# AUTOSPORT 1/6 <br> EVERY FRIDAY Vol. 22 No. I 



## IN THIS ISSUE

## B.M.C. MONTE CARLO RALLY PREPARATIONS : THE EAST LONDON GRAND PRIX

## World Championship

 VANDERVELL
## in Cooper Cars with

These were not special bearings but standard equipment as fitted in production cars

ARGENTINE GRAND PRIX
MONAGO GRAND PRIX DUTCH GRAND PRIX BELGIAN GRAND PRIX FRENCH GRAND PRIX BRITISH GRAND PRIX PORTUGUESE GRAND PRIX EUROPEAN ITALIAN GRAND PRIX AMERICAN GRAND PRIX

1st • 2nd • 3rd
1st • 2nd • 3rd
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## RACING CARS ON SHOW

T${ }^{\text {HE B.R.S.C.C. deserves all possible credit for organiz- }}$ ing what is easily the most interesting motor exhibition ever to be staged in this country. Novelties abound on the 70 or so stands, and it must gratify every enthusiast to see the 1960 Championship-winning Cooper-Climax given its proper place in a show, instead of being stuck against a pillar as it was at Earls Court or, even worse, completely ignored as was the Vanwall in 1958. The S.M.M. \& T. obviously have problems when it comes to organizing the annual Motor Show, but no one can deny that the concerns which have given Great Britain immense prestige in international motoring sport have never been given a fair crack of the whip. There is little doubt that the Racing Car Show has come to stay, and there are possibilities that, in the not so distant future, it may become the International Racing Car Show. When one considers that by far the greatest amount of prestige in the automobile field has come to Britain by way of its superlative competition machines it is indeed strange to find that an exhibition -the only exhibition, in fact at which these machines may be seen by the general public has to be organized by a band of enthusiastic private individuals. However, if we criticize those who are responsible for the situation we can only offer our warm congratulations to the B.R.S.C.C. for the efficiency they have brought to the job.

## BANKED TRACKS-AND INTER-CONTINENTAL

$\mathbf{W}^{\text {riting in the Sunday Times Stirling Moss states }}$ quite definitely that he will not drive in any InterContinental races scheduled to take place on banked circuits, i.e., Monza and Turin. By now Moss's antipathy to this form of racing is known and recognized; he has the undoubted support of many drivers who also dislike banked tracks. Unless organizers can obtain full International support for events on artificially banked circuits, then they will fail to attract the crowds. Surely the experience of the Monza promoters proves that without a fully representative entry, public reaction is entirely luke-warm? Undoubtedly the sight and sound of big-engined racing cars on banked tracks can be as thrilling as anything-but can it be compared to the vastly more interesting spectacle of a genuine roadracing circuit?

No; the main thing against banked circuit racing is its tendency to become monotonous after the first few laps. Also, in wet weather, it can become highly dangerous: so perilous, in fact, that there would always be the possibility of postponements. It is such a specialized business altogether, that there is no need whatsoever to apply it to the Inter-Continental formula!

## OUR COVER PICTURE

WELL ON HIS WAY to winning the East London Grand Prix, Stirling Moss flings Rob Walker's Porsche through Butts Bend, a fast swerve leading to the Esses on the twisting back leg of the 2.4-mile circuit. Second was Joe Bonnier, in another Porsche.

## A Car for the young - of all ages



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(10)
MAGNETTE
(MARK III)

Value for money was never more clearly demonstrated than in the Magnette-ask for a demonstration.
M.G. Magnette price £714.0.0 plus £298.12.6 P.T. Duotone colours extra. Also MGA 1600 open twoseater prices from $£ 663.0 .0$ plus $£ 277.7 .6$ P.T.


## PIT and PADDOCK


Peter tomei has bought the ex-John Gott "Twin Cam".
Sir clive edwards has sold his H.R.G. Special to Mr. T. Greer.
Bill mocowen and Peter Riley hope to drive the former's A.C.-Bristol at Le Mans this year.
$\mathrm{G}^{\text {eminis hope to run a two-car works }}$ team in Formula Junior this year, with Mike Parkes and Graham Warner as drivers.

Michael salmon is keeping his D-type for next season. He is having it modified to Appendix C and hopes to drive at Le Mans with Peter Sargent.
Last Saturday Harry Digby was married to Miss Jacqueline Hussey, the well-known television and stage actress. Many motoring personalities were present.
$\mathbf{R}^{\text {ally driver Rupert Jones (who is to }}$ share a works Mini with Peter Garnier in the "Monte") is shortly to be ordained as a Church of England parson and is all set to make history as "the rallying curate". He assures us that he hopes to continue rallying for many years to come.
Emeryson cars, lid., have announced that Equipe National Belge have ordered three Formula 1 racing cars and one Formula Junior, of their design, for racing this coming season. The Formula 1 cars are going to Maserati to be fitted with their latest engines and the Collotti gearboxes; the Formula Junior car is being fitted with the Ford 105E engine, suitably tuned for racing.



## THE NEW UDT EMBLEM

A GOLDEN hare on a chequered flag background has been chosen as the emblem of the UDT-Laystall Racing Team.

The new emblem can be seen for the first time in public on one of the team's Lotus "Monte Carlo" sports cars at the Racing Car Show in London.


The British Automobile Racing Club's driving test meeting, announced in Autosport of 23rd December, should have taken place at No. 1 Car Park at New Brighton at noon on 26th December. But it failed to materialize.
This caused a certain amount of consternation to the many spectators and not a few competitors gathered there, including the writer who had made the journey over from Wales.
After a long wait, a phone call to a club official ascertained that the meeting had been cancelled the previous Thursday.
Surely the attendance of a committee member could have been arranged, or at least a notice of cancellation posted up at the site. This would have alleviated the disappointment of many.
F. N. P.

LATEST EDITION of the Dinky Toy range of cars is this Alfa Romeo 1900 Super Sprint which is die-cast in solid metal and has clear plastic windows. All four wheels are sprung and the car is fitted with the new fingertip steering. A light pressure on either side of the body steers it in the required direction.

A MILLION Morris Minors have been produced since the Minor first went into production. The production of a million vehicles of a common design is a unique feat in British industry.

A NEw branch of the leading "added performance" specialists, Alexander Engineering, has been opened in Birmingham. The new company, Alexander Conversions, Ltd., is situated at 1A Caroline Street, Birmingham 3, and operates from 1st January. The directors of the new company are Kenneth Nightingale and Michael Christie, chairman of Alexander Engineering Co., Ltd. Kenneth Nightingale is well known in racing and competition circles as secretary of the Bugatti Owners' Club. Alexander Conversions, Ltd., are also appointed distributors for Turner Sports Cars for the Birmingham area and South Midlands.

## JIM CLARK WINS JOHN DAVY CHAMPIONSHIP

Final Positions After Christmas Race JIM CLARK has been confirmed as the $\int_{\text {winner of the }} £ 100$ John Davy Championship for Formula Junior races at Brands Hatch during 1960. He added this further title to his record by driving his Lotus-Ford to victory in the final championship round at Brands on Boxing Day.
Peter Ellis, who had at one time led Clark in the championship table, and was only three points behind before the final race, managed to take one point for fifth place and ensured keeping second position in the championship.
As a result of the Boxing Day race, the final positions are:-

1. Jim Clark (Lotus), 21 points.
2. Peter Ellis (Lotus), 14.
3. Peter Arundell (Lotus), 13.
4. Peter Ashdown (Lola and Gemini), 10.
5. Tony Maggs (Gemini), 7. Graham Warrer (Gemini), 7. Trevor Taylor (Lotus), 7. John Brown (Lotus), 7 .
Chris Andrews (Lotus), 7
Recently, Clark together with Trevor Taylor was also awarded the Motor Racing Formula Junior Championship Trophy.
Derek wilkinson has bought an 1100

## SPORTS NEWS

 A THING OF BEAUTY well laid-out instrument panel of the Austin A40 Pat Moss and Ann Wisdom will use on the Monte. From left to right are elapsed time clocks, speedometer in k.p.h., ammeter, fuel gauge, combined oil pressure/water temperature gauge, and a rev. counter.

THE current interest in the supercharging of production cars has led to overfull order books for Peco bolt-on supercharger kits and the concern have had to join up with the Judson Research and Manufacturing Company of America in a joint organization to market the American blower in this country.



PAINTINGS by Michael Turner were recently presented to Pat Moss and Ann Wisdom by Donald Healey and John Sprinzel.

ANEW three-kilometre long circuit is being constructed at Sequestre to replace the old circuit at Planques and is due to open on 4th June. The old circuit didn't comply with the new regulations as regards the positions of grandstands and other safety factors.

