassis is absolutely normal, though a close inspection reveals various refinements of construction that are too numerous to mention in detail. Needless to say, the workmanship represents the highest possible ideals of Italian craft, and the whole chassis is evidently built to last ; indeed, judging from the design and dimension of all parts, one would imagine that it would be impossible for the Isotta Fraschini to wear out at all.

Incidentally, we may mention that Messrs. Isotta Fraschini (Great Britain) Ltd. possesses a large and well-equipped Service Depot, where all spare parts are stocked—though one wonders in what circumstances they could ever be necessary—and the staff includes highly skilled mechanics from the Milan factory, whose expert knowledge should be of the greatest value to users of this famous make of car, if at any time such assistance should be required.

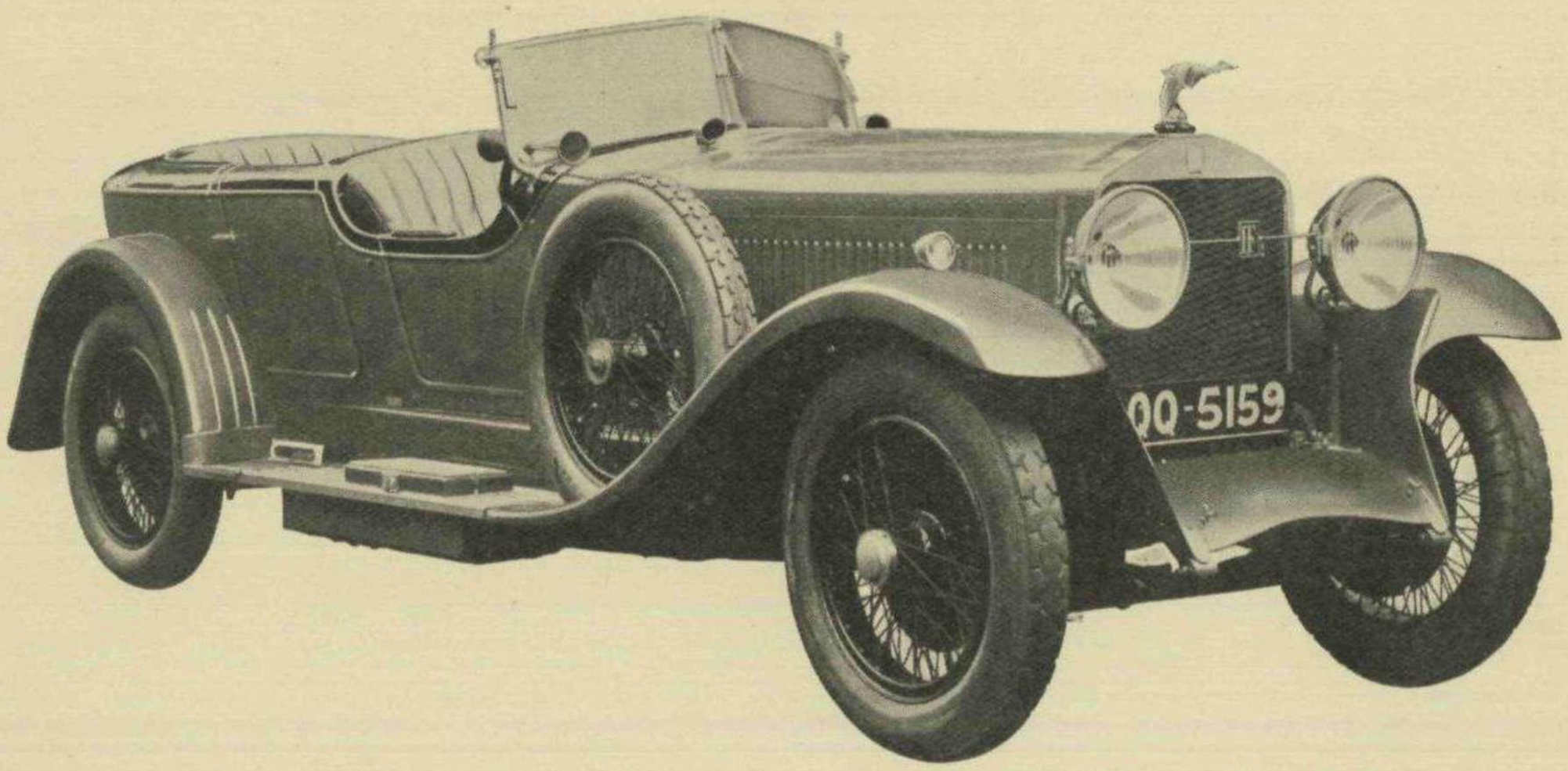
Isotta Fraschini

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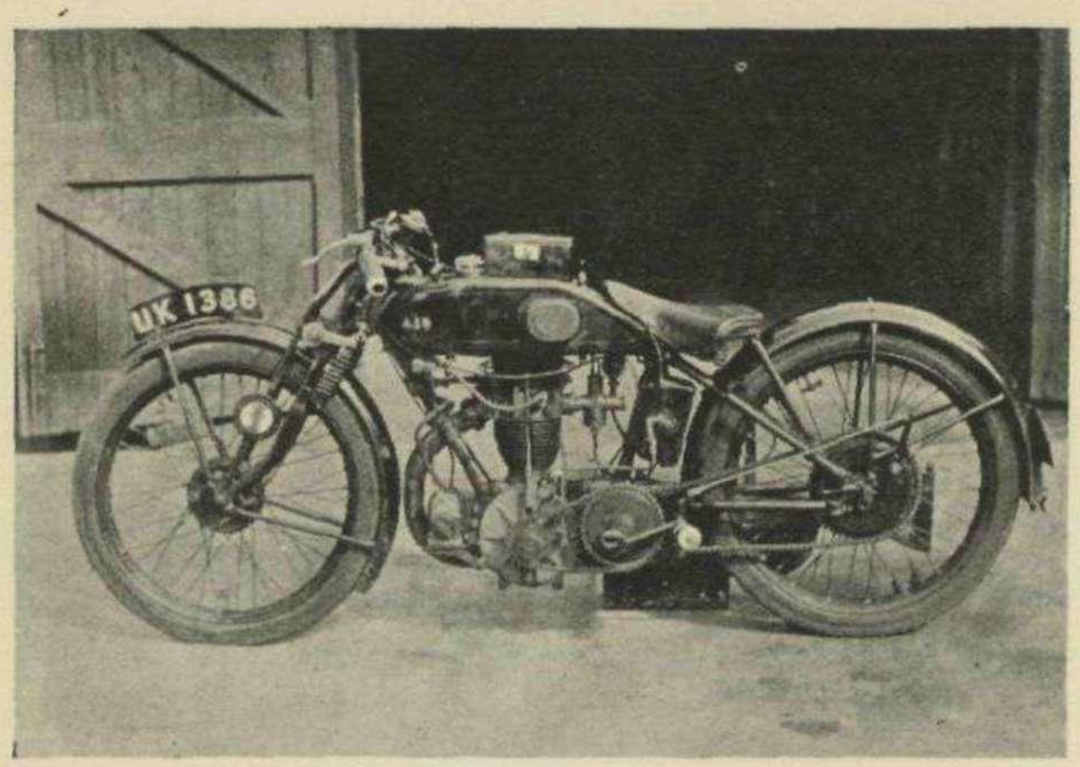
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SPORTING MACHINES ON TEST.

THE G10 500 c.c. o.h.v. A.J.S.

WHEN in 1925 the house of Stevens startled everyone with its 3½ h.p. T.T. machine, it was the sportsman's appetite that was whetted more than anyone else's. A slight tinge of regret then must have been felt by many of this class when at Olympia the production 3½ h.p. A.J.S. proved to be a rather dignified dual purpose machine. It is not our intention to criticise the G 8 model, which in its way is a remarkably fine all round machine, possessing a useful turn of speed combined with reliability, comfort and reasonable weather protection; at the same time, it is not a pure sports model.

Though it is not catalogued, however, Messrs. A. J. Stevens do produce a racing edition of this machine for the enthusiast who really intends to use his motor for competitive work.

The particular machine in question is one of the earliest G 10 models, and is privately owned by one of our staff, so that we are in an excellent position to report on the general behaviour of the machine during some months usage.

Specification.

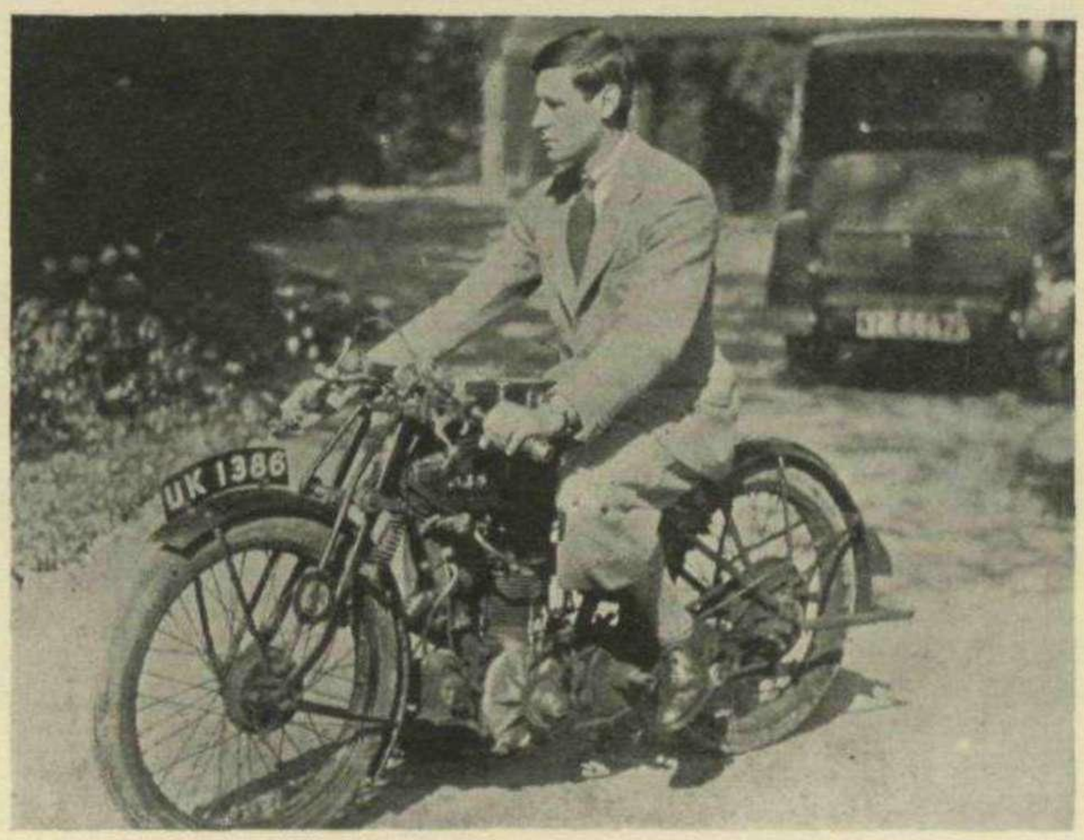
Perhaps it would be as well to draw attention to one or two of the more prominent and interesting features of the specification: The engine has ball and roller bearings throughout, duralumin overhead rockers and push rods, and a special type of cylinder head with a very large exhaust port and deep radiating fins. Pistons of varying compression ratios are obtainable, and, of course, a complete range of engine sprockets. A close ratio gear-box without kickstarter is fitted, and both brakes are foot operated. In addition, the 3½ gallon T.T. tank, twist grip throttle and steering damper are incorporated, and to render the machine quite distinct from the G 8 model the whole frame lay-out is planned to be exactly the same size as the popular 350 c.c. machine, though naturally on a stronger scale. The result is as one would expect, a machine of extraordinary compactness, yet possessing a remarkable performance—in fact, real concentrated pep is the aptest expression with which to sum up one's impressions.

