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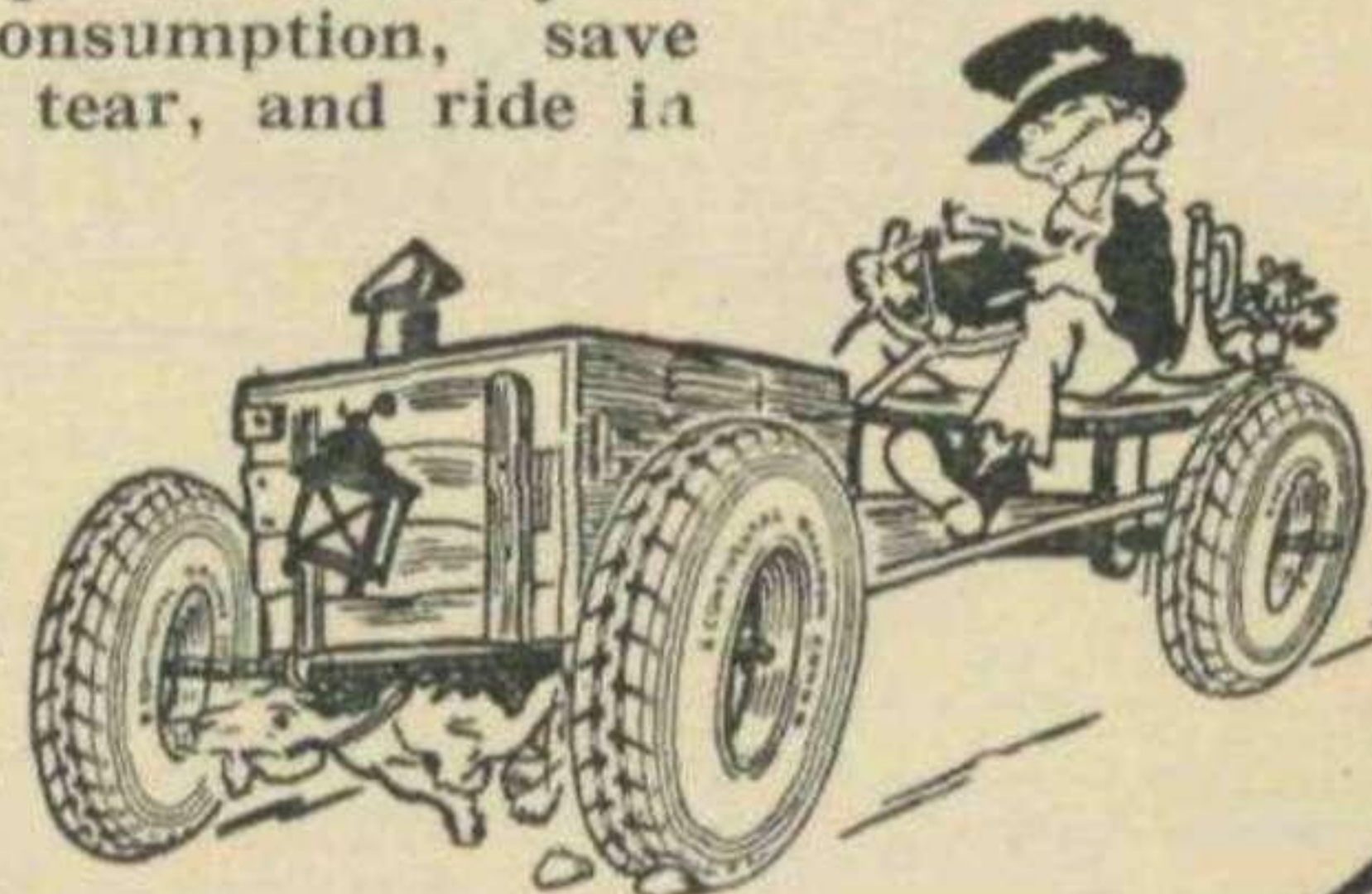
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The BROOKLANDS GAZETTE

No. 5

NOVEMBER, 1924

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CONTENTS.

	PAGE.
Editorial Notes	195-197
Death of Count Zborowski	197
Motoring Sportsmen of To-Day	199-200
Opening of the Track at Montlhéry	201-203
Sporting Events of the Month	203-206
Power with Economy (Memini Carburettor)	207-209
A 4,000 Miles Certified Trial	209
Events of the Month in Pictures	210-211
Motor Cycles at Olympia	212-218
Accessories at Olympia	219-224
Round the Clubs	225-227
Here and There... ..	228

NOTICE TO CONTRIBUTORS.

All contributions, whether literary, artistic or photographic, will be carefully considered by the Editor. A stamped, addressed envelope should be sent with every contribution, and the Editor will endeavour to return all matter he is unable to accept. Neither the Editor nor the proprietors are responsible for the loss of any contributions.

NOTICE TO CLUB SECRETARIES.

Club Secretaries are specially invited to send the Editor paragraphs about the activities of their Clubs, and, in particular, notice of forthcoming events. All reports of competitions, meetings and other events should be sent to the Editor as early as possible, and must be received by the 20th of the month, to ensure attention for the next issue. Address contributions to: The Editor, THE BROOKLANDS GAZETTE, 65, Victoria Street, London, S.W. 1.

Editorial Notes.

The Shows.

This is verily a time of shows, of exhibits and exhibiting. First we had the Paris Salon, then the Exhibition of Motor Cars at Olympia, now we have the Motor Cycle and Cycle Show, and hardly will the doors of Olympia have closed on that before Kelvin Hall, Glasgow, will begin to fill with a further display of motor vehicles of all types, sizes and weights. Of all these, however, there is only one which really makes an appeal to the motoring sportsman, and that is the one now open at Olympia: the Motor Cycle Show. The Car Show, which might have had that appeal, is bereft of its sporting attraction, to a large extent, by the will of the exhibitors, who will not permit machines of a purely racing type to be exhibited. In this regard rather a humorous incident occurred in the course of our visits to the Show, when a salesman on the stand of a well-known maker of racing cars turned to one of the exhibits and described it to us as being the racing model. Looking in the catalogue, we observed that it was described as a "sports" car. He in his turn read his firm's description of the vehicle in question, and, obviously taken aback, and equally obviously ignorant of the disability under which would-be exhibitors of racing models must labour in this matter, he cursed, by bell, book and candle, the compilers of the catalogue who had, according to him, made a mistake in their reference to this particular model.

This year, at any rate, the car show came as near to being a show to delight the eye of the motoring sportsman as it has done for long years—perhaps it will not come so near again for a long time to come. There were sports models there, and amongst them some fine examples of the art, shown on twenty-five per cent. of the car stands, a proportion which, we imagine, creates a record for recent years.

[“THE BROOKLANDS GAZETTE” will deal with all matters pertaining to motoring sport in all its forms in an impartial manner. Consequently, the Editor does not necessarily associate himself with the opinions expressed by his contributors.]

EDITORIAL NOTES—continued.

Sports Model on Every Stand.

In the present Show there are sports models to be found on the stand of every exhibitor of complete motor cycles. The Motor Cycle industry owes its present proud position in industry to the sporting side. It is the motoring sportsman, on road and track, on hill climbs and in reliability trial, who keeps the motor cycle and its occasional complement, the sidecar, ever before the growing generation of motorists, ensuring a steady sale to a never-dying and always-growing market, besides creating a goodwill amongst the older generation who, either from inclination or from necessity, chose the motor vehicle which will, at lowest cost, give them the freedom of the road which they so much desire. On the other hand, it has also to be admitted—this Show would give the lie to those who would not make the admission—that the motor cycle manufacturers are for ever striving to fulfil the needs of the motoring sportsman, and at Olympia this week there is a variety of machines sufficient to meet, many times over, the needs of every possible taste in sports mounts, from the ultra-lightweight machine to those ponderous distance annihilators which, credited only with the power of no more than eight horses, have more than that of six or even eight times the number.

Reporting Progress.

He would be a bold man who would dare, this year, openly to doubt that the design of motor cycles is progressing. The evidence is so patently disclosed with machines on the one stand hardly a quarter of a century old, cheek by jowl with their magnificent descendants of to-day, in the next. Nevertheless, the casual observer, one who was not well acquainted with the special features of this year's machines and with those of yesteryear, would be hard put to it to indicate the lines on which progress is taking place. The progress is there, and the evidence of progress is there, but it requires a guiding hand to point it out. In sports machines it takes most often the line of improving the methods of lubricating the engine, and the tendency to rely more and more on mechanical means of achieving that end is marked, although not all are yet agreed that it is best. The overhead valve has no peer for speed work pure and simple, and its notable efficiency is now being increased by re-arrangement of ports, and the provision, as in the case of one notable speed-model engine, of two exits for the exhaust gases. Shock absorbers and steering dampers are coming to be regarded as essential details of the racing man's mount, while frames are gradually tending towards the tri-



BARNES, ON A SALMONSON, NEGOTIATING LIVERIDGE HILL, DURING THE SUTTON-COLDFIELD TRIAL.

EDITORIAL NOTES—continued.

angulated form which engineering knowledge told us long ago was best, but towards which makers have had to be impelled by the one argument which is unanswerable, the argument of performance on the track.

The user of the touring mount is reaping the benefit from the sports experience of the maker of his machine. He too is finding his machine equipped with shock absorbers and steering dampers, and, according to our belief, it is nothing but the added expense of the overhead valve which prevents it from becoming universally employed on the touring mount as on the racer. So far as touring machines are concerned, apart from the points mentioned in connection with sports machines, and all of those we have enumerated in that connection are reflected in the design of the up-to-date touring motor cycle, the only new departure is in the fitting of the larger models with the new balloon tyres. Add to that a general tendency to improve upon the equipment which is provided in the case of "All-On" machines, and we think the situation as regards motor cycles of 1925 as compared with those of 1924 is conclusively reviewed.

Death of Count Zborowski.

All our readers will have learned, with very great regret, of the tragic end of Count Zborowski. He was killed on Sunday the 19th ult., whilst driving a Mercédès car in the race for the Grand Prix of the Italian Automobile Club, on the Monza track. It was during the 43rd lap that the car left the track and, striking a tree, turned turtle and was wrecked. Count

Zborowski was killed instantly, his mechanic, Martin, being slightly injured.

There were four Mercédès cars entered for this race, and the other three drivers retired immediately they heard of the accident.

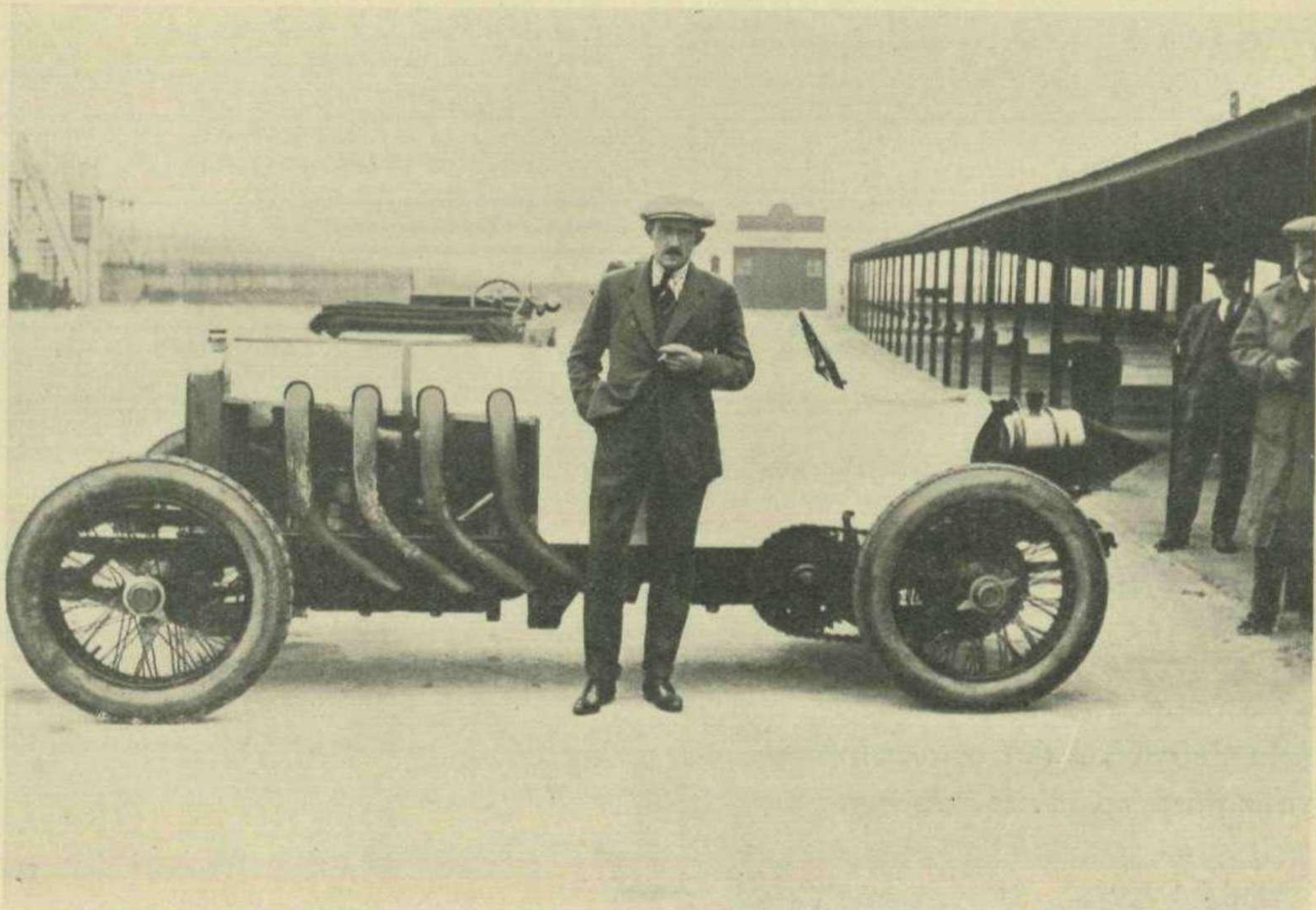
The Count was very popular with all those who took any interest in motoring sports. His fame, as a result of his supreme sporting qualities, spread much further afield than in this country, where a good sportsman will always find favour whatever may be his particular line. He came of a sporting family, his father having been an active competition driver in amateur classes during the early days of the sport, and he also met his death whilst driving a Mercédès car, in the La Turbie Hill Climb of 1903.

Count Zborowski first became famous in this country as the owner of "Chitty-Bang-Bang," a Maybach engined car, first seen at Brooklands in 1920, but he was versatile in his preference for types of racing cars, as in his attitude towards sports generally.

He was as famous in America, Spain, Italy and France as here, and in all those countries he had raced. In addition to road and track racing, he was also an enthusiastic motor boat owner, and in his boats he was partial to Mercédès engines.

Amongst his hobbies, which were many, a liking for model locomotives and an enthusiasm for wireless were prominent.

In his passing, Brooklands, this country, one might say the world, experiences a loss which will long go unfilled.



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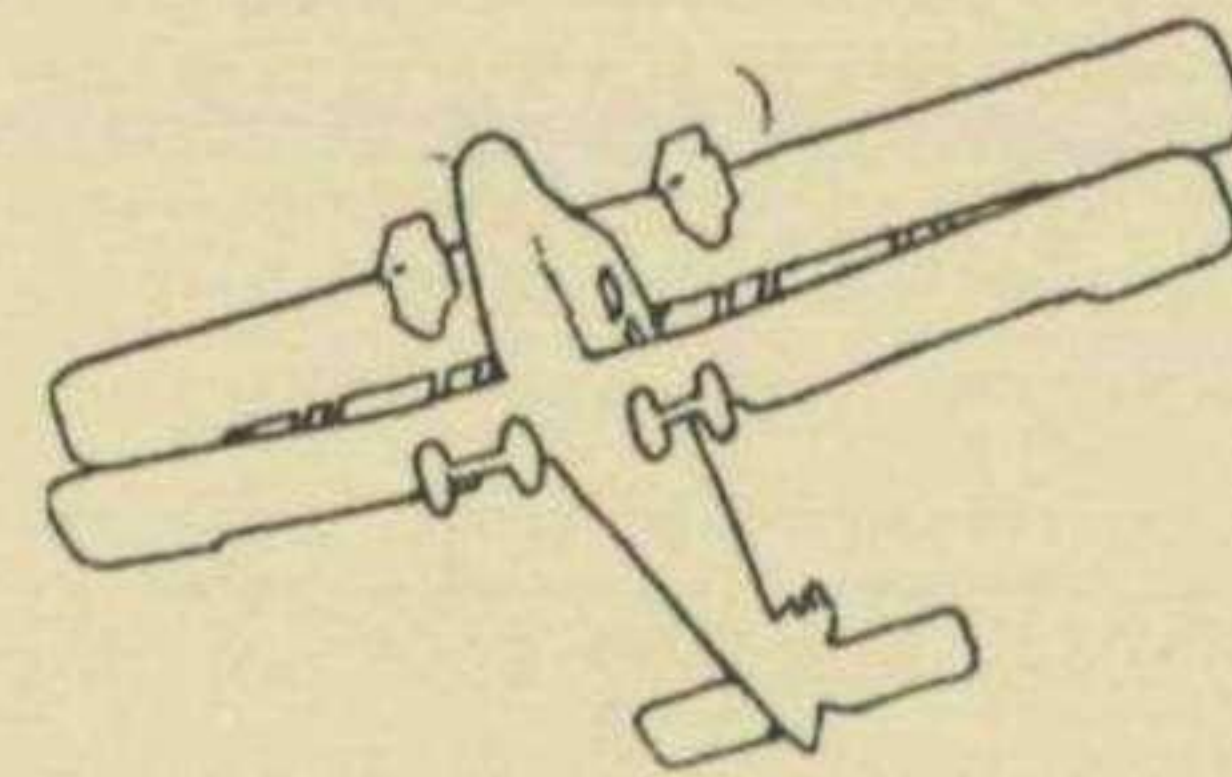
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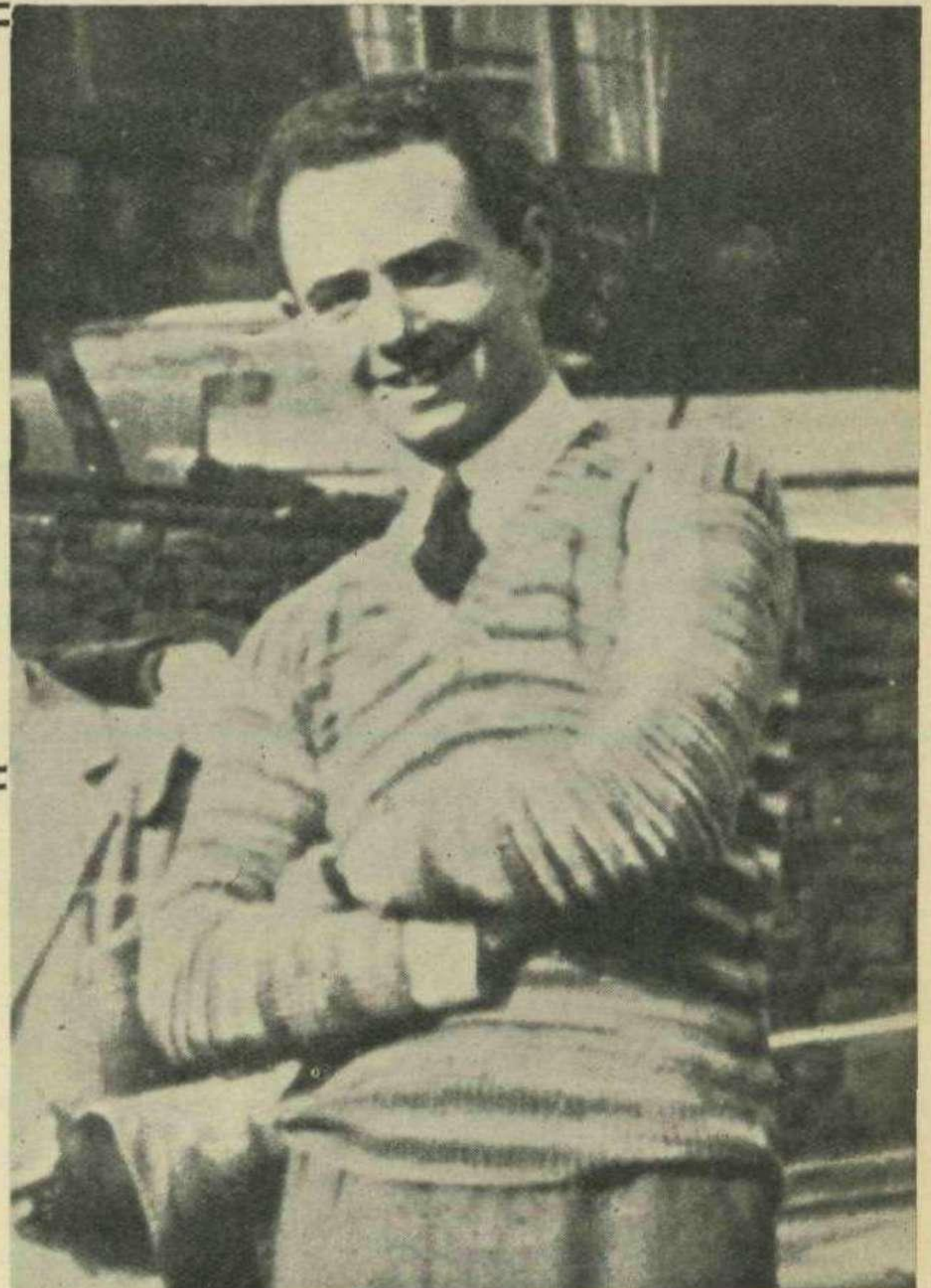
by the Editor

No. 4. Raymond Mays.

RAYMOND MAYS' interest in motoring sport commenced as soon as he was old enough to take an interest in anything. It must have been so, because he can remember being very keen on motor races when he was six years old, and that is merely as far back as his memory carries him: the interest is older than the memory. A variety of causes intervened, however, to prevent him from getting hold of a really speedy mount at that time, while later on, when a suitable opportunity might have come along, another vexatious delay was brought about by the War, and, as a matter of fact, it was not until 1921 or thereabouts, whilst he was at Cambridge, that he owned his first car, a sports Riley, and began that brilliant career in the midst of which we now find him.

The Riley was a good mount when he first took hold of it. Its speed capacity was round about fifty or sixty miles per hour. With the expenditure of a little well-directed labour by Mr. Mays, supplemented by the more experienced aid of Messrs. Kensington Moir and W. M. Thomas, the performance of the Riley was improved to a notable extent, until its speed verged on eighty miles per hour. It was shortly after this that Mr. Mays witnessed the sparkling performance of the Bugattis in the 200-mile races, and forthwith decided that a car of that type should be his in the near future. And so it came to pass. The Bugatti, an 11.9 h.p. with a cylinder capacity just short of 1,500 c.c., was a standard model, bought in the ordinary way. It was after it had passed into the hands of its present owner that it began in numerous particulars, small at first, and more important as time went on, to depart from that standard. The importance and effectiveness of the aggregate result of all these modifications is indicated by the significant fact that while the speed of the car on third gear was in its early stages 54 miles an hour, it eventually became capable of 84 miles per hour on that same gear, and the engine of Mr. Mays' present Bugatti is capable of maintaining a rotative speed of no fewer than 6,700 r.p.m.!

Raymond Mays' career, from the early days of 1921 to the present time, has been one uninterrupted procession of successes, and a perusal of the records of hill

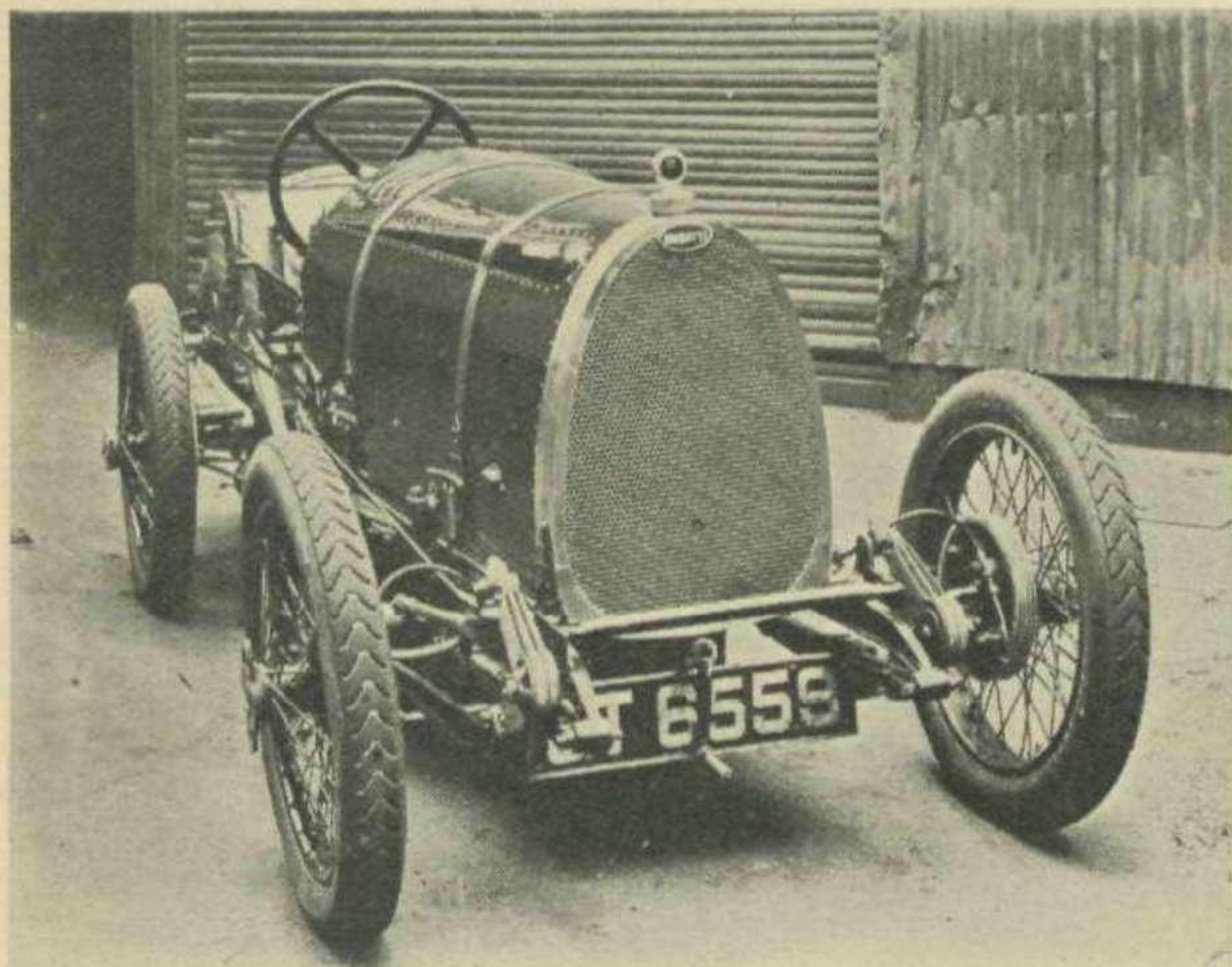


climbs and speed events during that period bears monotonous testimony to his consistently good work. The frequent reiteration of the phrase "Mr. Raymond Mays made the fastest time of the day and established a new record for the hill" actually palls long before the end is reached, and after all, he has only just begun.

Amongst these many successes which stand to his name, the following are of special interest. Dean Hill: fastest time of the day. Spredaeagle, competing with cars of twice the engine size: fastest time of the day and record broken. Saltersford: record broken. South Harting, Holme Moss and Aston Hill: record. Porthcawl: fastest time of the day. Saltburn: fastest time, and so on. In four years his total of important awards has passed the 250 mark.

When on the road, or more particularly when taking part in a speed event or a hill climb, Mays' performance is invariably that of the perfect artist in his line. He is always cool and collected, but particularly so in the face of seeming inevitable catastrophe, as when, for example, his car shed a rear wheel while travelling at 60 miles per hour ascending Caerphilly Hill, or again, quite recently, when topping Holme Moss at 75 miles an hour, his accelerator pedal jammed at the same time as his clutch pedal, and he was faced with the alternatives either of dashing into the midst of a crowd at this speed, or turning his car up the banking and stopping it in that way. He has sufficient rapidity of thought and action to be able, for example, to avoid inflicting more than a minimum of damage upon his engine in such circumstances as occurred once at Saltburn Sands, when a

MOTORING SPORTSMAN OF TO-DAY—continued.



THE 11.9 H.P. SPORTS BUGATTI—NOW KNOWN AS THE RAYMOND-MAYS BUGATTI: THE FRONT WHEEL BRAKES ARE WHITEHEAD.

connecting rod broke and he was able to draw up without any further damage occurring.

His methods most strongly emphasise the universal application of the principle that, to be supremely successful in any branch of sport, hard work and enthusiasm are absolutely essential. That he is enthusiastic none who have seen him on any of these sporting occasions can doubt. Few, however, will realise that each hill climb is the culmination of a week of strenuous toil which commences the morning after the conclusion of one such event when, on reaching his home at Bourne, Lincolnshire, his two cars are taken completely apart, every detail being thoroughly examined, overhauled, and trued or tuned up wherever such truing or tuning is necessary, the work rarely being completed with time to spare before it is time to set out for the venue of the next event.

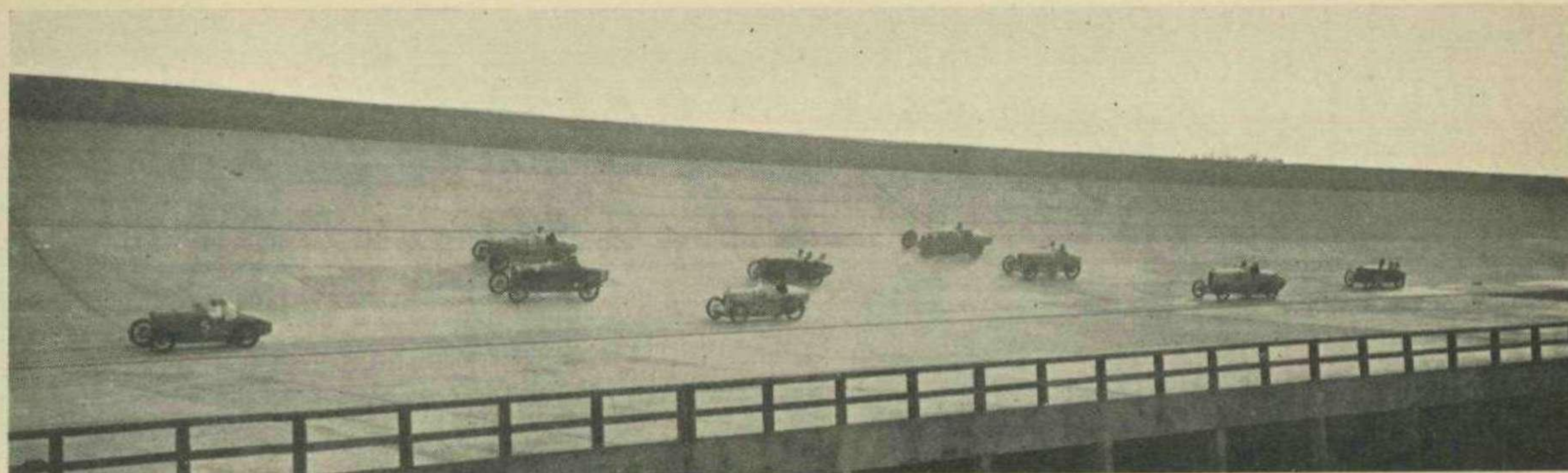
Apart from his very effective notions of the essential features of the engine for a sports car and of the chassis modifications which are desirable for success in hill climbs, Mr. Mays has certain ideas of his own relating to the most suitable type of body for a car of this type, and particularly when it is intended that it shall be used to any considerable extent for participation in hill climbs. Complete freedom for his elbows so that his right hand can be put outside the car to the hand brake lever, and as quickly withdrawn to the steering wheel, is one essential. Mr. Mays likes to sit on a car rather than in it, and is not comfortable unless he can see, not merely the front wheels of the car he is driving, but the steering pivots.

Asked as to his ambitions, Mr. Mays tells us he fully intends to win the Grand Prix. Incidentally, he is strongly of opinion that no better practice for this event can be obtained than is available in the course of the hill climb events at which he is such a star performer. It is significant to note that, in his opinion, and in this he is supported by Mr. Segrave, the speed of cornering during a Grand Prix is mild by comparison to that which takes place in the course of a short hill climb. That it must be so, will be apparent on the briefest consideration, for it should be realised that, if the corners in the course of a long race like the Grand Prix were taken after the fashion which is familiar in our hill climbs incessant trouble with tyres would ensue.

Asked as to his plans for the immediate future, Mr. Mays tells us that these are at present somewhat in the air. Hitherto he has, as all our readers are no doubt aware, performed purely as an amateur. This he finds involves a very heavy drain on his private purse, and we should not be at all surprised to learn, in the near future, that Mr. Mays has come to terms with one or other of the leading manufacturers to drive cars of a specific make. That the firm who acquire his services will reap a very considerable benefit, in more senses than one, we have no doubt whatever.



RAYMOND MAYS—MAKING SECOND FASTEST TIME ON KOP HILL; HE IS DRIVING A VAUXHALL.