The British Division of Scuderia Light Blue will consist next year of Bill McCowen, Andrew Hedges, Philip Martyn and Hugh Dibley. Cars to be used will be two A.C.-Bristols, a Zagato Alfa Romeo, a Lola Formula Junior and an Austin A40. It is hoped to run in several races abroad this coming season, as well as a full programme at home. Currently McCowen, Hedges and Martyn are preparing for the World Bobsleigh Championships to be held at Lake Placid, U.S.A., in February.

Tony marsh, of Dunsley Hall Farm, Kinver, Worcs, has recently opened a service department for the preparation of competition cars. It will be under the personal supervision of Ted Jeffs and is a direct resuit of participants, including those from the continent, who have found difficulty in obtaining a rapid and efficient service and overhaul facility for competition cars.
The main building is sub-divided into three sections, a general workshop, a machine shop and an engine erection bay. The reason for this is the necessity for strict cleanliness in this type of work. A separate building houses a Heenan and Froude tester for speeds up to 8,000 r.p.m. and 300 b.h.p. Facilities are also available for customers to test their own engines. In addition to the usual workshop and machine shop equipment, preci-


EXAMINING a cylinder head in his new race-preparation workshop is Tony Marsh, who has recently started operations in this field.
sion optical alignment instruments are also available, thus enabling very accurate chassis repairs to be made.
Since the close of the racing season, complete overhauls, including engines, have been carried out to the Formula 2 Coopers of Count de Beaufort and Wolfgang Seidel and Tony Marsh's own Lotus has been extensively modified and brought up to full Formula 1 specification. Work has also been carried out on a number of sports cars which include Alfa Giulietta, Mercedes-Benz, Sprite, M.G.A. and A.C.

The London Motor Club won a first prize of 100 gns. for its stand design at the Racing Car Show against strong commercial opposition.
The judges, including Sheila Van Damm and Neville Lloyd, were much impressed by the ingenuity shown by the club in designing a stand on a very small budget which had all the ingredients of "attention-getting" and sales appeal.
Inspiration for the stand-a replica of a night rally control-came from club vice-chairman, Ken Barrow. Centrepiece was a blown-up photograph of a TR with real working headlights approaching the control where two attractive girl marshals were waiting to book it in. Visitors could book-in, too, and learn all about the activities of this enterprising club.
The London Motor Club's success at this year's Racing Car Show is a good omen for 1961, because on 9th July it plans to run its first race meeting at Snetterton.

IMPRESSIVE: The highly modified engine of the Pat Moss/Ann Wisdom A40. There are twin $1 \frac{1}{2}$ ins. SU carburetters and special manifolds.

This year the British Motor Corporation have entered six cars for the Monte Carlo Rally. Abingdon faith is pinned to small cars: three Mini-Minors are to start from Paris and three A40s from Stockholm.

Two of the A40s, to be crewed by David Seigle-Morris/Vic Elford and Peter Riley/Tony Ambrose will run as Group II cars and the third, the Pat Moss/ Ann Wisdom car will run in Group III and will be the Corporation's most highly developed car in the rally. The Minis will be in the hands of Tom Christie/

## B.M.C. PREPARE FOR THE MONTE

Ninian Paterson, Peter Garnier/Rupert Jones and Derek Astle/Saville Woolley and will all run in Group II.

The cars are prepared for Competitions Manager Marcus Chambers by a devoted crew of technicians under the supervision of Douglas Watts and each vehicle is prepared under the most exacting conditions of accuracy and cleanliness. It would not be too much to say that each competition car is built like a watch. No detail is too small for careful consideration and nothing is overlooked.

Pride of the department is the Moss/ Wisdom car which, although built to withstand the rigours of over 2,000 miles of the roughest treatment imaginable is nevertheless as immaculately turned-out
as if it were destined for a concours d'elegance. The whole car has been lightened where possible by the judicious drilling of holes and the removal of excess metal but, when rally equipped, it turns the scales at a few pounds over the weight of a standard A40. It is fitted with disc brakes on the front and improved braking at the rear (Ferodo AM4 linings) and has Austin-Healey Sprite wheels, which are lighter and stronger than the standard fittings. The engine is balanced and breathes from twin $1 \frac{1}{2}$ ins. SU carburetters through a free-flow manifold; it has a specially designed exhaust manifold and a compression ratio of 9.55 to 1 . The gearbox is a close-ratio unit. Inside the same meticu-

lous care is manifested: the beautifully equipped dashboard has driver's and navigator's instruments separate and so placed as to be exceptionally easy to read. The driver's seat is built-up and has been designed to give Pat Moss the maximum of comfort and support when driving while the navigator's seat is of the fully reclining type. The other A40s are, as their category demands, somewhat less radically modified. They, and the Minis, have balanced engines with gasflowed and polished cylinder heads and a compression ratio of 9.3 to 1 .

The extremely high standard of preparation which Doug Watts and his men lavish on the rally cars has been a major factor contributing to the remarkable successes which B.M.C. enjoyed during the 1960 season, a record they hope to maintain during the coming year.


ABOVE: Gerald Wiffen adjusts the suspension of the Mini which David Seigle-Morris/Vic Elford drove on the R.A.C. Rally and (BELOW) Nobby Hall attends to the disc brakes of the Group III A40.


ABOVE: John Lay inspects the engine of the A40 in which Seigle-Morris and Elford will start from Stockholm while (BELOW) Doug Watts, chief technician of the B.M.C. Competitions Department, checks the gearbox unit of a Mini.



## JOHN BOLSTER TESTS

## The Big Borgward

## A High Speed Luxury Family Saloon

The firm of Borgward are well known as producers of $1 \frac{1}{2}$-litre cars with allround independent suspension. These machines are sturdily built, well-equipped and fast, and are noted for their remarkable fuel economy.

Now, Dr. Karl Borgward has designed a large six-cylinder car. The Big Borgward has all the features of its smaller brothers, and it also incorporates an extremely interesting system of pneumatic suspension. This is a luxurious carriage which is capable of $100 \mathrm{~m} . \mathrm{p} . \mathrm{h}$., and it returns an impressive 20 m.p.g. during fast driving. Its smooth, flexible engine is not exceptionally potent for its size unless the gears are used to advantage, and then it is found to be capable of exceeding 6,000 r.p.m. and giving a truly sporting performance. It would be fair to say that the Big Borgward conforms to the standards expected of large luxury cars, but that it has more "topend" performance and much better roadholding than most.

The basis of the machine is a sixseater pressed-steel saloon body with an exceptionally generous window area. It looks massive, but in fact the car is quite light for its size. The front suspension is by wishbones, and there are swing axles at the rear, but here the resemblance to the Isabella ends, for air forms the springing medium. Above the suspension unit of each wheel a cylinder is mounted, closed at the top and with a flexible diaphragm at the bottom. These diaphragms support the weight of the car, which they are able to do because an engine-driven pump keeps their cylinders full of air.
Above the front suspension cylinders Bosch air valves are coupled with connecting rods. They keep the height of

ALL ROUND visibility is good. Both the gear lever and handbrake come easily to hand and the combination of all these features plus exceptional roadholding make it a pleasure to drive.
the car constant, releasing air to bring the vehicle down to its proper level. There is a single air valve coupled to both the rear swing axles, and the rear suspension cylinders are inter-connected whereas the front units are separate. This is very important, for it will be understood that it effectively lowers the roll resistance of the rear suspension and so overcomes the tendency to rear end breakaway which simple swing-axle layouts tend to possess.

Thus, the Big Borgward is selflevelling and compensates for changes of load. The automatic arrangements are extremely quick in response, tending to level the car under all conditions. An accumulator cylinder holds a reserve of air and there is a gauge on the instrument panel to verify the working of the system. In the unlikely event of failure, large rubber buffers would take the load

Autosport, January 6, 1961
SMART but no ostentation. When parked the car attracted many admiring glances, but no adverse comment was overheard.
to permit the car to be driven home. The brakes have turbo-finned drums with wide shoes, and there is a vacuum servo.