To turn to actual experiences on the road and elsewhere, we will be honest and say at once that trouble has definitely been experienced with the machine. These troubles, however, can all be attributed to two causes; firstly, because the machine was one of the first of its type, and still rather experimental; various parts were found to lack the necessary strength to withstand the terrific power developed and simply crumpled up, but let us at once impress upon readers with great emphasis that in every case, on replacing the damaged parts with those of later pattern, not the slightest trouble has ever been experienced again on this score. Secondly, the machine has been used for track racing, which is a very severe test for any production model, and which, sooner or later, is guaranteed to "blow up" the best engine in the world. However, as a result of the above experiences the machine is now thoroughly reliable, even for racing, so that the average sportsman need have no fears on this account.

The Sidecar.

The bicycle was delivered complete with T.T. A.J.S. sidecar and 3-wheel brakes, the sidecar brake incidentally proving very effective. Almost the first incident of note was a sensational "capsize" on a left hand corner at some 35 m.p.h., due to an ill-judged but nevertheless successful "dust up" with a big twin sports outfit! That nothing was in the least bit bent after this contretemps goes to prove the immense strength of frame, forks and chassis, the only damage being a burst sidecar tyre and a few scratches.

Before dismissing the sidecar (which incidently is quite comfortable, provided the passenger is not too



THE 500 C.C. A.J.S. IS ONE OF THE SMALLEST AND HANDIEST MACHINES IN ITS CLASS.

SPORTING MACHINES ON TEST—continued.

long !) we should like to mention that one fine Sunday afternoon, in front of a large crowd of spectators, the outfit, complete with 10-stone passenger, was observed to cross the " Cannons " on Alms Hill at approximately 30-35 m.p.h. This with the ordinary close ratio gear-box. By the way, we *were* going up the hill, not down as some ultra-clever reader might suspect from the previous sentence !

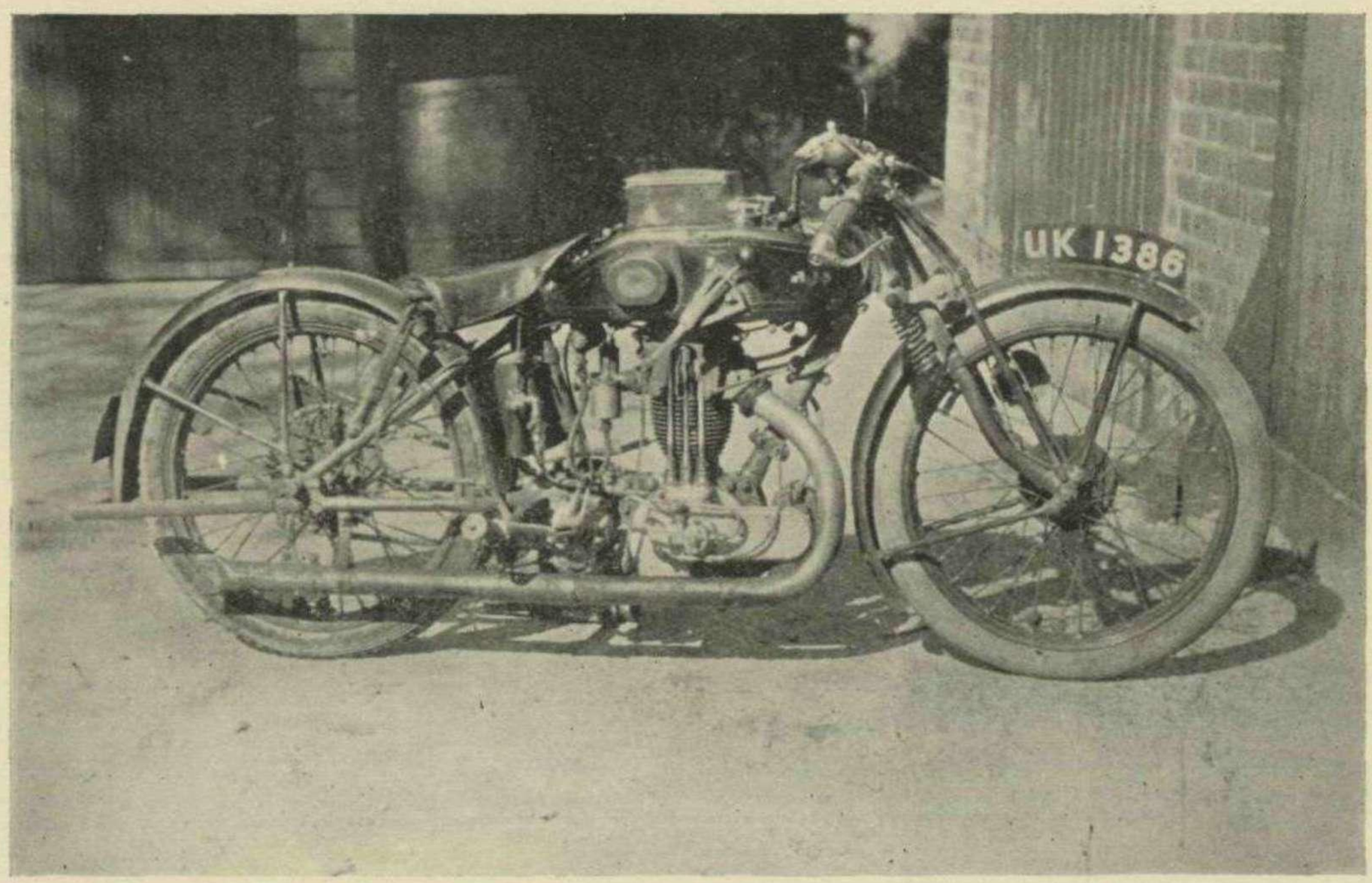
As regards speed, it is a very difficult matter to say anything definite about the maximum ; it has certainly proved fast enough to win several awards in the few short speed events entered for, and it would be fairly safe to expect somewhere about 90 m.p.h. from the machine in speed trial tune. Doubtless it will eventually become possible to maintain this and higher speeds for long distances on the track, but so far circumstances have usually prevented or hampered experiments in this direction.

The machine has, however, with a new and somewhat stiff engine, averaged 75 m.p.h. for 200 miles on the track ; at the end of this run it was going better than at the beginning, and lapping at well over 80 m.p.h. Given more time for tuning and running in, a much higher speed should have been possible.

For road racing the machine has proved extraordinarily good ; cornering is excellent, and, using both pedals hard, deceleration is distinctly good, though by itself the front brake does not seem particularly effective. The footrests were once actually in contact with the ground on a corner of the 60 m.p.h. variety, and as the photographs show, they could not be moved very much higher. As it is, viewed in cold blood, the angle at which the machine was leaning seems fantastic and not a little terrifying.

After a very promising beginning in the road race entered, the machine was eliminated by nothing worse than a tankful of alcohol fuel that had lost its explosive qualities during a long storage period !

Steering and road holding at high speeds are every bit as good as can be expected, and are at least the equal of any machine on the road, and considerably better than many. At the same time, when racing speeds are indulged in on indifferent roads it would be foolish to expect to be able to go to sleep. At very low speeds the large tanks make the machine feel a trifle clumsy, but any initial awkwardness of this sort is soon forgotten, once the machine has become familiar.



THE G.10 A.J.S. IN ROAD RACING TRIM.

What else is there to say of the machine ? Finish ? Excellent. Clutch ? No trouble. Noise ? With the standard silencer, no worse than similar machines of other makes ; with a Brooklands " Receiver " (Derrington), quiet at all speeds, with a long pipe and fish tail, silent at low speeds, and indescribable at high speeds !

The gear change, of the latest A.J.S. type, is easy, positive, and the gate does not seem so close to the knee as usual, probably the T.T. footrests and large tank contribute to this. Petrol consumption has never been even roughly tested, as this question does not usually enter into the speedman's calculations. However, this is not so excessive as to be noticeable, nor so good as to warrant tests and the tabulation of figures.

The price varies according to the specification, and can be ascertained from the makers, as it is realised that the man who buys this class of machine has his

THE 1926 B.M.C.R.C. CHAMPIONSHIPS.

Poor Racing at Penultimate Meeting.

SOMEHOW one is always disappointed by the Championship races. The entry list is always good, and scratch races should always be better than handicaps, but somehow things always go wrong; Jonathan does not turn up, Dudd bursts his engine in practice, and Simple is afraid De Crack is going fast enough to beat him, so prefers to watch the fun.

Whatever the causes, however, the 1926 Championships were marred by a paucity of starters, and, with one exception, of a complete lack of sensation. Most of the old hands pulled off expected wins, and in one race only the winner finished; the usually dull 750 c.c. race for once proved the only event worth watching, Handley on a 750 c.c. twin Rex Acme taking the lead, followed by H. M. Walters (Zenith) and V. Horsman (Triumph), with C. S. Staniland (Norton) a bad fourth. Horsman passed Walters and drew up on Handley, but to everyone's amazement on the third lap Staniland took and rapidly increased a large lead with delightful ease, winning at 98 m.p.h. To complicate matters, Horsman fell back to fourth place.

The only other incident of note was that G. W. Patchett, 976 c.c. McEvoy, shed another tyre tread (he shed two in the Hutchinson Hundred). Results:

CLASS A. 250 c.c. Solo.

1. J. S. Worters (Excelsior JAP). 81.77 m.p.h.
2. F. C. Millar (Zenith-Blackburne).
3. W. L. Handley (Rex Acme Blackburne).

CLASS B. 350 c.c. Solo.

1. W. D. Marchant (Chater Lea). 93.97 m.p.h.
2. J. S. Worters (Excelsior J.A.P.).
3. W. L. Handley (Rex Acme-Blackburne).

CLASS C. 500 c.c. Solo.

1. A. Denly (Norton. 95.59 m.p.h.
2. C. S. Staniland (Norton).
3. R. N. Judd (Douglas).

CLASS D. 750 c.c. Solo.

1. C. S. Staniland (Norton). 98.82 m.p.h.
2. W. L. Handley (Rex Acme).
3. H. M. Walters (Zenith).

CLASS E. 1,000 c.c. Solo.

1. J. S. Wright (Zenith J.A.P.). 102.06 m.p.h.
2. C. S. Staniland (588 c.c. Norton).
3. H. J. Knight (Zenith J.A.P.).

CLASS B/S. 350 c.c. Sidecar.

1. W. D. Marchant (Chater Lea). 77.93 m.p.h.
2. J. S. Worters (Excelsior J.A.P.).

CLASS F. 600 c.c. Sidecar.