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From our Special Correspondent in France.

THERE was considerable speculation amongst the majority of those who, on the opening day, were journeying to the new track at Montlhéry, as to the necessity for the large number of police of all categories who were posted along the roads, at many points in groups of five or six. On the return, or attempted return, for that is almost what it turned out to be, in many cases, the wonder was turned to annoyance that those responsible had so little foresight as to provide so few of these arms of the law. If any emphasis was necessary to indicate the triumphal success of the opening of the new track, and subsequent events will show that no such emphasis was needed, it was afforded in the huge crowds which, in automobiles of every age and description, thronged the roads leading to Montlhéry.

The first event, for cycle-cars of 500 c.c., was won on a Morgan ridden by Dhome, at 93.717 km.p.h. (57.8 m.p.h.). Darmont (Morgan) was second. In the Grand Prix for motor cycles of 175 c.c. capacity, Marchant, riding a D'Yrsan-Blackburne, ran home an easy winner, covering the 150 km. in 1 h. 3 m. 26 s.

In the next event, for cyclecars of 750 c.c., first place went to Gordon England (Austin) after an interesting and keenly-fought race. Austin machines, driven by Waite, Hall and Dingle, also came in second, third, and fourth. The 175 km. course was covered by this winner in 1 h. 28 m. 44 s., an average speed of 118.318 km.p.h. (73.55 m.p.h.): 1½ secs. covered the first four, while Dingle made the fastest lap at 126.45 km.p.h. (78.45 m.p.h.). The smooth running of the four Austins, which ran throughout the race with clock-like regularity, was the admiration of the crowd of 60,000 who were present.

At the second meeting, which was much more interesting, Le Vack proved to be the hero of the day. In the races for machines of 250 c.c. and 350 c.c. capacity, he put up some extremely fine performances, completing

the course of 175 km. in the former event in 1 h. 30 m. 1½ s., which is equivalent to an average speed of 116.627 km. per hour (72.45 m.p.h.). In the second race, with the larger machine, and over a distance of 200 km., his time was 1 h. 33 m. 16½ s., an average speed of 128.858 km. per hour (80.11 m.p.h.). This race was exciting from start to finish, and the result was always in doubt, Le Vack being closely followed all the time by Alter (A.J.S.), who was only a few yards behind at the finish.

There were ten starters in the Grand Prix des Voitures. The all-red Salmsons took the lead at the start and maintained it to the end, an almost ferocious struggle being carried on for most of the time between Goutte and Casse until, towards the end, Goutte drew away, eventually finishing the 200 km. in 1 h. 27 m. 6½ s., two laps ahead of his confrère on another of the Salmsons. Waite, on an Austin (750 c.c. against the 1,100 c.c. of the others) did very well indeed, and his performance was much admired.

In the triangular fight between Thomas, on a Leyland, Eldridge on a Fiat, and Duray on a d'Aoust, both Thomas and Eldridge suffered considerably from tyre trouble, and both of them ran for considerable distances at over 100 m.p.h. on the rim. Eventually Eldridge won, covering the distance, 15 km., in 4 m. 37½ s. (121 m.p.h.). Thomas made fastest lap at 212 km.p.h. (132 m.p.h.).

Some World's Records Established.

On the Monday, October 13th, Gros and Martin were successful in breaking, at long last, the records set up by Mr. Edge in 1907, when he covered 1,581 miles 1,310 yards in 24 hours, on a Napier, at an average speed of 65.91 m.p.h. They drove a two-litre Bignan for the same period covering 2,930.193 km. at an average speed of 121 km.p.h., which is equivalent to 1,820 miles, at 75.6 m.p.h.



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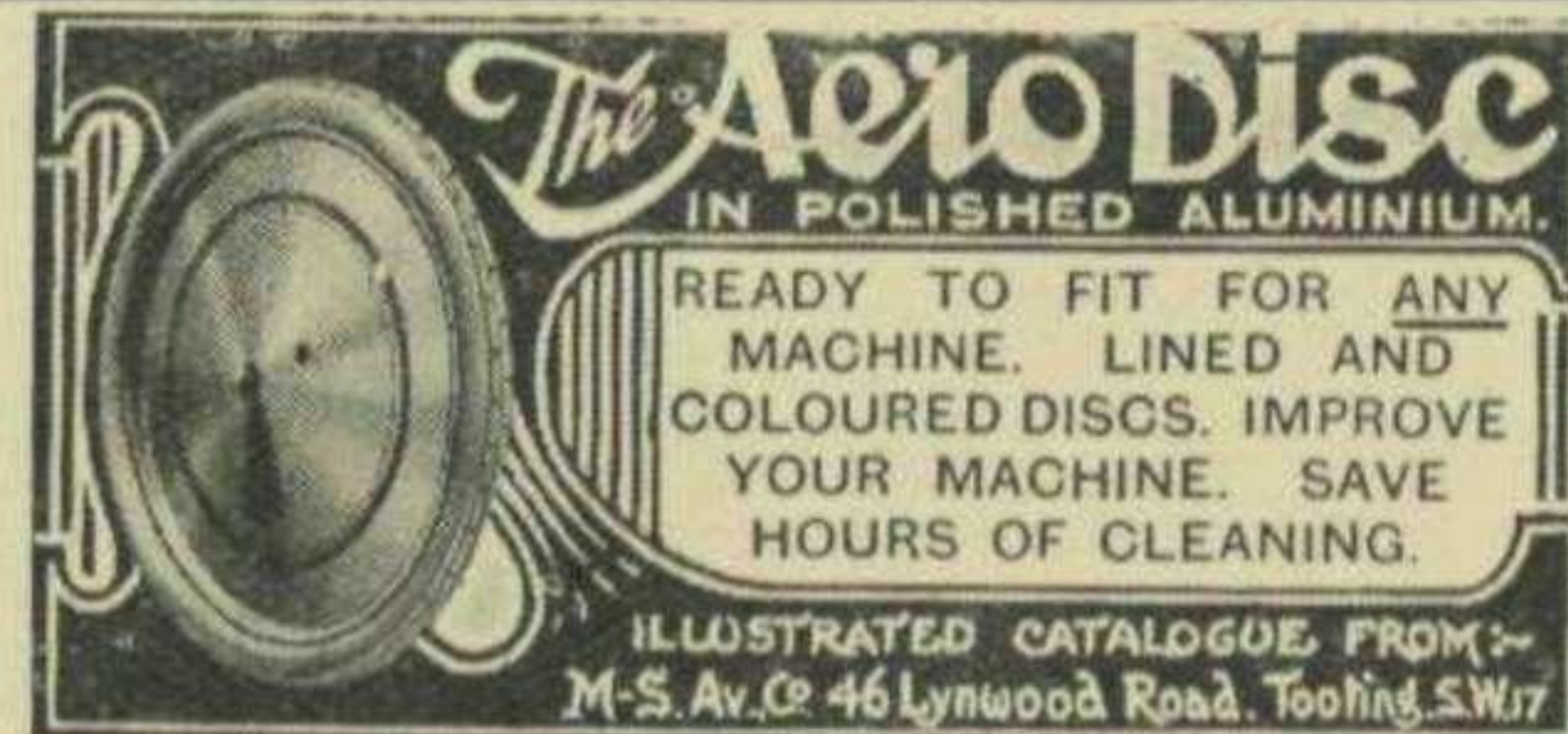
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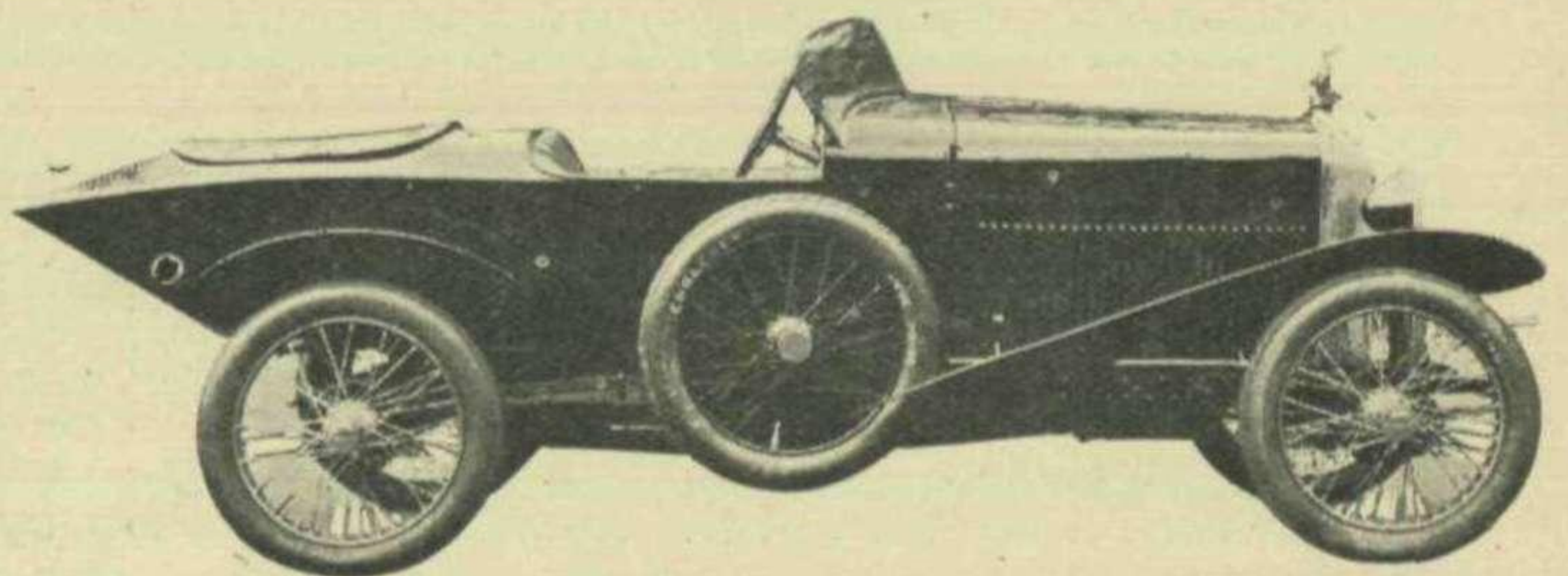
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OPENING of NEW TRACK at LINAS-MONTLHÉRY—continued.

A large number of records went by the board at the meeting reported above. Marchant on the Blackburne-engined D'Yrsan, established the following. 25 km.—15 m. 55 s., equalling 94.24 km.p.h. 50 km.—31 m. 4 s., which is 96.566 km.p.h. 75 km.—42 m. 56½ s., which is 104.789 km.p.h. 100 km.—59 m. 45½ s., which is equal to 100.407 km.p.h. 125 km.—1 h. 16 m. 25 s., which is 98.137 km.p.h. Le Vack, in the 350 c.c. race, set up a new lap record of 104.186 km.p.h. and in the 500 c.c. event Richard, on a Peugeot, did the hundred miles in 1 h. 7 m. 53½ s., beating the world's record of 1 h. 9 m. 1.89 s.

Amongst the cars, Gordon England established a world's record for the 100 km., which he covered in 50 m. 58½ s., a speed of 117.712 km.p.h.

On Thursday, the 21st, Gordon England again went on to the track for the purpose of record making, in which he was very successful indeed, establishing what are claimed to be new world's records in twenty different

categories in the class in which the Austin comes. It had originally been intended to make the attempt on the 12 hours' record, but this was frustrated in part by the weather—it was too misty to make a start in the early hours of the morning—and partly by an unfortunate and trivial mishap to the engine,—the breakage of the valve clearance adjuster pads, of which no spares were available.

The times were as follows:—(1) From a standing start: 5 km.—2 m. 35½ s. 10 km.—4 m. 54½ s. 50 km.—23 m. 14½ s. 100 km.—46 m. 14½ s. 200 km.—2 h. 22 m. 43½ s. 300 km.—3 h. 8 m. 2 s. 400 km.—3 h. 52 m. 48½ s. 500 km.—4 h. 42 m. 29½ s. 600 km.—4 h. 57 m. 37½ s. 50 miles—37 m. 16 s. 100 miles—1 h. 14 m. 23½ s. 200 miles—2 h. 32 m. 40½ s. 300 miles—3 h. 45 m. 45 s. In the hour—127 km. 500 m. Two hours—257 km. 500 m. Three hours—380 km. Four hours—515 km. (2) From a flying start: One mile—39½ s. 5 miles—4 m. 2½ s. 10 miles—7 m. 40½ s.

SPORTING EVENTS OF THE MONTH.

B.M.C.R.C. Championship Races: Some Fine Sport at Kop Hill: An American Hill Climb at Camberley: Records Broken at Brooklands.

THE postponement of the latter portion of the Championship events of the British Motor Cycle Racing Club from Saturday, October 11th, when rain put an untimely end to the proceedings, to Wednesday, the 15th October, did not, as had been hoped, enable some of the absentee experts to put in an appearance, Le Vack and Marchant being still on the Continent when Wednesday came round. Notwithstanding this, however, quite a representative meeting took place and some exciting finishes and surprising results occurred.

The first event for three-wheeled cycle cars provided an interesting beginning.

There were only two entrants, Beart and Norris, both on Morgans, the former having his machine equipped with a Blackburne engine. It was generally anticipated that Norris would win easily and on form, and judging by his performance in the 200 Miles Race,

he should have done so. It was evident, however, after the first lap that he had, on this occasion, met his match. Beart was obviously playing with him, making him act as pace-maker, and in the end Beart won easily by 20 lengths at 83.99 m.p.h.

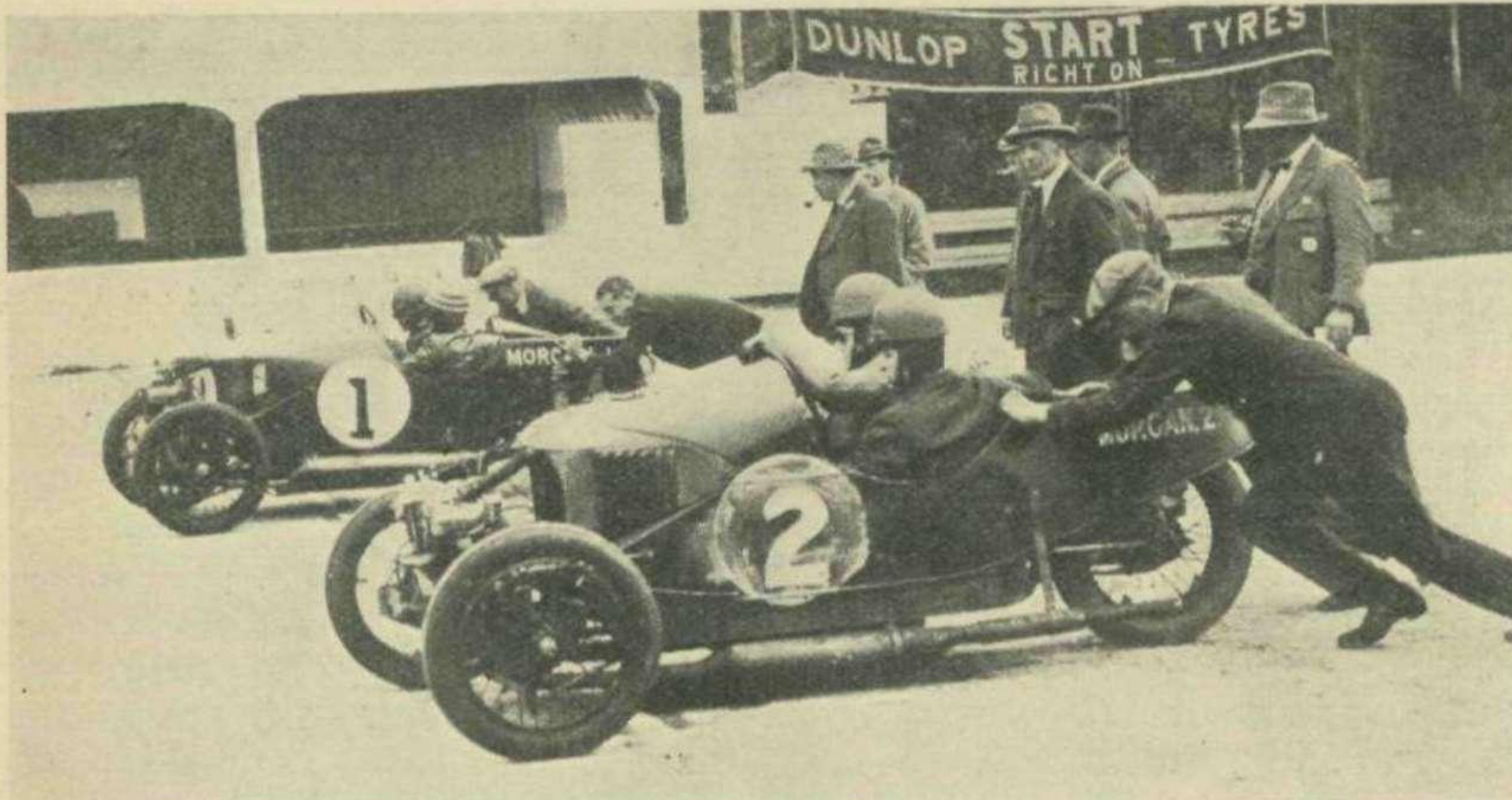
The event for 250 c.c. machines was easily Johnston's (Cotton-Blackburne). He was leading in the first lap and continued to do so, increasing his lead each time and coming in well over 100 yards in front of Greening (Zenith J.A.P.) at 67.48 m.p.h., which compares poorly with the record of 83.03 m.p.h.

In the sixth event for solo motor cycles 350 c.c., H. M. Walters (Zenith J.A.P.) led from the start, but the gap between him and J. Wright (Zenith J.A.P.) at the end of the second lap was 100 yards, which was considerably increased by the time the third lap was completed, and he ran home an easy winner at 85.56



SOME OF THIS YEAR'S CHAMPIONS: VICTOR HORSMAN, 750 C.C., H. M. WALTERS, 350 C.C., C. W. JOHNSTON, 250 C.C., H. BEART, THREE-WHEELED CYCLECARS, AND O. M. BALDWIN, 1,000 C.C.

SPORTING EVENTS OF THE MONTH—continued.



START OF THE CYCLECAR RACE
(B.M.C.R.C.) IN WHICH BEART SUR-
PRISED THE QUIDNUNCS.

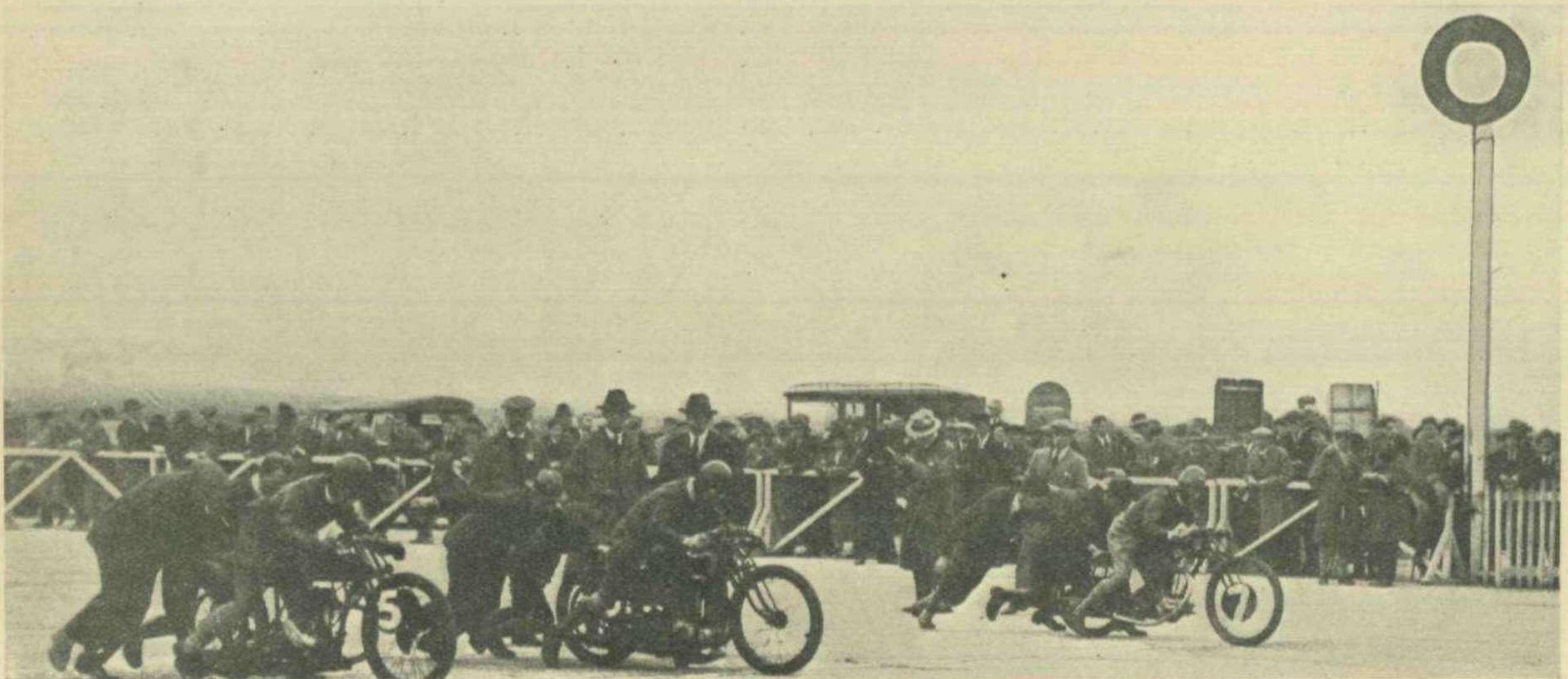
m.p.h., Wright being second and J. S. Worters (Toronda-Blackburne) third.

The turn-out for event 7 was a disappointing one: out of 19 entrants, more than 10 having scratched. With Le Vack, Grogan, Anstice and Walters all out of the running, Horsman (Triumph) was an easy favourite. At the end of the first lap, however, he was being led by Spring, a private owner entrant, riding a Norton. S. F. Ashby (Montgomery-J.A.P.) was just behind him, followed by A. Denly riding O'Donovan's Norton, with Judd, on Pullin's Douglas, close behind. R. O. Lowe, private owner of the Norton, who did so well in the Amateur Races in the Isle of Man, had the misfortune to run a big end out on the first lap. The second lap shows a re-shuffling. Spring had dropped behind and the order was, Ashby, Horsman, and Judd, and thereafter it was a ding-dong fight between Ashby, Horsman and Judd, when within a couple of yards of the finishing line, Ashby got ahead to win by inches from Horsman, with Judd not half a length behind. The win was a surprising one, so much so, that the bookies during the

last lap were offering 4 to 1 against Ashby. The winner's speed was 87.99 m.p.h.

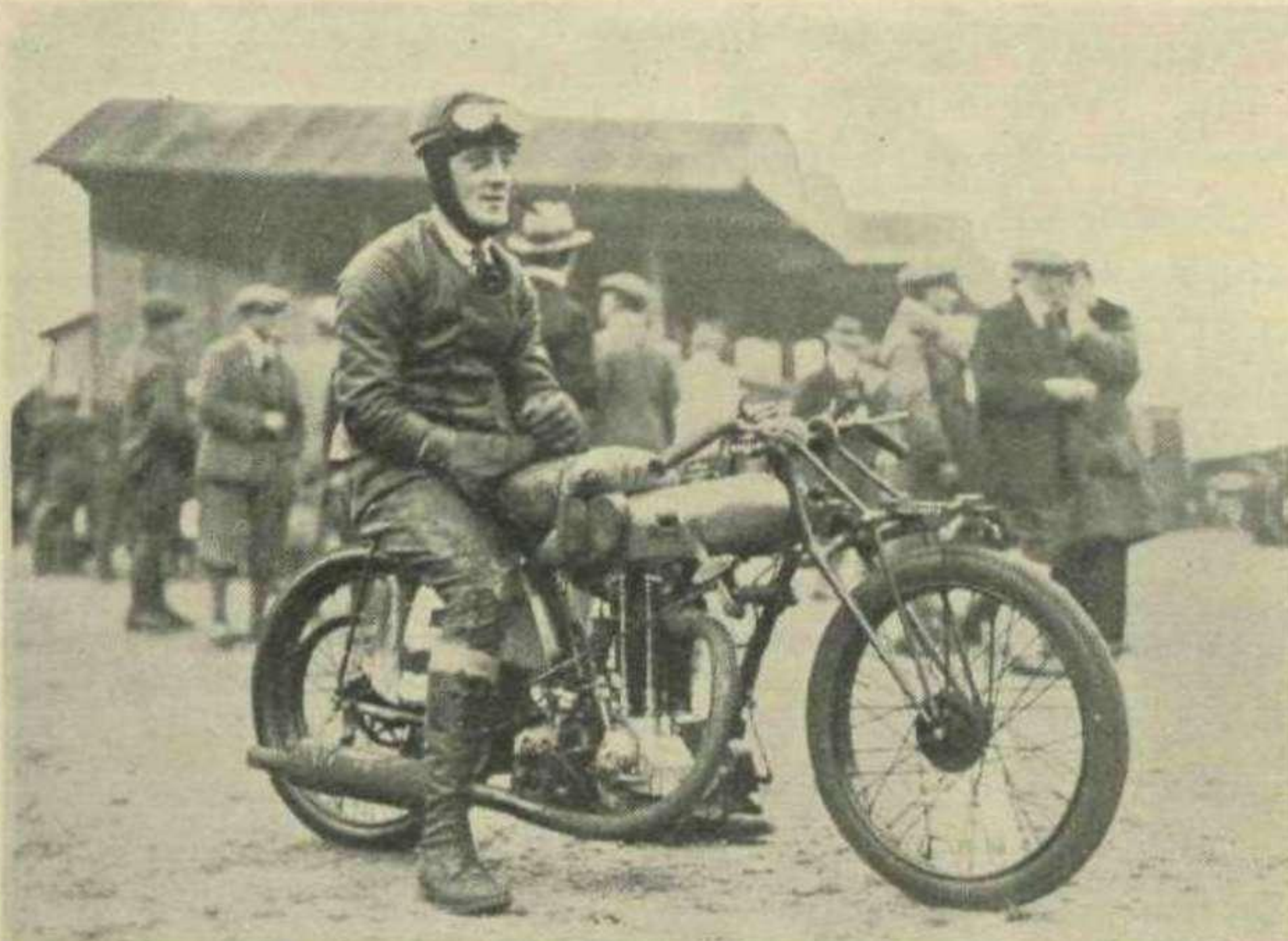
Horsman made no mistake in the next event, for 750 c.c. machines. For more than half the race he was fighting it out with H. Glover on Pullin's Douglas, but by the end of the fourth lap, was leading by more than 20 yards, with Judd on another Douglas, and Ashby (Montgomery J.A.P.) behind. Judd, however, was obviously in trouble on this lap and it was no surprise to anyone that he had dropped out before reaching the finishing line. Ashby passed Glover on the fifth lap, and in the result Horsman ran home an easy winner, almost lapping W. L. Gard, a private owner on a Norton, with Ashby second and Glover third. The winner's speed was 94.68 m.p.h.

There were only four starters in the race for solo machines of 1,000 c.c. capacity, these being Temple on a Montgomery British-Anzani, H. J. Knight, private owner on a Zenith J.A.P., O. M. Baldwin on a Zenith-Blackburne, and A. F. Longman (Harley-Davidson). Baldwin was away quickly and seemed to be increasing



B.M.C.R.C. POSTPONED CHAMPIONSHIP MEETING: START OF THE 350 C.C. CLASS.

SPORTING EVENTS OF THE MONTH—continued.



C. T. ASHBY (MONTGOMERY-J.A.P.), WHO WON THE 500 C.C. SOLO RACE IN SUCH A SENSATIONAL MANNER (B.M.C.R.C.)

his lead as he went round the short banking. Temple, however, passed him during the first lap, at the end of which the order was, Temple, Baldwin, Longman and Knight. The second lap, however, found Temple in difficulties, and Baldwin was able to get the lead again, which position he maintained until the end, the order being Baldwin, Longman and Temple, and the speed of the winner 84.96 m.p.h.

Kop Hill.

The Essex Motor Club experienced its usual good luck with the weather on the occasion of the Open (and Members) Hill Climb which was held at the popular venue, Kop, on Saturday, the 18th ult. There was a very large entry, totalling 134, of which 88 were cars and 46 motor cycles, and of those who entered there were remarkably few non-starters, the most notable being amongst the cars, and such stalwarts as W. Barnato with his Hispano Suiza, and E. C. Gordon England (Austin) and C. G. Pullin were amongst them.

The fine day, and the week which had preceded it, had converted what might have been an exciting and

difficult event into very little more than a picnic. No doubt, too, the favourable atmospheric conditions were in part responsible for the very large attendance of spectators which lined the hedgerows and fields on both sides of the test route from the starting point to the finish. It is worthy of note, too, that notwithstanding the unusually large attendance, the stewards had very little to do in the way of keeping the course clear, an occasional word proving sufficient for that purpose.

In addition to being well attended the event was both well organised and well stage managed. The events were run off quickly—no time being lost beyond the preliminary ten minutes at the commencement—and it was well stage managed, in that both series of events, those for motor cycles and those for cars, worked up from a moderately interesting beginning to an exciting finish in each case. The fastest time of the day was made by that popular and expert rider Freddy Dixon, riding a 997 Harley-Davidson, his time for the Hill being 24½ secs., which works out at slightly over 74 miles per hour, and having in mind that a considerable portion of the climb is at an inclination of 1 in 5½, the significance of the speed is apparent. The same rider also made fastest time with the same machine in the sidecar event, covering the distance in 28 secs., and even on a 594 c.c. Douglas and sidecar he only took one second longer. Other good climbs were made by L. Parker (494 Douglas), 25½ secs., F. G. Hicks (348 A.J.S.), 27½ secs., F. W. Dixon (494 Douglas), 25¾ secs., and O. M. Baldwin (994 Matchless M.A.G.), 25¼ secs. The last-named was extremely unfortunate. In what would have been his best run, he inadvertently changed right through from first to third gear, missing the second, which was the one he wished to use. He did not discover his error until it was too late to rectify it.

Amongst the sidecar riders, E. C. Baragwanath, riding a 976 Packman and Poppe, covered the course in 34½ secs. Greening, on a 346 Enfield J.A.P., 54½ secs., and G. N. Norris, on a Morgan, 30 secs. Amongst the car drivers, J. A. Joyce made a most spectacular ascent in 26½ secs., this being the fastest time of the day amongst

JOYCE (A.C.) MAKING FASTEST TIME OF THE DAY IN THE CAR CLASSES AT KOP HILL.



SPORTING EVENTS OF THE MONTH—continued.

the cars; the runner up being Raymond Mays on a Vauxhall T.T., in 28½ secs.

The American Hill Climb.

The Camberley and District Motor Club organised what is called an American Hill Climb on Saturday, the 18th ult. There was a large attendance of spectators, and though possibly on this particular occasion the event did not quite come up to expectations, nevertheless it is perfectly obvious that it is a type which is likely to become very popular.

The hill chosen for the event was called, for the occasion, Odsbodikins, and the whole of its surface was heather covered. As a matter of fact, it rather seemed as though it was the resistance offered by this heather which caused the failures, which amounted to approximately two-thirds of the entry, rather than the steepness of the hill. The best performance of the day was put up by C. Harman on a 349 Zenith-Bradshaw, and he had obviously made careful provision beforehand to meet the sort of conditions that were likely to prevail in what is called an American Hill Climb, and had wound his rear tyre with short lengths of transmission chain. He won the 350 c.c., the 600 c.c. and unlimited classes in 7½ secs., 7½ secs., and 6½ secs. respectively. The runner up was G. Barnwell and with a 349 B.S.A. and without the assistance, effective or otherwise, rendered by chains, was second in the 500 c.c. class by 9 secs. and in the unlimited class by 8½ secs. Only one other rider succeeded in climbing the hill after several attempts and that was G. Richardson (348 Raleigh), and he took 10 secs. on each occasion. Other notable performances were made by R. L. Richardson (976 Matchless) and J. S. Waklin (Harley-Davidson), Gus Kuhn circumvented the traction difficulty by taking off his tyre and fitting the rear wheel with special spuds. Unfortunately this threw too much strain on his driving chain, which simply broke every time he attempted the hill.



F. W. GILES (A.J.S.) ON LIVERIDGE HILL IN THE SUTTON COLD-FIELD TRIAL.

West Kent Motor Club.

The Club's Annual Motor Cycle Race Meeting was held at Brooklands on the 18th ult. Having in mind the fact that there were several other club events of importance in and around London, including the Essex Club's Kop Hill Climb and the Camberley Club's American Hill Climb, the meeting was very well attended indeed.

The outstanding performance was that put up by C. Staniland, who, riding a 490 Norton, won no fewer than four of the five races in which he started. The results were as follows:—

HANDICAP FOR PASSENGER MACHINES.—Capacity unlimited, 8½ miles.—D. F. C. Fitzgerald (Zenith J.A.P.), 21 sec. start, 1; L. P. Driscoll (Norton), 45 sec., 2. Speed, 75.23 m.p.h.

SCRATCH RACE FOR SOLO MACHINES.—Capacity not exceeding 350 c.c., 2¼ miles (expert barred).—J. H. Evans (O.E.C.-Blackburne), 1; M. O'Reilly (Henley), 2; H. Field (Henley), 3. Speed, 70.74 m.p.h.