The engine follows standard Borgward practice, being literally the smaller unit with two extra cylinders. The light alloy head has vertical induction passages and the twin-choke Solex carburetter is consequently mounted on the valve cover. The suspension pump is driven by a belt from the front of the crankshaft. In unit with the engine, the gearbox has full synchronization of all four ratios, and the clutch is hydraulically operated. The chassis-mounted differential unit is rubber insulated to keep noise and vibration from the body, the same applying to the front suspension and engine mounting assembly.
As one approaches the car it gives an impression of being long and low. Inside, the body seems very spacious and the visibility from all seats is excellent. The test car had left-hand drive, with the steering wheel fairly close to the door, presumably to make three-abreast seating comfortable, though the separate front seats give good lateral location when two are carried. An endearing feature is the silent engagement of the starter, the engine always starting at once irrespective of temperature.
The gears are controlled by a lever on the steering column, which is light in operation but has an exceptionally long travel. The synchronization of all four speeds is very thorough, and the highrevving engine can encompass a full 30 m.p.h. on first speed. Second is a good gear for fairly sharp corners and third is useful for overtaking at speeds as high as 80 m.p.h. The car will potter contentedly on top gear, but it is not particularly lively when so driven. The engine is smooth and quiet, yet there is an eager note at high revs. which encourages one to exploit the full performance.
The behaviour of the pneumatic suspension system is excellent. The ride is fairly firm at low speeds but remarkably



SECONDS

## ACCELERATION GRAPH

POWER HOUSE: The six-cylinder engine is smooth and flexible, with good "top end" performance. Note the pump (just behind the radiator) driven off the crankshaft, which actuates the self-levelling mechanism.
comfortable at the higher velocities; at $80 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. on a poor surface the bumps almost disappear and there is no pitching. There is not the slightest roll during fast cornering, and no large saloon has ever held the road so well on wet, greasy surfaces. On sharp corners, fierce acceleration on second gear will cause the rear end to slide out, but under all other conditions the handling characteristic is virtually neutral.

The turning circle is very small for so large a car, but the steering is disappointingly heavy. It becomes light at the higher speeds, but the machine needs a fairly considerable effort to park. The other controls are all very light to handle, the clutch pedal and gear lever especially so. The servo-assisted brake pedal is also light to operate, the brakes being very powerful and standing con-


## SPECIFICATION AND PERPORMANCE DATA

Car Tested: Grosse Borgward saloon, price $£ 2,3955 \mathrm{~s} .10 \mathrm{~d}$. including P.T.
Engine: Six cylinders 75 mm . $x 84.5 \mathrm{~mm}$. $(2,240$ c.c.). Pushrod-operated valves in light alloy head. 8.7 to 1 compression ratio. 100 b.h.p. (net) at 5,100 r.p.m. Solex twin-choke downdraught carburetter. Coil and distributor ignition.
Transmission: Single dry plate clutch. Four-speed all-synchromesh gearbox with steering column change. Open propeller shaft to chassismounted hypoid unit with swing axles.
Equipment: 12-volt lighting and starting. Speedometer. Suspension air pressure, water temperature and fuel gauges, clock, two-speed selfparking windscreen wipers with electric motordriven washers. Heating and demisting system including rear window. Cigar lighter. Foglamps. Parking lights. Inspection lamp. Flashing direction indicators. Headlamp flasher.

Chassis: Steel chassis-cum-body unit. Independent pneumatic suspension of all four wheels with engine driven pump, levelling valves and telescopic dampers. Z.F. roller and scgment steering box. Front suspension by unequal length wishbones with swing axles at rear. Servoassisted hydraulic brakes in 9 ins. $\times 2$ ins. turbo13 ins. tyres. Bolt-on dise wheels fitted $6.40-$ 13 ins. tyres.
Dimensions: Wheclbase $8 \mathrm{ft} .8 \frac{3}{8}$ ins.; track (front) 4 ft . $5 \frac{1}{2}$ ins., (rear), 4 ft . $5 \frac{3}{4}$ ins.; overall length, 15 ft . $5 \frac{1}{4}$ ins.; width, $5^{\frac{1}{4}} \mathrm{ft}$. $8 \frac{3}{8}$ ins.; turning circle, 32 ft .6 ins . Weight, 25 cwt .
Performance: Maximum speed, $100 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. Speeds in gears: 3rd. 84 m.p.h.; 2nd, $53 \mathrm{~m} . \mathrm{p} . \mathrm{h} . ; 1 \mathrm{st}$, 30 m.p.h. Standing quarter-mile, 19.6 secs Acceleration: $0-30$ m.p.h., 4 secs.; $0-50$ m.p.h. 9.6 secs.; $0-60$ m.p.h., 14.8 secs.; $0-80$ m.p.h., 28.3 secs.

Fuel Consumption: Driven hard, 20 m.p.g.
siderable abuse without serious fading. The good all-round visibility, allied with the exceptional road-holding, render this a car which can be driven fast habitually with little fatigue to the occupants.

The extremely elaborate equipment of the car gives a sense of well-being, and the heating and demisting system earns full marks, especially as it extends to the rear window. The switches on the facia panel have little pictures beside them denoting their function, a useful feature which is particularly effective at night. The details include an inspection lamp, the lead of which plugs into the cigar

lighter socket, and an electrically operated windscreen washer that starts the wipers at high speed. The wiper blades cover a large area of the big, curved screen-another valuable safety feature, as is the extensive use of padding. The direction indicator switch also dips the headlamps, or flashes them at the end of its travel, while the radio aerial raises and lowers itself automatically.

The appearance of the Big Borgward is smart but not gaudy, the car looking just the high-speed luxury model that it is. When parked, it attracted many admiring glances and I heard no adverse comments. In some parts of London other road users were less than polite, and I was "carved up" on occasion. This was perhaps due to the foreign registration of the test car, and I am sure that with right-hand drive and ordinary numbers few people would have given a thought to the country of origin. The good lines of the car are, in fact, attractive by international standards.

Import duties render the Big Borgward a fairly costly car in this country. Nevertheless, it is particularly well made and most lavishly equipped, having a standard of construction and finish that places it right among the the world's more expensive cars. Above all, its road-holding and suspension are in a class of their own, and the stability on wet roads is really superlative. For the man who wants to cover long distances at high speeds, this fast but economical car must be almost ideal.

EASY to load because there are few "bumps" in the boot.


THE SEVEN YEAR FORMULA-PART SIX

## 1958-Annus Mirabilis

## Hawthorn Champion of the World-Vanwall Wins Manufacturers' Championship

THe record of the year 1958 in British files starts off with an illuminated initial letter. This was the year that so many had dreamed of, so many had worked for, so long, down the arches of the years. There had been the shortlived success of the Sunbeam a quarter of a century ago. There had been the success of the E.R.A. in voiturette ("Formula 2") racing after 1934. But through all those long years there had been no British Grand Prix car and, with the sole exception of Dick Seaman in 1937-1939, there had been no British driver in any Grand Prix team. British drivers had been amateurs, equipped with cast-off cars, racing for the fun of it, make-weights in the sparse entries of the time, and greeted with tolerant, amused smiles by the foreign drivers and spectators as typical British "sportsmen" who could be relied upon to move over and make way.
The writing was on the wall in 1956, underlined in 1957 and floodlit in 1958. The Revolution had come. They were still "sportsmen" but now (a) they had the cars, and (b) were well paid.
The Great Champion, Juan Fangio, was lared from his retirement to take part in the Temporada series in his native country, but the old fire was damped. He even consented to appear once more, in the French Grand Prix, driving a Maserati, but could do no better than fourth. Thereafter he abdicated.
For this year the F.I.A. decreed that racing fuels were no longer permissible, after a year-long discussion with technicians. Their aim was a reversion to
commercial fuel, as it had been as long ago as 1929, but this time a compromise had to be made with the use of aviation, straight petrol, grade 100-130 (which is not the same as 100-130 octane), as only this grade of fuel was readily obtainable in all countries in an unvarying form.

The old "standard distance" of 500

## BY RODNEY WALKERLEY

kms. ( 312 miles) which had been used in a few races of 1957 was dropped. The longest races were the Italian Grand Prix and the Moroccan event, at 252 and 250 miles respectively, taking a few minutes over the stipulated minimum of two hours. The longest duration was at Monte Carlo where 195 miles of street corners took 2 hours 52 minutes. The shortest was the revived Belgian Grand Prix, at Spa , where 210 miles required not much more than an hour and a half, at almost 130 m.p.h. average, a thing that made the race a sort of high-speed sprint and in any case did not comply with F.I.A. rules; just the same it was allowed to qualify for points in the World Championship.
In spite of a worried winter for designers altering compression ratios and thinking up means of countering the rise in temperatures unavoidable without the
$\overline{\text { HARD AT IT: Hawthorn (Ferrari) takes }}$ the bit between his teeth during the Italian G.P. to bring his Ferrari home to second place behind Tony Brooks (Vanwall).
coolant properties of methanol fuel, the drop in power output did not show up on the circuits. Every Championship race in the series of 10 (excluding Indianapolis, as usual) was run at a higher average than ever before. Fastest was the Belgian event, at 129.93 m.p.h. as compared with 118.4 m.p.h. when it had been held last, in 1956. At Rheims the speed was 125.46 m. p.h. as against 122.2 m.p.h. in 1956 and 123.4 m.p.h. in 1957 (Rheims Grand Frix). The Italian race at Monza was again held on the road circuit, without the chassis hammering of the bankings, at 121.24 m.p.h. as against the previous year's 112.65 m.p.h. Even at Monte Carlo the speed went up by 3 m.p.h., achieved by a Cooper to universal astonishment, for this followed a Cooper win at the Argentine Grand Prix, using only the 1,950 c.c. Coventry Climax in the absence of the twin-cam $2 \frac{1}{2}$-litre unit.
As the year opened, Signor Orsi, presiding over the destinies of Maserati, decided to abandon "factory racing" but agreed to service the private 250 F models of 1957 and even to build one-off cars to special order. The design had reached its peak (at about 275 b.h.p.) and a new engine was now required. Orsi could not see where the finance was to come from.