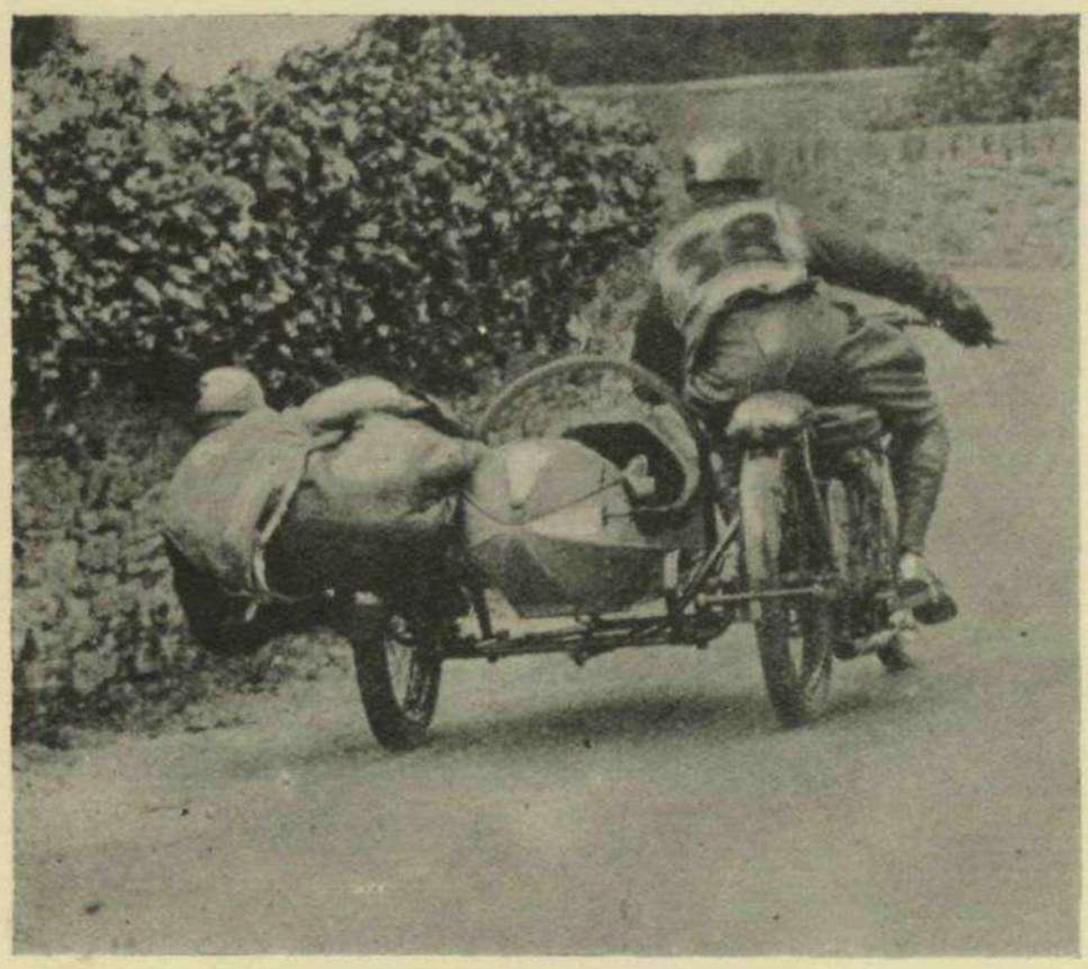
1. V. Horsman (Triumph). 81.24 m.p.h.

CLASS G. 1,000 c.c. Sidecar.

1. E. C. Baragwanath (Brough Superior). 85.43 m.p.h.
2. J. S. Wright (Zenith).
3. I. P. Riddock (Zenith).

In view of the general lack of serious competition in the various races it is not surprising that no records were broken during the afternoon.

SPORTING MACHINES ON TEST—continued.



THE T.T. A.J.S. SIDECAR PERMITS OF THE USUAL ANTICS AS *THIS PHOTO OF* F. A. LONGMAN SHOWS.

own very definite ideas on the subject of equipment. The machine in question, solo cost approximately £80.

In conclusion, let us remind readers that a standard G 10 model A.J.S., ridden by Mr. R. D. Adams, won the Amateur Road Race at a speed of 58.46 m.p.h. under the most unpleasant and difficult weather conditions that can be imagined; readers who are acquainted with the T.T. course and are aware of the conditions of the race will appreciate that we can give no finer recommendation than this.

A 3.48 Raleigh Climbs Ben Nevis.

A remarkable feat was recently accomplished by Mr. R. MacGregor, of Killin, who rode a 3.48 Raleigh to the summit of Britain's highest mountain, which had not been previously performed on a solo machine.

No alterations from standard were made with regard to the machine, except for the fitting of a 20 to 1 low gear and the removal of the front mudguard. The climb was commenced at 6 a.m. in a mist, which continued for the greater part of the ascent and the journey was rendered very difficult on account of the boulder strewn track, which has received no attention for years.

After two hours running, the half-way hut was reached, where a short stop was made owing to the adverse weather conditions, but the climb was eventually accomplished with no further damage to the machine than a battered exhaust pipe, a few dents on the rims and some scratches on the flywheel.

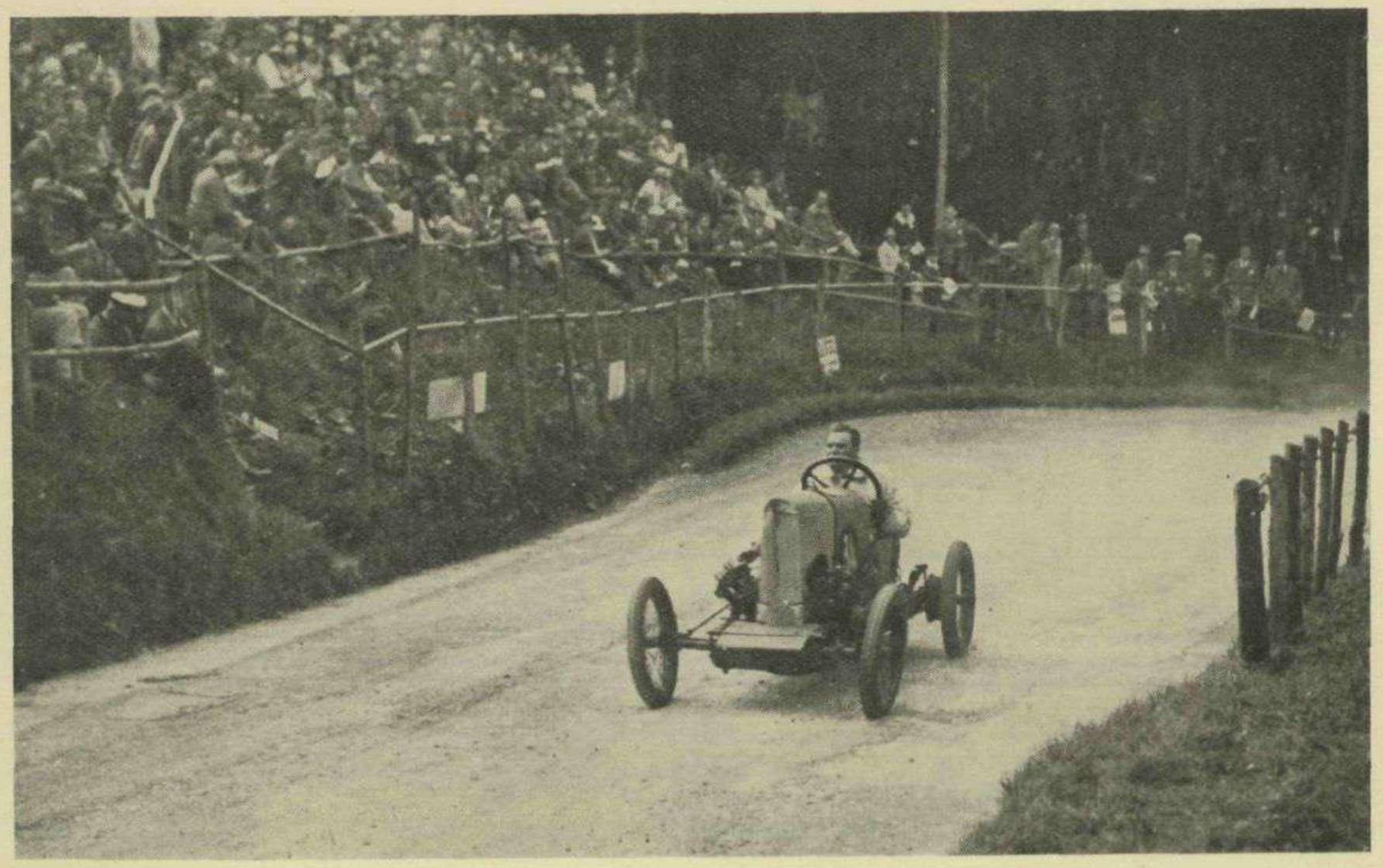
The total time occupied by the climb was three hours, forty minutes.

SENSATIONAL HILL CLIMBING at SHELSLEY WALSH.

B. H. DAVENPORT ON HIS FRAZER NASH BEATS ALL RECORDS.

JUDGING by the enormous public interest and the faultless organisation of the Shelsley Walsh Hill Climb, which took place last month, one would imagine that there should be hopes of the S.M.M.T. adopting a less rigid attitude with regard to such events in the future, for the Midland Automobile Club has certainly demonstrated that it knows how to handle big events in a manner that is beyond all criticism.

Perhaps the most remarkable feature of the whole meeting, however, was the wonderful performance of B. H. Davenport, who on his Frazer Nash, with which he has participated in countless contests, not only put up new figures for the course, but succeeded in beating the cream of the motor competition world with the greatest ease.



DAVENPORT'S CLEAN CORNERING ENABLED HIM TO SET UP A NEW RECORD FOR THE COURSE.

Before the meeting actually commenced, there was much discussion as to whether it would be possible to reduce the existing record, not because the contesting cars lacked speed, but on account of the difficulties presented in travelling up the famous hill at great speed. As a matter of fact, it was this which accounted for many of the sensational ascents that were witnessed, and if any unfavourable criticism could be offered, this would concern the number of unnecessary risks that were taken by some competitors in their efforts to be spectacular. Shelsley Walsh has again demonstrated that wild cornering, frantic skidding and like performances do not help very much in attaining the maximum speed over any course, and the cleverest climbs were made by drivers who did not indulge in such practices.

Thousands of spectators from all parts of the country gathered to witness this classic hill-climb, and from early in the morning some sixty competitors had been busy performing the final touches to their cars. Just before the starting time of 1.30 p.m. the officials marshalled the crowd to their various points of vantage, and shortly afterwards the fun commenced.

The first car to start was the red Frazer Nash driven by E. L. F. Mucklow, who handled his car with great zest and made the climb in 55 seconds. B. H. Davenport was next on the line, and although his climb was far less spectacular than that of those who followed him, it was evident that he was travelling very fast indeed; and when later his time, 48 4/5th seconds, was announced, no little consternation was observed among the other competitors.

Nothing daunted, however, Raymond Mays set off on his T. T. Vauxhall, but though his engine roared lustily as the car ascended the lower slopes, he failed to achieve the figure set up by Davenport, taking 49 2/5th seconds for the course, which turned out to be the second fastest time.

Good Climbing by Standard Touring Cars.

Twenty starters lined up for the next event, which was for Standard Touring Cars, which competed on formula, i.e. :— $\frac{\text{Total Weight in lbs.}}{\text{Time in seconds} \times \text{c.c.}}$

SENSATIONAL HILL CLIMBING—continued.