HANDICAP RACE FOR NORTON MACHINES.—8½ miles.—W. Le Gard (490 c.c. Norton), 40 sec., 1; C. Staniland (490 c.c. Norton), 12 sec., 2; N. F. St. Pier (490 c.c. Norton) (driver, A. Leeding), 1 min., 3. Speed, 80.07 m.p.h.

"MATHERS" CUP RACE.—Handicap for members of the Sunbeam M.C.C., 8½ miles.—L. A. Williams (499 c.c. Sunbeam), 1 min. 45 sec., 1; A. G. Williams (493 c.c. Sunbeam), scratch, 2; G. C. Cobbold (493 c.c. Sunbeam), 18 sec., 3. Speed, 67.30 m.p.h.

SCRATCH RACE FOR SOLO MACHINES.—Capacity not exceeding 350 c.c. 5¾ miles (experts).—J. Wright (Zenith J.A.P.), 1; J. S. Worters (Toronda-Blackburne), 2; R. H. Hopkins (Chater-Lea), 3. Won by a half length at 80.2 m.p.h.

SCRATCH RACE FOR SOLO MACHINES.—Capacity not exceeding 500 c.c. 2¾ miles (experts barred).—C. Staniland (Norton), 1; R. G. Maurice (Norton), 2; A. W. Nicklin (Sunbeam), 3. Speed, 81.64 m.p.h.

TEAM RACE BETWEEN NORTON M.C.C. AND SUNBEAM M.C.C. (amateurs only).—Distance about 11 miles.—C. Staniland (Norton), 1; A. G. Williams (Sunbeam), 2; P. M. Walters (Sunbeam), 3. Norton M.C.C. provided next three to finish and won by 45 points to 27 points. Speed, 86.73 m.p.h.

SCRATCH RACE FOR SOLO MACHINES.—Capacity unlimited: 5¾ miles (experts).—F. Mighell (Zenith J.A.P.), 1; H. J. Knight (Zenith J.A.P.), 2; H. A. Johnston (Zenith J.A.P.), 3; J. Wright (Zenith J.A.P.), 4. Speed, 85.87 m.p.h.

NOVICES' SOLO HANDICAP RACE.—Capacity unlimited: 5¾ miles.—N. F. St. Pier (Norton), 15 sec., 1; W. Le Gard (Norton), scratch, 2; J. H. Evans (O. E. C. Blackburne), 18 sec., 3. Speed, 73.89 m.p.h.

SCRATCH RACE FOR SOLO MACHINES.—Capacity not exceeding 500 c.c.: 5¾ miles (experts).—C. Staniland (Norton), 1; A. G. Williams (Sunbeam), 2; J. Wright (Zenith J.A.P.), 3. Speed, 86.02 m.p.h.

HANDICAP RACE FOR SOLO AND PASSENGER MACHINES.—Capacity unlimited: 8½ miles (confined to members of the West Kent M.C.).—D. S. Richardson (348 c.c. O.E.C. Blackburne), 2 min. 55 sec., 1; G. Ivey (347 c.c. Enfield), 3 min., 2; G. H. Bull (349 c.c. Dot Bradshaw), 3 min., 3; Speed, 61.33 m.p.h.

SCRATCH RACE FOR SOLO MACHINES.—Capacity unlimited: 2¾ miles (experts barred).—C. Staniland (Norton), 1; H. G. Webb (Indian), 2; V. H. Stephens (Norton), 3. Speed, 81.24 m.p.h.

The Hon. Secretary is F. Wilson Smith, 32, Ham-melton Road, Bromley, Kent.

POWER WITH ECONOMY.

A Carburetter which gives Extra Miles per Hour and Extra Miles per Gallon Simultaneously.

IT has come to be regarded as a matter of course that the carburetter setting for power and speed must be quite different to that which is required when the aim is economical running; the same effect will not give the best results in both directions. Most track and trial enthusiasts tune for power and leave fuel economy entirely out of the question. They may do so reluctantly, but they do it. In view of this fact, more than usual interest centres in a carburetter which definitely gives more miles per hour, and at the same time, quite automatically, as it would seem, effects an important reduction in petrol consumption.

Racing Cars fitted with the Memini.

These are the claims made for the Memini carburetter, and they appear to be substantiated in actual practice, as is testified by quite a number of people well known for their experience and progress in the world of automobile sports. Mr. J. A. Benjafield, for example, who won the Long Handicap at the Essex Motor Club Meeting at Brooklands on the 4th of this month, says that equipping his Bentley with a couple of Memini carburetters gave him an extra two miles per hour. Mr. C. G. Coe, who is also well known to our readers, fitted one of these carburetters quite recently to his 39-98 Vauxhall-Wensum, and on the very next day won the 90 m.p.h. Long Handicap and ran to second place in the 100 m.p.h. Short Handicap at Brooklands.

The carburetter, he says, although subject to little more than preliminary tuning, improved the maximum speed of his car as well as its acceleration. He states that the claims made for these carburetters are more than justified.

Mr. Woolf Barnato is sure he gets 200 revolutions per minute more on his Wolseley with a Memini than he has been able to with any other carburetter, and he believes that the Memini is mainly responsible for his getting first and second at the Brooklands Meeting on the 13th ult.

We have had this carburetter under our observation indirectly for some time, and have been marking its steady progress in the favour of the racing car owner. The time seems ripe for inquiring into its method of operation, to discover by what means these favourable results are obtained.

First Principles of Carburation.

As a preliminary, it should be pointed out, for the benefit of those who are not *au fait* with the principle of carburation, that the primary difficulty in providing a satisfactory mixture at all speeds, arises from the cause that with a single jet of given size and a simple choke, the actual tendency of the mixture is to grow richer as the suction increases. This is exactly the opposite to what is desired, and happens because petrol in such circumstances flows more readily than air. The difficulty has been partly overcome by the employment of pilot jets and similar devices, which operate

to enrich the mixture for starting and cease to act when the normal speed of the engine is reached.

The use of pilot jets in this way, however, brings about another difficulty, which has not yet been successfully overcome. It should be appreciated that, as the throttle is opened, the pilot automatically ceases to act, and the main jet comes into operation. If the throttle is opened slowly, no trouble arises, but if, as is invariably the case when racing, rapid acceleration is desired, and the throttle is suddenly opened to the full extent, to afford that acceleration, then the pilot goes out of action before the main jet has time to get into operation. The result is a peculiar choking, frequently referred to either in that way, or as a "flat spot."

The Use of a Pilot Jet.

All sorts of devices have been introduced, by various people, to improve the functioning of existing carburetters, but even so, we still have to endure, in the majority of cases, what is nothing more or less than a compromise. A carburetter must be set either to give a mixture which is comparatively rich over the whole range,—this is the best setting for power, or which, while giving a mixture which is rich enough at easy running speeds, is rather too weak to afford much power at medium speeds when the throttle valve is sufficiently wide open to have placed the pilot jet out of action, but not enough to provide a strong suction round the jet. There is a want of balance in the mixture, as considered over a reasonably extensive range of throttle openings and engine speeds.

The Memini Carburetter.

Now, the Memini carburetter, which is actually the invention of a very clever Italian engineer, but is now made in this country by the Memini Carburetter Co., Ltd., whose works are at Kilburn, and who have offices at 235, High Holborn, London, W.C. 2, embodies novel, ingenious and by all accounts, successful means for overcoming the difficulties which we have described.

There is still a pilot jet, a main jet, and a throttle which, as it opens relieves the pilot jet and casts the burden of providing the mixture upon the main jet. There is, in addition, however, provision for the supply of a reserve of petrol to tide over the flat spot, and there is a patented system of balancing the suction on the "diffuser," through which the petrol passes, from the main jet, to the choke tube, so that the undesirable enriching of the mixture, which is liable to occur when the throttle is opened, does not happen.

The how and the why of this ingenious invention may best be understood by reference to our illustration, which has been made from a sectional drawing of the carburetter. The float chamber is seen on the right, and the mixing chamber—the choke tube—on the left. It will be noticed that the "jet" which projects into the choke tube is of unusual design. This "jet" is

POWER WITH ECONOMY—continued.

the diffuser, and it consists of an inner tube and an outer one. In addition there are two jets of familiar type. These are indicated on the drawing as G, main jet, and J, pilot jet. The petrol level is indicated by line M, and it will be observed that this is just below the outlet of the diffuser. The main jet is submerged when the petrol is at its normal level. The pilot jet opens through a passage marked K to the throttle valve; this passage enters the body of the valve, so that it is open when the valve is practically closed. The pilot jet only is used for starting and the amount of air which enters with the fuel coming through the pilot jet is adjustable, in the customary manner, by means of the needle valve L.

It will, perhaps, be simpler if we consider the action of this carburetter under three different sets of conditions: starting and slow running being one set, acceleration another, and ordinary straight running the third.

When the first set of conditions are existing, the petrol level is normal, so that the main jet is submerged and the petrol is flowing over to the outlet of the pilot jet as well as to that of the diffuser.

On starting the engine, suction is only exerted on the pilot jet, as the throttle is practically closed and a rich mixture is drawn in the ordinary way through the pilot jet and passed into the valve L, to the engine. This satisfies the conditions for slow running.

Shows to Advantage when Accelerating.

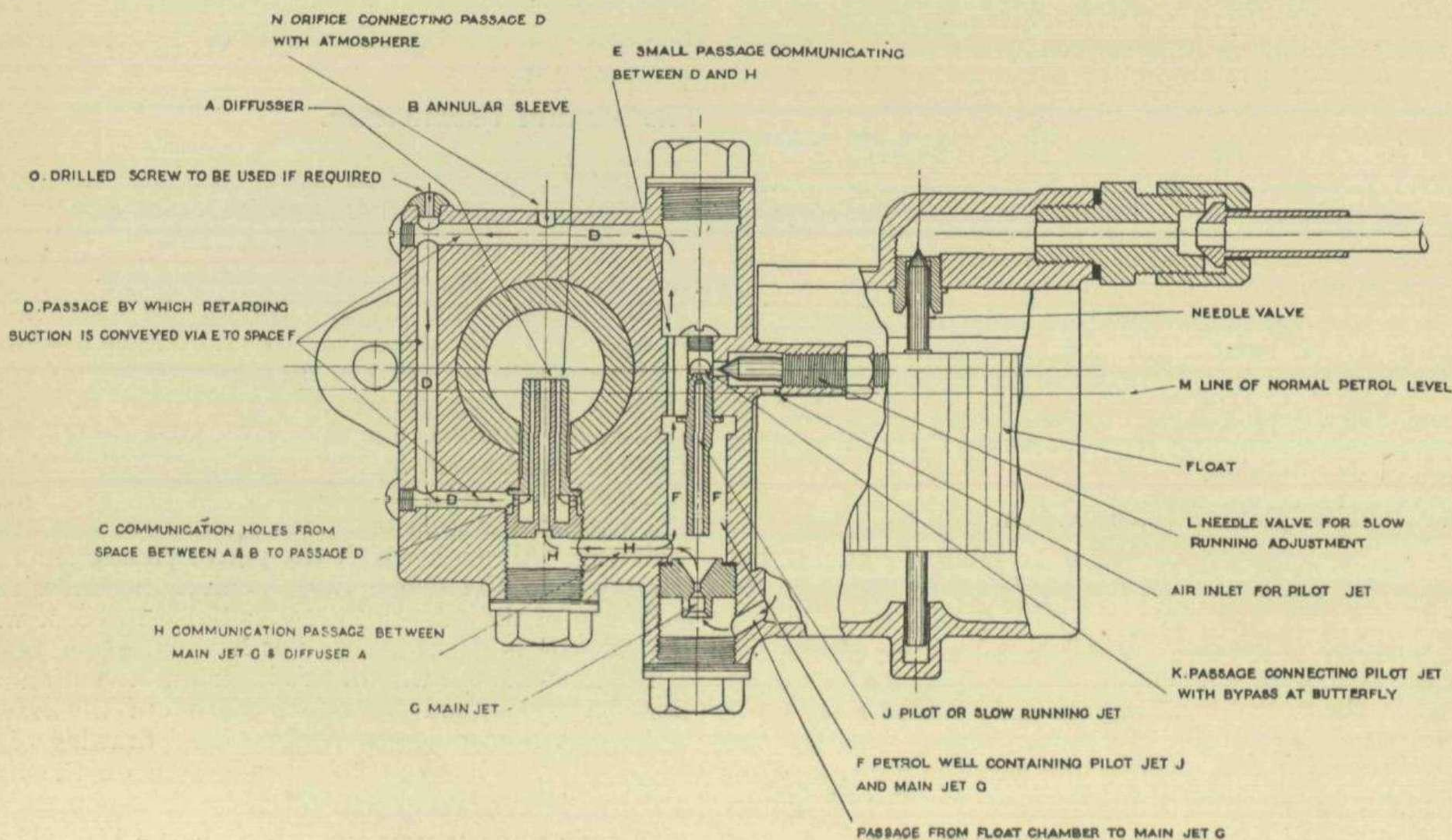
When the time comes for the engine to be speeded up, the driver opens the throttle. This simultaneously, as has already been described, produces a strong suction around the diffuser and cuts off that on the pilot jet.

Now it will be understood that while the pilot jet only is working, all that space marked F in the drawing, as well as the passage H and the interior of the diffuser up the line M, is full of petrol and remains so, since the pilot jet only takes a small quantity which could readily be replaced by flow through the passage from the float chamber to the underside of the main jet, and through the main jet. The presence of all this petrol is a great advantage when acceleration is required, as it provides ample fuel supplies for the diffuser and gets over the difficulty which we have described as arising, when, on the throttle being suddenly opened, the pilot jet is cut out and immediate and full demands made upon the carburetter for a rich mixture.

Now the passage through the main jet is much smaller than that through the diffuser, so that after the acceleration period is passed and the car has reached a good speed, the petrol level in the well F has dropped and the fuel only flows along the bottom of the horizontal passage H, leading from that well to the diffuser.

The Essential Feature of this Carburetter.

We now come to the third set of conditions, with the car running normally at a good speed and requiring a mixture which need not be so rich as that which is desirable for starting and acceleration, and which must, moreover, be so controlled that its richness does not increase as the suction on the diffuser and main jet becomes greater. Now where there is no special provision against it, this increasing richness of the mixture would be brought about by the actual tendency of the petrol to flow more quickly, as the suction or depression on the jet becomes greater. The provision against



SECTIONAL DRAWING OF THE MEMINI CARBURETTER SHOWING ITS ESSENTIAL FEATURES.

POWER WITH ECONOMY—continued.

this happening is the novel and patented feature of the Memini Carburetter, and to understand it we must again turn our attention to the sectional drawing.

It will be observed that the passage between the inner and outer tubes of the diffuser opens its lower end into an enlarged annular chamber, which communicates, through a series of small holes C, with a passage D, which runs through the body of the carburetter, right round the choke tube, emerging into an enlarged space above the well F and connected with that well by a narrow passage E. Now but for one other provision, this arrangement would have the effect of drawing the petrol up the passage E, so that it would flow to the diffuser along D as well as along H, and in that way, we should produce the conditions which we have stated to be undesirable, that is to say, the mixture would be enriched as the suction increased. That provision is indicated on the drawing by the orifice N. This is somewhat less in area than the passage D and it opens

a connection between that passage and the atmosphere, thus considerably reducing the suction, but not eliminating it altogether. The effect may best be described as a compensating or balancing one, for it will be seen that the main suction communicating, from the choke tube, through the diffuser and the passage H, to the main jet, is balanced by another diminished in its intensity by the means we have described, and which tends to draw petrol back again out of the passage H and by the well F.

The dimensions of the orifice N, the diffuser A and the main jet G, are so calibrated as to ensure that the mixture actually passed through to the engine is, at all speeds, approximately that which is ideal.

It only remains to add that the carburetter itself is extremely accessible. Both main and pilot jets can be got at by removal of one hexagonal plug and the diffuser is just as easily removed.

A 4,000 MILE CERTIFIED TRIAL.

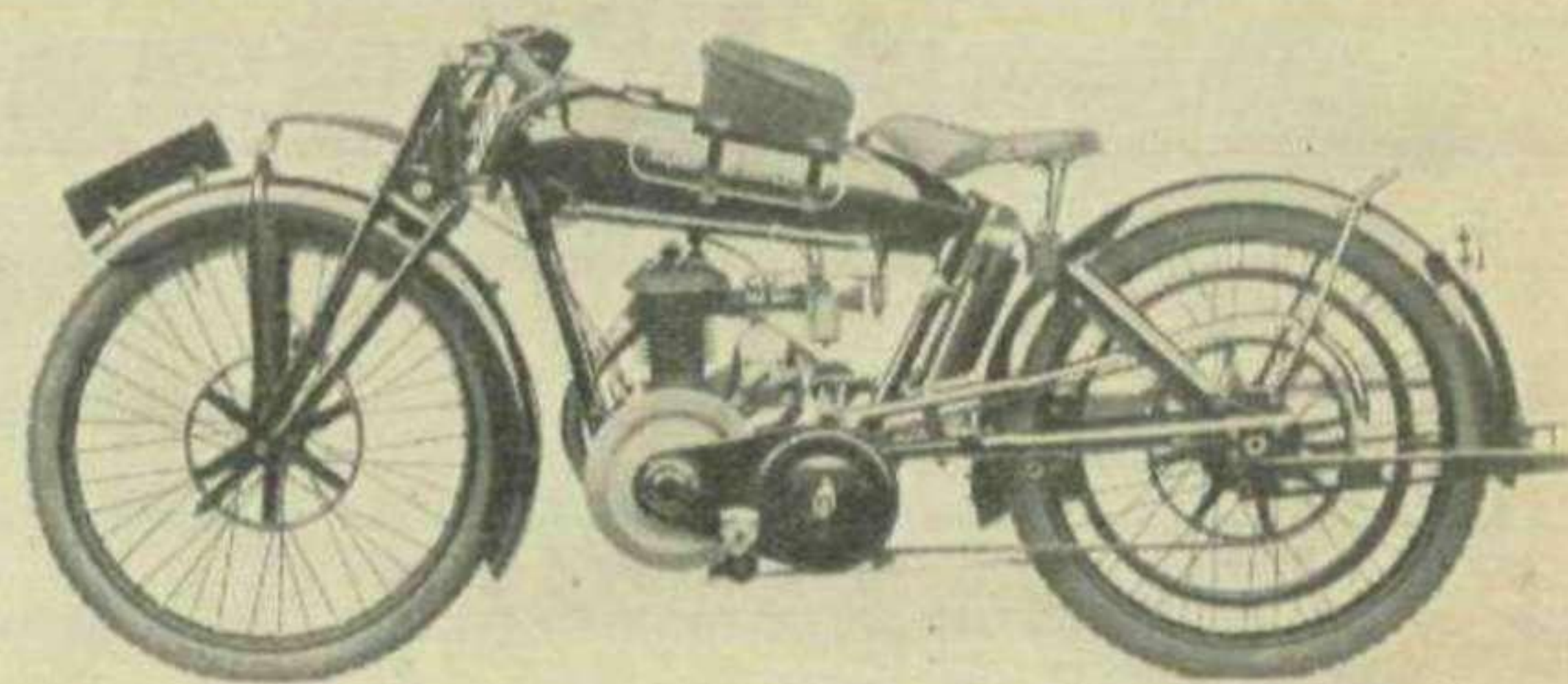
DESPITE a crash which came near not only to ending the Trial, but also the lives of both driver and passenger, a most arduous and searching test of reliability of a motor cycle and sidecar, was concluded on Saturday the 4th inst. A standard "Big Four" Norton motor cycle and sidecar, built up from component parts selected by an A.C.U. observer, was driven by Mr. P. Pike four times over the "End-to-End" (Land's End—John o' Groats) route, after which it was taken twenty times up and down Porlock, finally being driven into Exeter, where it was stripped and examined for condition. The total distance covered in the course of the Trial was 4,088 miles, an average of approximately 220 miles a day. The weather throughout the Trial was consistently bad, storms of rain and gales of wind prevailing. Of the three involuntary stops, one was directly attributable to the weather conditions, a plug cutting out momentarily on Shap Fell. The other two were occasioned by a broken spring link in the driving chain, and the slipping of the magneto timing; the latter owing to the magneto platform coming adrift after a hasty reassembly following the above-mentioned crash.

The petrol consumption for the entire distance averaged 68.4 m.p.g., and the oil 1,304 m.p.g., which must be considered remarkably good, especially when it is stated that the total weight of the outfit with passengers and luggage amounted to 8 cwt. 4 lbs. Avon tyres were used and gave no trouble. Certain adjustments had to be made at various points during the journey, and these consisted of

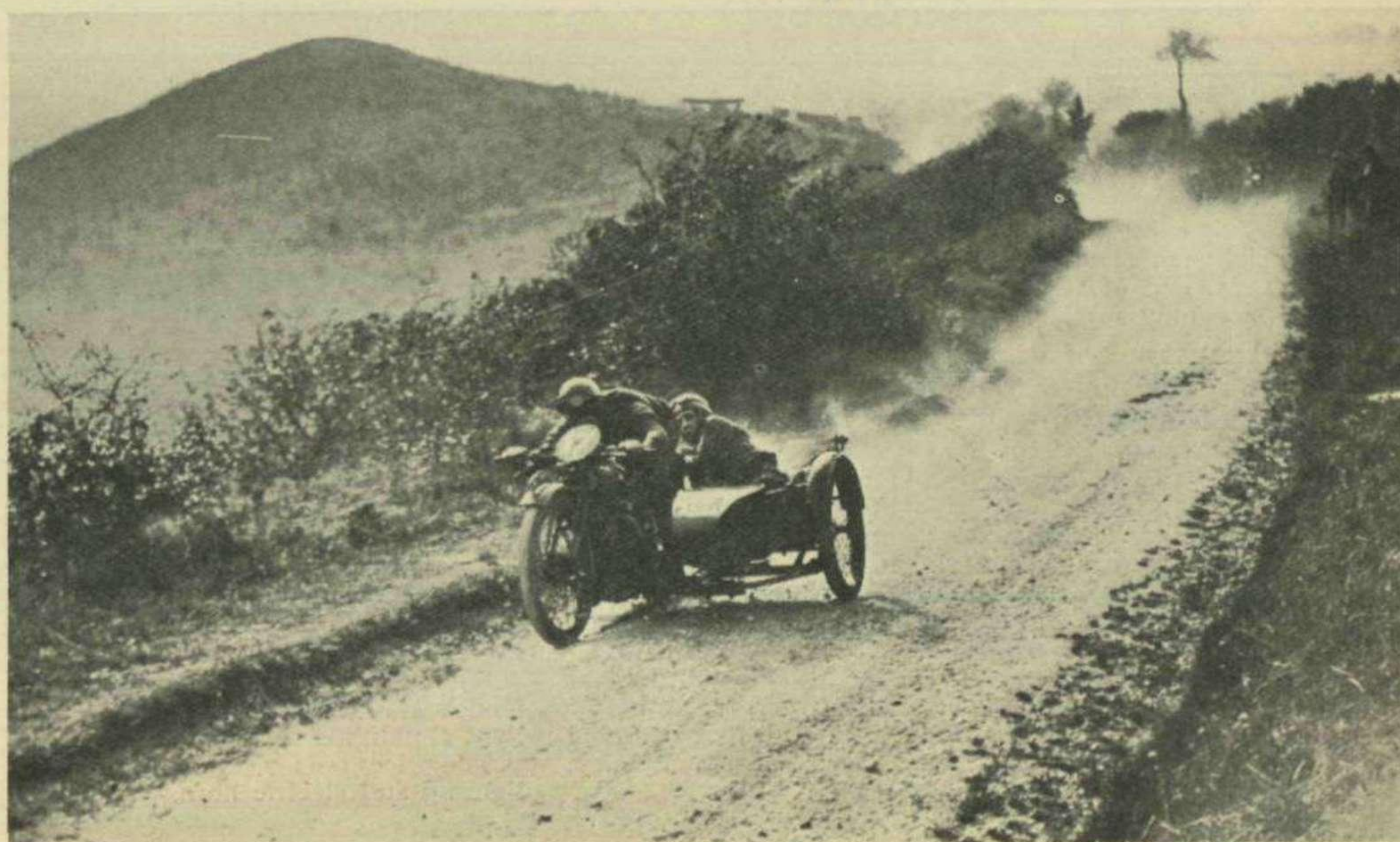
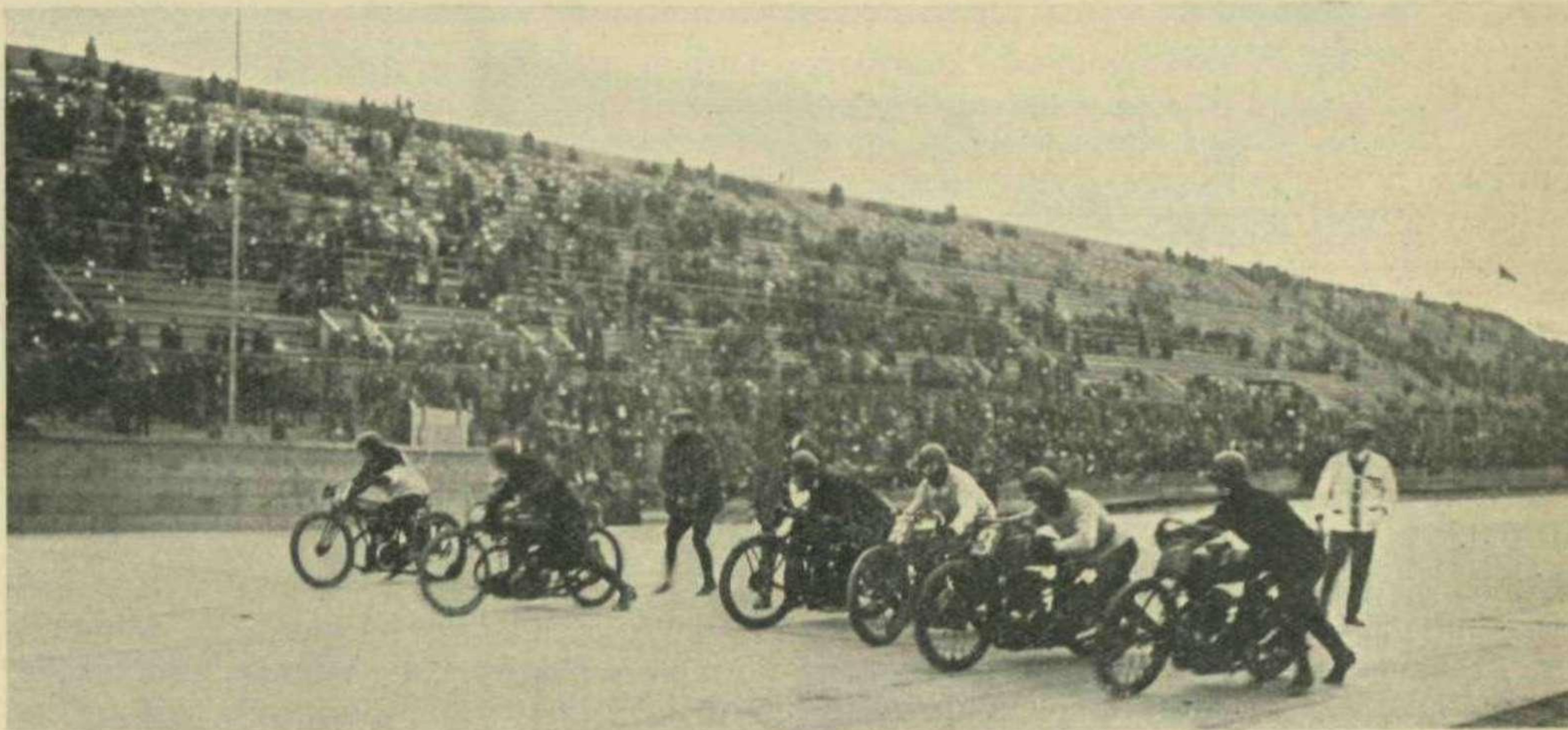
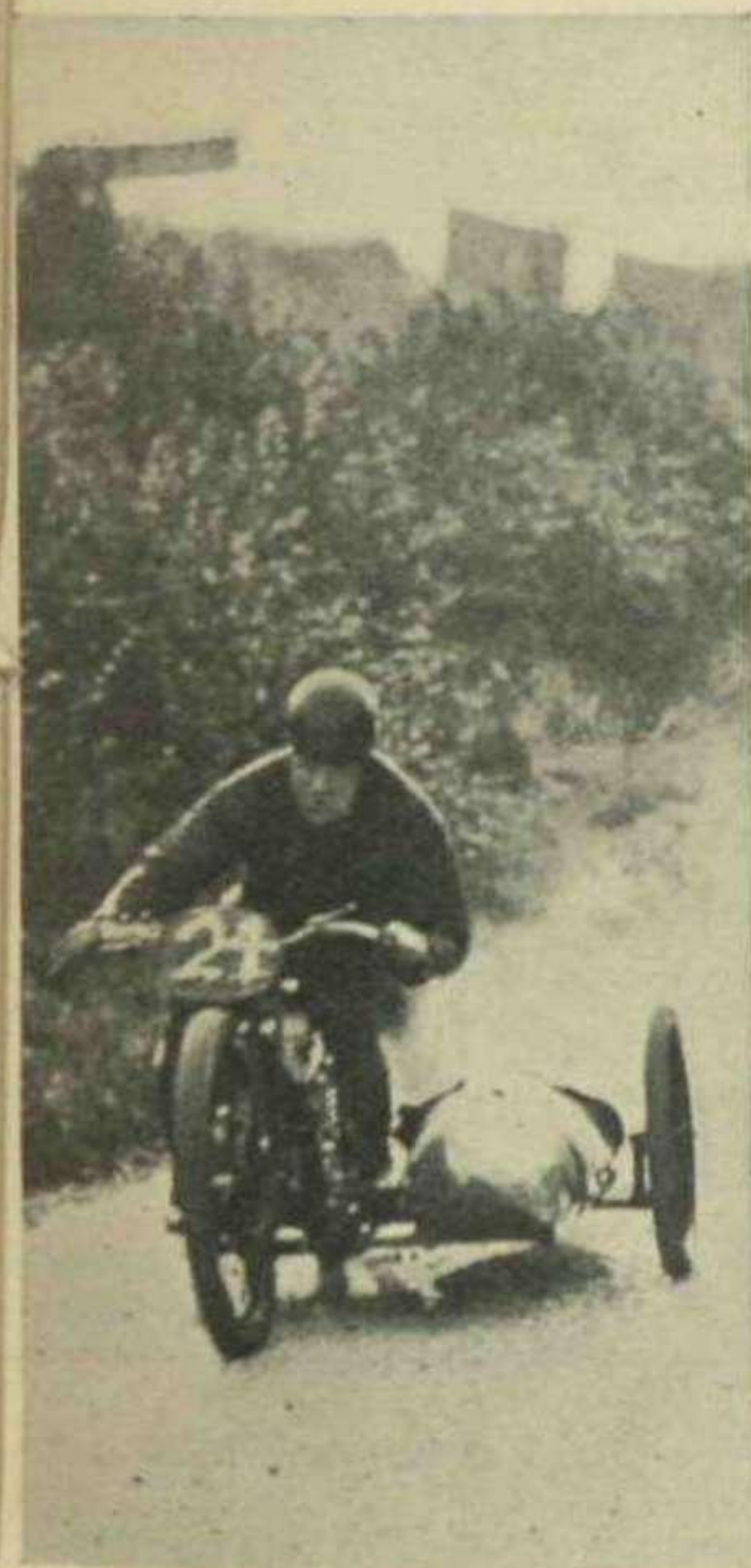
Chains adjusted twice; tappets adjusted; contact breaker cleaned; plug changed; sidecar chassis fractured and repaired; small nut from saddle pillar lost and replaced; exhaust valve refaced; bearings oiled and greased.

The crash, which took place after 3,910 miles had been covered, was due to a Ford char-a-banc running into the Norton outfit. As a result the frame, front forks and wheel, front brake, sidecar stub axle, one sidecar connection, two sidecar front springs, and one bearer bar clip had to be replaced before the Trial could be resumed. The twenty ascents of Porlock which concluded the Trial were made without preliminary adjustment and were absolutely "clean," the twentieth being accomplished at an average speed of 21.2 m.p.h. The front and back brakes were adjusted during this part of the test, but it is probable that as they were operating effectively before the crash occurred, this adjustment was necessitated by the new frame, forks, etc., which were fitted.

Not only was every component part selected from stock by the A.C.U. engineer, but in addition he watched the assembly of the machine and acted as observer throughout the course of the Trial, being responsible for measuring the petrol and oil, noting all repairs and adjustments, and keeping a log of distances covered. A certificate is in course of preparation and will be issued in due course.



THE 348 C.C. BEARDMORE PRECISION SPORTS MODEL.



**THE MONTH IN
PICTURES.**

Le Vack after his triumph at (Ansaldo) making a good climb (side) negotiating a water splash (side) Marchant (D'Yrsan-Black-...) racing race at Montlhéry. ... off at Montlhéry, and the

c.c. Race at Montlhéry, and ... king a good ascent at Kop. ... at Kop, on his two favourite ... vidson (left) on which he made ... machines, and a 594 Douglas.

THE MOTOR CYCLE SHOW.

The Mecca of the Motoring Sportsman: Sports Models for all Tastes: Economical Touring Machines for all Ages: Exhibition of Historical Interest.

THE Motor Cycle Show is more of a sportsman's affair than is the Car Show, and its particular attraction in this regard is reflected in the attitude of the visitors.