Ferrari, who always seems to have blue prints filed away to deal with any contingency, scrapped the V8 Lancia engines and produced a scaled-up version of the 1,500 c.c. Formula 2 car of 1957. This was the Dino 246, with V-6 engine at a narrow Lancia-like angle, giving, he

VANW ALL VICTORIOUS: For the second time a Vanwall wins the G.P. of Europe. Tony Brooks on his way to demolishing the Italian onslaught.
claimed with some pride, 290 b.h.p. at 8,000 r.p.m. This car had appeared without publicity in the Moroccan race in October 1957, driven by Peter Collins into the lead before he flew off the road. The frame was new, with small diameter tubing, and held the engine askew, to pass the propeller shaft alongside the driving seat. There were now coil springs front and back, the wheelbase was very short (just over 7 ft .) and the machine weighed just under 11 cwt. empty.

Vanwalls took the field with an even cleaner, streamlined body, Lotus-like coil springing all round, disc brakes (inboard at the back but well ventilated) and some 270 b.h.p. on petrol.

Coopers, with a longer wheelbase than either Ferrari or Vanwall, continued their light (just over 6 cwt.) Formula 2 chassis with the enlarged Coventry Climax engine, between 1,950 c.c. and 2.2 litres.

The B.R.M. was still prone to trouble with the big, heavy valves and operating gear. Fuel injection (used on the Vanwall) had been abandoned finally in favour of carburetters and the engine was now giving between $260-270$ b.h.p. for a weight rather less than the Vanwall, at around $10 \frac{1}{2}$ cwt. The Chapman (Lotus) long coil spring and damper was standardized at the back.

Chapman's quite remarkable Lotus, with lightest of all space frames and simplest of all suspensions had appeared in 1,500 c.c. form (Coventry Climax engine) and was now in process of growing up-to 2 litres, 2.2 litres and, with the latest Climax, at last to a full $2 \frac{1}{2}$ litres. The day of the unconventional, ultra lightweight racing car was dawning, and what was even more significant, although we did not realize it at the time, the performance of the Cooper foreshadowed the end of the conventional racing car as it had been known for the past 40 years, the end of drum brakes and de Dion tubes, the end of front-engined cars and, indeed, the end of an epoch.

Maseratis continued to service their machines for private owners. Indeed, it may be doubted if a new car was built at all that season. On Fangio's retirement and Moss's engagement first with Vanwall and then with R. R. C. Walker (Cooper) at intervals and, when not driving sports cars, Behra's dissatisfaction with the 250 F at mid-season and his contract with B.R.M., and Schell and Bonnier following his example, the leading Maserati exponents were Masten Gregory and another American newcomer, Carroll Shelby from Texas. Ferrari retained Peter Collins and Mike Hawthorn again, with Luigi Musso, Olivier Gendebien, Wolfgang von Trips and another new American with a sports-car reputation, Phil Hill, from California. Eugenio Castellotti, a most promising driver, had been killed during trials at Modena when he attacked a sharp curve at an impossible speed. And this was to be, sadly, Musso's last few months.

This season we had the unusual entry of a woman driver in Formula racingMaria de Fillipis; her Maserati was driven with competence and courtesy but, on the death of her friend Musso during the French Grand Prix she lost interest, somewhat, it must be admitted, to the relief of the other drivers who shared a

horror of a woman involved in an accident. We had not seen a woman driver since the 'thirties, when Mme. Junek of Prague drove a Bugatti faster and better than many men.

There were 10 races for the World Championship plus the Indianapolis 500 Miles, as usual devoid of foreign competition and therefore without effect on what was intended as a road-racing title. The American event was included in the Championship as far back as 1926, in days when European cars and drivers were still familiar entries, and the status remained when the title was revived in 1950, to be dropped only in 1961. The last time a road racing car competed was in 1948 (2.9-litre 8CTF Maserati) since when the cars became standardized "specials" which cannot corner to the right with any stability

Of the 10 valid "rounds", Vanwall (either Moss or Brooks at the wheel) won six, Ferrari only two (British and French Grands Prix) and the Maserati story was dismal. Fangio got a car into fourth place twice before he threw his hand in finally, Gregory and Shelby finished fourth at Monza and Shelby managed sixth place at Casablanca; otherwise no Maserati finished in the first half dozen. Vanwall brought the World Championship of Manufacturers to Britain, the first time in history (and the 1,500 c.c. Cooper annexed the title in Formula 2 as well). Ferrari had to be
content with the Sports-car Championship which he has now won seven times, interrupted only in 1959 by Aston Martin.

In the winter of 1958-59, before his array of trophies had even needed a polish, Mr. Vandervell was compelled to withdraw from racing on doctors' orders and stood sadly by while the team broke up and a single car was made ready for Brooks to drive unsuccessfully in one or two races on his own.

Moss opened the season with a sensation by winning the opening round, the Grand Prix of Argentina, with R. R. C Walker's $1,500 \mathrm{c} . \mathrm{c}$. Cooper enlarged to 1,950 c.c. by his head mechanic, Alf Francis, once again working for Stirling Moss and convinced that with a suitable engine of even moderate power the light Cooper could take on the Ferraris. That day Moss flashed home 2.7 secs. ahead of an incredulous Musso after 195 miles of racing, at an average speed of 83.5 m.p.h., precisely one-tenth of a mile an hour slower than the previous year's lap record. Fangio, his Maserati out of the picture, finished fourth behind Musso and Hawthorn and got out of his car with a smile and a shrug. A fortnight later he demonstrated the old mastery by taking the minor Buenos Aires Grand Prix with ease from Musso and his efficient compatriot, Carlos Menditeguy.

Three more minor races filled the interlude before the Monaco Grand Prix in the first week of May. The most

significant was the B.A.R.C. 200 Miles at Aintree, a melange of Formula 1 and Formula 2. Throughout the 67 laps Jack Brabham (works Cooper) and Moss (Walker's Cooper) fought it out with but a second or two between them. Brabham streaked through Melling Crossing's unsighted left and right swerve (surely one of the nastiest corners on any circuit) two lengths in the lead on the last lap. Together the two men raced for the final swirl round Tatt's Corner. Brabham made a mistake and slid wide. Moss, poised over his shoulder, slipped past him on the inside and beat him to the flag by less than a length-one-fifth of a second. That afternoon indicated the shape of things to come in the very near future.
The Monaco race gave the Vanwall team a first and dismaying outing. All three cars failed to finish with different forms of trouble-a split header tank, a sparking plug blown clean out of the engine and valve bother. The two B.R.M.s, on the other hand seemed at last to be as per requirements. Behra shot away into the lead and wore his brakes out, whereupon Hawthorn (Ferrari) slammed past him, led at 47 of the traditional 100 laps of five street corners per mile, broke the lap record at just under $70 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. and gave up when the fuel pump drive snapped. Moss snatched the lead before that occurred but stammered to a standstill. Car after car quit and suddenly Maurice Trintignant on the "Argentine" Cooper was in first place steady as a rock, twirling the car round the corners with an expression of bliss. He won by 20 secs. before a thunderstruck audience that suddenly went wild with delight. Musso and Collins followed him in with mixed feelings. A B.R.M. (Schell) survived, fifth.
"Still, old boy," one heard, "it was another Cooper Circuit after all. Little did they know, myself included.
A few days later, as usual, practising opened among the dunes of Zandvoort by the North Sea. On the eve of the race Moss asked for and was granted, Brooks's Vanwall ("He even borrowed

ABOVE: SWEEPING to victory: Peter Collins swings on his way to win in the British G.P. He led throughout the race to score his first grand épreuve win of the season.

BELOW: DUEL between Brabham and Behra was a feature of the Aintree 200. They are just on the point of overtaking Brian Naylor (F2 Cooper).
the latter with Climax engine now up to 2.2 litres and getting near the limit.

Next, the European Grand Prix round the long, wooded valley that stretches from Francorchamps down to the farmlands between Malmedy and Stavelot with the famous downhill Masta Straight. In my opinion, Europe's finest road circuit-Spa

Here, where engines can be held at maximum r.p.m. even in top for $15-20$ secs. every lap, the Dino 246 V-6 Ferrari was in its element. They had got the bonnet lower, using metal air-scoops for the carburetters instead of plastic. Hawthorn practised at 3 mins. 57.1 secs., a startling 133.03 m.p.h., nine m.p.h. inside the old record. Moss, back on 16 ins. wheels, was half a second slower, bracketed by Musso (a fifth faster) and Collins (a fifth slower).