The standard of driving in this event was consistently good, Harvey's four seater Alvis with a full load making one of the neatest ascents, whilst two other Alvis Coupés, handled respectively by Johnson and Miss Watson, called for much favourable comment. All sorts and sizes of cars competed, from Jeavon's Austin Seven with three aboard, to such imposing vehicles as Ellison's big Renault saloon and the 24-100 Mercédès, which was skilfully handled by Lady Mainwaring. Two Aston-Martins competed, one of which a two-seater driven by R. F. Somers, took the corners well, but Miss Pink (Aston Martin) seemed to be experiencing clutch trouble, as her gear changing was by no means up to her usual standard.

Waite Experiences Bad Luck.

In the next event, which was divided into two classes, a good speed was expected from Waite's Super Charged Austin Seven, but unfortunately he was delayed for some time on the starting line with his engine running, and as a result his plugs were badly oiled when he was released, so that his time was rather disappointing.

In the Sports Car Class the Salmson driven by Barnes travelled well up to the first corner, where he indulged in a badly judged skid, from which he did not recover in time to make up for the lost ground. In the racing section, Mucklow, on his Frazer Nash, reduced the time of his previous climb by two seconds. A further demonstration of skidding was seen when the Simmins Special made its first climb, his style contrasting greatly with that of Davenport's, who took the corners at speed with almost mathematical precision.

An intense amount of interest was centred in Harvey's Straight-Eight Front Wheel driven Alvis, which is entered for the 200 Mile Race. The car gave an excellent impression of speed, and judging by the sound of the engine, the tuning operations had been carried out to perfection, but though a very good climb was made, the performance could have been improved if more suitable gear ratios had been fitted for the climb.

In this class F. B. Taylor, driving the Brescia Bugatti, formerly owned by Raymond Mays, treated the crowd to a hair-raising display of skidding. His car appeared to be travelling sideways for the greater part of its journey, and charged madly about, bouncing from bank to bank. Taylor appears to enjoy a reputation for dangerous driving of this kind, which cannot be described as exactly suitable for the occasion, as it is the sort of thing which tends to alarm the public, and does no kind of good to the sport.

In the 2,000 c.c. class, Lord Cottenham made a fast run on his 2-litre Super Charged Sunbeam racing car, but although there was plenty of power available, excessive wheel-spinning of the lower reaches did much to spoil his performance. It was very evident that the driver realised how the wheel-spin was affecting his climb, but in spite of his efforts nothing appeared to improve the grip. Cyril Paul, who made the ascent on a similar car, did far better, and probably from his knowledge of the hill avoided some of the mistakes made by Lord Cottenham, whose speed he greatly exceeded, but even so the Sunbeam did not hold the course in any too steady a fashion.

From a driving point of view, the best climbs were undoubtedly those of Davenport and Raymond Mays, both these drivers judging their corners with the greatest accuracy and keeping their cars well on the road. Oats, driving the O.M., appeared to be suffering with plug trouble, as his engine coughed and spat viciously throughout the climb, and Mayner (Mercédès) was even more unfortunate, as shortly after the start he had to abandon the attempt, as his engine practically cut out.

More Thrills.

But for the merest stroke of sheer luck the meeting might have been marred by a fatality, and Taylor, who was driving a Straight-Eight Bugatti, may be considered fortunate in not having lost his life. Half way up the course this driver charged round the S bend at an excessively high speed, developed a terrific skid, and then failing to steady his car took the next curve at an extremely ill-judged pace. A moment later the car hit the right-hand bank, up which the right wheels mounted, and still plunging forward the car turned over on its side, throwing the driver almost on to the road. The horrified spectators then saw the car slide rapidly down the bank, but by some miraculous reason it regained its four wheels, and Taylor, evidently very much dazed, managed to pull back to the wheel and continue to climb.

RESULTS.

AMATEURS UNLIMITED RACING CARS.

B. H. Davenport (Frazer Nash)	48¼	secs.
Raymond Mays (T.T. Vauxhall)	49⅖	,,
E. L. F. Mucklow (Frazer Nash)	55	,,
Miss H. Cunliffe (Bentley)	59⅜	,,

CLASS 1.—UP TO 750 c.c.

Sports Cars.	H. T. Guest (7 Austin)	70	secs.
	J. D. Barnes (7 Austin)	98⅜	,,
Racing Cars.	A. Waite (7 Austin)	76	,,

CLASS 2.—FROM 751 TO 1,100 c.c.

Sports Cars.	F. S. Barnes (10 Salmson)	72⅖	secs.
	H. V. Cooke (8.9 Senechal)	82⅜	,,
Racing Cars.	E. L. F, Mucklow (8.7 Frazer Nash)	53⅜	,,
	N. G. Asprey (8.9 G.N)	57	,,
	A. R. Simmins (9.9 Simmins Special)	60⅜	,,

CLASS 3.—FROM 1,101 TO 1,500 c.c.

Sports Cars.	E. Hellary (11.9 Frazer Nash)	60⅜	secs.
	S. H. Newsome (11.9 Frazer Nsah)	61¼	,,
	T. H. Shorthouse (11.9 Bugatti)	63½	,,
	A. N. Maclaren (12.50 Alvis)	66⅜	,,
	L. H. Lee (10.8 Clyno)	79⅜	,,
Racing Cars.	B. H. Davenport (11.9 Frazer Nash)	49	secs.
	A. Frazer Nash (11.9 Frazer Nash)	52½	,,
	C. M. Harvey (1½-litre Alvis)	53⅜	,,
	F. B. Taylor (11.9 Bugatti)	55⅝	,,
	E. R. Hall (11.9 Frazer Nash)	58	,,
	D. K.M. Marendaz (11.55 Marendaz Special)	59½	,,

CLASS 4.—FROM 1,501 TO 2,000 c.c.

Sports Cars.	R. F. Oats (15-45 O.M.)	65¼	secs.
	G. Summers (16 A.C.)	67½	,,
Racing Cars.	C. Paul (two-litre Sunbeam)	50⅞	,,
	The Earl of Cottenham (two-litre Sunbeam)	55⅞	,,
	R. F. Oats (15-45 O.M.)	63	,,
	F. B. Taylor (two-litre Bugatti)	63⅜	,,

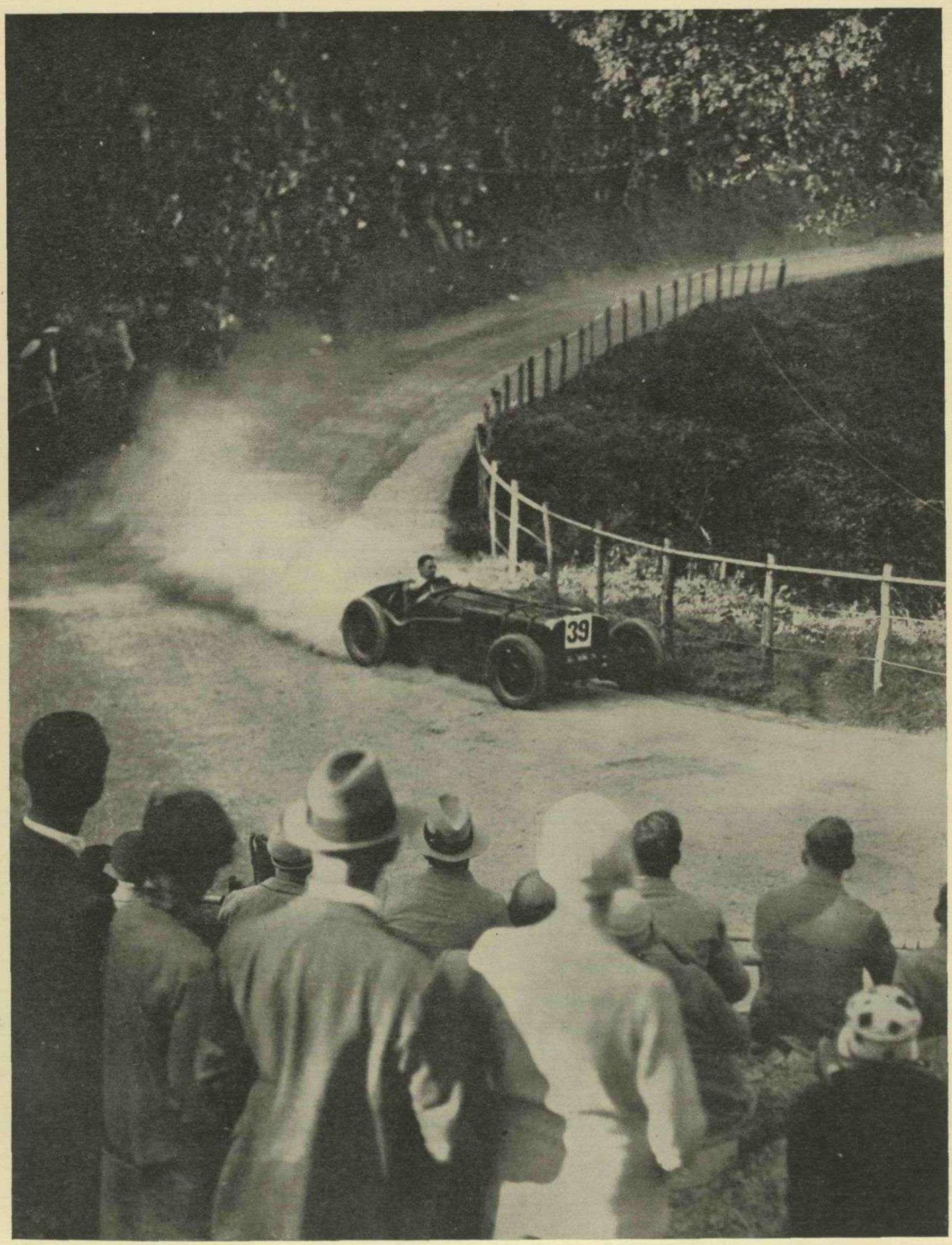
CLASS 5.—FROM 2,001 TO 3,000 c.c.

Sports Cars.	T. F. Nelson (15.9 Bentley)	68½	secs.
	H. F. Clay (three-litre Sunbeam)	68⅔	,,
	V. Rosa (three-litre Alfa-Romeo)	68⅞	,,
	F. P. Williams (15.9 Bentley)	68⅞	,,
	J. Pollitzer (22-90 Alfa-Romeo)	69⅞	,,
	T. Heaton (15.9 Bentley)	76¼	,,
Racing Cars.	Raymond Mays (T.T. Vauxhall)	49⅞	,,
	Miss M. Cunliffe (three-litre Bentley)	58½	,,

CLASS 6.—UNLIMITED.

Sports Cars.	E. R. Hall (30-98 Vauxhall)	57⅜	secs.
	E. L. Meeson (30-98 Vauxhall)	58⅝	,,
	H. W. Cook (30-98 Vauxhall)	60½	,,
	H. F. Garman (33-180 Mercédès)	61⅞	,,
	R. F. Summers (30-98 Vauxhall)	62⅜	,,
	A. Ellison (45 Renault)	69	,,
Racing Cars.	V. Rosa (3½-litre Alfa-Romeo)	57⅜	,,
	E. R. Hall (30-98 Vauxhall)	57⅜	,,
	J. Taylor (two-litre Beardmore)	66½	,,

SHELSLEY WALSH — 1926.