In the case of the Car Show, the majority are obviously of the sight-seeing order; they may, in a few cases, know something about the technical aspects of the cars which they admire, but such as have that knowledge, are few and far between.

At the Motor Cycle Show the reverse is the case. The majority of the visitors take a very lively interest in the technical details of the machines which are exhibited, and not a few of the salesmen are likely to find themselves asked very inconvenient questions if they do not happen to be quite *au fait* with all the details of the machines on the stand which is in their charge.

This year the Exhibition must be more comprehensive than ever. It comprises all types of wheeled vehicles on two or three wheels, from scooters for children to luxurious three-wheeled cars, and sidecars designed for the conveyance of entire families. In between three extremes, there are all sorts, covering every branch of the three main phases of transit, namely, sport, touring and utility. Steady progress rather than revolutionary departures from exhibit methods of design are indicated by the exhibits. Such price reductions as are apparent, are comparatively insignificant, and it is clear that motor cycle prices are now stabilized and have reached rock bottom.

Amongst the sports models which are exhibited, may be found machines to suit the requirements of every rider, the smallest has a diminutive engine of no more than 2 h.p., while there are splendid specimens of the heftier twin models with a nominal 10 h.p.

The needs of the tourist are met by magnificent machines, the reliability of which are such, that the engine may be forgotten and the up-keep costs of which are so low, as to offer cheaper transit than that of 'bus, tram or train.

The high standard of luxury as reached by some of these outfits, comprising totally enclosed saloons with "glass panelled" conning towers and luxuriously upholstered interiors, easily rival some of the most expensive and exclusive car exhibits of the same type which we saw last month at the Motor Car Show.

Balloon tyres have now invaded the sphere of the motor cycle, while the suspension of some of the luxury type machines has been so far improved that road shocks are now almost entirely eliminated.

The luxury combinations are now built as single entities and not as motor cycles with sidecars added. There is a large group of moderate power combinations representing the most popular, the most economical and the most reliable form of sociable touring.

A particularly interesting stand is that on which is staged a representation of the history of the movement. On this stand, there are machines of all ages, dating right back to the pioneer productions of 20 years ago. Modern motor cyclists must marvel how such grotesque machines could ever have offered road transit, but old timers are recalling the childhood of motor cycling with all its excitements and inconsistencies. There is much food for thought and reflection on this "history" stand of The Autocycle Union.

The Exhibition is promoted by The British Cycle and Motor Cycle Manufacturers' and Traders' Union. It is open daily until Saturday the 8th inst. from 10 a.m. to 10 p.m., the price of admission being 2s. od. each day before 7 p.m., and 1s. od. after that hour.

THE EXHIBITS DESCRIBED.

ABINGDON.

Stand 74.

An interesting exhibit on this stand is the exceedingly attractive lightweight model which has been added to the Abingdon range for 1925, and of which two examples are shown. This machine weighs only 195 lbs. complete and is termed a 2½ h.p.

Space will not permit of a full description being given at the moment, but the following points are worthy of note:—

The mainshaft rotates on ball bearings, the big end bearing being of the same type; three flywheels are provided, two within the crank case and one outside; the transmission is all-chain, the driving sprocket being mounted on the outside flywheel, whence it is easily detachable; side valves are used, these being of large size and made from a special alloy. The timing gear is of a simple type, and the large diameter tappets have phosphor-bronze guides. Both front and rear chain transmissions are provided with neat one-piece guards, and a three-speed Sturmey-Archer gear has been standardised, with clutch, kick-starter and shock absorber. Front and rear brakes are of the internal expanding variety and are hand and foot operated respectively. Abingdon Works, Ltd., King's Road, Tyseley, Birmingham.

A. J. S.

Stand 106.

For next season A.J.S. machines are to consist of the 7 h.p. De Luxe Passenger Combination Model E.1, with full electrical equipment; the 7 h.p. Combination Model E.2, which is a less elaborate edition of the foregoing; the 2½ h.p. De Luxe Solo Touring Model E.3; the 2½ h.p. De Luxe Sporting Model E.4; the Standard Sport Model E.5; and the Overhead Valve 2½ h.p. Model E.6. A comprehensive range of these machines is exhibited at Olympia and it is worthy of note that the 7 h.p. Twin, which is usually listed as complete with sidecar, is shown as a solo mount. We are advised that this is done because there is such an extensive demand for it as a solo machine from overseas riders. The 2½ h.p. Model E.3 is shown both as a solo mount and fitted with the A.J.S. light touring sidecar complete with dynamo lighting set and all accessories. There is one example of the De Luxe Sporting Model E.4, and another of the Standard E.5 with side by side valve engines.

Finally there are two of the well known overhead valve Models E.6, one as a solo mount and the other equipped with light aluminium sports sidecar.

The prices are: 7.99 h.p. De Luxe Combination, with dynamo lighting and electric horn, £115; the 7.99 Standard Passenger

MOTOR CYCLES AT OLYMPIA—continued.

Combination, £90; the 3.49 De Luxe Tourer, £57; the 3.49 De Luxe Sporting Model, £57; the 3.49 Standard Sporting Machine, £49 10s.; the 3.49 Racer, with overhead valves, £60. A. J. Stevens & Co., Wolverhampton.

ARIEL.

Stand 54.

For 1925 Ariels are concentrating on their 248 c.c. and 499 c.c. models and no fewer than 14 examples of these two models are on exhibition on the stand. The smaller machine has a long stroke engine, the bore being 60 mm. and the stroke 88 mm. Side by side valves are used in the engine, which is a Blackburne. Lubrication is by hand operated pump and the carburetter is a B. and B. or Amac. Touring handle bars are fitted as standard, or T.T. at option. The forks are Druid type. A model of the overhead valve type is also shown and is claimed to be capable of speeds up to 55 m.p.h. One is shown as a touring model and the other equipped for sports work.

The larger model is equipped with an Ariel engine, the bore and stroke of which are 81.8 mm. and 95 mm. The machine embodies the Ariel three-speed gear box, which has been redesigned with a view to lightening it and making it neater. At the same time the strength and size of the internal parts has not been excessively reduced. The quick starter and clutch operating mechanism have been improved and the clutch is now controlled by hand. The sports model is stated to be capable of 65 m.p.h. on the road. Ariel Works, Ltd., Bournbrook, Birmingham.

BEARDMORE PRECISION.

Stand 73.

Four typical models of Beardmore Precision motor cycles are shown on this stand. There is the 2½ h.p. "F" type, which is shown in the sports and touring models, the 2½ h.p., which is exhibited both as solo and combination, and in the case of the latter, equipped in one case with a touring body and in the other with aluminium body. The 3½ h.p. "E" type is also shown as a solo and as a combination, fitted in the latter case, with aluminium sidecar. The 4½ h.p. "C" type is shown as a touring combination. Another edition, the 2½ h.p. "F" type, overhead valve T.T. model is also shown.

Very little modification has taken place in these machines since last year. Briefly enumerated they consist of the provision of mechanical oiling on the 2½ h.p. machines, a Pilgrim pump performing this duty. The oil tank is not now built up in conjunction with the petrol tank, but is located behind the seat tube. The gear control is now mounted directly on to the gear box and this facilitates general attachment. Inverted control levers are now fitted and the wheel base of the machine has been lengthened by 2 in. The T.T. model is fitted with an approved type of head, embodying coil springs and a special type of rocker return springs, also a special rocker lubricating system. A foot operated oil pump is fitted in addition to the mechanical lubricating pump. The rear brakes can be operated by either foot. F. E. Baker, Ltd., King's Norton, Birmingham.

BIANCHI.

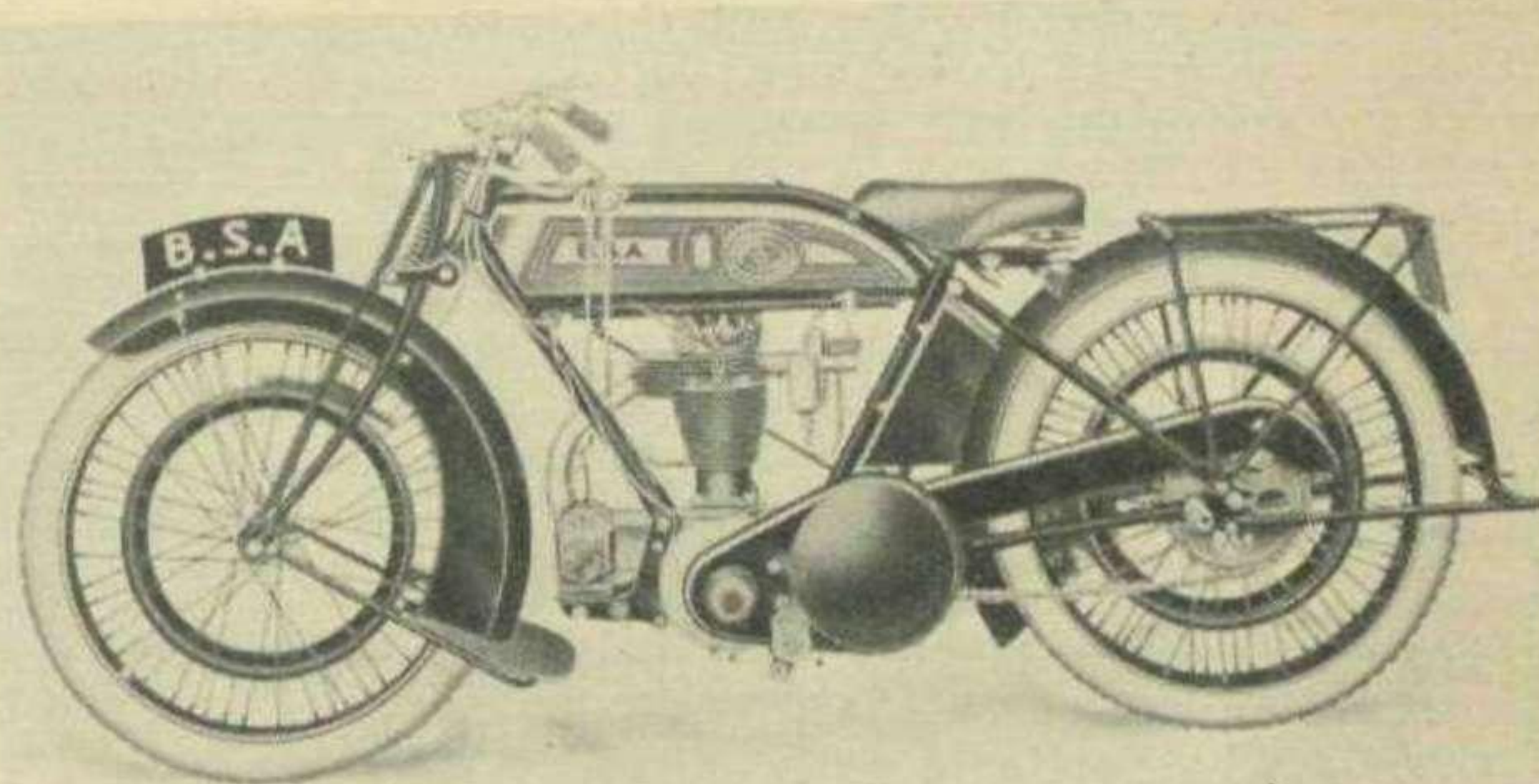
Stand 60.

The Bianchi motor cycles as shown on this stand comprise single and twin-cylinder models. The former is a four-stroke with a cubic capacity of 348 c.c., and its specification includes a semi-automatic carburetter, three speeds, multiple disc clutch running in oil and operated by pedal; all-chain transmission, and 26 in. by 3 in. tyres on wheels mounted on knock-out spindles to facilitate tyre changes. The two-cylinder machine has a V-type 600 c.c. engine, and its specification resembles, in general, that outlined above. The price of the smaller model as a solo machine is £78 10s., and of the larger, £98 10s. Bianchi Motors, Ltd., 26, St. James' Street, London, S.W. 1.

BOWDEN WIRE LTD.

Stand 40.

The J.D. motor cycle which is exhibited on this stand is particularly interesting, in that it is friction driven. An endless chain connects the engine flywheel sprocket to a larger one, adjustably mounted on a bracket brazed to the chain stay of the machine. This driven sprocket is built up with a friction roller and runs on a double row of roller bearings. Special frictional material conveys the drive to a U-shaped rim attached to the rear wheel. The friction roller is attached to a swinging arm and so mounted on the chain stay that the whole can be swung



THE NEW B.S.A. 350 MODEL.

into and out of action by means of a lever on the handle bar. When engaged, contact is maintained by means of the springs acting on an extension lever of the drive arm, but the ingenious feature of the transmission is that the swing arm carrying the friction roller is so mounted on the chain stay that the stronger the pull exerted on the driving chain by the engine, the greater is the pressure applied to the friction roller. Two machines running under electric power demonstrate this transmission. The engine is a two-stroke, of 116 c.c. Bowden Wire, Ltd., Victoria Road, Willesden Junction, London, N.W. 10.

BROUGH.

Stand 35.

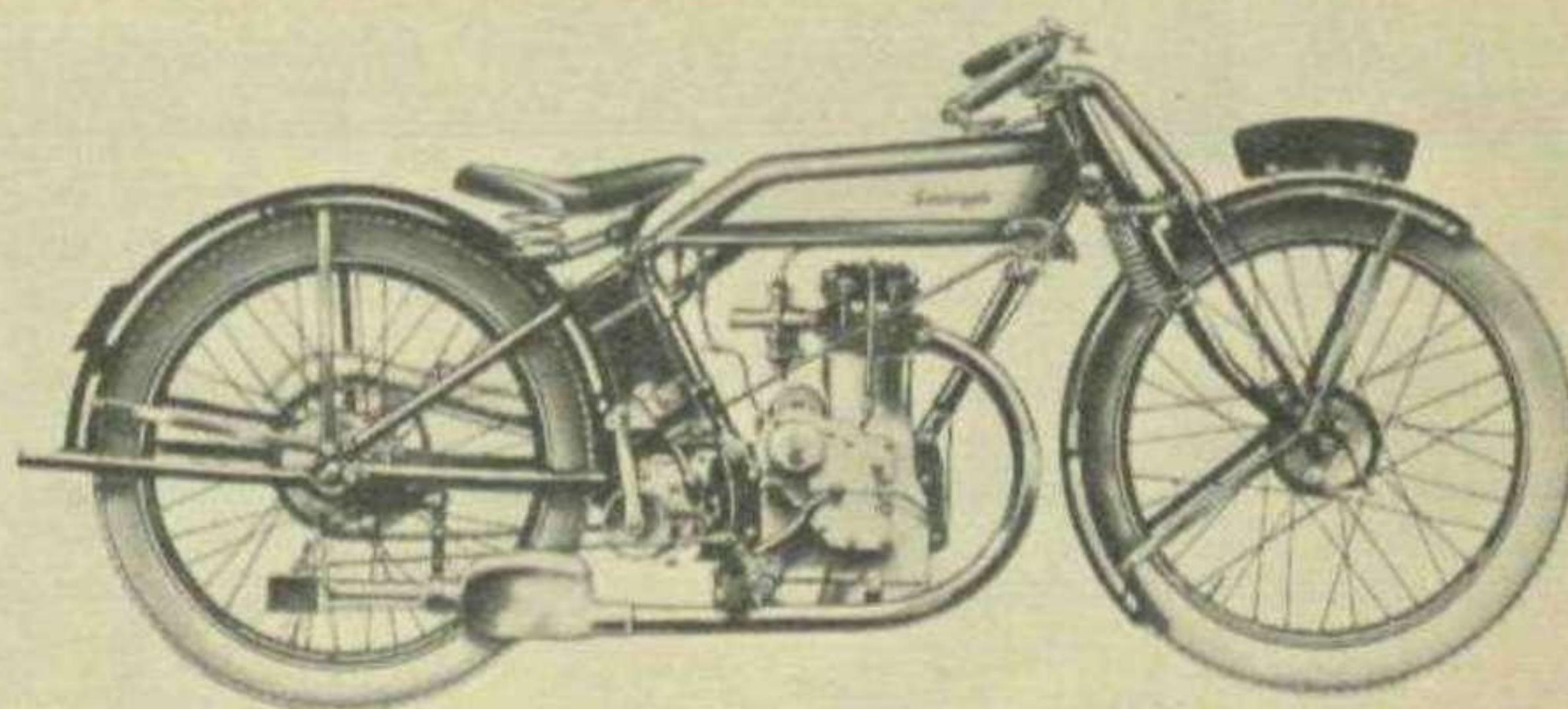
There is no doubt that amongst the exhibits on this stand the most interesting is the entirely new model which is to be known as the S.S.100. This machine is an exact replica of the Brough-Superior used by Le Vack during the 1924 season, in which he has been successful in winning nine world's records, including the fastest speed ever accomplished on a motor cycle, namely, 123 m.p.h. solo, and 103 m.p.h. with sidecar. Every machine of this model sold has a written guarantee that it has actually exceeded 100 m.p.h. for a quarter of a mile on a private road which is reserved for the purpose. In addition to having this guaranteed top speed, it is claimed that it will run at 10 m.p.h. on top gear with scarcely a sound. The wheels fitted are 28 in. by 3 in., the ground clearance is 5 in., and the saddle height 27½ in. only.

Several modifications have been made to the standard model S.S. 80, amongst which should be noted the equipment of both road wheels with detachable roller bearings, the use of a patented roller bearing steering head, larger and more efficient brakes fitted with heat dissipators, the fitting of Webb patent forks which embody a shock absorber and steering head damper, the use of a transmission shock absorber in the rear wheels, and several other minor modifications. Geo. Brough, Haydn Road, Nottingham.

B. S. A.

Stand 23.

The range of B.S.A. motor cycles for 1925 is substantially the same as that which has been in existence throughout the past year. Two new models, it is true, have appeared in the interim, but these have been specially developed for overseas work.



THE CONNAUGHT-BRADSHAW.

MOTOR CYCLES AT OLYMPIA—continued.

The 3.49 overhead valve and side-valve models have been strengthened in the frame so as to allow for the fitting of a light sidecar. As to the rest of the range, which covers machines from 2.49 h.p. to 9.86 h.p., detailed alterations include the fitting of grease gun lubricators to cycle bearings in all except the smallest models, and the total enclosure of the front brakes to prevent the risk of dirt and grit getting to the fulcrum and springs. On all models the cush drive is now automatically lubricated by oil mist carried from the crank case through holes in the engine main shaft. A new type of clutch lever giving a straight pull, is now used in conjunction with a large diameter cable.

Some interesting looking semi-sports sidecars are shown on the stand and the sports skiff when fitted to the 3.49 O.H.V. forms a really sporting outfit.

The two special overseas models to which we have already referred, are designed to give increased ground clearance and improved weather protection.

It is impossible in the space at our command to enumerate all the B.S.A. models and prices. The smallest model of 2.49 h.p. sells at £36 15s., and the 9.86 h.p. De Luxe at £80. Sidecar prices range from £15 to £28. B.S.A. Cycles, Ltd., Small Heath, Birmingham.

CAMPION.

Stand 15.

A full and complete range of motor cycles of this manufacture are staged on this stand, including two of 250 c.c., one side-valve, and one overhead-valve. Both are single-cylinder machines and the overhead-valve models are particularly adapted for sports work. Blackburne engines are fitted throughout and Sturmey-Archer three-speed gear boxes. The transmission is by chain in all models, and both front and rear brakes take effect on the hubs. A B.T.H. magneto is fitted and 26 by 2½ in. Dunlop tyres. A special feature of all models is the new pattern Campion Aero front fork. Campion Cycle Co., Ltd., Robin Hood Street, Nottingham.

CEDOS.

Stand 66.

Cedos motor cycles for 1925 have been re-designed throughout, and the two-stroke models are fitted with an entirely new ball and roller bearing engine. The company is specialising in machines for ladies. It may not be well known that the designer of these machines is an old T.T. and competition rider. Cedos Engineering Co., Ltd., Nothampton.

CONNAUGHT.

Stand 69.

The smallest Connaught motor cycle is the 2½ h.p. two-stroke model which is now priced at £35 10s. It has a three-speed gear box, clutch and kick-starter, 26 in. wheels and chain-cum-belt transmission. The same model equipped with B.T.H. lighting set costs £41 10s. The standard has an all-chain transmission,

is fitted with extra large expanding hub brakes to both wheels, and costs £42 10s. This model also can be had equipped with B.T.H. lighting set for a further £6. Other models, including the 3½ h.p. two-stroke solo machine and another of the same type built as a De Luxe combination. Of most interest to readers of this journal is the 3.5 h.p. sports model four-stroke, which costs £47 10s. There is a Connaught-Blackburne model with 2½ h.p. side-valve engine of that well known make, and another of the same power, fitted with a Bradshaw engine. The most expensive model is the Connaught-Bradshaw combination, with frosted aluminium sports sidecar, the price of which is £75. The J. E. S. Motor Company (Gloucester), Ltd., Witton Lane, Aston, Birmingham.

COTTON.

Stand 18.

The feature of the Cotton motor cycle is the unusual design of the frame, which is a triangulated structure, designed in accordance with knowledge of the mechanical principles. It is claimed that this frame affords greater strength than the standard diamond frame, while being much lighter, that it maintains the wheel alignment definitely, and that it is particularly suitable for ladies' use. The Cotton machine has been very successful in trials, and won the Junior T.T. last year.

For 1925 the chain-cum-belt model has been dropped, and the smallest machine is the 2½ h.p. Blackburne-engined motor cycle, which is equipped with three-speed gear, clutch and kick-starter, and with a final drive by chain. The sports model has a Blackburne sports engine, which is claimed to be capable of very high revolutions, affording a speed of from 70 to 75 m.p.h. The engines of these sports models are forwardly inclined, thus affording a lower centre of gravity and improving stability at corners.

Examples of all models are on view on the stand, and it will be noted, in comparing these with last year's models, that heavier type mudguards are fitted with magneto shields and silencers on the O.H.V. models, while what is not apparent to the observer is the heavier gauge material used for the tank. The Cotton Motor Company, Gloucester.

COVENTRY EAGLE.

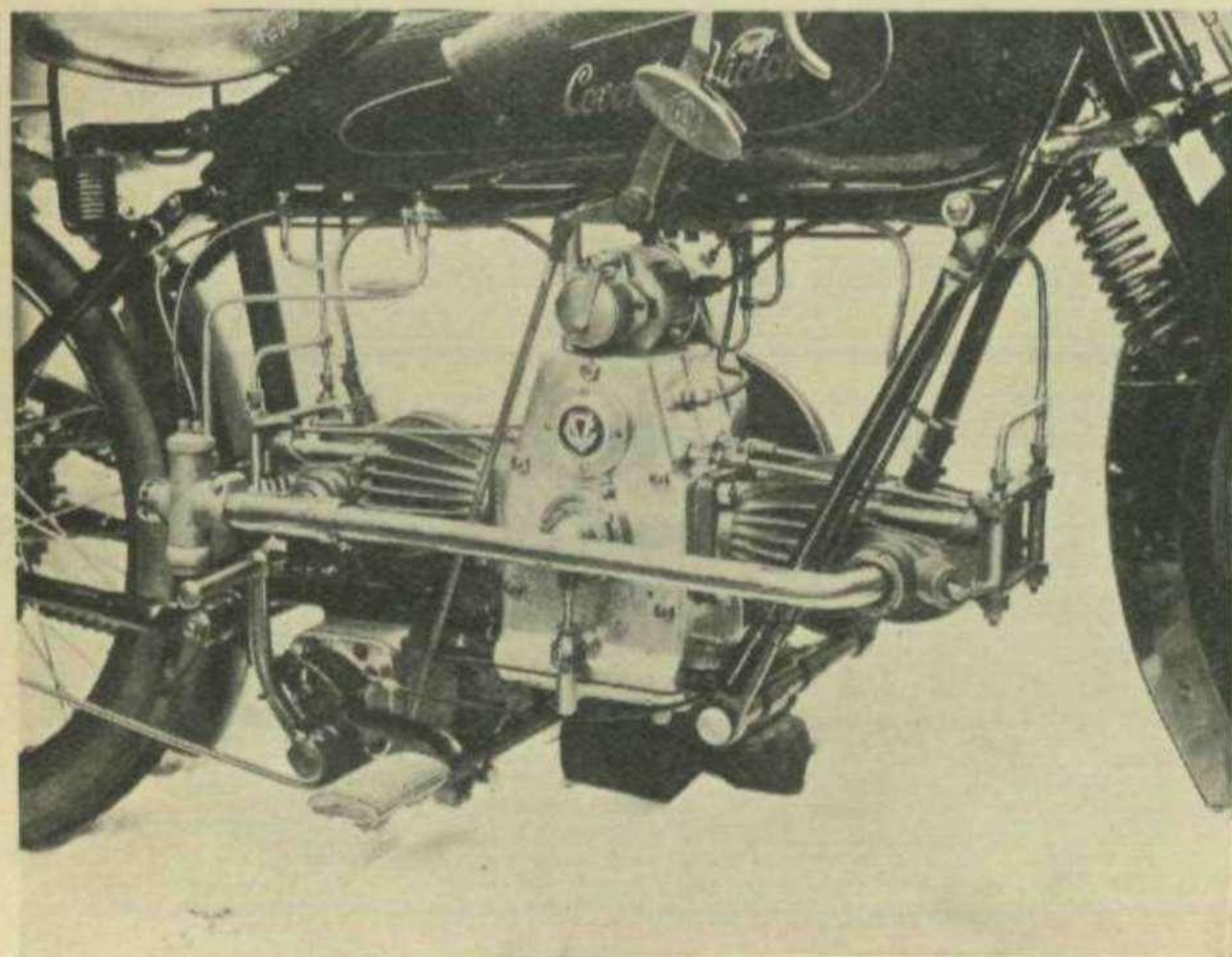
Stand 70.

The most interesting exhibit on this stand is undoubtedly the flying 8, which has just created a whole sheaf of records. But it will be observed many improvements and alterations have been made since we last saw it at Olympia. Amongst these may be mentioned the incorporation of a torque tube from head to engine and from rear fork ends to engine. The frame is looped right round the engine and 8 in. internal expanding brakes are fitted to both wheels, with interchangeable parts. Both hubs have taper roller bearings and the saddle fitted is a Terry, designed to give an extremely low riding position. A steering damper is fitted as part of the standard equipment, as well as Webb forks incorporating shock absorber. The price of this model complete with 700 mm. by 80 mm. Dunlop cord tyres is £125. A Lucas Madgyno lighting set is fitted as an extra, for £12 10s; and the machine can be had equipped with an 8-30 h.p. four-cam engine for a further £12 10s. Other models shown range from the 1½ h.p. two-stroke upwards, and amongst these attention should be directed to the J.A.P. engined 300 c.c. machine. Coventry Eagle Cycle & Motor Company, St. Patrick's Road, Coventry.

COVENTRY VICTOR.

Stand 113.

Three examples of this well-known make of motor cycle are on view on this stand. There is the 3½ h.p. O.H.V. flat twin, which, perhaps, will be the most interesting, as it is an entirely new model. It is shown as a sporting solo machine and stripped for fast solo work and racing. The super-six is also shown in four different forms; as a solo fully stripped for sports work, and as regards the others, two are equipped with super-sports sidecars. The other model is the super touring model, and this is shown as a solo machine with dynamo lighting equipment, and as a colonial model with 28 in. by 3 in. extra heavy wheels, greater ground clearance, heavier forks and frame, together with touring sidecar, suitable for the heaviest conditions of motor cycling. The Coventry Victor Motor Company, Coventry.



THE NEW COVENTRY VICTOR FLAT-TWIN ENGINE.

MOTOR CYCLES AT OLYMPIA—continued.

D. F. & M.

A comprehensive range of this company's motor cycles, some fitted with Villiers engines, and others with J.A.P. engines, is shown on the stand, in sizes ranging from 147 c.c. to 500 c.c. The most interesting, perhaps, is that which is known as the Alec Bennett model, named after that well-known rider, and equipped with 172 c.c. two-port Villiers engine. It may be remembered that a machine of this type was the only two-stroke machine of its type entered in its class in the 1924 T.T., which it won. Another model of interest to readers of this journal is the 500 c.c. sports which has a three-speed gear, clutch, kick-start, and chain drive. The D. F. & M. Engineering Co., Ltd., Diamond Works, Wolverhampton.

Stand 62.

DOUGLAS.

It is claimed that there are over 85,000 $2\frac{3}{4}$ h.p. Douglasses on the road to-day, this being the type and size of Douglas machine which was introduced in 1908, 16 years ago, and which has ever since been held in high favour by users of motor cycles all over the world. A machine of this type will naturally be one of the outstanding features of the stand, and another model which may perhaps be described as a development from the first one is equipped with three-speed all-chain drive and several improvements, most important of which perhaps is the new exhaust system and silencer which consists of two tubes leading from the cylinder into a large section exhaust pipe with flat end. Visitors to the Show with a knowledge of Douglas machines will note many detailed improvements. The luxury model of the Douglas range is the 600 c.c. overhead valve model, with long stroke engine. Its frame is designed on the same lines as that of the T.T. winner, and grease lubrication is used throughout. Special interest attaches, so far as readers of this paper are concerned, to the 1925 I.O.M. model. This is an exact replica of the T.T. winner and for those who want racing it is the mount. The Douglas sidecar chassis has been entirely re-designed. The sports body is worthy of special attention and has an adjustable seat. It is, in addition, graceful and pleasing in outline. Douglas Motors, Ltd., Kingswood, Bristol.

Stand 37.

DUNELT.

The outstanding exhibit of this company's products is undoubtedly the new sporting solo model. The engine follows the usual Dunelt design, except that several modifications have been introduced in order to reduce its over-all height. It has been found, for example, possible to shorten the connecting rod without any untoward effect. The cylinder head is aluminium, being clamped in position by three bolts hinged to the crank case; it is therefore quickly detachable. The double-diameter piston is of aluminium with bronze gudgeon pin bosses. The engine is housed in a sloping position in a neat and rigid frame. The tank is split vertically on the centre line, the halves being bolted underneath and held together on top by a line of vertically disposed screws. Dunford & Elliott (Sheffield), Ltd., Bath Street, Birmingham.

Stand 109.

D'YRSAN.

The D'Yrsan cyclecar was fully described in our last issue. It need only be stated here that it is a three-wheeled machine of unusual design, having a four-cylinder water-cooled engine, of 750 c.c. capacity, with a tubular frame, built on car lines, and having two brakes, one on the front wheels, and one on a countershaft, thus doing away with the need for removing brake connections when it is desired to get at the rear wheel. Trailers, Ltd., 73-74, Windsor House, Victoria Street, London, S.W. 1.

Stand 60b.

EXCELSIOR.

Bayliss, Thomas & Co. are making a special line for the coming season of the 350 c.c. overhead-valve Blackburne engine combination which is being supplied either as a solo machine, as a sports combination, or as a touring combination. Amongst other models of which a complete range from $1\frac{1}{2}$ h.p. to $4\frac{1}{2}$ h.p. is exhibited, the following improvements and modifications on the previous year's model will be noted. On the $1\frac{1}{2}$ h.p. machine better mudguards are fitted, while the rear brake mechanism has been entirely re-designed and strengthened. The De Luxe model for ladies is now fitted with all-chain drive, while the $2\frac{1}{2}$ h.p. two-stroke machine has a re-designed frame giving a very low

Stand 32.

riding position and improved appearance. Other modifications too numerous to mention are incorporated in the design of the other machines which are exhibited. Bayliss, Thomas & Co., King's Road, Tyseley, Birmingham.

F. N.

There are four examples of the 8 h.p. four-cylinder F.N. shown, as well as a like number of the smaller, $2\frac{3}{4}$ h.p. single-cylinder machine. Both types are shown as solo machines and as combinations. The $2\frac{1}{2}$ h.p. is shown with a special sports sidecar, and also with a super sports sidecar. It is worthy of note that balloon tyres are to be fitted as standard on the larger machine. F. N. (England), Ltd., Kimberley Road, Willesden Lane, N.W. 6.

Stand 102.

GRINDLAY.

Grindlays make five models, in three powers. The smallest, the $2\frac{3}{4}$ h.p. machine, is made as a sports model with Barr and Stroud sleeve-valve engine of 70 mm. and 90 mm. bore and stroke, also as a sports model, with overhead-valve J.A.P. engine of the same bore and stroke, and as a super-sports, also with an overhead valve engine, but 74 mm. and 80 mm. bore and stroke. In the model the pistons are of aluminium, and the ports are carefully streamlined. The other two models are the $3\frac{1}{2}$ h.p., with single cylinder 500 c.c. engine by Barr and Stroud, and an 8 h.p., also Barr and Stroud, with twin cylinders of 998 c.c. Grindlay (Coventry), Ltd., Spon End, Coventry.

Stand 45.