It was a splendid summer's day. The start was badly mangled; cars were kept on the line with engines running and heating up. When at last they rushed off, half of them before the flag at last fell, Moss darted into the lead, led the first six miles, missed a gear, touched valve to piston and ruefully pulled in at the pits. Brooks led, holding off three Ferraris (he had done his standing lap at 124 m.p.h., equalling the previous lap record). Five seconds covered the first three, then only 3 secs. Collins and Brooks passed and repassed. At five laps Brooks, warming up to the job gradually as usual, began to motor, recaptured the lead and began to draw away, Hawthorn on his tail, for Collins's engine wilted. Musso spun off. The lone B.R.M. (Behra) melted a piston. And lo! Allison was fourth with the Lotus.

Brooks was gaining seconds a lap. Lewis-Evans lay third, a mile behind

my golf clubs too," grinned Brooks), and chose correctly, for his original car went out with broken back axle-on the 13th lap-and Lewis-Evans had a recurrence of valve trouble (probably due to the higher temperature being experienced with the petrol fuel). Moss, however, ran off with the race from start to finish, winning by a clear 48 secs. at 93.4 m.p.h., plus a new lap record at 94.8 m.p.h. B.R.M.s always seem to suit Zandvoort; Schell and Behra came in next, and, as usual, the course had the opposite effect on the Ferraris. Collins spun and stalled, Hawthorn and Musso glumly took fifth and seventh places behind Salvadori's Cooper and Allison's Lotus respectively,

Hawthorn. Brooks and Hawthorn had the race to themselves, separated by half a minute at 80 miles and 40 secs. at halfdistance. Brooks stretched it to 46 secs. and was then signalled to steady down a bit. He won at 129.9 m.p.h. by 21 secs. Hawthorn bagged the lap record at 132.4 m.p.h. Lewis-Evans took third place with excellent judgment and address, and the 2.2-litre Lotus took fourth, after a violent struggle with Salvadori's Cooper of 1.9 litres which slowed and fell to eighth. Schell's B.R.M. also lasted, nearly nine miles behind the Lotus.

The remarkable thing about that finish was that Brooks was in trouble with a
broken front wishbone, Mike coasted across the line with demolished engine in a dramatic cloud of smoke and steam and Lewis-Evans's was on the blink. Had that been a 300 -mile race instead of 210 the Lotus must have won. Ten finished (Maria de Filippis last, but intact) out of 19 starters. Once again the only pit stops were for repairs.

The first prize for the French Grand Prix, at Rheims on 6th July, was an enticing $£ 10,000$ for the first home after 50 laps and 258 miles. In practice Harry Schell rushed the B.R.M. round with a resounding lap in 2 mins. 23.1 secs., to take third place in the front row at the start with Hawthorn (Ferrari, 2 mins. 21.7 secs., $131.02 \mathrm{~m} . \mathrm{p} . \mathrm{h}$.$) and Musso$ ( 2 mins. 22.4 secs). Brooks was in row 2, Moss back in row 3. For this race von Trips replaced Gendebien in the Ferrari trio. Trintignant had joined B.R.M. and had their third car. Graham Hill had a new Lotus with external oil pipes. Troy Ruttman, the Indianapolis driver who had been to Monza for the 500 Miles, broad shouldered, six-footer, borrowed a Maserati for the occasion and confessed himself very much out of his depth afterwards. And Fangio also made an appearance, with a new, lighter Maserati, with which he finished $2 \frac{1}{2}$ mins. behind the leader in fourth place and thereupon announced his final retirement and held to it.
At last Ferrari found the old form. The triangular circuit of 5 miles, with long straights down two sides and a curving leg for the third, admirably


BRILLIANT win by Tony Brooks at the Ring. Here he is about to pass the Ferraris of Collins and Hawthorn.
$\star$
MARIA Teresa de Filippis at St. Devote during practice of the Monaco G.P. Later her engine blew up.

suited the characteristics of the V-6 engine with its superior piston area, for there are only two slow corners (into and out of the Soissons straight). Hawthorn led from start to finish at 125.5 m.p.h., exchanging lap records with Peter Collins and establishing a new one finally at 128.19 m.p.h. On the 10th lap Musso took the left-hand curve uphill through the cornfields towards Muizon Hairpin too fast, crashed at 160 m.p.h. and died.
Suggesting that Coopers can go fast, too, on fast circuits, Brabham slipped past Lewis-Evans (Vanwall). Brooks had trouble with his gears and Moss found himself losing ground to Hawthorn. Fangio started by hounding Hawthorn, dropped places, was in the pits after 24 laps with a slipping clutch and lost all
hope in the race. Collins overshot at Muizon and, such was the pace, fell to 18th place as the field stormed past him. At that stage, Fangio, Behra and Schell tore past the stands literally three abreast, a feat that needs careful driving at $175 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. And at 28 laps, to demonstrate how fast a good B.R.M. can be when it behaves, Behra passed Moss into second place, lost it, regained it and then lost it for good when the fuel pump stopped. All three B.R.M.s dropped out, and "Taffy" von Trips, very cool and correct, rode in third place, well behind Moss ( 35 secs.), to the finish. Hawthorn had over 25 secs. in hand, and had won his second Grand Prix of the A.C.F. Collins arrived on foot, pushing his car to finish, considerably exhausted, to be listed fifth.

In this somewhat breathless race, 20 started, 11 finished-and Brabham got his Cooper into sixth place, five miles behind.

A perfect summer day for once graced the British Grand Prix, back to Silverstone in the B.R.D.C.'s turn. The fight for the Championship was hotting up. Moss had 23 points, Hawthorn 23. Once again Ferraris were on form and Vanwalls were not. Nor were the B.R.M.s. That day Peter Collins showed his true virtuosity. He rushed off into the lead and was never challenged. Moss hung on for a few laps and then burst, Hawthorn clung to second place (and six more points plus another for a lap record at 104.5 m. p.h.) and Salvadori kept his Cooper in third place, outpacing the B.R.M.s and the other two Vanwalls which were delayed at the pits. Score: Hawthorn, 30; Moss still 23.

And so to Nürburgring, for the German Grand Prix on 3rd August.

With memories of Fangio's masterdrive of the year before, a great assembly packed the stands and enclosures all round the 14 -mile circuit to watch a shorter race, only 213 miles-seven laps and 100 miles less than the traditional distance. Fangio had lapped in 9 mins. 17.4 secs. ( $91.84 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. ); what would happen now?

Hawthorn took the track with a car sprung on a transverse leaf spring at the rear instead of a pair of coils. The Vanwalls had wire wheels in front, cast alloy at the back, but all with quick knock-on fixing. When practice was over, eight British drivers were in the first four rows. Hawthorn had been fastest with 92.1 m.p.h. Then came Brooks ( 1 sec . slower), Moss ( 5.9 secs.) and Collins ( 7.9 secs.) to form up in the front.

When the flag fell on an overcast, chilly day with a light breeze stirring the pines (good for tyres-and drivers) Moss was away like a flash but 50 miles later the Vanwall was out (magneto drive), in a race running at record speed, in spite of straight petrol fuel, and after putting the lap record up to 92.89 m.p.h. Collins and Hawthorn then took turns in lead-
ing, while Brooks (Vanwall) was closing in fast, and, as in the 1957 race, they could not be warned for another nine minutes. Suddenly, after nine of the 15 laps, Brooks was on them. He passed Hawthorn on the inside of a turn and, a few twisting miles later, swept past an astonished Collins and led the race. Behind him, Hawthorn and Collins settled lower in their seats and began racing. On the next lap, with Brooks just ahead, Collins came into a sharp turn too fast and, before Hawthorn's horrified eyes, crashed heavily-and fatally. Hawthorn drove on in agony of mind while the loud-speakers assured us that Collins was not badly hurt (he died in the helicopter that flew him to Bonn hospital) and over-revved, wrecking the engine. Both Ferraris were out and there, in second place, was Roy Salvadori (2.2-litre Cooper) and Trintignant not far back in another. In fourth place went von Trips (Ferrari), followed by all the Formula 2 cars-Coopers and Porsches.
Brooks sailed home $3 \frac{1}{2}$ mins. in the lead, Salvadori second, Trintignant third to underline that, to universal surprise, Nürburgring turned out to be a "Cooper circuit" as well.

Thus the third Vanwall victory was overshadowed by the death of Peter Collins, gayest of young drivers, and by the grief of Mike Hawthorn, who lost interest in the destination of the World Title from that moment, and indeed, in motor racing. The score stood now: Moss, 24 points; Hawthorn, 29 net.