A Fine View of the bad corner with Harvey on the New 8-cylinder Alvis at speed.

A SMALL CAR WITH A BIG PERFORMANCE :

THE FRAZER NASH SPORTS MODEL.

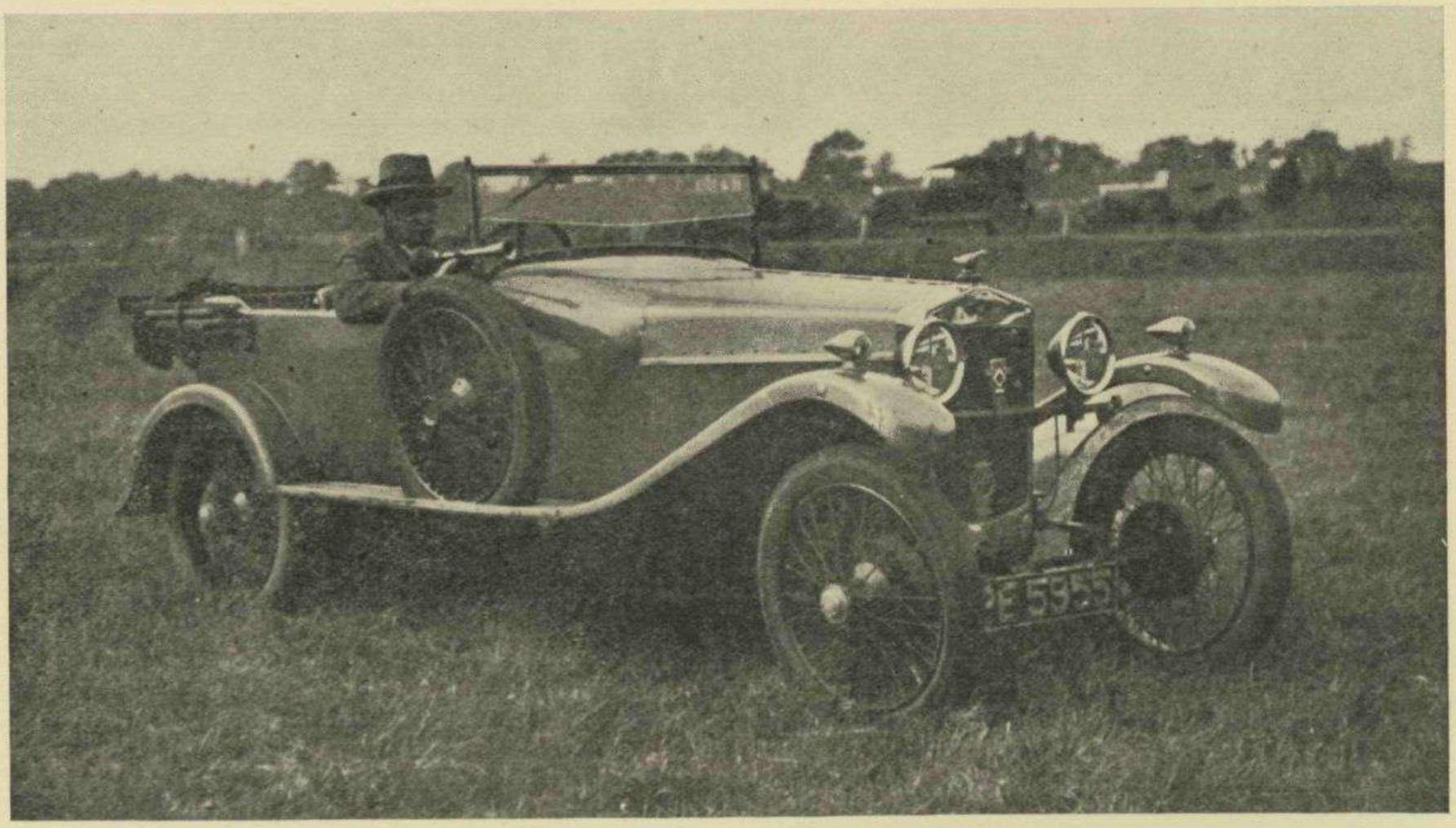
WHEN Capt. A. Frazer Nash announced his intention of producing a four cylinder model, a large body of motorists, sporting men in particular, looked forward to something quite unique in car construction, and had not long to wait before their most sanguine expectations were realised, for without doubt the Frazer Nash boasts a most extraordinary performance.

As our readers are aware, the design is based on the chassis which has been so successful in the past, in general use, in severe competitions, both in the hands of Capt. Frazer Nash and of private owners.

of Frazer Nash, one might be inclined to characterise as almost freakish.

But the proof of the pudding is in the eating, and on examining all the details with the critical eye of an engineer, one can find nothing but the most robust construction, and a design which is really practical from start to finish.

The frame itself is built up of sturdy pressed steel members, suitably braced by stiff cross members, and the elliptical springs serve to give a good combination of comfort and road-holding qualities, though at first sight they appear to be very short.



THE CONVENTIONAL APPEARANCE OF THE FRAZER NASH BELIES ITS SENSATIONAL PERFORMANCE.

One of the most notable achievements obtained in competition was the winning of the Pickett Cup at the Boulogne Grand Prix in August, 1923, where the Frazer Nash car, which put up the best performance of the team, was entered and driven by an amateur. Three of these cars were the only team to finish the course, thus gaining the highest award of the meeting.

Other successes of great merit have fallen to the *marque* since that date, but as this article is confined to technical details, matters of history must be left for a more suitable occasion.

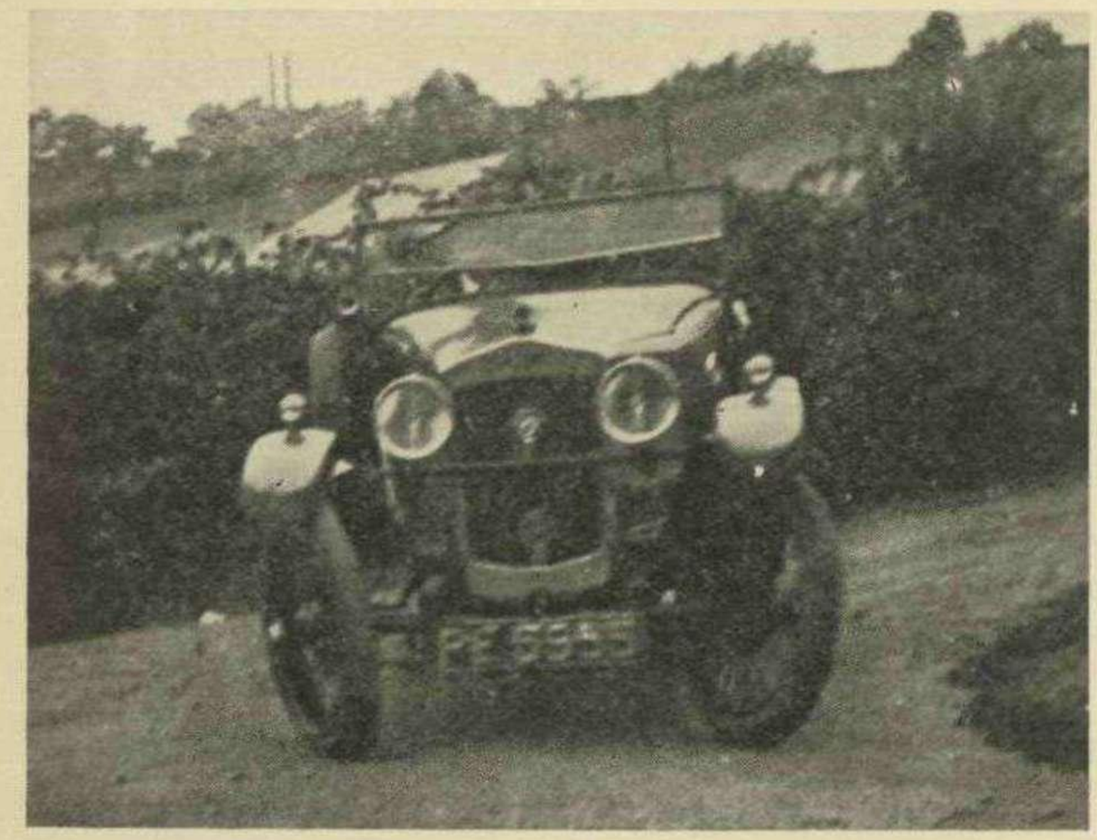
Unique Light Car Design.

In looking over this remarkable chassis one finds certain features which, had it not been for the enviable record for performance and reliability behind the name

Engine Details.

The four cylinder engine measures 69 mm. bore by 100 mm. stroke, giving a capacity of 1,496 cubic centimetres. When fitted with the super-sports camshaft and high compression head, the engine will develop 50 h.p. and will hold up to 4,500 r.p.m. for long periods without any decrease in the power curve. A special close-grain cast-iron is used for the cylinders, and the bores are ground and lapped to ensure accuracy and the best possible finish. The cylinder head is, of course, detachable, and the joint is so arranged that gasket renewals are seldom required, even after the engine has been de-carbonised several times, a process which is not required frequently, thanks to the careful arrangements of the ports and the free egress of the exhaust gases.

THE FRAZER NASH—continued.



DESPITE THE ABSENCE OF A DIFFERENTIAL, CORNERING IS A STRONG POINT OF THIS CAR.

Side valves are used, which, while not in any way impairing the acceleration, enable the engine to maintain its tune without attention for very long periods compared with those usual where overhead mechanism is employed.

Die cast pistons made from a special hard wearing aluminium alloy are employed, and these are fitted with hollow gudgeon pins of the floating type, hardened and ground to fine limits and fitted with brass end caps to prevent all possibility of cylinder scoring.

Engine lubrication is effected by a geared pump working in the bottom of the sump, driven by a skew gear from the half-time shaft and supplying oil in the correct quantity to all parts of the engine under pressure. The cooling is by thermo-syphon, and the distinctive radiator of the well known Frazer Nash design allows ample cooling surface, besides giving an unmistakably smart appearance to the car.

In the interests of weight saving, the electric starter is omitted on the Super-sports model, but this can be fitted as an extra if desired. The vertical position of the dynamo places the commutator brushes and their adjustment in a very accessible place, and the electric equipment throughout is finished off very neatly.

A large Solex carburettor, gravity fed from a tank in the scuttle dash, provides the mixture, and the petrol consumption is between 35 and 40 m.p.g.

Transmission and Change Speed Mechanism.

Remarkable simplicity is to be found in the entire transmission mechanism, which is a very sound engineering job throughout, and as a matter of fact is immensely superior in respect to robust construction and workmanship to that found in the large majority of light cars.

From the engine the drive is transmitted through a single plate Ferodo lined clutch, which has low inertia and imposes no end thrust upon the engine. This clutch is very smooth in action and has a light withdrawal, which further simplifies the ease of gear changing, for which the car is famous.

The drive from the clutch is taken by a tubular clutch shaft of $1\frac{3}{4}$in. diameter by means of a Hardy joint, the centre of which is spigoted to ensure the accurate alignment of the clutch shaft, to a pair of helical bevels to the bevel shaft. Mounted on the latter are the sprockets, from which the drive is taken to the solid rear axle. The various gears are engaged by dog clutches, moving laterally along the bevel shaft, the clutches being actuated through the ordinary form of gate mechanism. Owing to the bevel reduction, which is 3.5 to 1, the bevel shaft runs at a comparatively low speed, which facilitates the easy and silent engagement of all gears at practically any engine speed.