H. R. D.

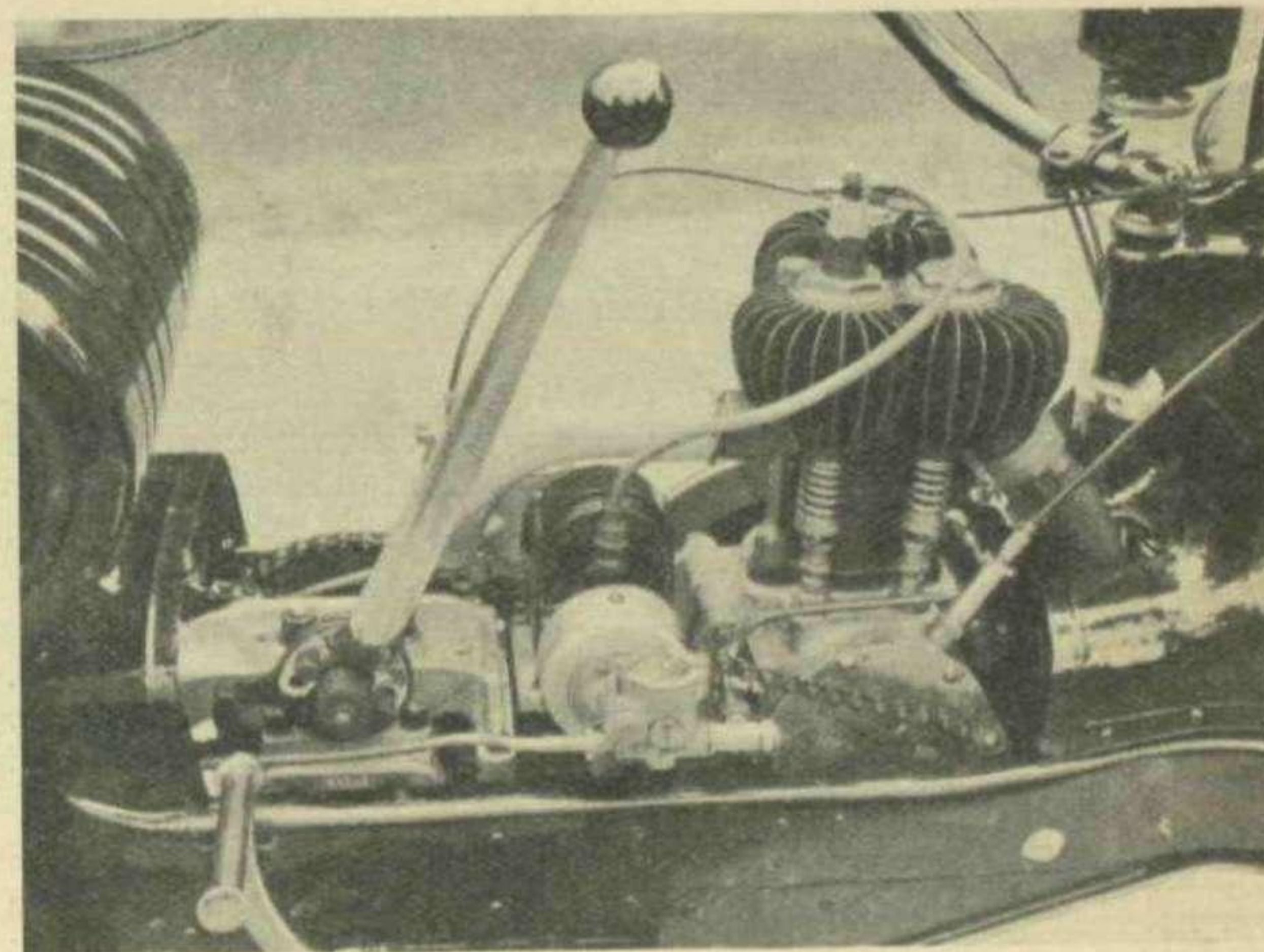
The initials H. R. D. stand for Howard R. Davies, who, in conjunction with one of the foremost designers in the trade, is responsible for the design, which is the outcome of his own personal experiences on road and track. Four models are made, two of 350 c.c., and two of 500 c.c. In general, the design of these machines may be said to follow orthodox lines, but there are several features which depart to some extent from previous practice, and the attention of the visitor to the show is drawn to them. The design of the frame is one point, and that of the rear mudguards, which are hinged and quickly detachable, is another. A saddle tank is fitted with a capacity of two gallons. The oil tank is separate, and is mounted on the down tube. The foot rests are adjustable, and so also are the handle bars, which are designed to incorporate the lamp bracket. H.R.D. Motors, Ltd., Heath Town, Wolverhampton.

Stand 60a.

HENDERSON.

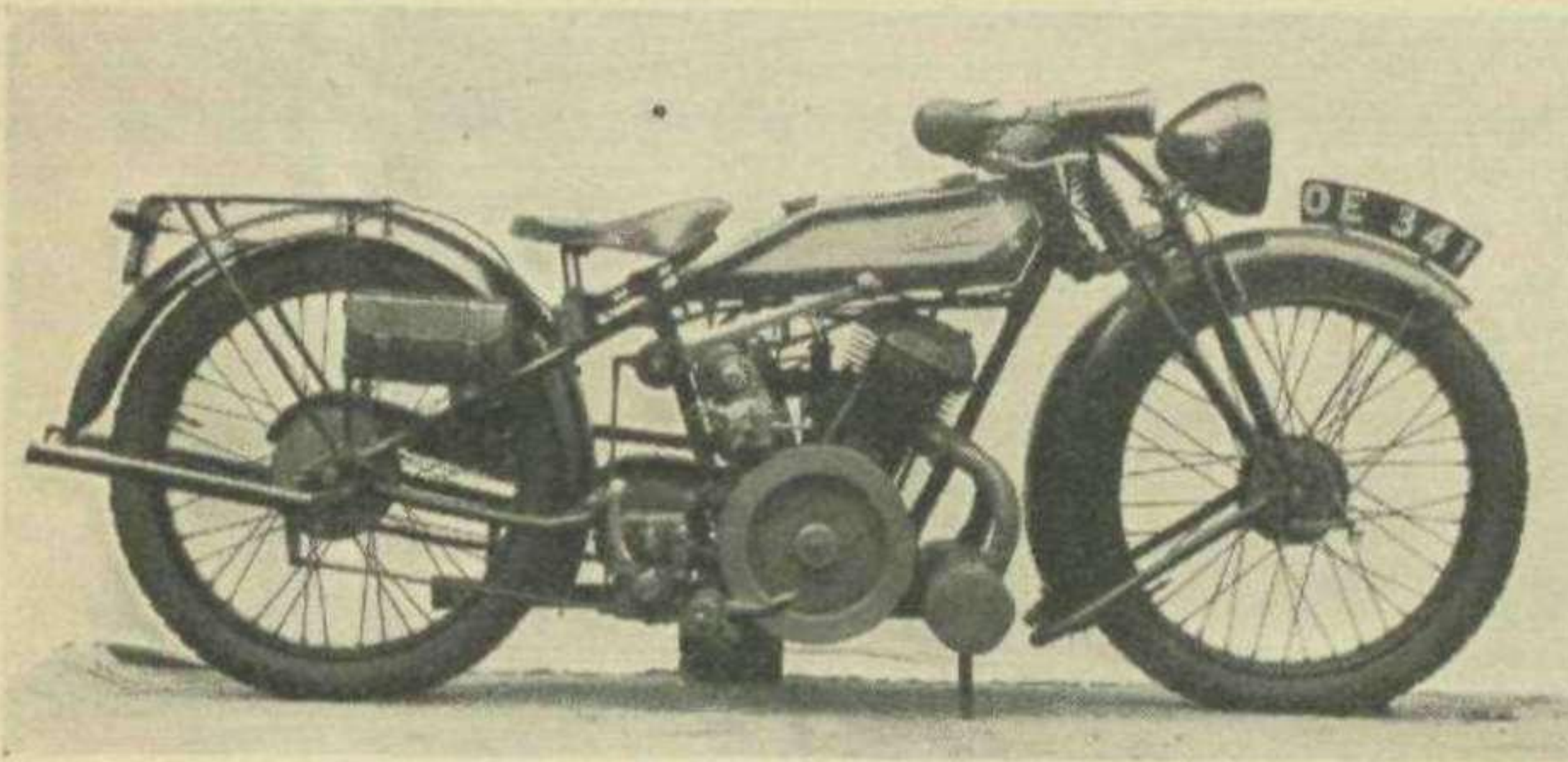
Considerable reductions have been made in the price of Henderson four-cylinder motor cycles, and, in addition, certain additions have been made to the standard equipment which is furnished at the catalogue price. The Henderson is built for all the world like a high-class car, and it runs and acts just like

Stand 77.



"AMIDSHIPS" VIEW OF A NER-A-CAR WITH COVERS REMOVED.

MOTOR CYCLES AT OLYMPIA—continued.



A SPORTS MODEL, DUNELT.

one too. The cylinders are of 2 11/16 in. bore, and 3 1/2 in. stroke. Side-by-side valves are fitted and the pistons are die-cast of a special alloy. The crank shaft is a four-throw one, with balanced cranks, as in car practice, and all bearings are babbit-lined bronze. A special Zenith carburetter provides the mixture, and the ignition is by high tension magneto, not from the electric lighting dynamo, which is a separate unit altogether. The gear box provides three speeds, and the final drive is by roller chain. Balloon tyres, 27 in. by 3.85 in. are fitted as standard. Amongst this machine's sporting performances may be mentioned a 24 hours' continuous run on the Tacoma Speedway (America), during which it covered 1562.54 miles at an average speed of 65.1 m.p.h. Melchoir, Armstrong & Dessau (London), Ltd., 111-113, Great Portland Street, London, W. 1.

HUMBER.

Stand 26.

A Humber motor cycle of vintage 1902 is shown on the special stand devoted to historical machines, and it is worth inspection prior to seeing those of 1925, in order that due appreciation of the immense strides which have been taken in the interim may be acquired. For 1925 two models are listed, the "Six days" and the Model de Luxe. It is of interest to compare the differences between the two. On the six days' model lubrication is by hand pump. A hand pump is also present on the other, but it is there for emergency use only, a mechanical pump being provided to take care of the lubrication under ordinary running conditions. The de Luxe has a B. and B. carburetter, the other has an Amac. The de Luxe model has larger tyres, and better weather protection than the other. Substantial reductions in price have been made, as is exemplified in the "Six-days" which, formerly £55, is now only £47 10s. Humber Ltd., Coventry.

INDIAN.

Stand 48.

A new model Indian, having a single-cylinder engine of 350 c.c., is being introduced for 1925. It has a detachable head, enclosed valve springs, gear driven magneto, hand and mechanical lubrication, and a separate dynamo, which is chain driven. Twist grip control is embodied, the right for the ignition, and the left for the throttle. A three-speed gear box is fitted, and the transmission is by chain. This model is to be known as the Indian Prince, and its price, completely equipped, is £62. The 596 V-twin has been modified in certain particulars, notably in the fitting of a detachable head to the cylinders, and in the alteration of the design of the cam, which has so improved the gas distribution that an increase of 20 per cent. in the power of the engine is claimed. Balloon tyres are standardised on this model, 27 in. by 3.85 in. Indian Motorcycle Co., 366-368, Euston Road, London, N.W. 1.

JAMES.

Stand 49.

A new James model for 1925 is the overhead valve 350 c.c. machine, which has an engine of 73 mm. by 83.5 mm. In general it follows closely the lines which are familiar to all users of James machines, in all particulars excepting those relating to the engine. The latter has extra large valves, which are inclined, and held on to their seats by two concentric springs per valve. The valve gear rocker brackets are bolted to the cylinder head which is, of course, detachable, and the rockers themselves are

of steel, and are mounted on roller bearings. An aluminium piston with domed head is used, and considerable ingenuity has been exercised in reducing the weight of the reciprocating parts. During the coming season the twin James is only going to be sold as a de Luxe model. Slight modifications have been introduced into the 499 c.c. twin sports model, but the 349 c.c. side-valve model remains practically unaltered. James Cycle Co., Ltd., Greet, near Birmingham.

LEVIS.

Stand 51.

Model K is a new design throughout, and is intended for side-car work. It has a 247 c.c. engine, all chain drive, Burman three-speed gear box with clutch and kick-start, 24 in. and 26 in. wheels. The model T.3, of 211 c.c., is very similar to that model of the same engine capacity which was on this firm's programme last year. The drive is a combination of chain and belt, a Sturmey-Archer three-speed gear box, with clutch and kick-starter being fitted. Butterfields Ltd., "Levis" Works, Stechford, Birmingham.

MATCHLESS.

Stand 52.

The most interesting of the many interesting models on this stand is the new 347 all-weather machine. The whole of the mechanism is entirely enclosed in a simple and efficient manner. A couple of wings have been attached to the leg guards which are already a familiar feature of Matchless touring models, and these, with a couple of extra side shields, are all that is necessary. Lubrication of all 1925 Matchless engines is now by mechanically operated pump. A new silencer has been introduced, and is claimed to be remarkably efficient. Larger brakes and hubs have been fitted to the overhead camshaft model, while the chief alteration to the 591 c.c. single-cylinder machine is the fitting of a decompressor to the engine. H. Collier & Sons, Ltd., 44, Plumstead Road, London, S.E. 18.

MATADOR.

Stand 121.

Matador motor cycles are made in three models, but the engine size remains the same in all three, being of 349 c.c. One model, referred to as the semi-sports de Luxe, is equipped with a Bradshaw engine, and the same motor cycle is used as the power unit of the passenger model, known as the Combination de Luxe. The third model, the super-sports, has an overhead valve Blackburne engine.

MONTGOMERY.

Stand 61.

The prices of all Montgomery 600 c.c. models have been reduced, the reduction, in the case of the combination, for example, being £12. The prices of the other models remain as before. All models, except the lightweight machines, have mechanical oiling, shock absorbers fitted as standard to the front forks, and large tyres. A full range, both of motor cycles and sidecars, is shown on the stand, the former ranging from the 175 c.c. lightweights to the 8-38 h.p. Anzani-engined machines. A special feature is being made on the passenger models of the Montgomery Goulding Floating Axle, which, it is claimed, marks a new development in sidecar construction. W. Montgomery & Co., Leicester Causeway, Coventry.

MORGAN.

Stand 53.

No fewer than ten models of the Morgan cycle car are being shown on this stand, including the famous Aero model, which, fitted with the O.H.V. Blackburne engine, has performed so well both on road and track during the past season. This machine, as turned out from the works, is capable of a speed of over 70 m.p.h., and, when specially tuned, can do 95 miles per hour, as has frequently been demonstrated on Brooklands track. Morgan Motor Co., Ltd., Malvern Link.

NER-A-CAR.

Stand 93.

Model B, of the Ner-a-Car, has been considerably modified since last we saw it at Olympia. The flywheel magneto is discarded, and its place is now taken by an ordinary h.t. magneto, which affords easier starting. A steel flywheel is now fitted, which increases the efficiency of the disc driving gear. The price has been reduced from £57 10s. to £50. The new model C, has a Blackburne engine and Sturmey-Archer three-speed

MOTOR CYCLES AT OLYMPIA—continued.

gear box. Provision is made for the adjustment of the driving chain, and a Best and Lloyd oil pump is part of the standard equipment. Sheffield Simplex Co., Canbury Park Road, Kingston-on-Thames.

NEW IMPERIAL.

Stand 64.

There are few modifications in New Imperial machines for 1925. The principal one, which is applicable to all models, being the employment of the Best and Lloyd Mark II oil pump, which is adopted because it proved so reliable during the T.T. races. The principal New Imperial model is, of course, the 350 c.c. machine which is offered in a range of types. Each embodies a three-speed gear box and dry plate clutch. Internal expanding brakes are fitted to both wheels, and the transmission on all models of this size is by chain, incorporating a shock absorber on the engine shaft. Of the three 350 c.c. models, the most interesting is of course the sports model. Another New Imperial of the same class is the super-sports, with a bore of 74 mm. and stroke 80 mm., which has the J.A.P. two-port engine. Druid forks and shock absorbers. New Imperial Cycles, Ltd., Princip Street, Birmingham.

NORTON.

Stand 58.

Nortons are concentrating for the coming season on machines of 3½ and 4 h.p., for solo and sidecar use. The big four has been slightly modified, and is now fitted with a larger diameter brake, of the internal expanding order. Its price is to be £70. The highest priced model is the overhead valve speed model, which is to cost £80. Norton Motors Ltd., Bracebridge St., Birmingham.

N.U.T.

Stand 125.

Improvements in 1925 model N.U.T. motor cycles comprise better balancing of the engine, re-designed valve and cam gear, and enclosure of the exhaust valve lifter gear which will be operated in conjunction with the kick-starter. All these things make towards a quieter running engine. The inlet and exhaust pipes are now clamped to the engine, and the silencer has been re-designed, improving its silencing properties, but allowing the power of the engine to be increased. Adjustable foot rests are now fitted, with a radius of three inches, giving a ground clearance which can be varied from 5½ in. to 11½ in. The wheels are quick-detachable and are interchangeable; both are fitted with internal expanding brakes. Provision is made for altering the gear ratios by changing the rear wheel sprocket, and by this means the top gear can be varied from 3.88 to 4.76. Hugh Mason & Co., Ltd., N.U.T. Works, Derwenthaugh, near Newcastle-on-Tyne.

NIMBUS.

Stand 88a.

This is an unorthodox machine, of Danish manufacture. It has four cylinders with car type crank shaft, clutch and gear box, all mounted as one unit. The transmission to the rear wheel is by propeller shaft and bevel gears, all of which are totally enclosed and running in oil. The petrol tank is a part of the frame, being merely the top tube enlarged, and the front forks embody a shock absorbing spring. Fisker & Nielson, Ltd., Peter Bangsvej 30, Copenhagen.

O.E.C.-BLACKBURNE.

Stand 17.

The O.E.C. new model, of 10 h.p., will undoubtedly be the attraction on this stand. It is a super-sports, having an ingenious duplex frame, consisting of two tubes running direct from the head to the rear fork ends, and two more running to the rear fork ends again. The gear box is suspended independently in the chain stays. A novel feature is the arrangement of the magneto drive, which is by skew gears, which makes for longer life, quieter running, and a more compact power unit. A complete range of models is shown, including the 2½ h.p. overhead-valve sports model, and the 5-7 h.p. racing machine. The Osborn Eng. Co., Ltd., Lees Lane, Gosport, Hants.

OMEGA.

Stand 13.

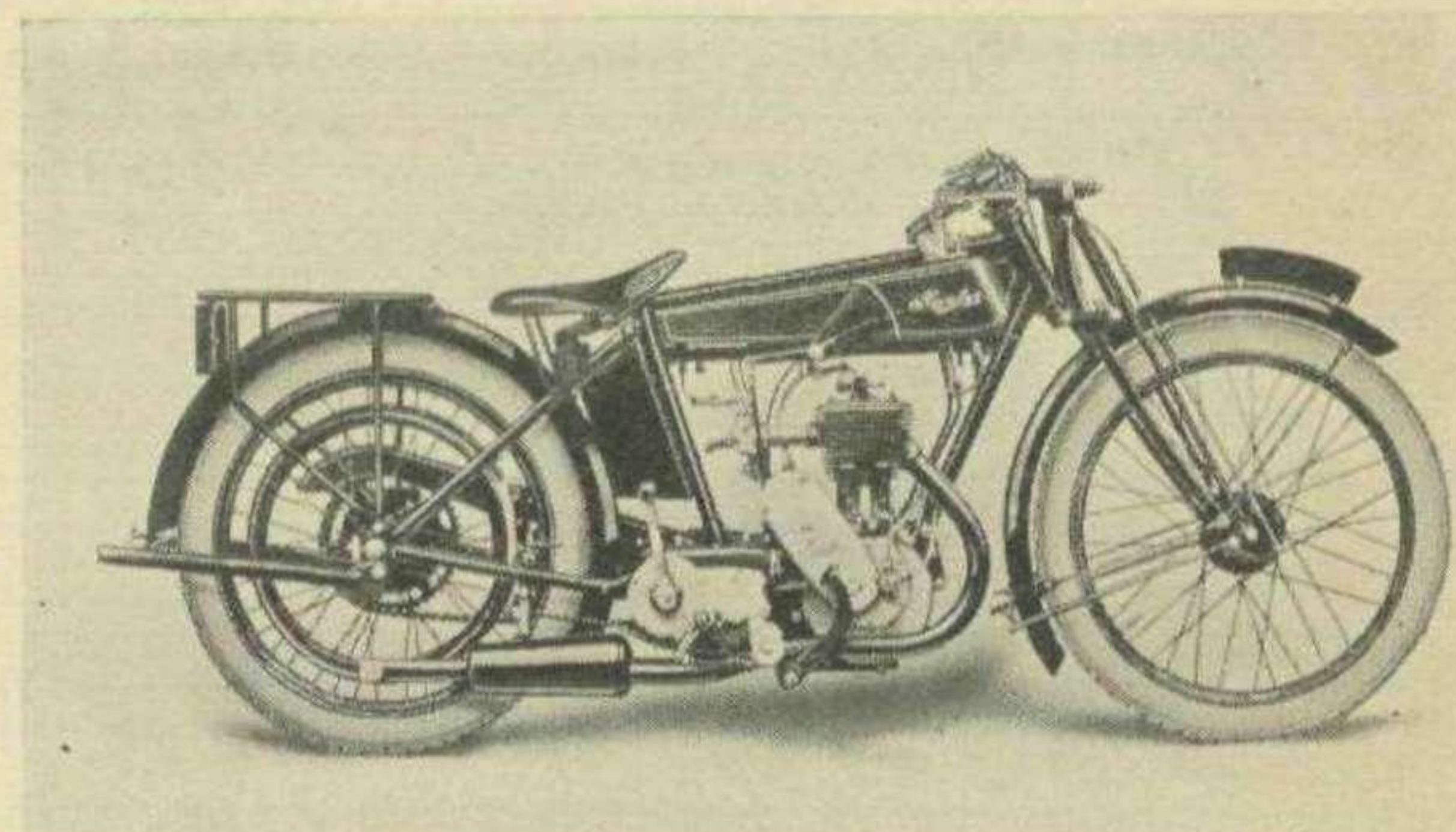
Special attention should be directed to the Model I. This has a J.A.P. engine of 293 c.c., and is equipped with M.L. magneto, B. and B. carburetter, Sturmey-Archer three-speed box, Renolds all-chain drive, mechanical oil feed, and Clincher tyres, 26 in. by 2¼ in. At its price of £38 15s. it is good value for money. Other models include a 350 c.c. machine with over-

head valve J.A.P. engine, one with a Bradshaw power unit, and another with a Barr and Stroud. Yet another of the same engine capacity has a J.A.P. side-by-side valve engine, and another is a two-stroke machine. W. J. Green, Ltd., Omega Works, Coventry.

P. & M.

Stand 108.

The P. and M. Panther has undergone considerable modification since last year, the principal alterations being enumerated as follow. Dunlop cord three inch tyres are standard, as are Webb forks with integral shock absorbers and special handlebar clips, enabling the stem to be dispensed with. The exhaust pipe is now brought out at right angles to the cylinder head, giving increased power, better petrol consumption, and a cooler engine. The gear control has been simplified, and internal expanding brakes are now fitted to both wheels, those at the rear being eight inches in diameter. A decompressor is fitted, and the magneto coupling has been modified to allow of easy alteration of the timing. The price remains the same as before, £75. A modified Panther, to be known as the Cub, is to be marketed during the coming season. It has 2½ in. tyres, smaller mudguards, and a silencer which conforms to Brooklands regu-



THE NEAT-LOOKING HUMBER.

lations. Its price is £72 10s., or, with a speed of 75 m.p.h. guaranteed, £80. The side-valve model remains unaltered, except as to price, which has been reduced to £70. Phelon & Moore, Ltd., 77, Mortimer Street, London, W. 1.

P. & P.

Stand 95.

The most interesting of the many models on this stand is the 8-45 h.p. overhead valve model, the specification of which includes 28 in. by 3 in. cord tyres, B.T.H. magneto, mudguards without valances, long exhaust pipes, special petrol tank, special bars, with twist grip, steering damper, and B. and D. stabilisers. The carburetter is a B. and B. sports, with two float chambers. The saddle fitted is a Terry. The 8-30 is very similar in outline specification, but is more of a touring model. Its equipment includes electric lighting. A special eight and sidecar is being made for the coming season, with interchangeable wheels and balloon tyres. Another interesting exhibit is the two-port overhead-valve model, stripped for sports use. There is a dashboard to the tank, and a mechanical oil pump is fitted. Packman & Poppe, Ltd., Moor Street, Earlsdon, Coventry.

PULLIN.

Stand 42a.

The Pullin Motor Cycle is almost unique in its design. The object of its manufacture has been that of making it a suitable machine for use by the ordinary man who does not wish to don the usual motor-cyclist clothing. In the Pullin this object has been achieved by the adoption of an open frame of unusual construction, which lends itself to the absolute enclosure of the engine and gear box. The petrol and oil tanks are embodied in the frame, and are of large capacity, the former being able to accommodate 2½ gallons, and the latter three pints. The engine is of 348 c.c. capacity operating on the two-stroke cycle. A two-speed gear box is fitted, and the transmission is by roller chain. The Pullin Motor Cycle Co., Ltd., Kingsway House, Kingsway, London, W.C. 2.

MOTOR CYCLES AT OLYMPIA—continued.

QUADRANT.

Stand 68.

The $3\frac{1}{2}$ h.p. Quadrant has an engine of 79 mm. bore and 100 mm. stroke, the cubic capacity being 490 c.c. It has a detachable head, and is fitted with either the Binks or Amac carburetter. The transmission embodies a Burman three-speed box, with clutch and kick-starter, all chain drive, aluminium covers for the chains, and 26 in. by $2\frac{1}{2}$ in. tyres. The $3\frac{1}{2}$ h.p. combination is the above machine with a light coachbuilt sidecar. A $4\frac{1}{2}$ h.p. combination is also standardised, with a single-cylinder engine, 85 mm. bore and 110 mm. stroke. March, Newark & Co., Ltd., 45-49, Lawley Street, Birmingham.

RALEIGH.

Stand 50.

The latest addition to the Raleigh range of motor cycles is a new $2\frac{1}{2}$ h.p. overhead-valve model, which has been designed essentially for speed work. It has a long stroke engine, is equipped with roller bearings in both big ends and shaft bearings, has an all-drive chain drive and, with its low riding position and ease of control, should be an ideal machine for those who require speed as well as reliability. A new method of lubrication has been patented by the Raleigh Co. It combines the advantages of both the hand pump and mechanical systems, and is extremely simple. One oil pipe only connects the tank to the crank case, and either system can be used independently of the other. There is a hand pump on the tank which is connected by a feed pipe to the inlet of the mechanical pump. A bypass allows the passage of the oil to the crank, when the hand pump is used. Raleigh Cycle Co., Ltd., Lenton, Nottingham.

ROVER.

Stand 41.

The Rover Co. have replaced the 250 c.c. model by one of 350 c.c., this having an engine of 74 mm. bore and 80 mm. stroke. A speed of 60 m.p.h. is guaranteed with the standard model, and even this can be improved upon if an aluminium piston be fitted at an extra cost of but 7s. 6d. While the engine has been increased in size, it has also, of course, been necessary to strengthen up the other parts of the mechanism and frame. The gear box has been stiffened, the clutch has an extra plate, and the strength of the primary chain has been increased. Generally speaking, the design remains as before, but the overhead-valve gear is now enclosed, as is also the primary chain. Notwithstanding all these improvements, and the increase in power, the price still remains at £55. The Rover Co., Ltd., Meteor Works, Coventry.

RUDGE-WHITWORTH.

Stand 38.

The layout of the 1925 four-valve Rudge-Whitworth engine has not altered very much since last year. The cylinder head, with its two overhead inlet valves, and its two overhead exhaust valves, is still detachable. The gear box provides four speeds, and the transmission from engine to gear box and from gear box to rear wheel is still by roller chain in both cases. Features of the frame design are, the stemless handle bars, and the provision of an extra pair of tubes which extend from the rear fork ends and the bottom of the crank chamber. The Rudge is made in two models, of 350 c.c. and 500 c.c., the price of the standard machines being £58 and £64 6s. respectively, £5 being added for electric lighting equipment. Rudge-Whitworth, Ltd., Coventry.

ROYAL ENFIELD.

Stand 55.

Improvement in quality, accompanied by reduction in price, is the keynote of the Royal Enfield plan this season. The Sturmev-Archer three-speed box is now standardised on the $2\frac{3}{4}$ h.p. models. The standard side-valve model now has an improved silencer, and an internal expanding front wheel brake. The overhead-valve model now has a new type of frame, with duplex saddle tube, which gives a lower saddle position, and is very rigid. Spring fork dampers are provided and a Terry spring seat saddle is part of the standard equipment. A special racing model is now listed, with a two-port overhead-valve engine, two exhaust pipes, and a racing carburetter. The 8 h.p. combination has been entirely re-designed since last show, having a new frame and tank, amongst other things. Either Enfield two-speed gear or Sturmev-Archer three-speed gear is now fitted, and the retail price for the complete outfit is now

£90. A sports model is listed too, at £95. The Enfield Cycle Co., Ltd., Redditch.

SCOTT.

Stand 91.

The 498 c.c. engined Super Squirrel is the machine which ran second in this year's Senior T.T., while the 596 c.c. model of the same type, put up the record lap in the course of the previous year's sidecar race. Both models have the same general specification, the engines having water cooled heads, straight-through induction pipes, and die-cast aluminium pistons. The smaller machine is recommended for fast solo work: the larger is suitable either for that purpose or for combination work. The other model Scott which will be of interest to our readers is the ordinary Squirrel model, which has an engine of 486 c.c. The prices are: 498 c.c. Super Squirrel, 70 guineas; 596 c.c. Super Squirrel, 73 guineas, and ordinary Squirrel, 63 guineas. The Scott Motor Cycle Co., Ltd., Saltaire, Shipley, Yorks.

SIRRAH & VERUS.

Stand 117.

There are to be three models each of Sirrah and Verus machines during 1925. Of the former, one is of $2\frac{3}{4}$ h.p., with Wiseman two-stroke engine: the second is the same, but with sidecar. The third has a J.A.P. engine of the same power. The Verus models, too, are of $2\frac{3}{4}$ h.p., one having a Blackburne engine, and the other two having J.A.P. power units. The most interesting machine to us is the Verus special racing sports model, which has an all-steel frame, and is fitted with a J.A.P. overhead-valve engine of 350 c.c. capacity. Alfred Wiseman, Ltd., Glover Street, Birmingham.

TRIUMPH.

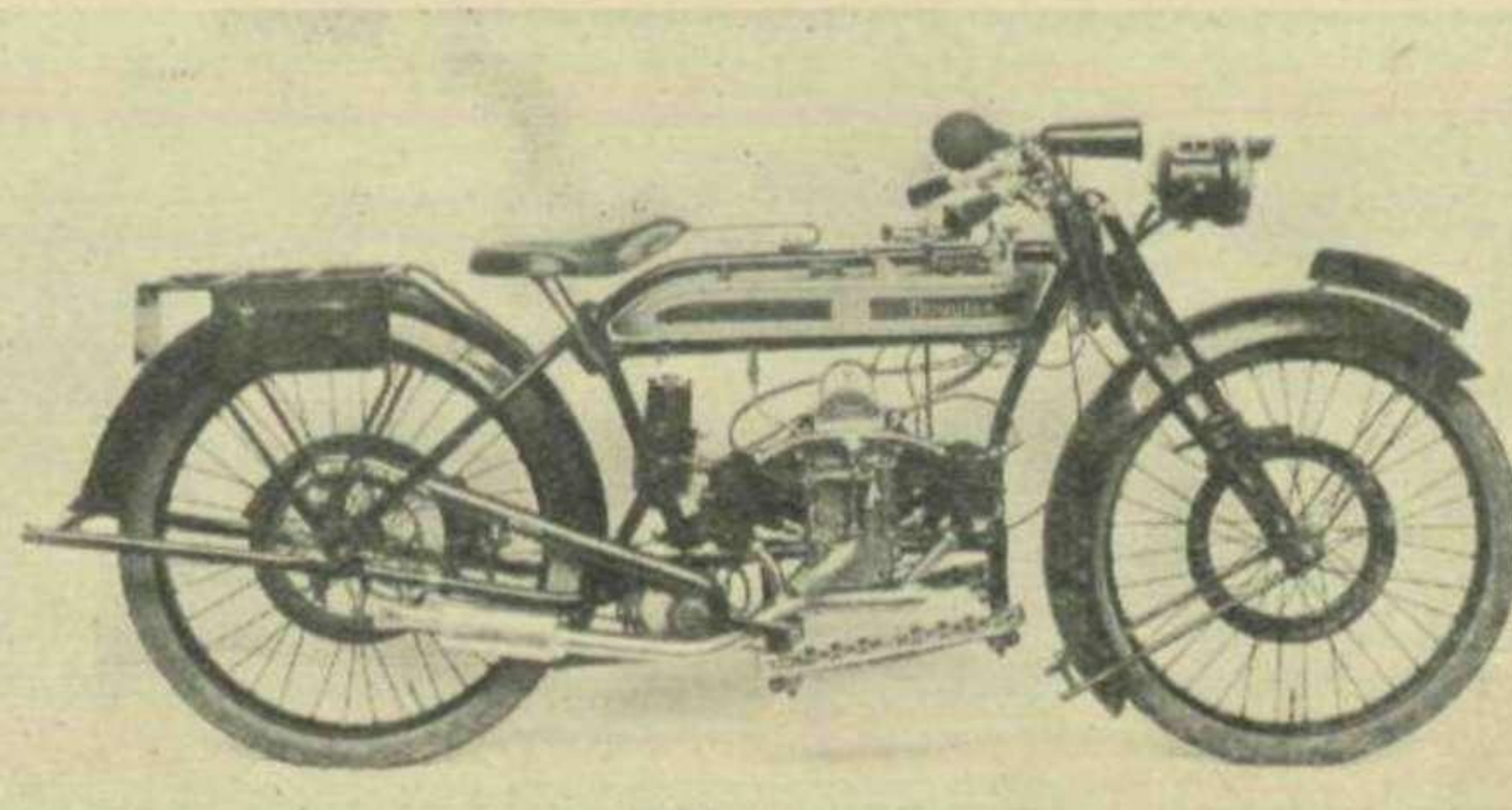
Stand 33.