The Grand Prix of Portugal this year was a Championship race for the first time, run on a suburban circuit at Oporto, with sections of cobble stones and stretches of tram lines. The cars assembled on a $4 \frac{1}{2}$-mile course greasy and glistening with early rain. The race became a duel between Moss and Hawthorn, passing and repassing until Moss shook free and began to draw away, in spite of a record lap by Mike at 109 m.p.h. On the last lap, trying too hard, he spun, stalled and restarted by coasting downhill, the wrong way of the course. He finished second, over 5 mins. later, but still ahead of the rest led by LewisEvans. Hawthorn was thereupon excluded but, when his rival Moss immediately testified that Mike restarted on the footpath and not on the course, he was reinstated, bringing his net score to 34 (Moss 32). Without that evidence from Moss he would have stood at 30 .

On 7th September, two weeks later, the curtain went up at Monza for the Italian Grand Prix without benefit of bankings. For this race Ferrari used the new Dino 256 engine which measured 2,460 c.c. as against 2,417 c.c., for Hawthorn and von Trips. The engine was said to deliver over 300 b.h.p. and to run at 9,300 r.p.m. Mike had fitted disc brakes, taken from Peter Collins's Jaguar a couple of months before. It was a tremendous race for the whole of the 252 miles. All three Vanwalls were in the front row with Hawthorn (Moss, 127.9 m.p.h., 5 m.p.h. up on 1957). Sensations came thick and fast. First Phil Hill, small, dark, taciturn and brooding, driving his first Grand Prix Ferrari, shot into the lead for four rousing laps. On the first lap there was a multiple pile-up, out of which von Trips was taken to hospital, Harry Schell (B.R.M.) restarted and so did Gerini (Maserati) who was promptly

FORMULA 1 RACING: 1958
Championhip Races marked with an asterisk (*)
*GRAND PRIX OF ARGENTINA

1. Stirling Moss ( 1,950 c.c. Cooper), 2 h. 19 m . 33.7 s., 83.5 m.p.h.
2. Luigi Musso (Ferrari), at 2.7 s .
3. Mike Hawthorn (Ferrari), at 10 s
4. Fangio (Maserati).

BUENOS (Maserati), 85.95 m.p.h
UENOS AIRES GRAND PRIX
2nd February. 175 miles.
Fangio (Maserati), 66.29 m.p.h.
2. Musso (Ferrari).
3. Menditeguy (Maserati).

SYRACUSE GRAND PRIX
13th April. 205 miles.

1. Musso (Ferrari), $2 \mathrm{~h}, 2 \mathrm{~m} .44 .5 \mathrm{~s} ., 100.23 \mathrm{~m} . \mathrm{p} . \mathrm{h}$
2. Bonnier (Maserati), at 3 miles.
3. Francesco Godia (Maserati).

Fastest lap: Musso, 103.2 m.p.h
AINTREE
19th April. 200 miles.
Moss (Cooper), 2 h. $20 \mathrm{~m} .47 \mathrm{~s} ., 85.7$ m.p.h.
. Moss (Cooper),
3. Salvadori (Cooper), at 1 m .28 .8 s .

Archie Scott-Brown (Connaught) at 6 miles
Fastest lap: Brabham, $88.96 \mathrm{~m} . \mathrm{p} . \mathrm{h}$.
SILVERSTONE INTERNATIONAL TROPHY
3rd May. 150 miles.
Peter Collins (Ferrari), 1 h. 26 m .14 .6 s . 101.82 m.p.h.

Roy Salvadori (Cooper), at 23.4 s .
. Masten Gregory (Maserati), at 13 s .
. Jean Behra (B.R.M.).
Record lap: Behra and Collins, 105.37 m.p.h. *GRAND PRIX OF MONACO 18th May. 195 miles.
Trintignant (Cooper),

1. Maurice Trintignant (Cooper), $2 \mathrm{~h}, 52 \mathrm{~m}$. 27.9 s., 67.98 m.p.h.

Musso (Ferrari) at 20.2 s .
Collins (Ferrari)
Jack Brabham (2.2 Cooper) at 6 miles.
*GRAND PRIX OF THE
26th May. 195 miles. 93.96 m.p.h
Moss (Vanwall), 2 h. 4 m .49 .2 s., 93.96 m.p.h.
. Harry Schell (B.R.M.) at 47.9 s .
3. Behra (B.R.M.).
. Salvadori (Cooper).
Record lap: Moss, 94.84 m.p.h.
*BELGIAN GRAND PRIX
Brooks (Vanwall), 1 h. $37 \mathrm{~m} .6 .3 \mathrm{~s} ., 129.93 \mathrm{~m} . \mathrm{p} . \mathrm{h}$.
2. Hawthorn (Ferrari), at 20.7 s .
3. Lewis-Evans (Vanwall).
4. Cliff Allison (Lotus).

Record lap: Hawthorn, 132.36 m.p.h.
*GRAND PRIX OF THE AUTOMOBILE CLUB DE FRANCE

1. Hawthorn (Ferrari), 2 h. 3 m. 21.3 s. 125.46 m.p.h.
. Moss (Vanwall), at 25.6 s
2. Von Trips (Ferrari).

Record lap: Hawthorn, 128.19 m.p.h.
BRITISH GRAND PRIX
19th July. Silverstone 225 miles
Collins (Ferrari), 2 h. $9 \mathrm{~m} .4 .2 \mathrm{~s} ., 102.05 \mathrm{~m} . \mathrm{p} . \mathrm{h}$.
Hawthorn (Ferrari), at 24.2 s .
Salvadori (Cooper).
. Lewis-Evans (Vanwall).
Record lap: Hawthorn, 104.54 m.p.h
CAEN GRAND PRIX

1. Moss (Cooper), 2 h. 9 m. 7 s., 93.96 m.p.h.

Bonnier (Maserati), at 1 mile.
. Bruce Halford (Maserati).
4. Trintignant (Cooper 1,500 c.c.).

Fastest lap: Behra (B.R.M.), 97.43 m.p.h
*GERMAN GRAND PRIX
3rd August. 213 miles.
Brooks (Vanwall), 2 h. 21 m. 15 s., 90.35 m.p.h
Salvadori (Cooper), at 3 m .29 .7 s
Trintignant (Cooper).
4. Von Trips (Ferrari).

Record lap: Moss (Vanwall), 92.89 m.p.h.
*PORIUGUESE GRAND PRIX
24th August. Oportw. 230 miles

1. Moss (Vanwall), $2 \mathrm{~h} .11 \mathrm{~m} .27 .8 \mathrm{~s} ., 104.9$ m.p.h.
2. Hawthorn (Ferrari), at 5 m .12 .7 s .
. Lewis-Evans (Vanwall), at 4 miles.
3. Behra (B.R.M.).

Record lap: Hawthorn, 109.3 m.p.h.
*ITALIAN GRAND PRIX
7th September. 252 miles.

1. Brooks (Vanwall), $2 \mathrm{~h}, 3 \mathrm{~m} .47 .8 \mathrm{~s} ., 121.24$ m.p.h.
. Hawthorn (Ferrari), at 24 s .
Phil Hill (Ferrari).
. Gregory and Shelby (Maserati).
Record lap: Hill, 125.01 m.p.h.
*MOROCCAN GRAND PRIX
2. Moss (Vanwall), 2 h. 9 m .15 .1 s ., $116.22 \mathrm{~m} . \mathrm{p} . \mathrm{h}$.
3. Hawthorn (Ferrari), at 1 m .24 .7 s .
4. Phil Hill (Ferrari), at 0.8 s .
5. Bonnier (B.R.M.).

Record lap: Moss, 117.86 m.p.h.
disqualified for accepting "outside assistance".
Hawthorn and Moss overwhelmed Hill after four laps and began a nose to tail battle, passing and repassing, until the Vanwall gearbox put Moss out of the race. Up to that time ( 18 laps, 65 miles) the leading five cars raced in line ahead or side by side covered by 5 secs. Hill had to stop to change a wheel. LewisEvans (Vanwall) had a boiling radiator. Then Brooks stopped to peer at the rear suspension and fell to ninth place (he had spun on to the grass and off again). At half-distance Hawthorn lost his lead changing wheels. Hill took over and then he too needed wheels. Mike led again with Masten Gregory (Maserati) second. Then Brooks began to race, needing no tyre replacements, and steadily stalked through the field. Hawthorn's clutch began to slip. At 50 laps (20 to go) Brooks had made up nearly four miles and was already second at 9 secs., Hill and Gregory wheel to wheel only 50 yards behind.
Every lap David Yorke flew the "Hurry!" signal from the Vanwall pit where there was an air of agitation. Brooks hurried, adopting something, for him, very like a Hawthorn crouch, and down the straights tucked into Mike's slipstream. You could see Mike's clenched teeth 100 yards away. At 59 laps they signalled Brooks to switch on his reserve tank. Did so. Past the pits the gap was one-tenth of a second. Speed: around $165 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. , lapping at 124 m.p.h. (Hill at 125 -record). Lap 60 -and Brooks got past the Ferrari which could go no faster. He won by 24 secs. at 121 m.p.h., Hill 4 secs. behind Mike. Gregory's Maserati had blown up, so he finished fourth on Shelby's, a lap behind.