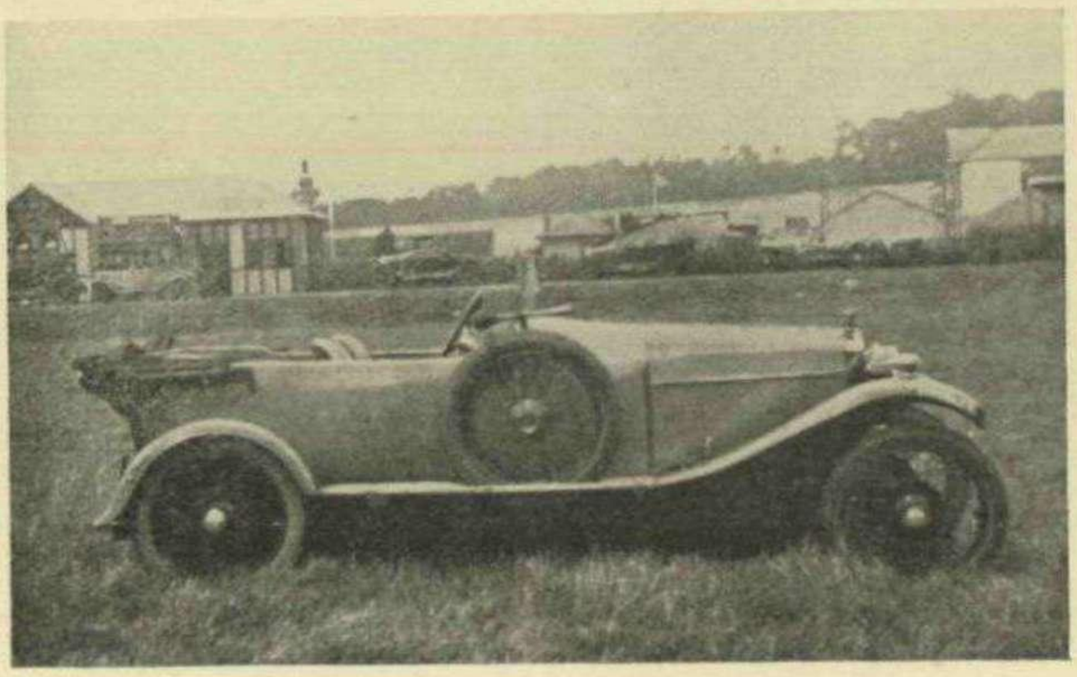
The change speed gear of the Frazer Nash car is one of the outstanding features of the design, and though slightly more expensive than the conventional gear box, has such advantages that its extra cost is fully justified.

The disadvantages of the sliding gear box have come to be regarded, through general use, as necessary evils, such as the difficulty of changing gear at high speed, with consequent liability of damage to the gear teeth, noise and double loss of efficiency when the indirect gears are in use. Of these disadvantages, the mastery of the gear change reduces the risk of damage, but the noise and loss of efficiency remain.

On the latter account many cars are geared on top below their most efficient ratio, to minimise the use of other gears, but on the Frazer Nash the gear can be changed with ease and certainty at any speed with no pause of double clutching, without risk of damaging the sturdy dog clutches, which, on all gears except reverse, bear the brunt of the change.

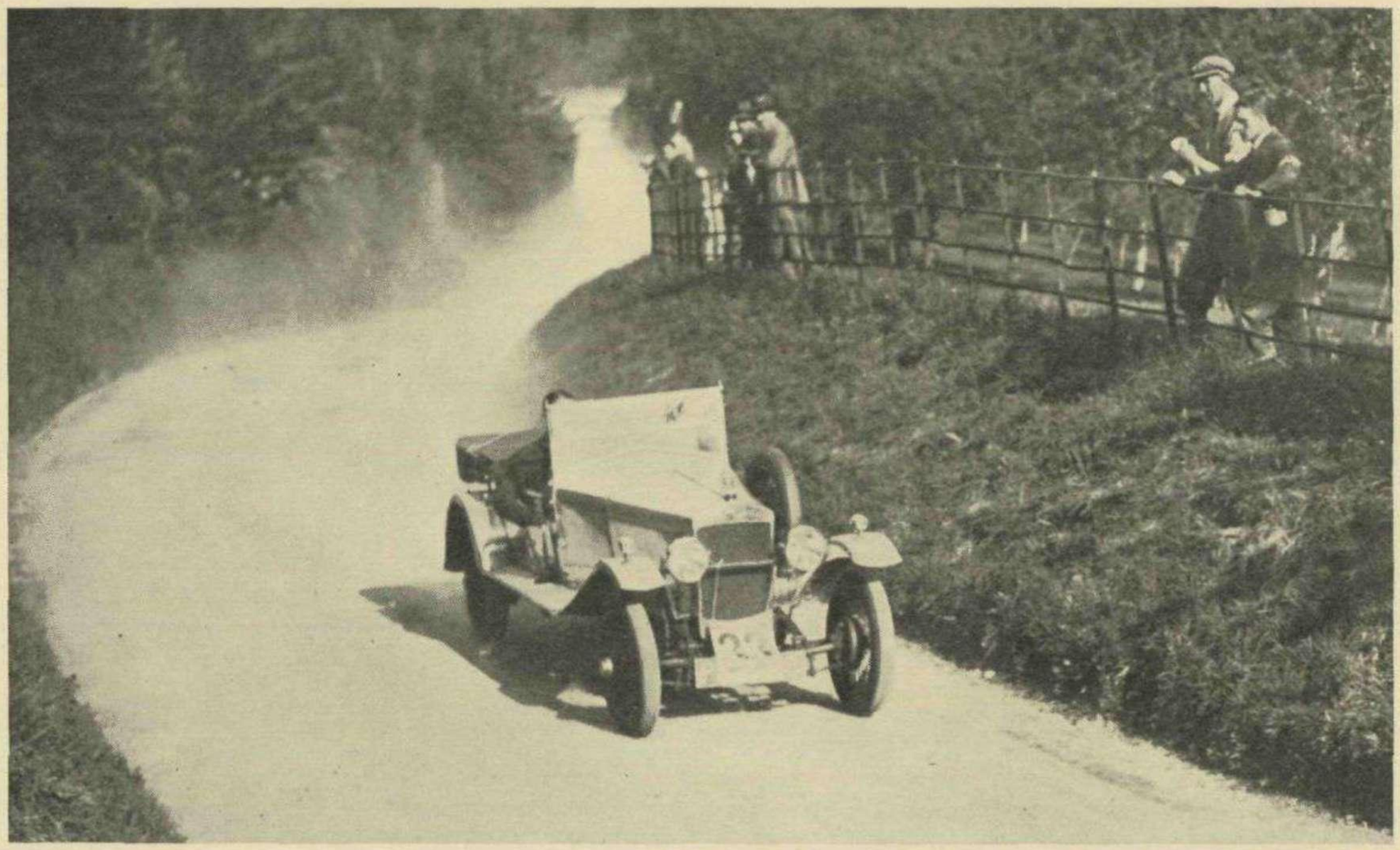
As all forward gears are direct, there is no loss of efficiency when the lower gears are in use, these advantages permitting the use of a high top gear and the remarkable acceleration of which the car is capable. The second speed, though nearly as high as the top gear of many other cars, will take a full load up really steep hills, while the low gear is suitable for any emergency.

The adoption of chain drive may be regarded by some as being of doubtful advantage, but with the transmission system incorporated in this chassis, the method is certainly very effective. The life of the chains is very long indeed, 40,000 miles per set being quite usual, and



THE 4-SEATER MODEL IS REMARKABLY NEAT AND COMPACT.

THE FRAZER NASH—continued.



S. H. Newsome competing in the Annual Shelsley Walsh Hill Climb on his standard Frazer Nash.

when replacement becomes necessary the cost is small, and the fitting takes but a few minutes.

The standard gear ratios are as follows :—Top, 3.8 to 1 ; second, 5.4 to 1 ; first, 11.6 to 1 ; and reverse, 12 to 1. Alternative gears can be supplied if required, and the particular construction of the transmission permits of easy changes of gear ratios for any class of competition work.

By the adoption of a patent interlocking device, the risk of double gear engagement is entirely eliminated, so that the respective dog clutches are locked in position in addition to the control of the selector mechanism by means of the change lever in the gate.

Adjustment of the chain tension is effected by spherically jointed radius rods, and as in practice it is found that all the chains wear equally, the one adjustment suffices.

The lay-out of the steering, front axle and suspension is decidedly interesting. The steering box contains a well cut bevel pinion and bevel sector, controlled by an 18in. steering wheel with a narrow rim. Thrust washers aad dust caps are fitted to the stub axle pivots, the design of which renders the steering quick and sensitive without causing any shocks to be transmitted to the driver.

The tabular front axle, 1¾ins. in diameter, is mounted on quarter elliptic springs ¾in. wide, working in conjunction with specially arranged Hartford shock absorbers. All cornering stresses are resisted by radius rods, and each front spring has a safety leaf above the main leaf, the forward end being brought well round the shackle pin.

Semi-cantilever springs 1¾in. wide are used for the suspension of the rear axle.

Rubury front wheel brakes are fitted and are connected so that the shoes in both front and rear wheel drums are operated from the pedal, the hand brake lever controlling the shoes of the rear brakes only.

For those who require the exceptional performance of the Frazer Nash chassis, together with the roominess and full weather protection of the modern touring car, the four-seater model shown in our illustrations will make an undoubted appeal.

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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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BRISTOL, Glos.	T. D. Corpe, Hill View, Churchill, Somerset.
BROMLEY, Kent...	F. Wilson Smith, 32, Hammeltor Road.
CAMBRIDGE, Cambs.	C. A. C. Birkin, Jesus College
CARLISLE, Cumberland ...	F. Rowlands, "Douglas House," Nelson Street.
CARMARTHEN, Carmarthen. ...	J. Jones, Nelson Hotel.
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Honorary District Agents are appointed by "Motor Sport" to further the interest in the sporting side of motoring and motor cycling.

We give on this page a list of the Honorary District Agents already appointed. Through these Honorary Agents we keep in touch with local events in all parts of the country, and with their co-operation we hope to increase the popularity of motor and motor cycle sport. Honorary District Agents will be pleased, whenever possible, to give assistance to motorists and motor cyclists, desirous of taking part in local events.

If you have any difficulty in obtaining "Motor Sport" in your neighbourhood, the nearest Honorary District Agent will inform you how you may obtain it.

Bradford and District M.C.