The Triumph range, already comprehensive, has been still further increased by the addition of an entirely new model, the 4.94 h.p. type P. It is a single-cylinder machine, with side-by-side valves. The crankshaft is equipped with a shock absorber which takes the form of a helical cam, which is resisted by the action of a spring, so that all harshness is eliminated from the drive. No alterations have been effected to the 5.50 model, none having been found to be needed. The same remarks apply to the 4.99 h.p. overhead-valve model. The 3.46 h.p. machine embodies an engine, gear box and clutch, which are built into one unit. Several examples of all models are shown on this stand, as well as of Gloria sidecars. Triumph Cycle Co., Ltd., Coventry.

ZENITH.

Stand 89.

A special 8 h.p. racing model, equipped with the new overhead-valve J.A.P. engine, is the most attractive feature of this stand. This is in addition to the Super-Eight Model Sports, with J.A.P. 980 c.c. side-by-side valve engine, Sturmev-Archer three-speed gear, kick-starter, handlebar controlled clutch and mechanical oiler, which remains very nearly the same as it was last year, a slight alteration having been made to the design, so as to afford a lower saddle position. Other sports models on this stand are the 344 c.c. J.A.P. engined model and another new model, of the same capacity, but with two-port engine, special racing duplex frame, saddle tank, and Sturmev-Archer gear. Zenith Motors, Ltd., Hampton Court, England.



THREE-SPEED ALL-CHAIN-DRIVE DOUGLAS.

ACCESSORIES AT OLYMPIA.

The Gallery for Gadgets.

Some Aids for the Speed Man.

ACCLES & POLLOCK.

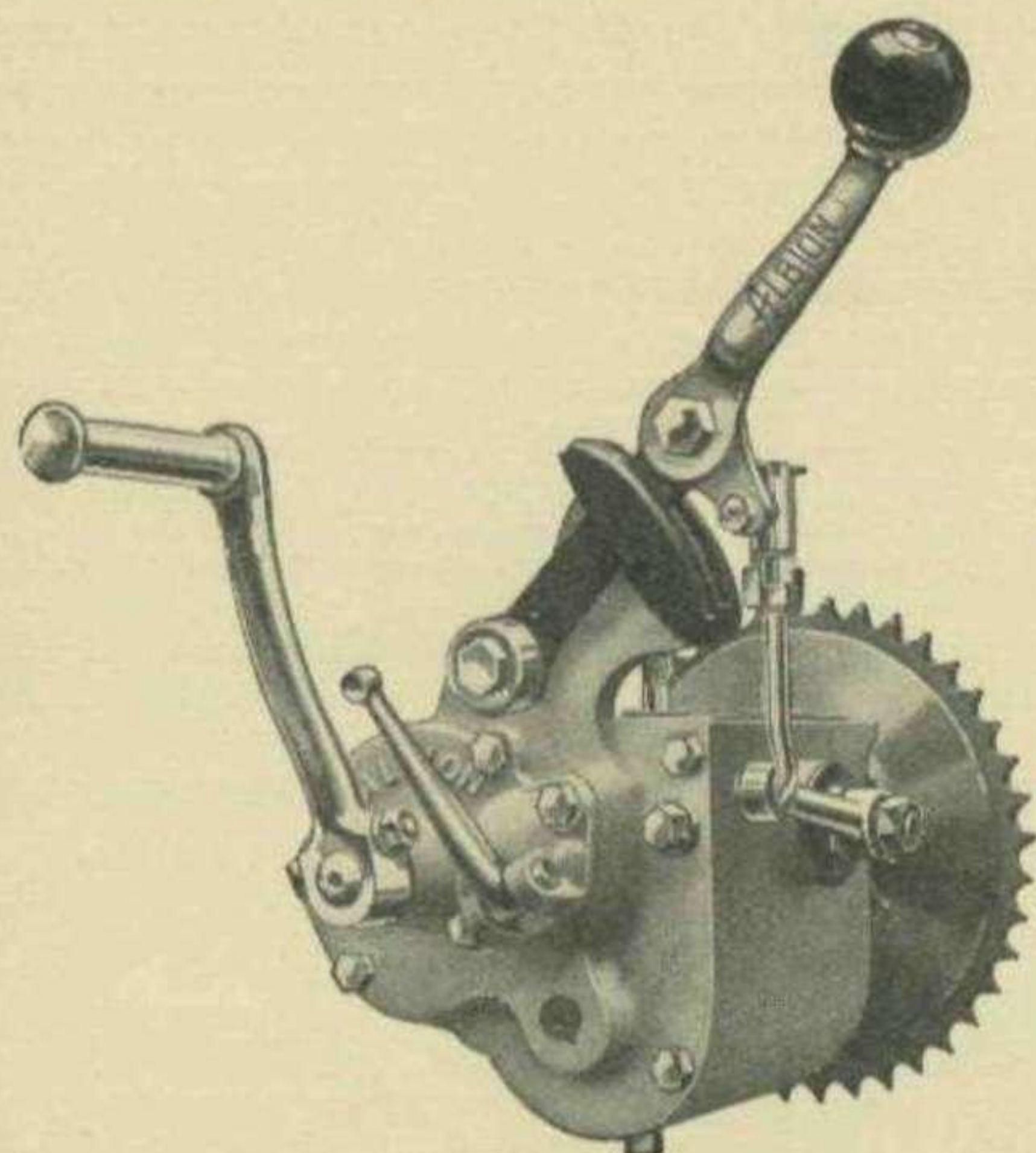
Stand 205.

The exhibits on this stand concern the sporting motor cyclist who takes an interest in the details and construction of his mount, and particularly those who may have ideas of their own as to the way in which motor cycle frames ought to be built. They will see, on this stand, a complete range of constructional components for motor cycles of all types. Well in front of the stand are exhibited three motor cycle frames, built up entirely of the firm's tubing, and replicas of the machines which won the five events in last year's T.T. Races, every one of these winning machines being built of tubes made by Accles & Pollock, Ltd., Oldbury, Birmingham.

A. C.

Stand 208.

Motor cyclists should examine the new model A.C. Sphinx sparking plug which is exhibited on stand 208. It has a detachable insulator and three firing points. It has been specially designed for motor cycle engines and is being fitted by a number of British manufacturers. Another exhibit of interest is the



THE LATEST
TYPE ALBION
GEAR BOX.

new waterproof terminal cap, which, notwithstanding the fact that it is instantly detachable, cannot be shaken off by vibration. It can be used on any A.C. Sphinx plug. The A.C. Sphinx Sparking Plug Co., Ltd., Bradford Street, Birmingham.

ALBION.

Stand 243.

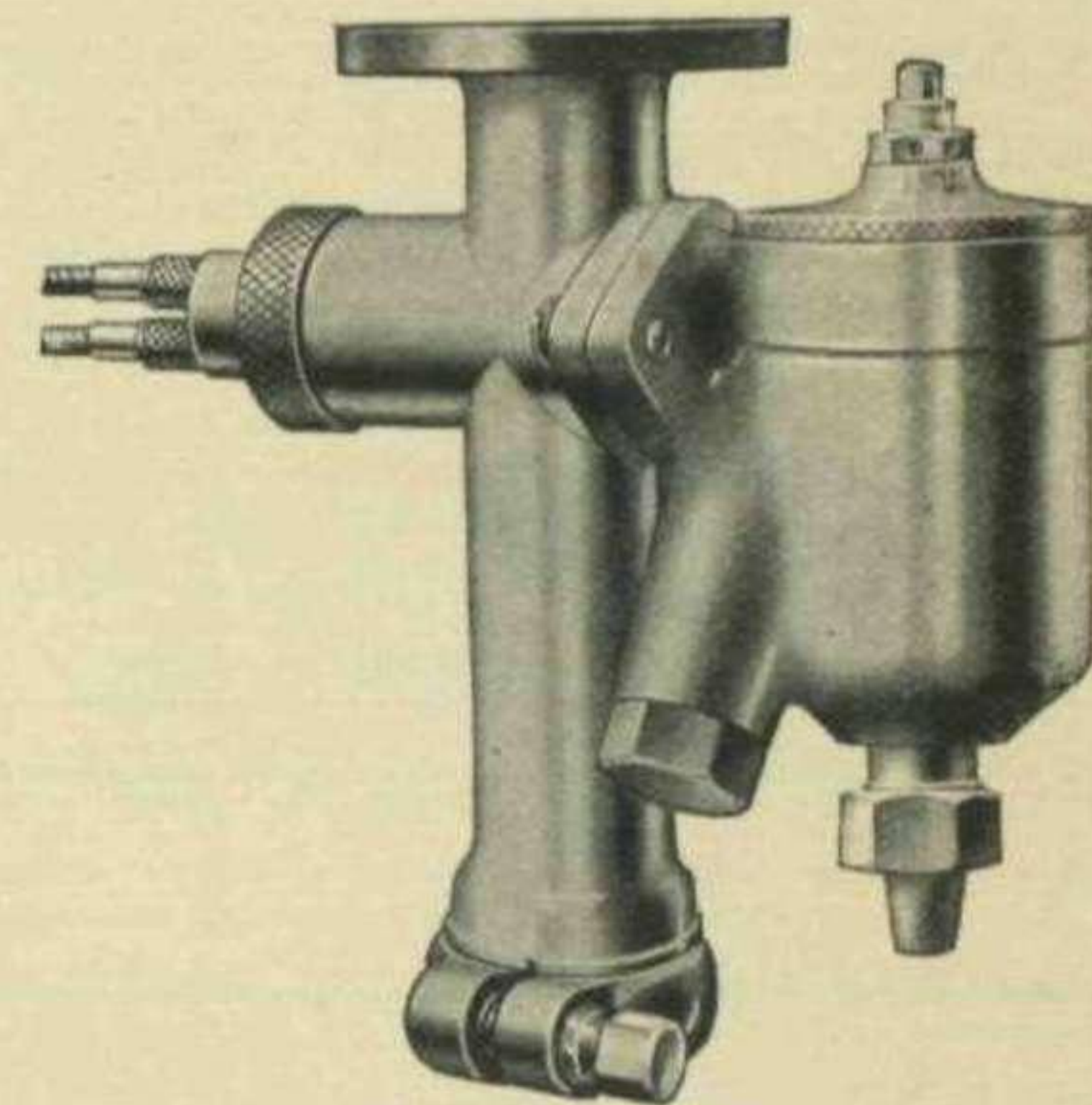
The Albion Engineering Co., Ltd., are specialising during the coming season in gear boxes for feather-weight machines only, and there will be three types: a plain two-speed box without clutch or kick-starter; one with clutch and kick-starter, and a three-speed box similarly equipped. Beyond strengthening up the pinion, no alteration has been made to either of the two-speed gear boxes. The three-speed unit has, however, been modified somewhat in its construction, so that the control lever, when top gear is engaged, is in its lowest position and the quadrant is out of the way of the rider's knee. This is an important matter, since the top gear on any motor cycle is in use for most of the time. The Albion Engineering Co., Ltd., Upper Highgate Street, Birmingham.

A.-L.

Stand 189.

Allen-Liversidge, Ltd., of Victoria Station House, Westminster, London, S.W. 1, are again making a feature of their popular small dissolved-acetylene outfits, including a cylinder containing four cubic feet of acetylene for motor cycle lighting. This cylinder, weighing only 3-lbs., and occupying no more than the space required by the average acetylene generator used on motor cycles, is ideally suited to the requirements of the solo rider. When used with the famous A-L Fallolite lamp, which gives a long white beam of 3,000 candle power, the acetylene will

AN AMAC CAR-
BURETTER, SPECIALLY
DESIGNED FOR SPORTS
USE.



last for upwards of 12 hours consistent lighting. It is interesting to note that during the past year the post-office have adopted A-L outfits for all their motor cycle and sidecar delivery vans throughout the United Kingdom. Those motor cyclists whose machines are equipped with electric lighting, will find an A-L Patent Anti-Dazzle focus headlight attachment an invaluable accessory. It embodies a simple device, by which the driver is enabled by the manipulation of a small plunger fixed to the handle-bars, completely to control the focus of his headlight.

AMAC.

Stand 202.

On this stand is exhibited a representative selection of Amac Carburettors, including both touring and sporting types. Readers of this journal will be mainly interested in type 3 V.D., which has been specially designed for sports Douglas machines, and also type T.T. 24, which is a racing model. Amac, Ltd., Lion Works, near Witton Station, Birmingham.

ANDRE.

Stand 169.

If any indication was needed of the wonderful efficiency of Hartford Shock Absorbers, their increasing popularity with riders of motor cycles, particularly the sporting type, but not merely of that class, would be sufficient evidence. Those which are fitted on motor cycles are precisely the same in principle as the ones which have been selected as standard equipment by so many makers of racing cars. The latest application of this principle, however, is the most interesting one, and is exemplified on the stand, in that exhibit which shows the Andre Steering Damper. This is specially designed for motor cycles and its usefulness was adequately proved in this year's T.T. Races, when it was used successfully by the winners of the Junior Lightweight and Sidecar Races, helping very considerably to make possible the high speeds which were accomplished. The effect of this damper is to steady the steering of the machine to which it is fitted at all speeds, and one of its unique features is, that the amount of friction required can be adjusted from the saddle whilst riding, and the correct setting varied according to requirements. T. B. Andre & Co., Ltd., 5, Dering Street, New Bond Street, London, W. 1.

A. T.

Stand 170.

One of the most interesting exhibits on this stand is the working model of the A.T. Speedometer, which works, as may perhaps not be widely known, on the magnetic principle. Another of interest is the A.T. Transmission which consists of a chain of miniature universal jointed links. This chain rotates in a helical steel lining filled with grease, and the lining itself is enclosed in a specially strong and waterproof flexible steel case. All types of drive are supplied suitable for gear box or front wheel sprocket and pinion. The A. T. Speedometer Co., Ltd., 20, Avonmore Road, West Kensington, London, W. 14.

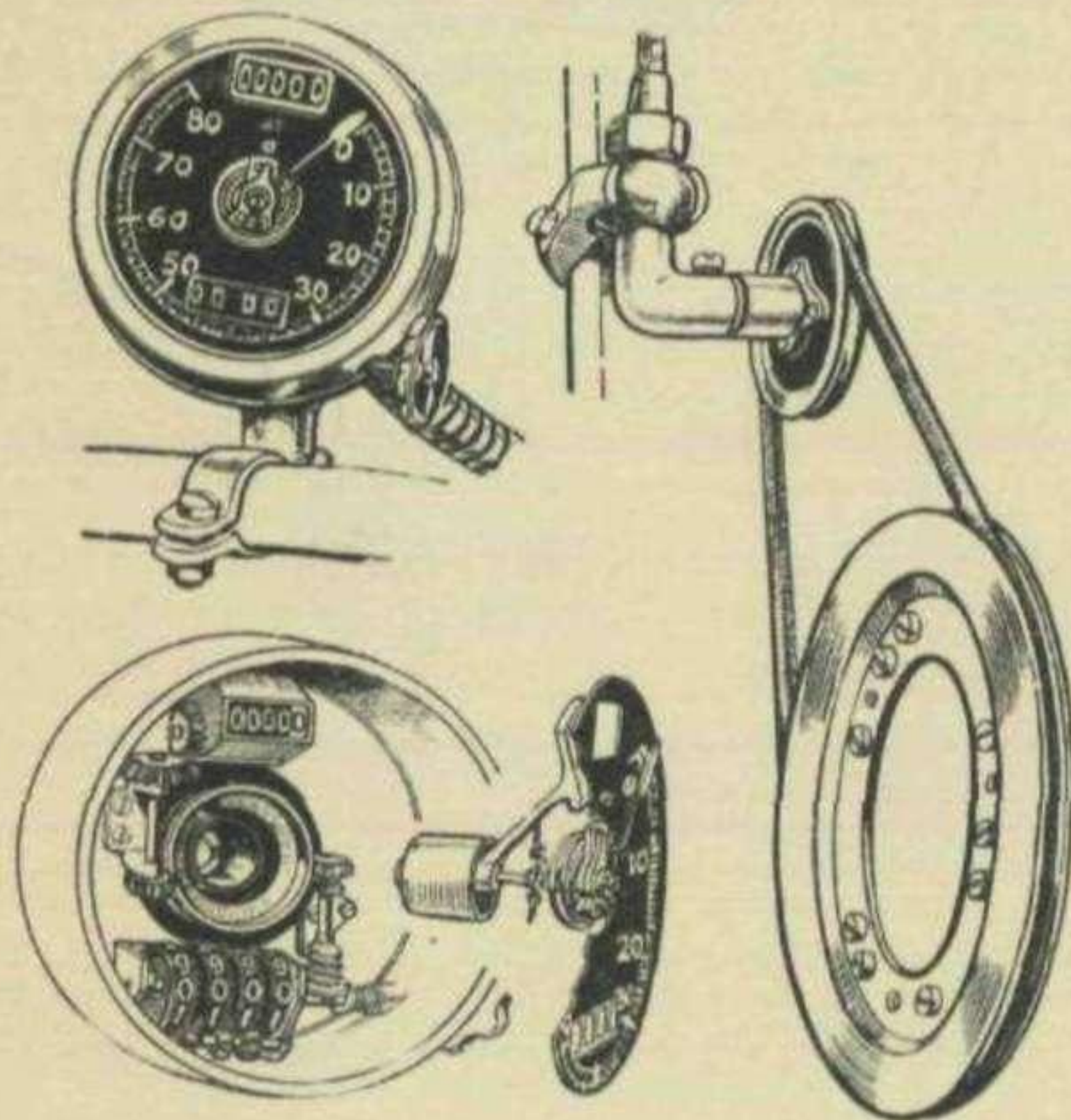
AVON.

Stand 87.

The Avon tyre has, for many years been regarded as amongst the best for competition work, and we are informed that over

ACCESSORIES AT OLYMPIA—continued.

1,000 premier competition awards have been won on Avon tyred machines. These awards include seven tourist trophies, won during the present year, and no fewer than 30 cups and 297 gold medals, as well as many other awards. On the stand examples of Avon Duroolith and Tricord and Stonehenge Cord Covers in all weights and sizes will be shown, as well as a good many useful motor cycle accessories, such as patches, plasters, footrest pads and mudguard flaps. The Avon India Rubber Co., Ltd., 343-5, Euston Road, London, N.W. 1.



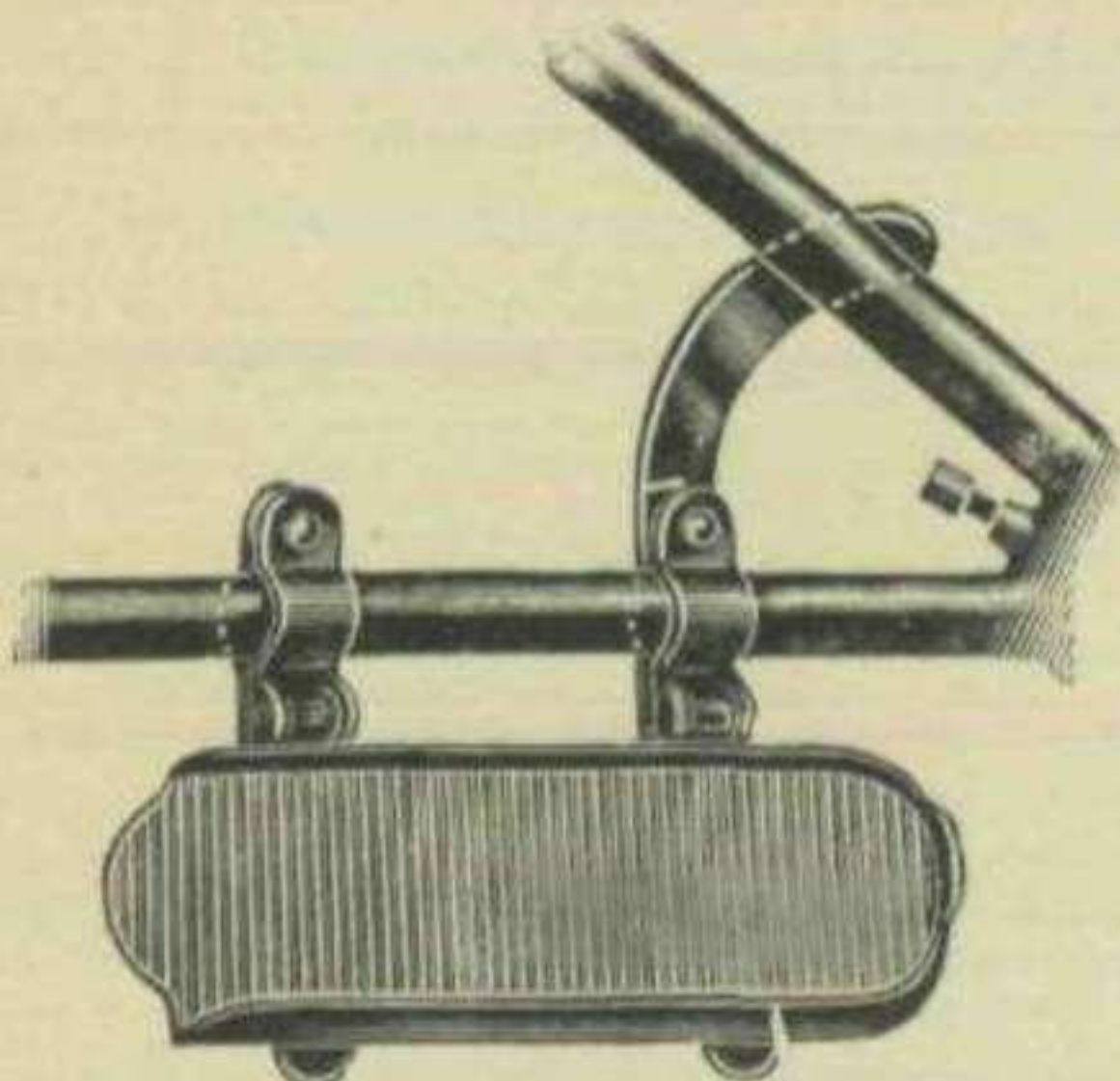
A.T. SPEEDO-
METER DRIVING
GEAR.

BEST.

The outstanding exhibit on this stand is the "Best" mechanical oil pump. This is made in two popular forms, Mark I., which is suitable for application to existing motor cycles, and Mark II., which is now becoming popular as a standard fitting amongst many leading manufacturers both at home and abroad. Various methods of its application are shown, as well as a new type of the Mark II. model, which has been produced to meet the requirements of two-stroke and lightweight motor cycles. The concentric tap, one of the few effective petrol cocks, is now being made in such quantities that it has been found possible to reduce its price and thus remove what has hitherto been an obstacle in the way of its more general adoption. Best & Lloyd, Ltd., Handsworth, Birmingham.

BOWDEN.

A comprehensive range of the Bowden Brake Co.'s fittings are to be found on this stand and considerable interest attaches to the selection of fitted motor cycle handlebars and control levers which exemplify what can be done in the way of arranging the control gear of the motor cycle in order to suit the individual



THE BROOKES PILLION
FOOTREST, READY FOR
USE, AND FOLDED.

tastes and requirements of the user. The front hub brake for motor cycles is an interesting exhibit, as also is the Bowden spring pillion seat. The Bowden Brake Co., Ltd., Tyseley, Birmingham.

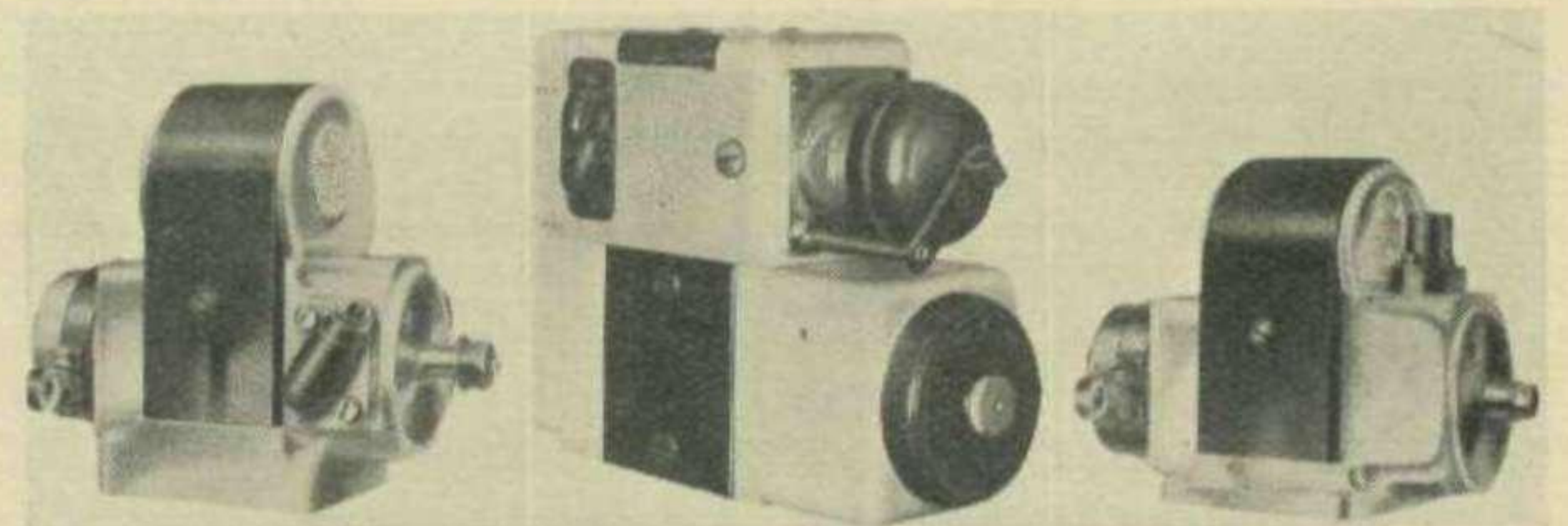
BRAMPTON.

Another stand of interest to the motor cyclist with constructional ideas is this one of Brampton Bros., on which are exhibited a comprehensive range of motor cycle fittings, such as are designed to accommodate Villiers, A.Z.E. Blackburne, J.A.P., Anzani, Barr & Stroud and Bradshaw engines. Brampton roller

chains are, of course, well known to our readers, as also is the Brampton Bi-flex spring fork, which is made in types suitable for motor cycles from 147 c.c. upwards. Brampton Bros., Ltd., Oliver Street Works, Birmingham.

B. T. H.

On this stand are exhibited the well-known B.T.H. magnetos and lighting sets, and amongst them the Sparklight Ignition and Lighting set, in which the magneto is utilised for generating lighting current in addition to its ordinary function of ignition, is of particular interest. Any surplus current generated in the magneto is used to charge a 4-volt 12 amp.-hour accumulator,

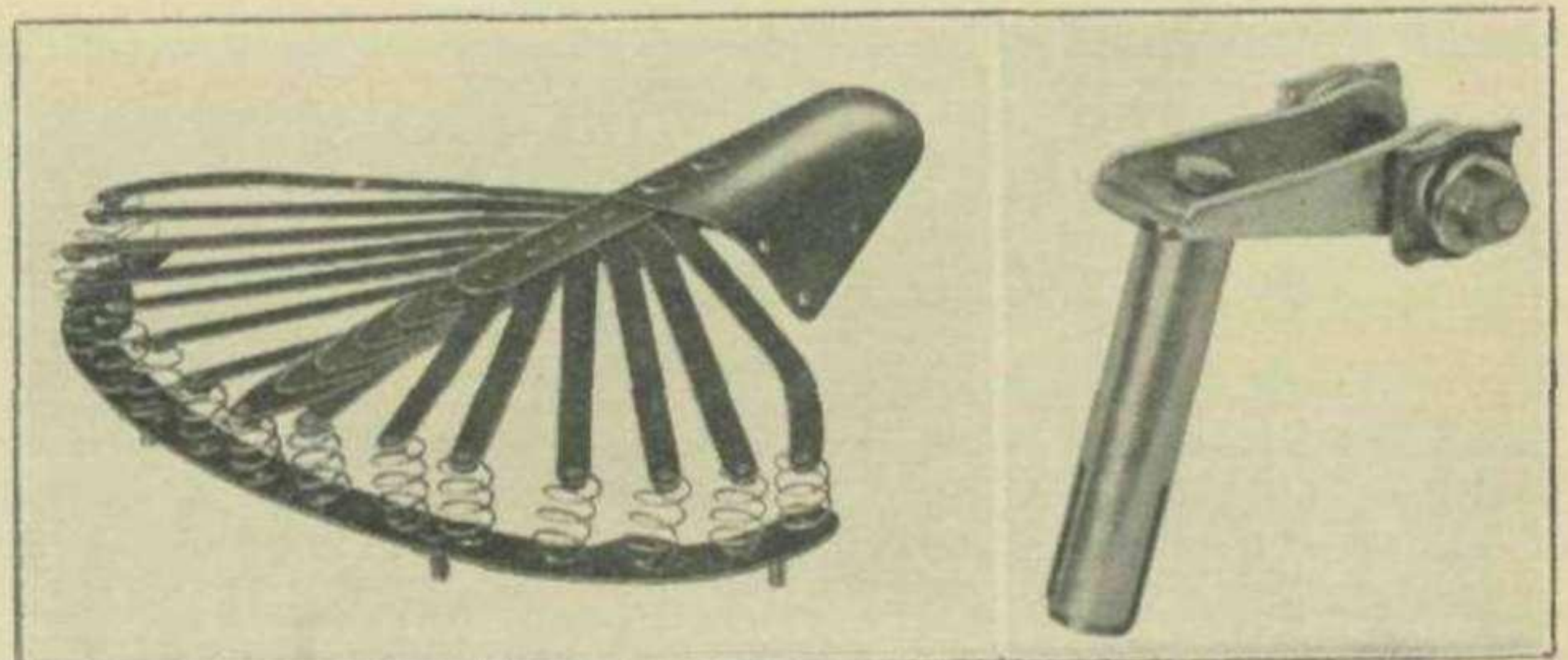


B.T.H. MAGNETOS IN THREE DIFFERENT FORMS.

to which the lamps are connected. This system has recently been improved by certain modifications in the design of the magneto, while the head-lamps also have been modified to give a powerful beam of light of greater intensity than used to be possible. The British Thomson-Houston Co., Ltd., Rugby.

BROOKS.

A feature of the sports and T.T.-Supple Saddles which are shown on this stand, which must inevitably interest speedmen either on road or track, is the lateral stability of the supple top



BROOK SPRING SEAT SADDLE AND PATENT PILLAR.

of the saddle, which is ensured by the arrangement of the radiating finger springs which, being of flat steel, do not permit a side-swing action when cornering. This absence of side-sway should considerably enhance the rider's sense of security, thus assisting him in his efforts to attain the maximum of possible speeds. J. B. Brooks & Co., Ltd., Great Charles Street, Birmingham.

BROOKES.

Among the numerous interesting exhibits on this stand, perhaps the new folding pillion foot-rest, called the companion, is of greatest interest, and particular attention should be devoted to the arrangement of a cranked extension piece fitted at the back of the downstay to obviate the risk of it dropping or turning round when in actual use. The Brookes Manufacturing Co., Ltd., 224, Lichfield Road, Aston, Birmingham.

B. & B.

The principal exhibit on this stand is the new sports carburetter which was used by the winners of the Senior T.T., the Belgian Grand Prix, the French Grand Prix and the Ulster Grand Prix. In addition, a complete range of carburetters of all types and for all sizes is shown, including that popular model for four-stroke engines, in which the mixture strength is governed by a taper needle which automatically controls the orifice as

Stand 159.

Stand 261.

Stand 257.

Stand 263.

Stand 173.

Stand 268.

ACCESSORIES AT OLYMPIA—continued.

the throttle valve is opened or shut. This model is provided with a simple but effective pilot jet, the mixture variation of which can be controlled by the manipulation of a simple knurled screw. The two-stroke carburetter is notable for the means to ensure good atomization, which is so important a feature in connection with carburetters for engines of this type. Brown & Barlow, Ltd., Witton, Birmingham.

BARR & STROUD.

Stand 132.

The constructional features of the Barr & Stroud sleeve valve engine are by now well-known and it will be found on examination of the exhibits on this stand, that practically no changes have been made in design since last year. For the benefit of those who are not acquainted with the details of this engine may be said that the usual poppet valves are replaced by a single sleeve valve which is operated by means which give it a combined semi-rotary and reciprocating movement. Cut in the sleeve are a series of openings which at the correct moment coincide with ports in the cylinder walls to permit the entry or issue of fresh and burnt gases respectively. Motor cycles fitted with these engines have achieved considerable success during the past season, including seven cups, a special award, five first class awards, 15 gold medals, four gold centre medals, four silver medals and one best performance: moreover, in nearly every case the machines which gained these awards were the only ones entered with this make of engine. The exhibit indicates the full range of sizes available and a sectioned example of the 350 c.c. type to enable its construction to be inspected. Barr & Stroud, Ltd., 15, Victoria Street, Westminster, London, S.W. 1.

BATES.

Stand 4.