Score: Moss, 32 still; Hawthorn, 42.
Casablanca was decisive. If Moss won with a record lap he would score 41 points. If Mike did nothing he would lose the title by one point. In the event, Moss led all the way and duly took the lap record, scoring 41. Mike finished second, scored 42. And retired from racing, Britain's first World Champion.

This Moroccan Grand Prix was held on 19th October, a hot, sultry, humid afternoon. Hawthorn, practised at 118.8 m.p.h. using disc brakes, Moss one-tenth slower. Brooks had a somewhat lighter Vanwall in this race and all three cars had larger radiators. Gendebien's Ferrari also had disc brakes.
Moss drove a superb race, steadily drawing away until he was well over a minute in the distance. Mike made a gentle start, saving his clutch, but could not hold second place against Hill. They raced in that order for 38 of the 53 laps. Then, realizing that Mike could not pass, Hill began switching on and off, creating the impression his engine was misfiring. Mike thereupon rushed into second place with a wave and a grin to finish 1 min . 24.7 secs. behind Moss after 250 miles, Hill a length away, Bonnier's B.R.M. fourth. On the 42 nd lap, on the far side of the circuit, Stuart Lewis-Evans crashed in flames. Flown to East Grinstead next day, he died a week later from the burns.
The glory of that season came to an end with three first-class drivers killed and the old Champion and the new both decided to drive no more. Three months later Mike Hawthorn, too, was to die when he lost control of his saloon on a main road. Sunt lacrimae rerum.
(To be continued)


## All That's New in Competition Motoring-In One Exhibition

IAN SMITH and the British Racing and Sports Car Club have done it again! Last year, the Racing Car Show was a little model of how to run a motor exhibition. The latest version, vastly bigger, fills two halls; but the same genius for organization makes this an easy show to see and a comfortable and friendly place in which to spend a couple of hours or a couple of days.
In my report of the first exhibition I was rude enough to suggest that Earls Court could do with a little of the B.R.S.C.C. spirit. It is difficult now to avoid repeating the gibe with even more force, for after the dreariest London Motor Show of living memory, the Racing Car Show is even more brilliant than its predecessor.
There is no hope in an article of reasonable length of covering every exhibit adequately, but the general trends can be followed while examining some outstanding examples of progress. At the risk of annoying those-and they are very few-who are not vintage-minded, I propose to forget progress for a moment, however. The Historic Racing Cars probably attract more affectionate admiration than all the latest gimmicks, and this is a worthy section with which to begin the report.

Last year only one historic car, Rob Walker's Delage, was on view, and I suggested that an E.R.A. ought to keep it company. Sure enough, one of these fine old cars appears in the person of R11B, and many of us are duly grateful. This supercharged 2 -litre single-seater is

## BY JOHN BOLSTER

Photography by George Phillips
about as different from a modern racing machine as it could possibly be, but although it is comparatively high and clumsy, it has a fitness for purpose that cannot be denied. I am glad to see that it has acquired hydraulic brakes since the days when I raced it, for it used to be virtually unstoppable when it achieved its very respectable terminal velocity.

The Grand Prix Sunbeam of 1924 is, in its way, an even more famous racing car, and goes back to the days of the riding mechanic. So does the Bugatti, though one regrets that it does not boast

## ON DISPLAY at the Racing Car Show

 are a Testa Rossa sports-racing Ferrari (nearest camera), a Lotus racing car, an Elite and a 250 G.T. Ferrari - just one of the centre displays.the so typical aluminium wheels. In the greatest possible contrast is the Alfa Romeo, a monoposto of the $\mathbf{B}$ series, which retains cart springs and friction dampers though having the 2.9 -litre version of the straight-eight engine.
Charles Mortimer's impeccable 105 Talbot shows what sports-racing cars were like 30 years ago, but it is by no means disgraced beside the D-type Jaguar which also defended Britain's honour. Fiercest of all these historic cars is the Thin Wall Special, which very properly has pictures of Mike Hawthorn beside it. Only the stub exhausts date this immensely potent machine.
"Cars of the Champions" is a section that is properly dominated by a $2 \frac{1}{2}$-litre G.P. Cooper. Two Ferraris, a Testa Rossa and a Berlinetta, represent the types which are the current champions of the Sports and Grand Touring categories, and the Porsche, effective rather than beautiful, represents the now moribund Formula 2. If the Porsche lacks beauty, the Formula Junior Lotus is frankly ugly, but how it dominated its class! Among the rest of the "champs", one is so glad to see a Cooper 500, for this is the class that inspired the birth of the B.R.S.C.C.

If I have been critical of the 1960


REVERSED rear window, as on the 105E Ford Anglia, is seen on the new coupé version of the Elva Courier.

Lotus, I must applaud the 1961 version, for this F.J. car is the slimmest Junior yet. The petrol tank has left the nose, which becomes cigar-shaped, and the semi-reclining driver's seat allows an ultra-low silhouette to be adopted. This shape will, no doubt, be reflected in the 1961 Formula 1 model.
Another most impressive exhibit is the Emeryson racing car. These cars are supplied in Junior and Formula 1 forms, the engine being behind the driver in both cases. The bigger car is Climaxpowered, the Colotti gearbox handling the transmission problems, while Ford and VW cope with these departments in the Junior. This make is a fine example of superior workmanship.
Also very well made is the Elva Junior, of the type recently tested by this journal. New is the coupe version of the Courier, which has an Anglia-
type reversed rear window. The latest version of the F.J. Cooper is worth close study, and the Bond makes its first public appearance. Most unconventional is the suspension geometry of the Deep Sanderson, with Ford engine tuned by Chris Lawrence. An extremely successful competition car which can be examined is Frank Costin's Marcos G.T., which is of wooden monococque construction.

Almost a new industry is represented by the many limited-production sports and G.T. cars, most of which are schemed for "do it yourself" construction. Among these are the well-known Buckler and the E.B. "Debonair", which has an orthodox Ford-engined chassis with a very well finished fibreglass coupe body. The Falcon is a plastic two-seater with M.G.A power, and the Gilbern is a four-seater saloon with the small B.M.C. unit. The Ginetta employs a Ford engine in its multi-tubular frame, and is very low and sporting.

The C.M.B. has a really rugged chassis with leading arm front suspension and

LOOKING PLEASED with the "cigar" Lotus Junior is Colin Chapman. The new car, designated the Lotus " 20 ", is the slimmest Junior yet, with an ultralow silhouette.
transverse springs, while the Rochdale G.T. combines fibreglass and steel tubes with a B.M.C. or Ford power unit. The Super-Two features Ford components of the side-valve era, but the Tornado can be built with an excellent independent rear end of advanced design. The T.V.R. Grantura supports all its wheels on trailing arms, and is equipped with M.G.A or Coventry Climax machinery to choice. Less expensive, the Cheetah also has four independent wheels, and this kit is based on the earlier Ford engines. The Yimkin competition cars are useful stepping stones for the budding racing driver.
Two very special Sprites bring the small Austin-Healey into the 100 m.p.h. category. One of these is John Sprinzel's latest version of the Sebring model. The other is the Speedwell G.T., which has a long bonnet and a de luxe light alloy coupé body. The engine of this car has been "stretched" to 1,100 c.c.
The special bodies for the home constructor are legion. In general, fibreglass construction is used, and the quality is vastly better than was usual a year or so ago.

One could fill Autosport for a year in describing the variety of special parts and "tune-up kits" that are shown. Among these exhibitors one must simply pick out some highlights.

Alexander can supply parts to make almost any car go fast, and they can also assist it to stop and stay on the road Cosworth concentrate on the Ford, and are right on top of Formula Junior in consequence. The variety of equipment that $V$. W. Derrington sells is endless, and his parts for B.M.C. and Ford engines are flanked by special gears, brakes, imported engines and the Colotti racing gearbox. Most stands show special exhaust systems, but Downton seem to be quite the best snake charmers, their pipework being superb. G.M. Carburetter Co. show the compound induction system recently tested by Autosport.
H.R.G. have a most dramatic overhead camshaft cylinder head, which almost turns a Ford into a Coventry Climax

NEATLY installed by way of the Jack
Brabham conversion is this Herald's Climax engine.


MOST UNCONVENTIONAL is the suspension geometry of the F.J. Deep Sanderson (right). BELOW: The startling overhead-camshaft conversion for the 105E Ford, by H.R.G.

engine! Les Leston has wooden steering wheels, stopwatches and all manner of clothes. Speedex cater for the oldtype Austin 7, and Rubery Owen offer light alloy heads for the bigger Fords. Shorrock Superchargers have at last made forced induction a practical proposition for the everyday motorist. Speedwell can do virtually anything with a B.M.C. engine, while Super Speed Conversions specialize in enraging the Ford unit. Westerham Motors make Morgans and TRs go absurdly fast, and are experts on Weber carburetters. Wilen have a vast range of "goodies", especially camshafts and they can supply sodiumcooled exhaust valves.