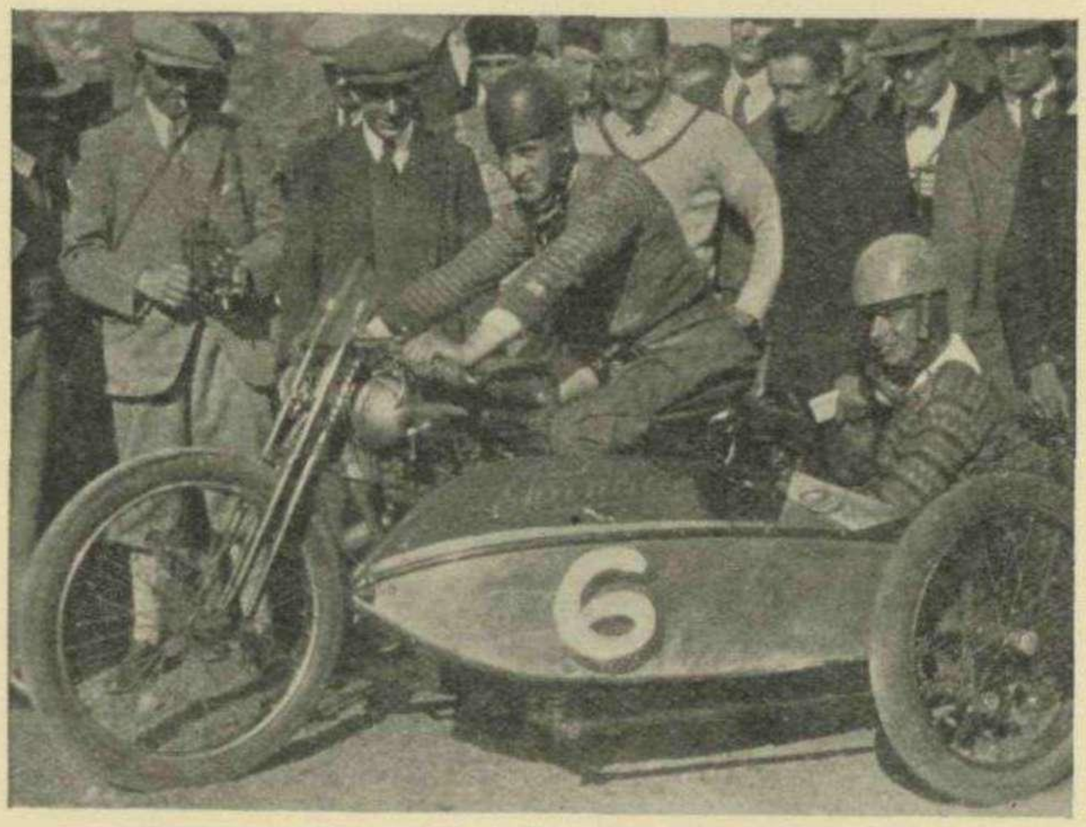
The freak hill-climb held at Hepolite Scar on September 4th attracted a very large crowd who were given a fine entertainment by the competing cars. Some very fine performances were made although the surface of the hill was extremely loose on both the "Rodeo" and ordinary tracks. A handicap for novices was the first event, in which J. Hepworth, driving a "hotted-up" Jowett with a very smart aluminium sports body, made a fairly slow, but very sure climb in 70 seconds. E. Bentley (G.N.) made a fine get-away and reached the top section with ease where he got into difficulties and had to be pushed. G. Hepworth (super sports Alvis) completed the ascent in 52 seconds. A good ascent was also made by H. R. Humphries on a G.N. N. Whitehead was going very well on his 30-98 Vauxhall when a chain came off and wheel-spin supervened. The same cars took part in the open handicap event. The big Vauxhall was more fortunate here and completed the climb in 43 seconds nett. The Alvis ran in second making the climb in 43 4-5th seconds and Humphries was third with 58 seconds nett.

The rodeo class only attracted three entires. The execrable last portion accounted for the failure of the brothers Hepworth. Humphries made the only clean climb on his G.N. which now seemed to be in splendid form.

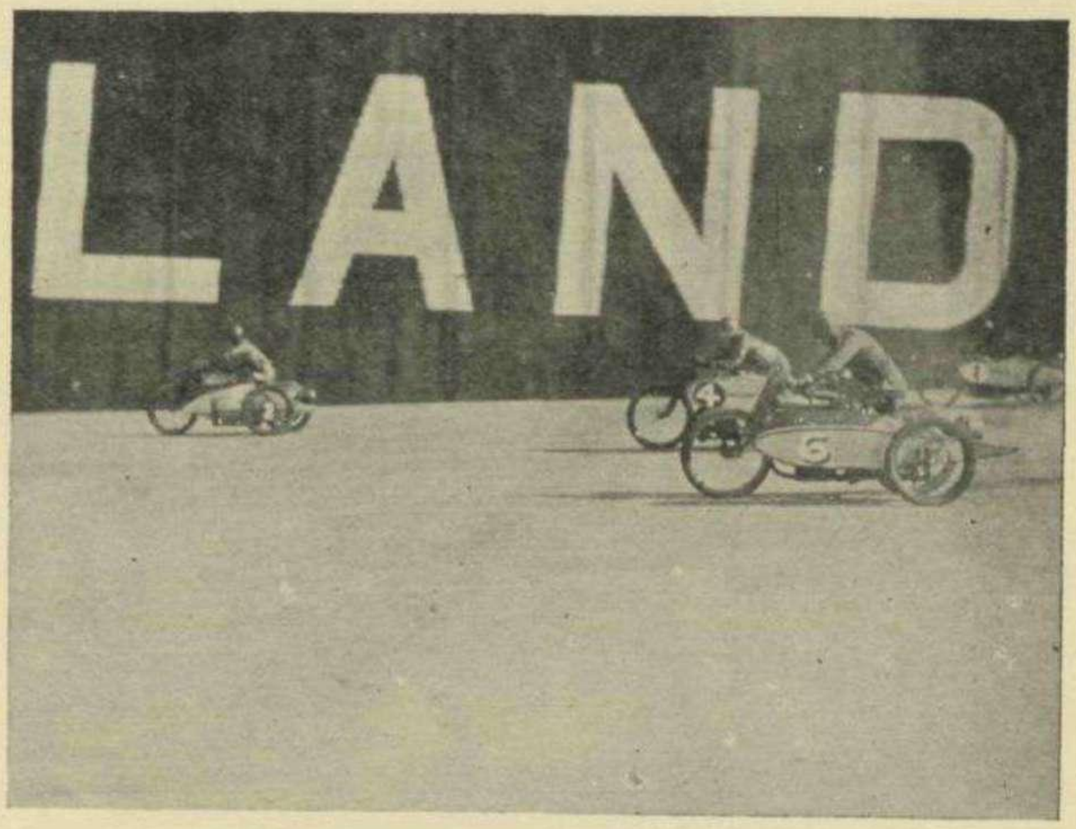
Langford and District L.C.C.

The above club held their Second Trial of the Summer on Saturday, August 28th. The course led from the start at Winscombe, over 108 miles of hilly and second class roads making it difficult for Competitors to keep to a 20 m.p.h. schedule. The first obstacle to be encountered was a broad water splash at Bury where a secret check also was held. The course then led to Exton Hill where a stop and Restart test was held, here many failures were registered, but conspicuous performances were made by Steadman (Riley), Langford-Sainsbury (G.N.), and the Fraser-Nash team. The tea check at Raleigh's Cross Hotel caught many competitors behind their time. From there the course led to Crowcombe Hill which was a non-stop climb. Here wheel-spin accounted for 50% failures. Hush (Fraser Nash) made the best climb, good climbs also being made by Taylor and Seldon (Fraser-Nash's) whilst T. D. Corpe (11.9 G.N.) once again delighted us by his spectacular display