On this stand the chief interest will be focussed on this Company's latest production, the Bates multi-stud cord tyres which are now made in a majority of sizes which are fitted to motor cycles. The Company is still manufacturing the existing types of tyres in all sizes as well as a full range of Bates motor cycle accessories, including the new black acetylene gas tubing handle-grips, repair outfits and similar parts. W. & A. Bates, Ltd., St. Mary's Mills, Leicester.

BLACKBURNE.

Stand 254.

A complete range of these well-known engines are exhibited on this stand, including all sizes from the 250 c.c. side valve air-cooled engine to the 1,100 c.c. 60 deg. twin overhead valve water-cooled model. Burney & Blackburne, Ltd., Atlas Works, Bookham, Surrey.

BOWDEN WIRE, LTD.

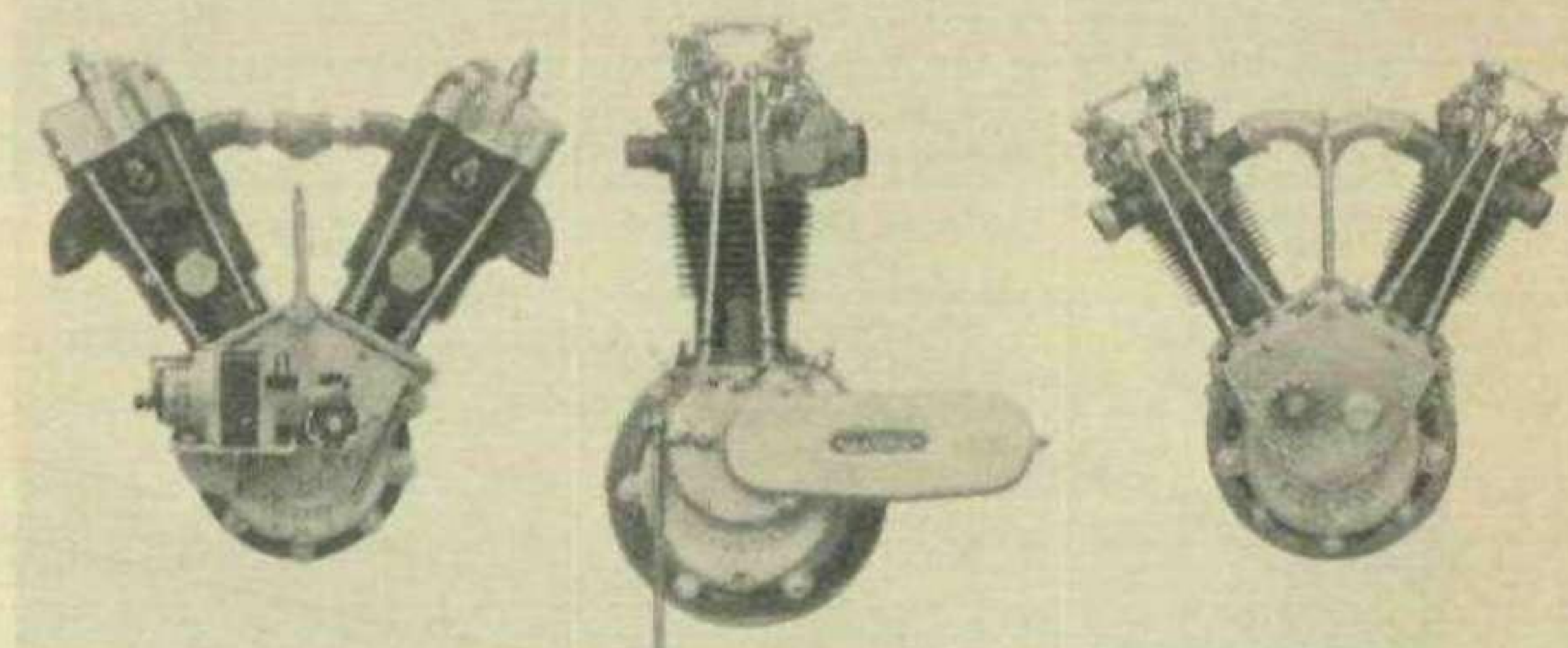
Stand 276.

On this stand is shown a most interesting collection of control levers of all kinds and amongst them a range of levers for throttle, air, magneto, clutch, brakes, valve lifter, decompressor, which naturally evoke most interest in keen motor cyclists who, also, no doubt, take advantage of this opportunity to study the methods used in assembling these controls, the lead of the wire, and the soldering of the nipples in which lie the secret of long service. Bowden Wire, Ltd., Victoria Road, Willesden Junction, London, N.W. 10.

BRADSHAW.

Stand 198.

A representative range of these unique engines is exhibited on the stand. The specification of the standard 350 c.c. engine remains as before, namely, single cylinder four-stroke with bore and stroke 68 mm. and 96 mm.; aluminium pistons, floating gudgeon pins, special cast-iron detachable cylinder head, cylinder barrel machined inside and out, overhead valves of special steel, adjustable for tappet clearance, outside flywheel, with quick withdrawal device attached, and mechanical oiling by a rotary valveless pump built in the time covering. The new model super sports engine is being shown, incorporating a new type cylinder head, extra large oil sump with cooling fins, roller bearing on the flywheel side, and Hoffmann rollers engaging with the cams. J. Walmsley & Co. (Preston), Ltd., Marathon Works, Frank Street, Preston.



THREE TYPICAL BLACKBURNE ENGINES.

CLAYRITE.

Stand 186.

A full range of accessories of all types is to be found on this stand. It is impracticable to enumerate them, and hardly less so to select any particular item for special mention. In view, however, of the increasing popularity of grease gun lubrication for all types of motor vehicles and not least motor cycles, perhaps the rather comprehensive range of grease guns and injectors is of most interest at the present time. A wide choice of grease guns in all sizes and prices from 2s. 3d. upwards, and equipped with a variety of spouts and nozzles, are offered for the inspection and choice of the interested visitor to the exhibition. Clayton-Wright, Ltd., Great Hampton Street, Birmingham.

COAN.

Stand 192.

Some fine examples of aluminium castings are to be seen on this stand. It is worthy of note that this firm has been making castings in this metal ever since the motor industry came into existence. Besides ordinary castings for motor cycle and car engines and gear boxes, Coan's also specialise in aluminium number plates and a novel form of step-mat. R. W. Coan, Ltd., 219, Goswell Road, London, E.C. 1.

COWEY.

Stand 259.

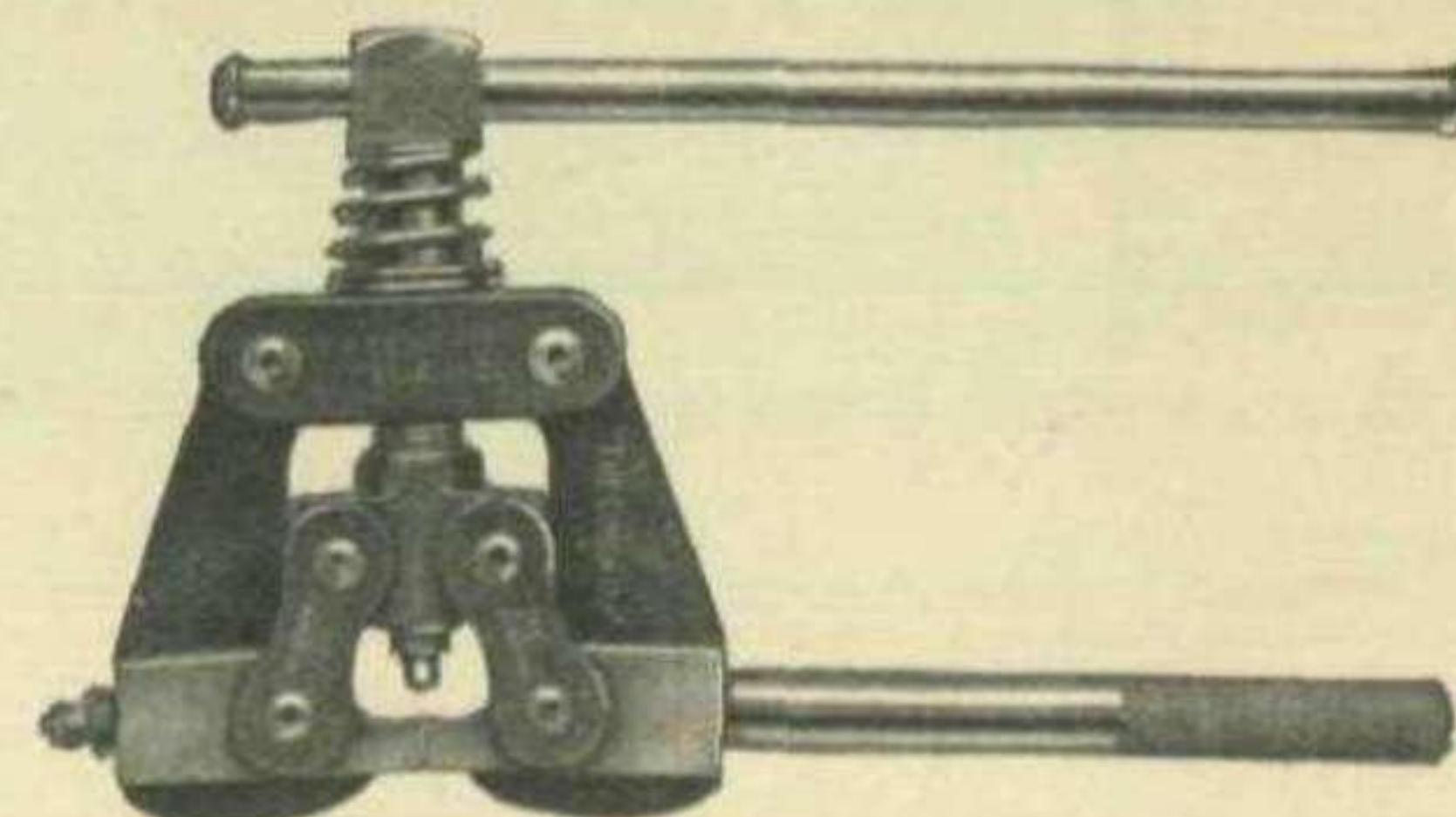
The Cowey Speedometer has been entirely redesigned since it was last shown at Olympia, and in the new model many detailed alterations and improvements have been incorporated. The mileage record, for example, now reads up to 100,000 miles instead of 10,000 miles as hitherto, while the trip recorder has been entirely altered so as to afford a clearer dial, which can be more easily read. The company is now concentrating its manufacturing energies on two lines only: this speedometer, for which it is justly famous, and its variable note mechanical horn, which is almost equally well-known to motor cyclists, and which has not been altered since last year. The Cowey Engineering Co., Ltd., Archer Works, Kew Gardens, Surrey.

CONSTRUCTOR.

Stand 82.

An interesting exhibit on the stand of this well-known maker of tyres, is the anti-shock Grip, which is designed to absorb most of the vibrations which are transmitted from the road to the handlebars of motor cycles. The top portion of this grip which comes to the palm of the hand, is of very close sponge rubber, moulded to shape, on a foundation of rubber and fabric. The grip can easily be fixed to any existing machine by the owner, simple instructions being sent out with each set, and the price is 4s. per pair. The Constrictor Tyre Co., Nursery Lane, Forest Gate, London, E. 7.

THE COVENTRY
RIVET
EXTRACTOR.



ACCESSORIES AT OLYMPIA—continued.

COVENTRY CHAIN.

Stand 235.

A full and complete range of Coventry specialities is to be found on this stand, and those motor cyclists who hitherto imagined that their output was principally, if not entirely, confined to motor cycle and other chains, will be agreeably surprised at the variety of articles which are there shown for their inspection, as, in addition to the chains and repair parts, there are a variety of accessories, including rivet extractors and free wheels of all kinds and sizes. The Coventry Chain Co., Ltd., Spon End Works, Coventry.

DEGORY.

Stand 162.

The Degory carburetter which has made such a stir in the car world, is now being produced in a new model, suitable for use on motor cycles. The new type is called the S.T., and its chief feature is its simplicity when in operation. There are only three parts which move, and it is claimed that when once tuned it cannot get out of order. The tuning is simple, and we are informed that in the course of exhibition trials, some extraordinarily good results in fuel consumption, acceleration and power have been achieved. Another exhibit of interest on this stand is the Howard Silencer which, simple in form, reasonable in price and neat in appearance, is claimed to be exceptionally efficient, really silencing the engine, without at the same time reducing the power. The Degory Carburettors, Ltd., 235, Acton Lane, London, W. 3.

DOVER.

Stand 275.

Another stand, the exhibits on which are so comprehensive as to defy anything like a representative description, is that on which Dover specialities are shown. Rather than attempt such a description we would prefer to direct the visitor's attention to the outstanding feature of all Dover specialities, and that is the Dover finish, which is characteristic of all their products, Doverite and Exonite, the beautifully polished surfaces of which are perfectly smooth and hard and are not injured by grease or water, or by climatic or atmospheric conditions. The smooth lustre is permanent in all circumstances and tends to improve rather than deteriorate with continued use. Dover, Ltd., Northampton.

DUNLOP.

Stand 8.

On this stand motor cyclists will find much to interest them in the Dunlop heavy cord tyres which have been introduced to meet the requirements of the larger-powered passenger machines. The tread design in all weights has a block pattern which was introduced by the company some little time ago. A notable feature is the Dunlop motor-cycle balloon tyre, a specimen of which will be shown mounted on suitable wheel equipment. The Dunlop Rubber Co., Ltd., Fort Dunlop, Erdington, Birmingham.

EASTING.

Stand 145.

Special scuttle type sidecar screens for racing purposes, as well as handlebar screens for the cycle, as made by Easting Windscreens, Ltd., of Cox Street, St. Paul's Square, Birmingham,

have been used with considerable success by Le Vack, Harveyson, and Davidson, notably in the Brooklands 500 miles race. The same screens have also been used by a variety of riders, with success, in the French, Belgian and Italian Grand Prix. The advantage of these screens for speed work are, that they afford efficient protection from dust and flying grit and stones, besides serving the purposes of goggles, and enabling riders to do without these uncomfortable fittings. The motor cycle screen is so designed that it can be erected in front of or behind the handle-bars and can be easily adjusted to suit the riding position of the individual. Once the correct position has been arrived at by test, the screen can be securely locked in that position and will remain quite rigid.

ENGLEBERT.

Stand 9.

A new type of Englebert tyre, known as Chevron Cord, has just been placed upon the market by Englebert Tyres, Ltd., of 162, Great Portland Street, London, W. 1, and those who are interested in the latest type of motor cycle tyres, will do well to pay a visit to this stand and examine it. The new type is in reality a development of one which has already been used for some time on cars, and which has been found to be so efficient, as a non-skid, that a special model has been designed for use on motor cycles.

EXETER TOOLS.

Stand 77c.

Quite a number of sporting riders do their own tuning and a good many have therefore designed some of the ordinary parts of the motor cycles which they ride. To such, the tools shown on the stand of Exeter Tools & Machinery, Ltd., Alphington Road, Exeter, will have special interest. Screw cutting lathes from 2½ in. centres upwards are being shown, and an outstanding model is the new 4½ in. screw cut gap bed lathe, which embodies several novel features, amongst which particular attention should be given to the large hole in the mandrel which enables large work such as axles and shafts to be continually handled. Another interesting tool is the Nulok tool holder, which is a device to hold short lengths of steel with perfect rigidity for boring, turning, screw cutting and other operations of the same order.

FELLOWS.

Stand 197.

It is claimed for the Fellows magneto that it produces a hot spark at the lowest possible speed. Type EA1 is suitable for single cylinder motor cycle engines and embodies several interesting and up-to-date features of design. On the same stand too, will be shown the new sparking plug, which is claimed to have unlimited life and which, at any rate, has as its outstanding feature electrodes in the form of double-ball and points which provide easy passage for the spark. The Fellows Magneto Co., Ltd., Cumberland Avenue, Park Royal, Willesden, N.W.10.

HOFFMANN.

Stand 264.

Hoffmann ball bearings have become a criterion of such products, and yet it is to be admitted that an inspection of ball bearings and of balls for those bearings may not in itself provide a tremendous amount of interest to motor cyclists. There are certain aspects of the exhibits on this stand, however, which make it well worth a visit. Besides ball bearings of ordinary size and type, there are quantities of Hoffmann magneto bearing components, disposed so as to illustrate the interchange of the parts. In another case, exhibits are set out in such a manner as to exemplify Hoffmann processes of manufacture, while in yet another one, a glass tube of steel balls of not more than 1/32 of an inch in diameter is displayed. Another interesting exhibit is that of several roller bearing cranking pins, specially designed for motor cycle engines. The Hoffmann Manufacturing Co., Ltd., Chelmsford.

INTERNATIONAL SILENCERS.

Stand 166.

An entirely new type of silencer which has already been submitted to test by the Auto-Cycle Union and which has been awarded an excellent certificate of performance by the Union, is displayed in a variety of forms on this stand. Its construction is entirely novel. The body of the silencer is filled by a special wool cartridge which is manufactured from mild steel wire, galvanized, rolled flat and twisted, so that the cartridge becomes the equivalent of an innumerable number of springs. The noise

THE LUCAS PROJECTOR SET IN USE.

ACCESSORIES AT OLYMPIA—continued.

of the exhaust is altered as a result of the hammering of the exhaust upon the spring and the reduction in its intensity is considerable, this being accomplished, it should be noted, without baffling or reversing the flow of the gas or destroying its inertia. An unconditional guarantee is given with each "Ghost" silencer, indemnifying users against any cost incurred or fines imposed on account of insufficient reduction of noise from the exhaust. The International Silencer Co., Ltd., 83, Pall Mall, London, S.W. 1.

J. A. P.

Stand 140.

A comprehensive range of these well-known engines is being shown on this stand. Perhaps the most interesting, to readers of this journal, is the 500 c.c. overhead-valve racing engine which has recently been introduced. It has already appeared at Brooklands on three different occasions and the first time it was entered it won. At the B.M.C.R.C. Championship Meeting, the 500 c.c. Championship was won with a motor cycle equipped with one of these engines, and another came in second in the 750 c.c. The 8-45 h.p. model is described by its makers as being the world's fastest engine. Each unit must develop 45 h.p. on the brakes before it leaves the works, whilst, on the track, its capabilities have already been demonstrated by Le Vack who, on a machine embodying one of these engines, put up an unprecedented speed of almost 123 m.p.h. A new system of lubrication has been introduced, functioning by means of a rotary valve driven off the timing gear: this is not a mechanical lubricator but is an automatic system for distributing all the oil after it has been pumped into the engine. All J.A.P. engines this year, with the exception of the 293 c.c. model, are fitted with aluminium pistons of a special alloy. Amongst novel exhibits on this stand are a full range of J.A.P. gear boxes and the J.A.P. Shock Absorber. J. A. Prestwich & Co., Ltd., Northumberland Park, Tottenham, N. 17.

LAMPLUGH.

Stand 255.

On this stand is shown a variety of examples of the Lamplugh mechanical oil pump as well as this company's cork seated and standard petrol taps. The pump is a suction pump, and it does not rely on gravity to obtain its supply of oil for delivery to the engine. It is claimed that it can pump one pint of oil in 16 minutes on a driving shaft speed of 1,000 r.p.m., lifting the oil from the tank three feet below its own level. S. A. Lamplugh, Ltd., King's Road, Tyseley, Birmingham.

LEICESTER RUBBER CO.

Stand 127.

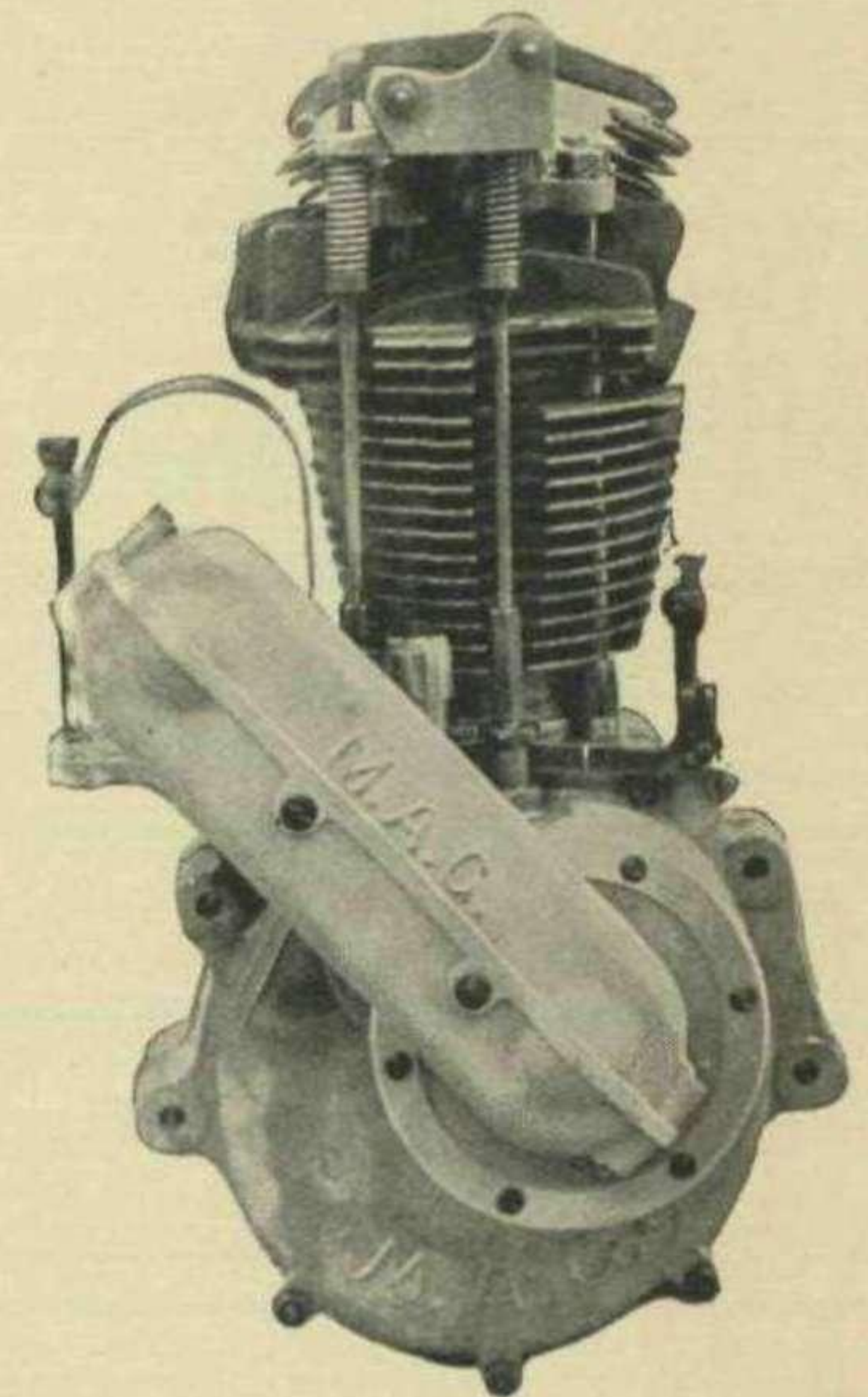
A complete range of John Bull tyres and other rubber goods made by the Leicester Rubber Co., Ltd., of Evington Valley Mills, Leicester, is displayed upon this stand. John Bull compressed cover tyres are of course well-known to all readers of this journal, as also are many of the other things made by this concern. Interesting fitments are the John Bull patent roller bearing belt fastener and the knee grips. The latter comprise hollow rubber pads of special design, enclosing air held by a flat plate inserted from the back. These grips are made in 10 different patterns.

LODGE.

Stand 217.

Amongst the variety of sparking plugs which are now comprised in the manufacturing programme of Lodge Plugs, Ltd., Rugby, the sports model, No. H1, will probably be one which will chiefly interest readers of this journal, as it has recently leapt into great favour for sports machines of all types. Another one which will interest the motoring sportsman is the Lodge special racing plug No. BR4, while, having in mind the time of the year and the prospect of rough weather to come and of some rough going to be encountered in the course of such events as the London—Exeter Trial, the Lodge weather-proof plug, M9, should not be overlooked. It is designed with a special cap which protects the high tension parts of the plug against the troubles which rain and water splashes are liable to inflict upon the rider who is less fortunately provided. An exhibit of special interest is the miniature Lodge plug, which is probably the smallest sporting plug made. It is worthy of note that the Lodge company invariably arrange for the presence, at the stand, of a number of technical experts whose advice is available on any matters relating to ignition in general or sparking plugs in particular.

THE
M.A.G. OVERHEAD-VALVE
ENGINE:
RACING TYPE.



LUCAS.

Stand 213.

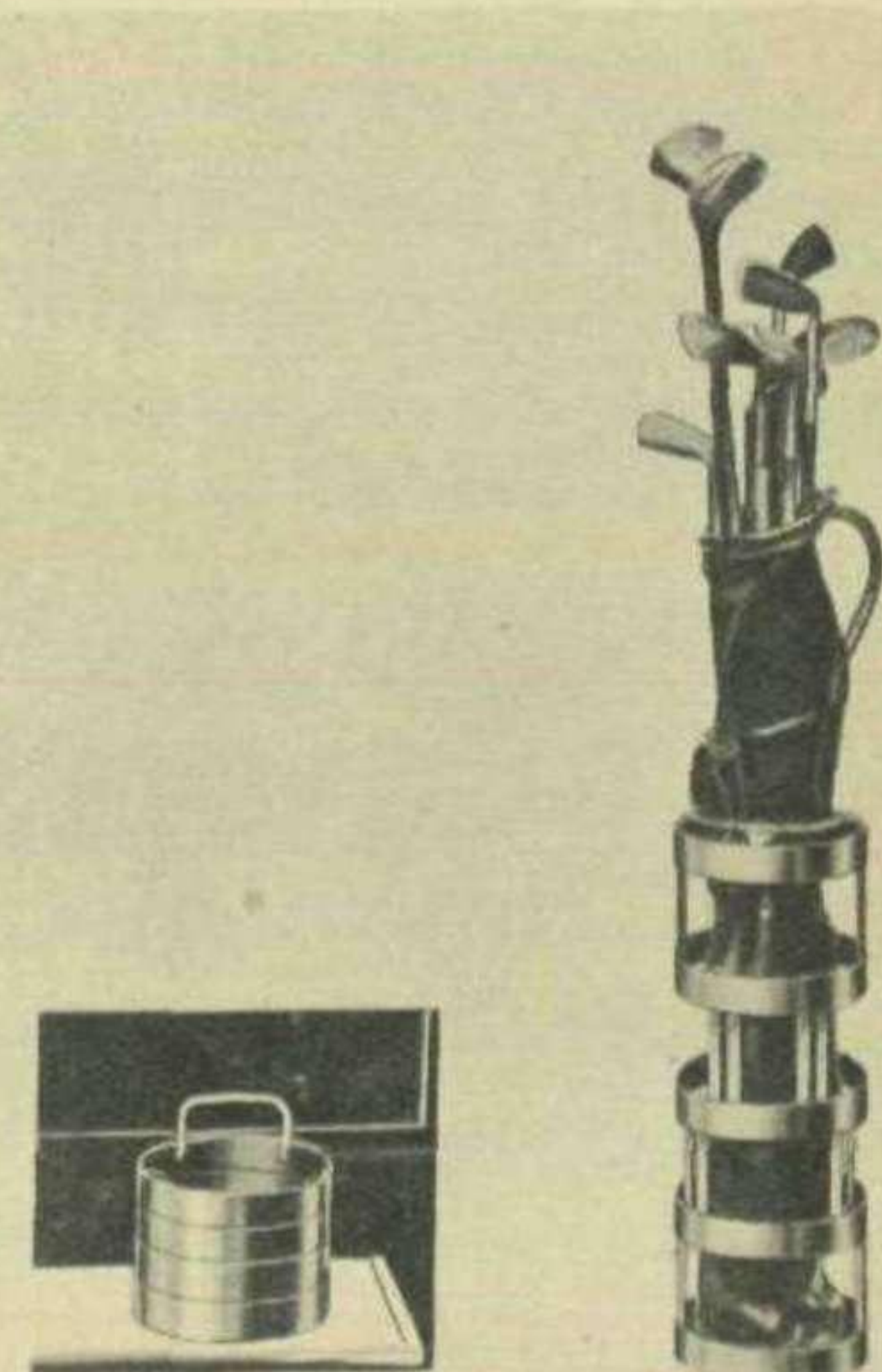
Amongst the variety of interesting accessories shown on this stand, perhaps the most interest attaches to the new projector set, which is an acetylene motor cycle lamp fitted with patented side slides, designed to permit the projector to swing round for inspection purposes, without being removed from the bracket. The lamp itself is built on the same lines as Lucas motor car projectors, with a special magnifying lens mirror and parabolic reflector. It produces a powerful beam of light, whilst at the same time providing the necessary breadth of beam to illuminate the whole width of the road near the rider. Joseph Lucas, Ltd., Great King Street, Birmingham.

M.A.G.

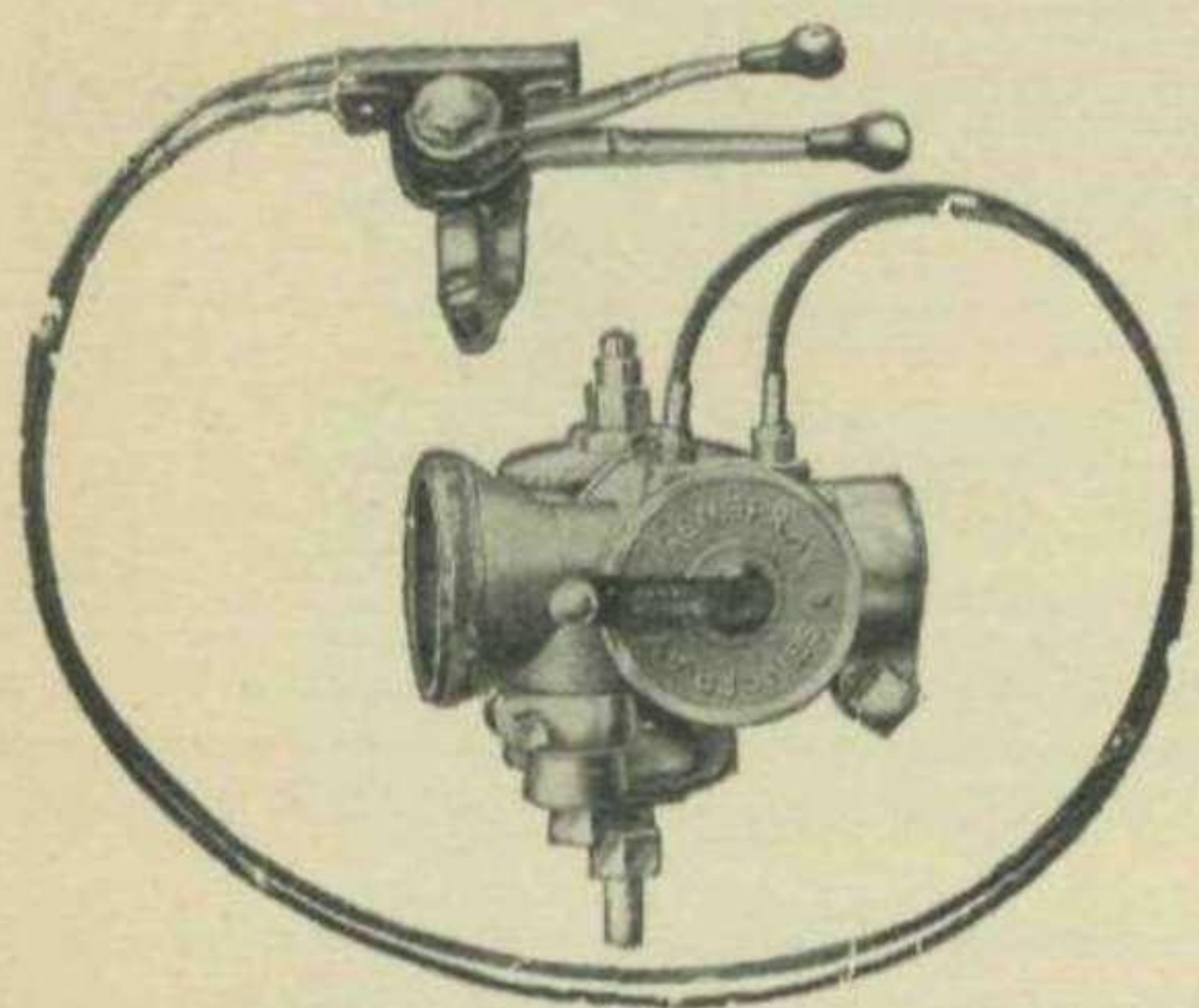
Stand 274.

Standard M.A.G. engines have been improved recently in several directions, notably in respect to the lubrication of the bearings and the provision of larger valves and ports with deeper radiating fins on the small engines. The cycle-car twin engines can now be supplied either with plain bearings or with ball bearings to main shaft and roller bearings to the big ends. Particulars of these details are clearly shown in the sectioned model which is one of the exhibits on this stand. Readers of

THE
MANN-EGERTON
COLLAPSIBLE
CARRIER.



ACCESSORIES AT OLYMPIA—continued.



SENSPRAY
CARBURETTER
AND
CONTROLS.

this journal will note with considerable interest that examples of the overhead valve sports type engine are shown in the 250, 350 and 1,000 c.c. classes. The M.A.G. Engine Co., Ltd., Harrow Road, Willesden Junction, London, N.W. 10.

MANN, EGERTON.

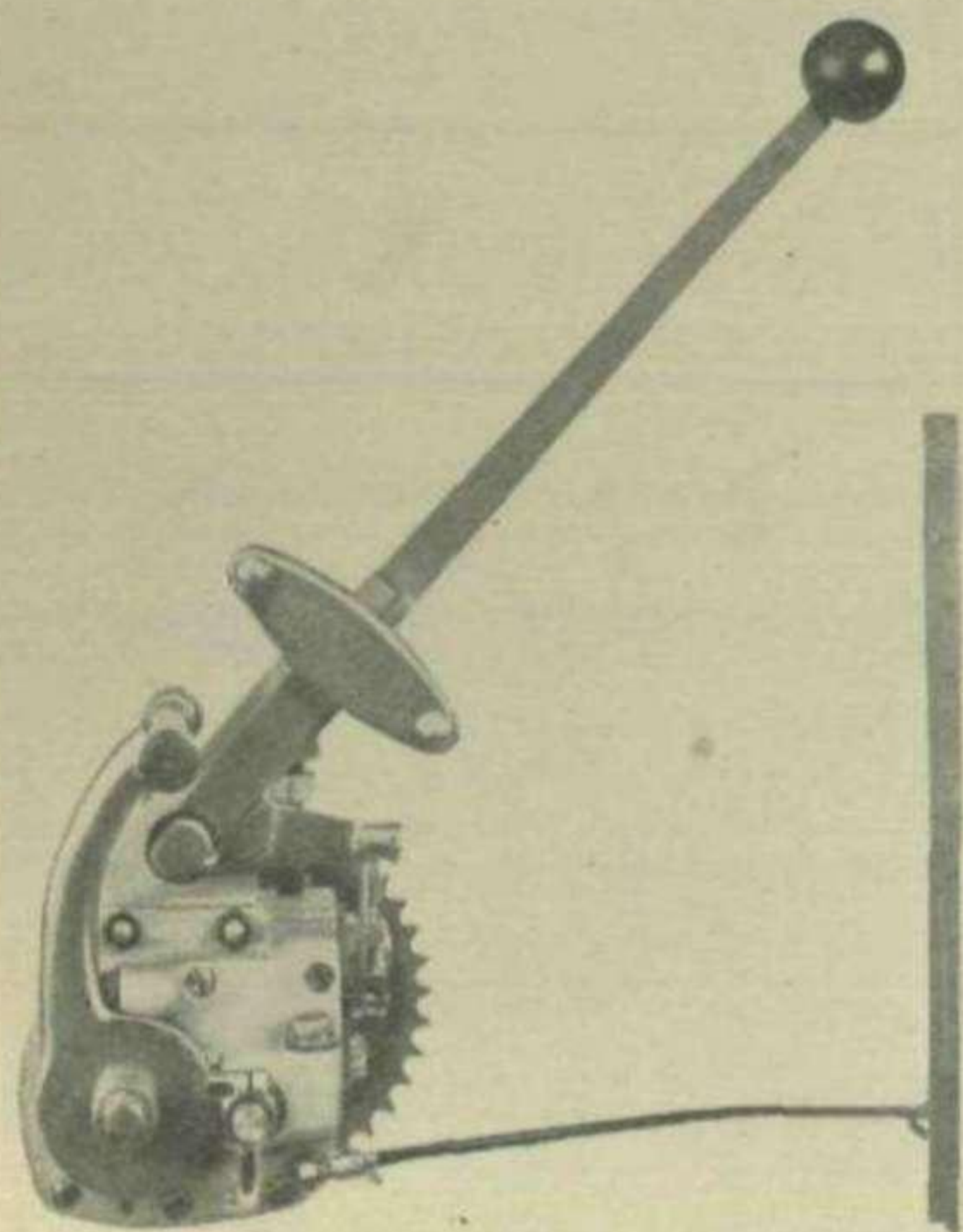
Stand 77b.

A variety of accessories and fitments are being shown on this stand, amongst which there are two articles which will attract the attention of the sports visitors, namely, the collapsible carrier suitable for carrying bulky articles, such as golf clubs, tennis racquets and fishing rods, which are not otherwise easily accommodated, and the smoker's companion. The arrangement of the former accessory is best described by our illustration which shows it both open and closed. In the latter position it forms a useful and neat receptacle for parcels, and it should be pointed out that it can be instantly locked in any position, made to any size and to any shape according to the requirements and shape available. The smoker's companion is suitable as a fitting for a sidecar-de-luxe. An aluminium box designed to carry matches and cigarettes and having a ledge at one end for a pipe, is so mounted on to the inside wall of the sidecar, that it can easily be removed. Another exhibit of interest to the man who does his own repairs and overhauling, is the re-metalling outfit, which comprises everything that is needed in order to enable the owner to re-metal bearings of all kinds. Mann, Egerton & Co., Ltd., 5, Prince of Wales Road, Norwich.

MOSS GEARS.

Stand 188.

The Moss Gear Co., Ltd., of Crown Works, Thomas Street, Aston, Birmingham, have a high reputation throughout the motor trade for the quality and design of their gears, which are very considerably employed by a large number of makers of all types of motor vehicles. On the stand at this year's Show, they are exhibiting a range of three-speed gears for motor cycles from 250 c.c. to 1,000 c.c. Those for 500 c.c. and 1,000 c.c. machines



A
TYPICAL
MOSS
PRODUCTION.

are of the same design as for last year, but the model for the light weight motor cycle is an entirely new one. As in the other types, it has the unique feature that none of the gears ever move in an endways direction and the box is phenomenally silent on all ratios. All the clutches have been re-designed and much improved and are now of the multi-spring type instead of single central spring. Incidentally, it is worthy of note that existing boxes can be fitted with the new type of clutch, following a slight modification to the mainshaft.

PIRELLI.

Stand 114.

Pirelli tyres are notable amongst racing men all the world over and they are now being made, in the same quality as those which have so successfully been used on motor car racing machines, for use on motor cycles. The tread of the Pirelli tyre is of curious formation and may best be described as a combination of heavy rubber studs and ridges. It is claimed that this combination is peculiarly effective in resisting all tendency to skid or side slip, while the beads of the tyres are specially strengthened so as to be able to resist the most severe shocks without tending to crack. Pirelli, Ltd., 144, Queen Victoria Street, London, E.C. 4.

ROBBIALAC.

Stand 147.

This stand is attractively arranged to display the uses of Robbialac for the renovation of motor cycles and sidecars by their owners. A series of specially displayed specimens such as sidecar sections and frames, demonstrate the results which can be obtained. Specimens of mudguards finished with Robbialac enamel are also shown. In addition, specimens will be exhibited, illustrating the use of Robbialac dope on invisible lacquer, which by its use eliminates the necessity for the constant cleaning of bright metal and plate parts. Simple demonstrations will be given of the methods to be employed when cycle enamelling, and short lectures on the subject will be delivered by representatives of the firm. Jenson & Nicholson (1924), Ltd., Goswell Road, Stratford, London, E. 15.

SENSPRAY.

Stand 230.

Senspray carburettors in models to suit motor cycles of various types or powers are shown on this stand. No modification has been found necessary in connection with the design or construction of this carburettor, which remains, therefore, the same as has been the case on previous shows. Charles H. Pugh, Ltd., Tilton Road, Birmingham.

STADIUM.

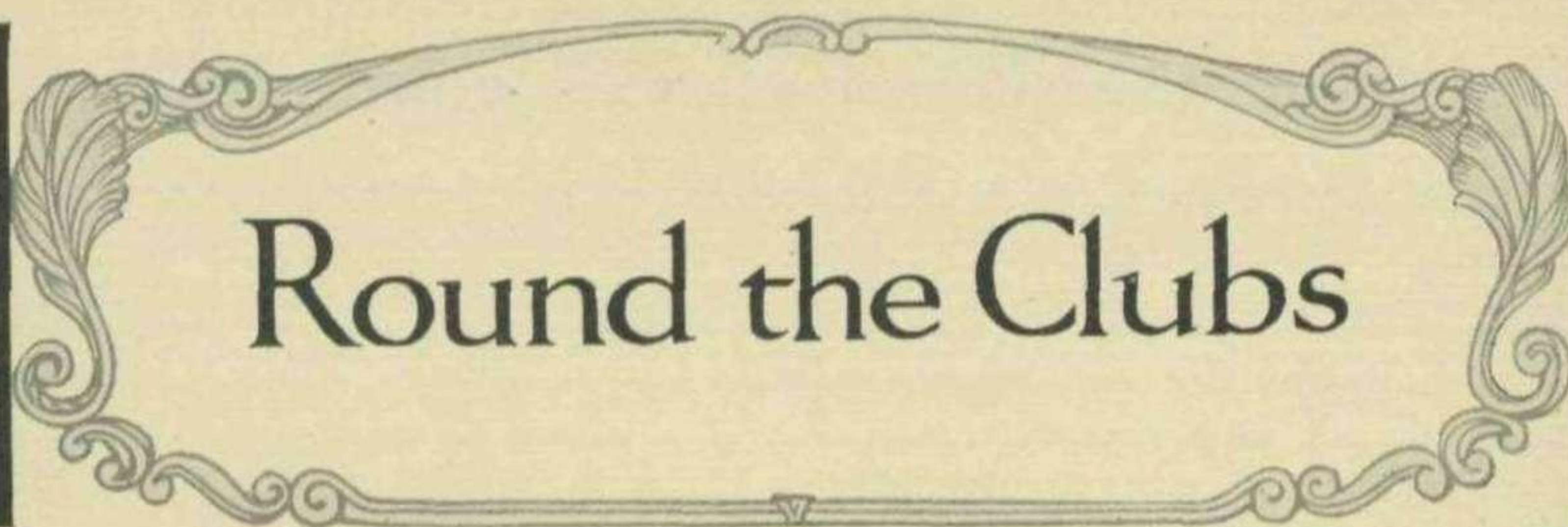
Stand 156.

One of the most interesting and neatest exhibits of interest to the general motor cyclist which is to be seen on the gallery at Olympia this year, is the Stadioscope motor cycle mirror. This is scientifically a curved mirror giving a wide view. There is a ball and socket adjustment at the back of the mirror and the handle-bar clip is designed to take $\frac{7}{8}$ in. or 1 in. bars. The mirror itself is $4\frac{3}{4}$ in. long and $2\frac{1}{2}$ in. deep. It is finished in black and the mountings are nickel-plated. It is, as we have stated, an attractive exhibit, and well worth its price of 10s. 6d. On the same stand is a variety of other accessory exhibits of all kinds. Etienne & Cie., 63, Great Eastern Street, London, E.C. 2.

TERRY.

Stand 204.

The Terry saddle is to be made in three models for the coming season. One is a large luxurious seat for heavy-weight machines, another of medium size for light-weights, and the third, for baby motor cycles. The last named model is so strong that it can be made use of on heavier machines, especially when a light saddle is required for racing. A descriptive feature of the Terry is its waterproof cover, which is readily detachable. These features have been especially appreciated and are to be retained for 1925. These saddles can be left out in the rain without danger of becoming waterlogged, and the cover does away with the necessity of carrying about a waterproof saddle top. The easy detachability of the cover also allows of easy replacement of spare parts without there being any necessity of returning the complete saddle to the makers. It is important to note that the cover of the Terry is not regarded as part of the shock absorbing medium. It is claimed that the saddle can be ridden without any cover and still lose none of its comfortable springing effects. Herbert Terry & Sons, Ltd., Redditch.



THE NORTH LONDON MOTOR CYCLING CLUB.

The Surprise Event, conducted by Mr. L. V. Freeman, was run off with complete success on October 4th. Competitors were verbally acquainted, at the commencement, as to the whereabouts of the first of a series of red boxes which were concealed about the countryside, the road in the vicinity being marked with blue dye. The first box, when found, contained slips which afforded information as to the location of the second box, the second box in the same way served to inform competitors as to the location of the third, and so on. Competitors had to maintain an average speed of 20 m.p.h., and to reach the finish at Radlett in possession of all four slips.

The winner was L. P. Walter (986 Sports Matchless and sidecar), his time being only 3½ minutes.

The Greening Cup Trial, open to club officials and committee men, was held on October 11th, but as the whole of the entrants were hopelessly bogged in the colonial section, the event will have to be re-run. Four hours of strenuous labour were necessary to extricate men and machines, whilst H. B. Shutes (Vauxhall car) found it necessary to take advantage of equine assistance.

In order to maintain the interest of members of the Club throughout the winter, a programme of social events and a dance are being arranged.

The annual Inter-Club Hill Climb with the North West London M.C. took place on 18th ult., in an atmosphere of healthy rivalry which has always existed between these two neighbouring organisations. The venue was Waterworks Hill, near Crews Hill, and as the weather was excellent, a large number of supporters of both clubs were present.

Each Club was represented by two riders or drivers in each of the following classes:—Solo, 350 c.c., 500 c.c.; Sidecar, 500 c.c., 1,000 c.c.; Three-wheelers, Cars, 1,100 c.c., 1,500 c.c.

The fastest time of the day was made by J. W. Bezzant, of the North London Club, who, on his P. & M. Panther, made a spectacular climb in 14.2 seconds. C. C. King (North-West London M.C.) made the next best climb on his Ricardo-Triumph in 15.6 seconds.

A. G. Mansell, whose K.R.C. car was exceedingly moody, managed to win the 1,100 c.c. car class in spite of clutch slip, whilst A. A. Pollard's Aston-Martin made the fastest car climb in 24 secs.

This interesting event resulted in a win, for the first time for three years, for the North-West London Club, who scored 16 points to their rivals 11.

Such competitive events do much to foster club life, and many local organisations who are complaining of lack of interest on the part of their members are strongly

recommended to endeavour to arrange competitive fixtures with their neighbouring clubs.

The Annual Dinner of the North London M.C.C. takes place at The Holborn Restaurant (Caledonian Saloon), on Saturday, December 6th, when Professor A. M. Low, F.R.G.S., D.Sc., will preside. Fuller details are obtainable from the Hon. Secretary, Alan W. Day, Esq., "Claremont," Ballards Lane, Finchley, N. 3.

SUTTON COLDFIELD & NORTH BIRMINGHAM AUTOMOBILE CLUB.

The annual Autumn One Day Trial was held on Saturday, October 4th. Four trophies were offered for competition, namely, the Sutton Cup, the Shell Cup, the Silver Rose Bowl, and the Carless Cup.

The first three trophies were allotted respectively to solo machines, sidecar machines and the three-wheeled passenger machines, whilst the Carless Cup is one of four now offered for competition in various trials and is to be won on each occasion by the entrant who makes the best performance of the day, providing that the machine ridden has an engine capacity of less than 1,500 c.c., and that it does not win any other trophy in the course of the trial.

By way of a change, excellent weather prevailed and this had the effect of considerably reducing the difficulties of what would otherwise have been a rather arduous Trial. The country traversed lay to the west of Birmingham in the direction of Ludlow and included some entirely fresh ground which, as a result of this first excursion, is likely to be used more extensively in the future for trials run by this Club.

So far as the competitors were concerned, the novelty of the district came as a relief from the well-worn and much used test hills nearer home which have served so often as a venue of trials and tests. Their gratification on this occasion served to counterbalance the additional difficulties which were experienced in negotiating the course.

Of the 48 entries only one failed to face the starter, and of the 47 left, no fewer than 43 finished the course. The most difficult sections of the Trial were the climb on Liveridge Hill and the re-starting test on Flagstaff Hill. At Liveridge all the riders of solo machines were compelled to use their feet in cornering, owing to the treacherous surface and the unusually high camber of the road.

The sidecar riders found matters much easier, especially those who were able to make fast ascents. The Morgans hurled lumps of stone and clay at the observers and spectators, until they almost arrived at the point of considering whether it would be sporting to retaliate

ROUND THE CLUBS—continued.

Amongst the cars, a few failed entirely and, rightly or wrongly, some of the drivers were inclined to lay the blame on the balloon tyres.

A feature of the midday halt was the very excellent lunch which was provided, and this point was very much appreciated by all competitors as well as by others who were interested. In the afternoon section, a fairly deep and boulder-strewn watersplash had to be crossed, but mercifully it was not one of the observed stretches, otherwise many more marks would undoubtedly have been lost. Few of the competitors even would credit that the ensuing climb led them to a point 1,500 feet above sea level. After that, country lanes led to the re-starting test of the performance, in which immensely varying results were experienced.

After the re-starting test, the novelty feature of the Trial occurred, this being a combined acceleration and brake test, in the course of which competitors were required to accelerate until the mark was reached, cross the mark, stop, reverse over the mark again and then accelerate to the finish. This modification of the usual fast, stop, fast test, was found to have several outstanding advantages. In the past, difficulty has arisen in judging this fast, stop, fast test owing to the difficulty of deciding when and whether the stop had been correctly made. This difficulty has not only been experienced by drivers but by officials as well. The test, as conducted on this occasion, although it increased the severity of the test, was nevertheless, easier to judge and afforded striking indication of the handiness of the control of the machines which took part.

The results were as follows:—

THE SUTTON CUP AND SOUVENIR.

For the Best Performance on a Solo Motor Cycle.

No.	C.C.		Fig. of Merit.
62	348	Cotton	393.6

THE HOOPER ROSE BOWL AND SOUVENIR.

For the Best Performance on a Three-Wheeled Passenger Machine.

80	599	Sunbeam	520.8
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THE SHELL CUP AND SOUVENIR.

For the Best Performance on a Four-Wheeled Car.

97	1232	Rhode	528.6
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THE CARLESS CUP AND SOUVENIR.

For the Best Performance on a Machine of any type, under 1,500 c.c. capacity, not gaining another trophy.

51	348	A. J. S.	429.5
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GOLD MEDALS.

Solo Motor Cycles.

54	349	Montgomery	510.5
68	348	A. J. S.	548.1

Three-Wheeled Machines.

72	799	A. J. S.	686.0
81	1096	Morgan	687.4

No.	Cars.	C.C.		Fig. of Merit.
101	1067	B. S. A.		563.8
100	2358	Bean		595.3
93	747	Austin		688.4
86	1247	Lea Francis		768.8
95	1368	Clyno		814.8
91	1247	Lea Francis		856.6

SILVER MEDALS.

Solo Motor Cycles.

60	172	Excelsior		343.4
64	490	Norton		551.3
66	348	Calthorpe		622.6
53	297	Elfson		1113.9
57	249	New Imperial		1300.3

Sidecars.

71	348	A. J. S.		381.0
78	492	Sunbeam		502.0
77	492	Sunbeam		542.5
73	492	Sunbeam		619.8
75	269	Harper Runabout		705.5
83	1085	Morgan		725.0

Cars.

96	1232	Rhode		661.4
99	950	Gwynne		704.7
94	747	Austin		786.1
88	1097	Ariel		1041.3
87	1097	Ariel		1113.5
89	1086	Salmson		1538.6

BRONZE MEDALS.

Solo Motor Cycles.

59	349	Juckes		869.0
52	349	O.K. Bradshaw		876.1
55	348	A. J. S.		724.9
56	349	Federation		900.3
61	299	Excelsior		1171.8

Three-Wheeled Machines.

74	700	C. R.		994.5
82	976	Morgan		855.4

Cars.

85	1420	Lagonda		1013.0
98	1096	Singer		657.6

TEAM PRIZE.

A.J.S. TEAM.

71	F. Giles.
51	G. Rowley.
68	B. H. Riley.

All above calculations performed and checked by Comptometer Calculating Machine.

The Hon. Secretary is Captain E. G. Bromhead.

THE MIDDLESBROUGH & DISTRICT MOTOR CLUB.

The last event of the year for this Club was to have been a Hill Climb on October 4th. Unfortunately, the Rural District Council, in whose district the hill was situated, interfered, and it had to be abandoned.

The Prize Distribution, which is to take place in conjunction with a Smoking Concert, is provisionally fixed for November 21st, and will take place at the Corporation Hotel, Middlesbrough. The Annual Ball will be on December 12th, and on January 7th it is hoped to have a New Year Party.

The Hon. Secretary is A. V. Buttress, 18, Ayresome Park Road, Middlesbrough.

ROUND THE CLUBS—continued.

THE SLOUGH & DISTRICT MOTOR CYCLE & LIGHT CAR CLUB.

This Club's annual Reliability Trial for the Harris Cup and Medals was run over a sporting course of 83 miles on Saturday, the 4th ult.

The first competitor left the "Crown" Hotel, Slough, at 3 p.m., and the first secret check located 17 miles out, found the majority of riders at fault, all of them being early with the exception of Mrs. Smith (4 h.p. Norton and sidecar) and R. H. Dyke (2 $\frac{3}{4}$ h.p. New Imperial).

The course included a Colonial Section, which, however, was not too difficult, being actually an observed section of three-quarters of a mile of mud and clay, with two sharp turns. Every competitor lost marks on this stretch. R. Tuddenham (2 $\frac{3}{4}$ h.p. Zenith and sidecar) and C. J. Sleep (11.9 Morris Sports) were completely stuck.

There were three observed hills and three checks in addition to another secret check at Marlow bridge, where again most competitors lost marks.

The results were as follows:—1. A. Andrews (8 h.p. Talbot), Harris Cup and Gold Medal; 2. E. A. Cullum (1 $\frac{1}{2}$ h.p. Francis Barnett), Gold Medal; 3. G. Slade (3 $\frac{1}{2}$ h.p. O.H.V. Norton and sidecar), Silver Medal; 4. Mrs. Smith (4 h.p. Norton and sidecar), Silver Medal.

E. A. Cullum put up an exceptionally fine performance on his little Francis Barnett, while C. L. Rolls (2 $\frac{3}{4}$ h.p. A.J.S.), C. V. Wilson (2 $\frac{3}{4}$ h.p. A.J.S.), C. O. Field (2 $\frac{3}{4}$ h.p. Beardmore), J. B. Bate (3 $\frac{1}{2}$ h.p. P. & M. Panther), V. J. Hartley (3 $\frac{1}{2}$ h.p. O.V.H. Norton and sidecar), H. J. Tanner (4 h.p. Triumph), showed good riding skill and were practically all dead on time at all official checks, losing rather heavily, unfortunately for them, on the secret checks.

R. H. Dyke (2 $\frac{3}{4}$ h.p. New Imperial) ran steadily throughout, notwithstanding the accident at Pink Hill, when he hit a boulder. A. M. Farmer (2 $\frac{1}{4}$ h.p. New Imperial) had a bad puncture, but succeeded in mending it in the dark and making up time. All finished but R. Puddenham, who had clutch trouble, S. J. Osmond who had the misfortune to meet with an accident, and R. W. Judd, who had tyre trouble.

This Club is to hold a Hill Climb at Britwell on Saturday, November 1st, commencing at 2 p.m. Other events for the winter are under consideration and a programme will shortly be published.

THE EASTBOURNE & DISTRICT MOTOR CYCLE CLUB.

The final Reliability Trial organised by Messrs. E. A. Wood and H. V. Warren, took place on Sunday, October 12th, under ideal climatic conditions. In addition to the usual prizes, there were consolation awards to those members who had not won either a silver medal or a gold medal during the season now closing.

The attendance was good and the entry list satisfactory. A new course of 41 $\frac{1}{2}$ miles was marked and included a grass covered road leading down to a small hollow and a water splash, followed by a steep hill climb.

The contest for the consolation prizes was very keen, there being only six marks between first and second and three marks between second and third. The first prize of a Palmer Tyre was won by H. J. Goodwin, the second, a pair of Inner Tubes, by A. A. Simpson, and the consolation prizes of 21s. 0d., 12s. 6d., and 7s. 6d. were awarded to Vaughan-Jones, C. C. Mitchell, and H. Stiles.

The Annual Dinner and Prize Distribution takes place on November 14th at the Sussex Hotel, Eastbourne.

The Hon. Secretary is H. V. Warren, Esq., 51, Ringwood Road, Eastbourne.

THE SURREY MOTOR CYCLE CLUB.

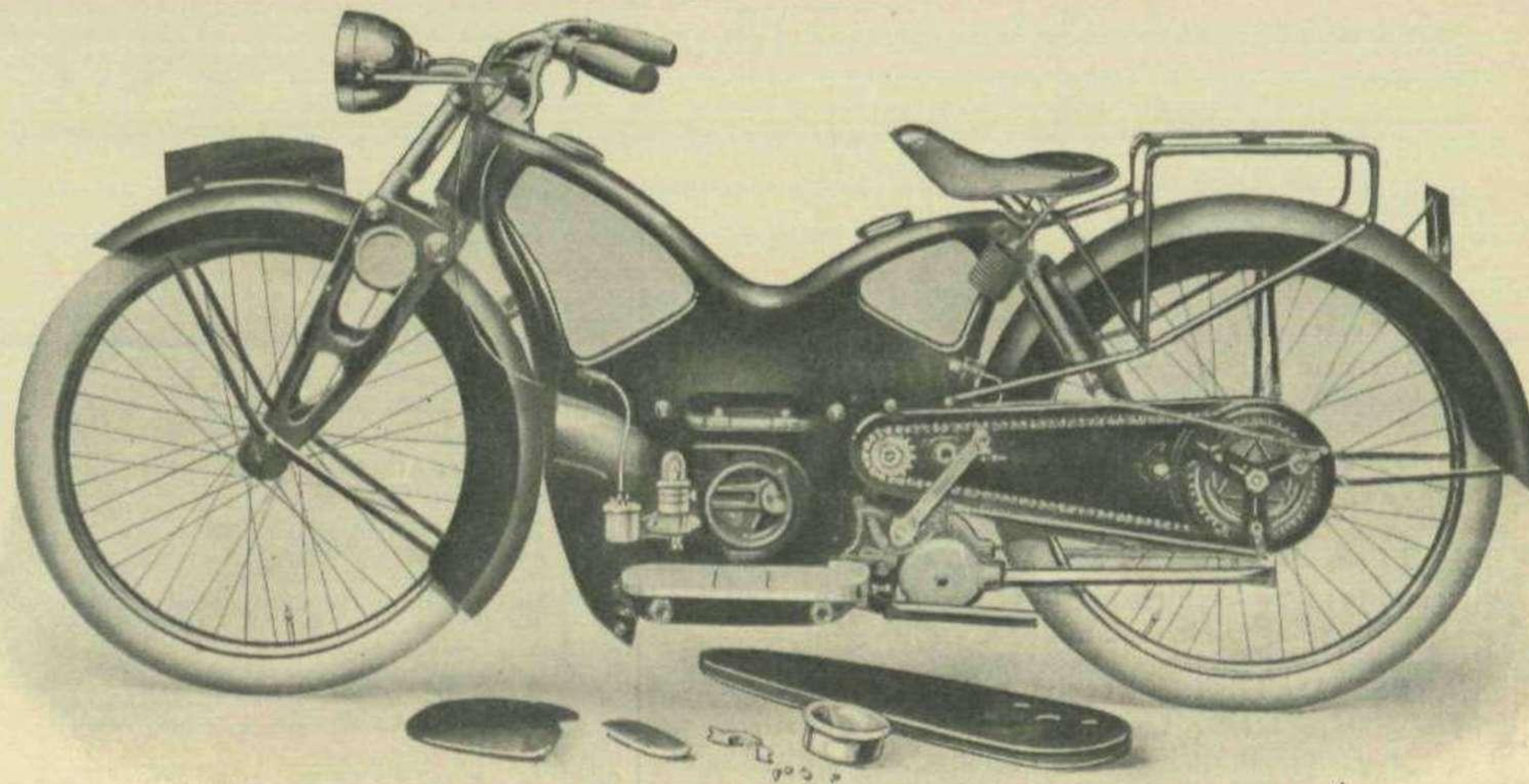
The Hill Climb which this Club had arranged for the 4th October did not take place, owing to police interference.

This Club's Annual Dinner in conjunction with the Distribution of Prizes, which will be followed by a Dance, is to be held on December 6th, at St. Katherine's Lodge Hotel, Guildford, at 6.45 p.m.

Tickets, which are 7s. 6d. single, and 12s. 6d. double, should be applied for before 3rd December and can be obtained from the Hon. Secretary, Mr. A. C. Brooks, Lyngarth, Upper St. Michael's Road, Aldershot.

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A machine of original
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HERE AND THERE.

A MOTORING SPORTSMAN.

The first of our series of articles on "Motoring Sportsmen of To-day," dealt with the late Count Louis Zborowski, and appeared in our issue of July, of this year.

OILS AT OLYMPIA.

VACUUM.

Stand 225.

The Vacuum Oil Co. has on the stand a stock of copies of "Correct Motor Cycle Lubrication," a highly instructive booklet which will be found most interesting and helpful. They are also exhibiting a variety of their well-known Gargoyle Mobiloil and greases, as well as a chart which shows the correct grade of this make of lubricant for all makes of motor cycles and cycle-cars marketed in Great Britain and Ireland, including all models from 1920 to 1924. The Vacuum Oil Co., Ltd., Caxton House, Westminster, London, S.W. 1.

DRAGONFLY.

Stand 154.

A considerable number of successes have been obtained during the past year by motor cycles using Dragonfly motor oils. On request an eight page leaflet enumerating these successes will

be handed to the visitor at the above-named stand at Olympia, where he may also obtain expert advice on the selection of oils and lubricants generally, and may actually see samples of the various grades of Dragonfly oils and greases and may examine the new collapsible tube container for greases. R. D. Nichol & Co., Prudential Buildings, Sheffield.

CHALLENGE.

Stand 223.

Another maker of lubricants is the Challenge Oil Co., Ltd., of Howard Works, Stoke Newington, London, N. 16, and on this stand the motor cyclist will be able to obtain a considerable amount of interesting information as to the outstanding features of lubricants in general and, of course, of Challenge oils and greases in particular.

SPEEDWELL.

Stand 175.

"Running made easy" is the happy wording on this company's trade mark. On the stand some interesting samples of racing oil as well as other well-known Speedwell lubricants are shown. A unique lubricant for gear boxes is Crimsangere. It is claimed that this product is fluid whether hot or cold, that it eliminates all gear noises, does not cut into channels, and maintains its lubricating qualities even after months of use. It has been adopted by a large number of motor cycle gear manufacturers of importance. The British Oil & Turpentine Corporation, Ltd., 57-58, Chancery Lane, London, W. C. 2.

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Four inch PER	19/0 21/0
Five and half inch .. PAIR	28/0 35/0

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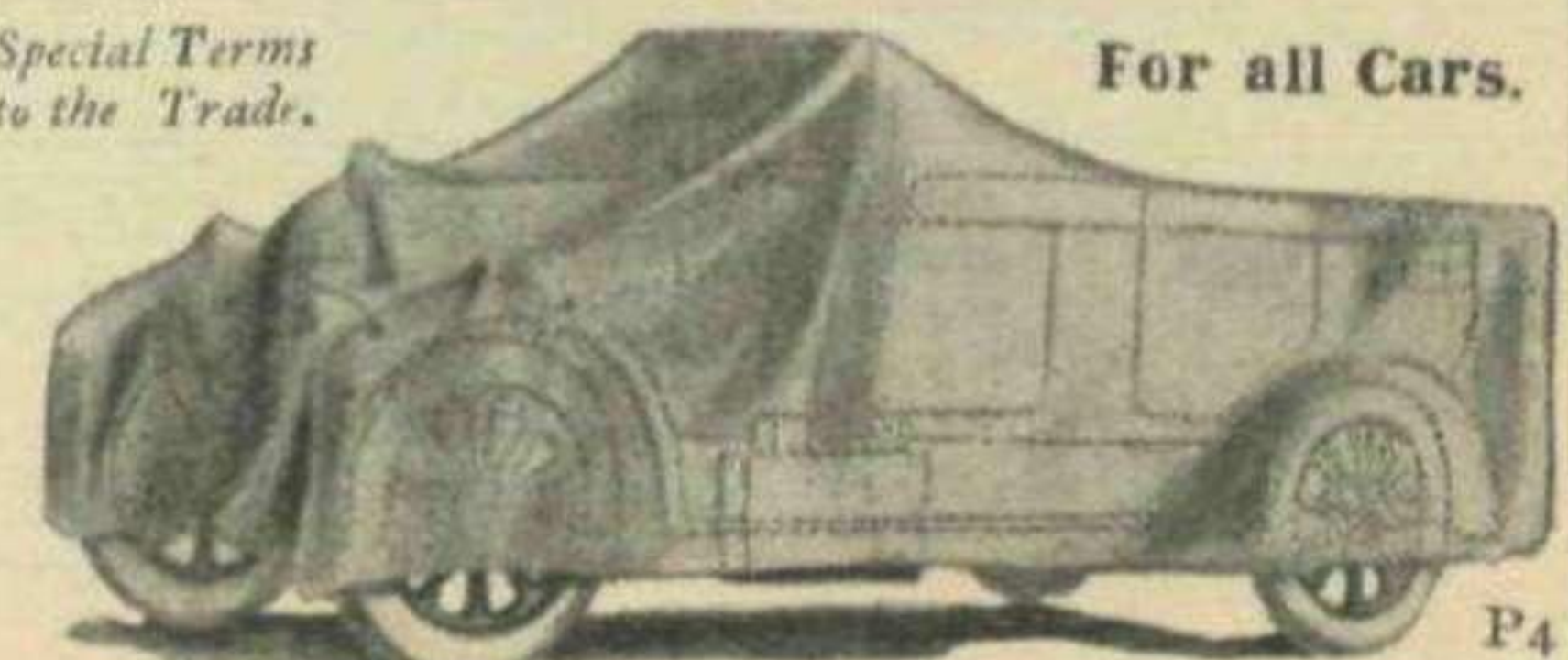
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