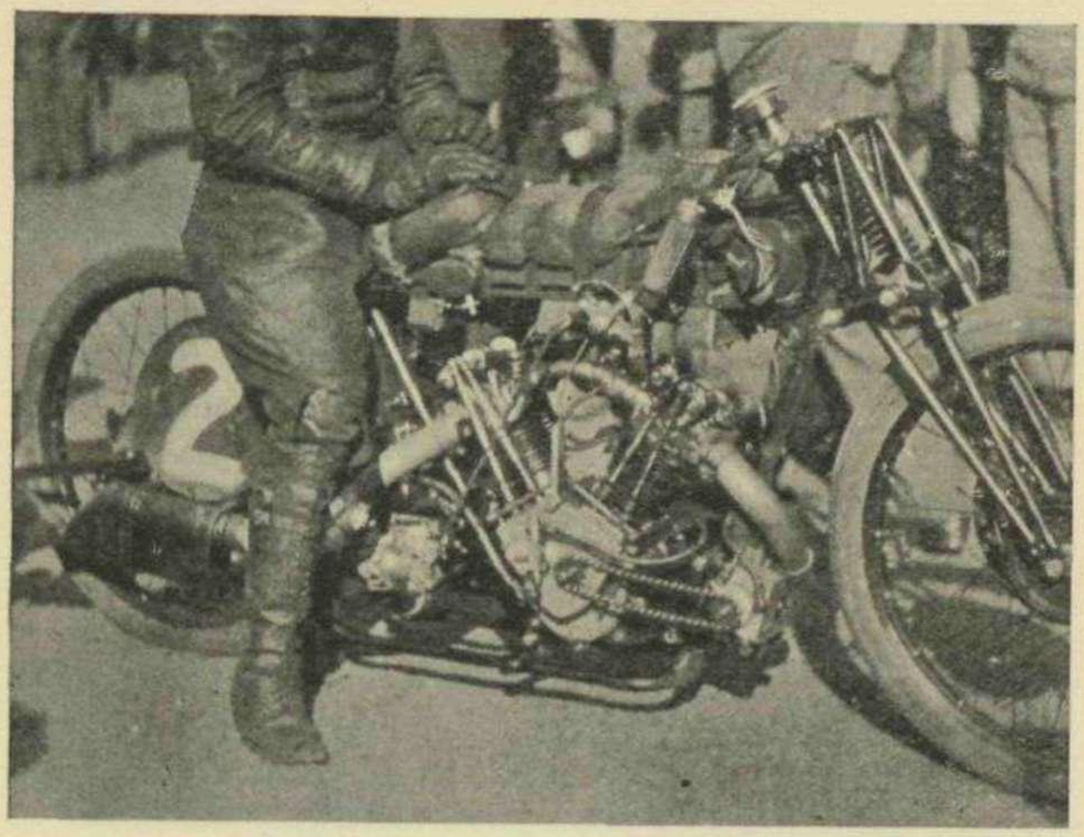
THE B.M.C.R.C. CHAMPIONSHIPS



E. C. Baragwanath (Brough Superior) who Won the 1,000 c.c. Sidecar Race.



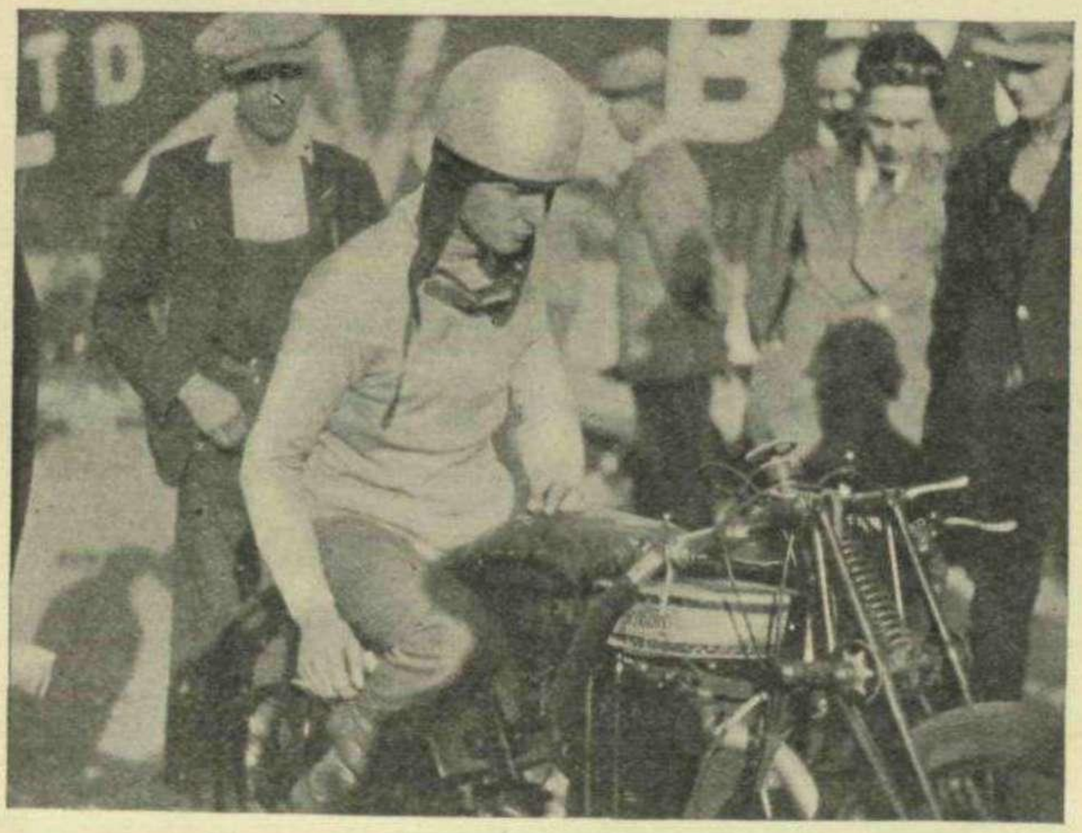
Start of Class "G" Championship.



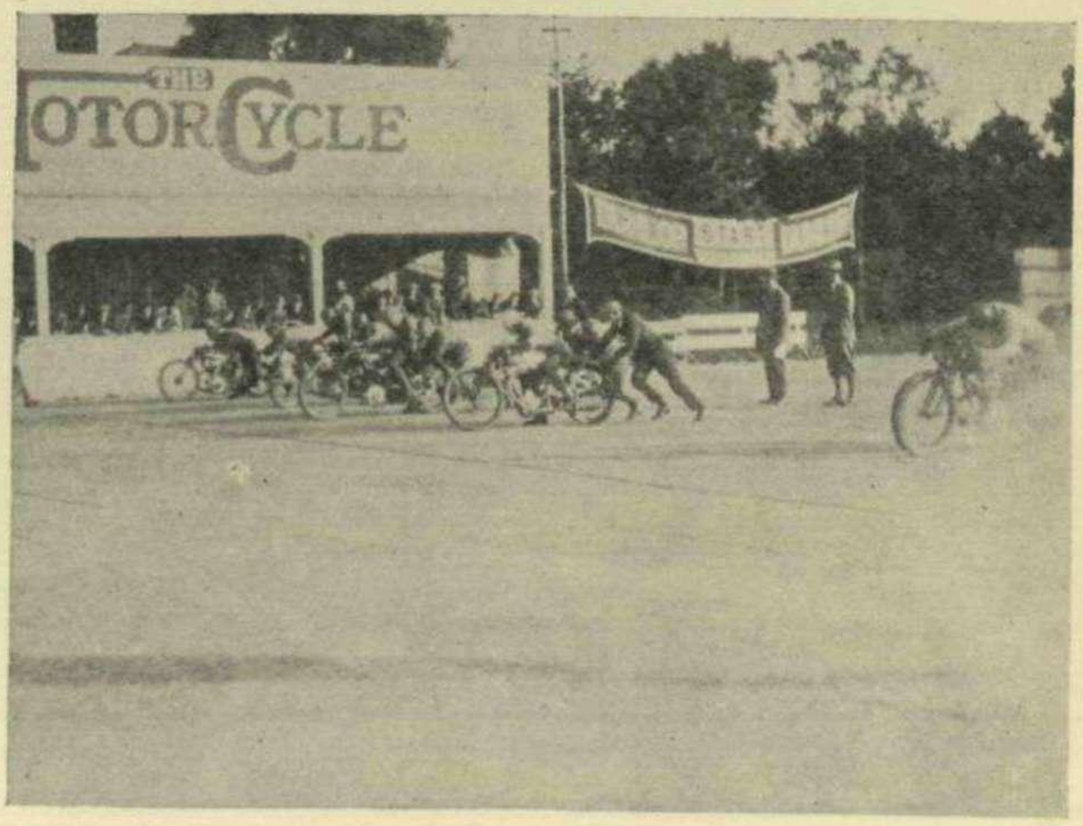
Handley's New 750 c.c. Rex Acme.



A. Denly Won the 500 c.c. on an "O'Donovan" Norton at over 95 m.p.h.



C. S. Staniland who Won the Class "D" Race on a 588 c.c. Norton.



The 750 c.c. Race Proved Quite the Best Event of the Afternoon.

ROUND THE CLUBS—continued.

on the corner. Another secret check was taken at Cannington and only 11 cars succeeded in checking in at Winscombe. Mention must be made of the exceptionally fine performance put up by the three Fraser-Nash's who went through the trial without the loss of a single mark. The results are as follows:—Silver Cups:—G. S. Bush, G. H. Seldon and P. C. Taylor (Fraser-Nash's). Silver Medal:—H. W. Langford-Sainsbury (11.9 G.N.). Bronze Medal:—J. B. Steadman (Riley).

Redditch Motor Cycle and Car Club.

The ballot for the 3.49 h.p. B.S.A. motor cycle held in connection with the recent Charity Gymkhana organised by the above was made on the 25th of August, and the winning number was "4021" in the name of Mr. J. Bourdeaux. The machine was handed to the winner at the office of the local B.S.A. Agents, Messrs. Pitts & Son, on the 30th. The Chairman of the Committee, Mr. N. F. Cave, presided over the quite informal proceedings, and was supported by Mr. M. Dybeck, Mr. N. A. Person, Mr. C. E. Spooner, Mr. S. B. Homming, Mr. D. L. Waugh, and the General and Trials Secretaries. The winner of the ballot after receiving the machine very generously handed to Mr. Waugh his cheque for £5 to be allocated to the Hospital Saturday Fund.

Newcastle and Northern Motor Club.

The last Reliability Trial of the above Club was held in glorious weather. The entries were quite up to standard. The route was by Kirkwhelpington, Scots Gap, Rothbury, Hepple, Otterburn, Ridsdale, Ryall, Stamfordham and home.

The first check at Kirkwhelpington found all the competitors on time except one or two, who misjudged the steep little hill over the bridge leading up to the Temperance Hotel. The going after leaving Kirkwhelpington to Rothbury was exceptionally rough, especially after Scots Gap, but good time was kept, and at Hepple check there were only two not on time.

The route between Hepple and Otterburn was also exceptionally rough, and it took the competitors all their time to keep within the average. There was one or two out at Otterburn, but Wright with his "Morris" had kept free from any loss. After leaving Otterburn a secret check was made between two miles beyond Otterburn and the Five Lane Ends, nine miles away. The check was taken this time away from a mile post at a measured distance.

The competitors, however, kept their average up wonderfully well, and the best performance was that of Mr. A. Wright with 4 secs. out and Mr. A. Pawson with 8 secs. out.

The other checks at Stamfordham and the final gave no great difficulty, and in the end it was found that Mr. A. Wright was first with an error of only 4 secs., Mr. A. Pawson second with an error of 13 secs., he also taking the special cyclist's prize, and Mr. E. Willan was third with an error of 54 secs. These results of course, are provisional and subject to confirmation.

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ROUND THE CLUBS—continued.

The Brighton and Hove Motor Club: An Important Development.

Messrs. Garages (Hove) Ltd., in conjunction with the above Club are proposing to construct a Motor Car and Motor Cycle Speedway. This Speedway will be within 6 miles of Brighton and will be constructed so as to give a one mile straight, wide enough for two cars to run at one time, and will also contain a " hairpin hill section," the lay out being superintended by one of the best known motor race drivers.

The scheme is well on its way to maturity and it is hoped that operations will be in full swing during the winter months, employing unskilled (and at present unemployed) local labour, so that arrangements for speed events may be made for next Season. This proposed speedway is not intended in any way to compete with Brooklands, but is to be more as a venue for any Club who wishes to have a speed event or hill climb at a small cost, and as a means of entertaining their Club members, and admission to the Public will be probably fixed at a moderate charge of 1s., with possibly a small additional charge for certain vantage points, but it is hoped that the course will be so arranged that the Public can view events from any point.

Further details will be published in our columns as soon as they are available and as the arrangements mature.

The Junior Car Club South Western Centre.

The sixth annual Southampton Exeter trial of the Junior Car Club South Western Centre was held on Saturday, 4th of September, there were only four non-starters. The competitors were credited with 100 marks, six marks being deducted for every stop in a non-stop section and one mark for every minute early or late at the checks. The route included Porlock, Lynton, and Beggar's Roost.

Three competitors failed to arrive at Beggar's Roost, they were E. R. Goffe (G.W.K.), Miss K. M. Nippierd (Lea Francis) and A. G. Williams (Rhode). The best ascents were made by H. Jefferies (Frazer Nash), R. A. F. Clark (12-40 A.B.C.), E. Hancock (Frazer Nash), and F. Finch, (O.M.)

The route then continued through Simonsbath, Dulverton, Bampton, Tiverton to the final check at Stoke Cannon, where the competitors proceeded to the Rougemont Hotel and very much enjoyed the dinner and dance held there. The following are the results :—

THE PERRINS TROPHY: E. Hancock (Frazer Nash).

THE G.F.S. CUP: J. S. Gorst (10 Salmson).

FIRST CLASS AWARDS: H. Jefferies (Frazer Nash), J. S. Gorst (10 Salmson), C. C. Clayton (8.50 Amilcar), E. J. Sleep (12-50 Alvis), D. Duncan (8.7 G.N.), R.A F. Clark (12-40 A.B.C.), E. Hancock (11.9 Frazer Nash), H. D. Scowcroft (10.4 Riley), G. Hendy (11.9 Lea Francis) and R. H. Cooper (10.8 Riley).

SECOND CLASS AWARDS: C. M. Anthony (8.2 Senechal), S. Clark (11 Alvis), C. B. Moss-Blundell (7 Austin), L. G. Ward (11.4 Standard).

THIRD CLASS AWARD: C. Finch (11.9 O.M.).

The following retired: Miss K. M. Nippierd (11.8 Lea Francis), and Captain A. G. R. Williams (11 Rhode).

Belfast and District M.C.C. and North Down M.C.

The Club recently held some combined reliability trials run on unusual lines. The trial for the Coates Cup was over the whole course, that for the McDowell Cup (confined to Belfast members), over the first half and that for the McMullan Cup (North Down members) over the second portion. Sixteen members started and two retired. The following are the results :—

COATES CUP AND REPLICA: 1, S. Q. Osborne (499 Rudge Whitworth); 2, T. Stewart (348 Douglas); 3, J. Jirkwood (498 A.J.S. sc.).

COATES SILVER MEDAL: S. Wallace (980 Brough Superior).

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