The Kart is met on many of the stands and one loses count of all the different manufacturers of these amusing little vehicles. Once again, the standard of workmanship is improving, and tuning is rearing its ugly head. The McCulloch engine, in particular, has been persuaded to run at 15,000 r.p.m., and a twinengined Kart can now out-accelerate a powerful sports car!

Clubs have taken a number of stands, as have the purveyors of books and journals. Stanley Schofield will sell you records and films of motor racing, while John Webb can arrange for you to fly anywhere, Grand Prix races included. Everything remotely connected with motoring is available on one stand or another.

Of course, Bert Lamkin's famous race game is very much to the fore. It has an even more realistic circuit this year. Film shows are going on all the time, and the roar of racing engines is frequently heard over the P.A. system.

There are many other things to be seen in the two Royal Horticultural Society Halls, and if they are not mentioned here it is only because our space is not infinite. The Racing Car Industry, which includes the specialized sports and tuning firms, is a highly competitive one and the quality of the goods on offer is generally very high. This is a show run by young and virile people, and it is thoroughly well arranged and organized. It is worth making a long trip to visit the Racing Car Show, and I can assure you that you will not be disappointed.


FRONT DRIVE (above) is featured on the new. Bond Formula Junior car. RIGHT: Echo from the past-the lowtailed Vanwall, the last of the frontengined $2 \frac{1}{2}$-litre cars.


ASEASON of Junior engine building on a commercial basis can only be described as a shattering experience, and like most activities conducted under high pressure, it teaches its many lessons in a most forceful manner. It tends to be education by catastrophe, and one is quickly shorn of any false theories and drawing office romanticism retained from time spent in big industry. These lessons have to be learned or accepted by anyone who wishes to build successful racing machinery, be it cars or engines, and the approach of Keith Duckworth, that forthright friend and awesome competitor, is the essence of unpretentious common sense.
"I don't know anything," he says, "I have a think, try it, and observe carefully. An engine must be amenable to reason."

The operative word is "Try" and it is done night after night until all the conflicting results from weather variations, carburetter faults, cam grinding errors, and no apparent cause whatsoever finally begin to form a pattern, and another reasonable fact is established. This is not genius, as normally understood: it is strength of character and determination. The end result, the overwhelming string of victories, earn the brand of genius. Keith, by dogged hard work and clear thinking, has become the man to beat in Junior racing, and at the moment it takes a lot of car and a great deal of driver to beat the Cosworth Lotus-Ford combination.

It seems quite remarkable, in the face
of all this effort, that Dick Prior and his right-hand man, Ted Overall, managed to engine their Lola, by their own efforts and assorted bits from various tuners, well enough to put up comparable and even better performances. Again trial and determination were the keynote, plus, one remembers, an extensive vocabulary; but their endeavours illustrate that there is still a chance next season for the resolute and resourceful campaigner with the right car.

The Boxing Day race at Brands is regarded by many as a preview of things to come, and its result seems to have a disproportionate effect upon the fortunes of the various manufacturers competing. Last year our first attempt at tuning a Ford gained second place with a total output of 56 b.h.p. In the next race at Monza, after a good deal of development, the engines fell to bits with valve gear trouble. Only the use of Cosworth camshafts got us out of that crisis until another profile could be made, and yet the Cosworth-engined car was well back on Boxing Day. Hardly the situation once the season got under way.
It therefore seems that the latter end of this season may serve as a more accurate pointer for the following year, and outstanding on the score of promise is the new Gemini, especially in view of its not having had the ultimate in Cosworth engines. The new Elva has also shown that a few more horses can make it win.
The prospect simply boils down to Cosworth works-engined Lotuses versus
the rest, and the all-embracing rest badly in need of comparable engines. Obviously Keith Duckworth has to keep something in hand for the Lotus, and while the private competitor might be well advised to use the proved and reliable Cosworth production engine, a works entry has no choice but to look elsewhere, or get into the difficult business of making both cars and engines as the Broadleys have latterly done for the Lola.

Seeing things in this light and applying the lessons learned, both material and philosophical, we have taken it upon ourselves to provide the bits and it is hoped the engines to fill this need. John Green has joined the happy band, the drawing board is beginning to smoke, and three months have passed almost solidly on development.

The first essential has been consistently to get enough power to smash the engine. We were getting between 76 and 78 b.h.p. at the end of August. By midSeptember " 85 " was appearing frequently at 7,500 r.p.m. Five minutes or so at this output was sufficient to run the centre main and middle big end bearings. Thus the primary development job was to overcome this failure, which is not, as one might suppose, due to cylinder pressure, but to unbalanced inertia loads arising from a crank with no counterweights. Thus for engines to exceed continuously 7,500 r.p.m. a better crank is necessary, or bearings with sufficient capacity to accept such loads-or both. Since the bearings are already the best available and special cranks expensive

# The Formula Junior Engine 

## Snags to be Overcome in High Output Versions of the 105E Unit



THE RESULT of severe spring surge: the tappet adjuster snaps off, the pushrod floats and digs into the wrong part of the rocker, lifting the exhaust valve too much. The piston hits the valve and knocks the head off, the head being trapped between the piston and the inlet valve which is pushed into the inlet port. The piston and the rod then break up. See?
and long in the making, the matter of lubrication seemed to be the only immediate avenue left to explore. An improvement here could perhaps stave off the ragged edge of destruction a shade. Some corroborating evidence from Keith is significant in that he recommends " 7,500 " as the safe maximum with his engines, and while many exceed this at their own risk with impunity, they cannot do so for five minutes continuously on any circuit at full throttle.
Tests showing the amount of oil flowing to each bearing revealed a surprising state of affairs. At high r.p.m. the centrifugal force imparted to the oil by such large diameter bearings caused an entirely different distribution from that desirable, and the correct answer of cross drilling the crank oilways to neutralize centrifugal force cannot be done with a hollow crank. Again a new crank was desirable, but having established a definite reason for bearing failure other than pure overloading, hope was raised that the situation could be improved by some other method, and having already designed dry sump apparatus for the entirely separate purpose of obviating the incidence of oil surge on corners, it simply remained to embody the necessary modifications in these parts. Eventually, as more power is demanded a better crank will be imperative.
While on the subject of lubrication, a point to consider is that the reason for valve springs settling is ultimately due to the high temperatures they generate in flexing. Many things aggravate this trouble, but a basic requirement is that they are adequately cooled, and the lubricating oil is the principal cooling medium. Since the rocker oil feed is very meagre in standard form to minimize seepage past the valve stems, the springs tend to overheat in tuned engines. The special steel camshafts we make for our Junior engines consequently embody a means of increasing the volume of oil reaching the valve springs, and since adopting this expedient no setting of valve springs has been encountered even in surge conditions.

Con-rod failure had become sufficiently common by the end of the season to be a worry, but looking into such cases where possible it was found that failure of the rod was preceded by big end failure, and it is reasonable to suppose that if improved lubrication can improve bearing reliability the cases of rod failure may be less common; nevertheless, the need for better con-rods does exist and they will shortly be available.

On the score of reliability, as well as performance, the camshaft is a key component. Our own experience at the beginning of the season, where we had a profile giving 4 b.h.p. more than the Cosworth shaft, is a good illustration. We never finished a race on four cylinders owing to tappet or rocker shaft failure. The Cosworth shafts finished, and therefore won. The reason? Violent spring surge.

There are two approaches to cam design for power. With one you open the valve quickly and keep it there as desired and then close it quickly. This is often the best way for a flat torque curve; however, it is a relatively violent method which imposes very high inertia loads on the valve gear, and undesirable excitation of the springs. Spring surge of high amplitude is invariable and very


COMPARED HERE are a standard Ford camshaft, reground to racing profiles, and the Alexander Martin steel shaft. Points of comparison are the latter's wider cam lobes, increased stiffness and better material and durability. The Alexander Martin component is capable of a little over 90 b.h.p. at 7,700 r.p.m.
strong valve gear is required to withstand the resulting behaviour. This situation is the basic justification for overhead camshafts.
The other method is to open and close the valve very gently by spreading the cycle over a considerable period in terms of degrees of crank rotation. The result is terrific overlap, and a peaky torque curve, with very little pulling power low down.

The Super Speed camshaft used by Dick Prior may be classified as an example of the former type and the works Cosworth shaft an example of the latter. The torque behaviour of either can be modified somewhat by manifold lengths, but the latter is less likely to break things and its shortcomings are
neutralized by a multi-speed gearbox. The former cam with good manifolding is more suitable for a normal gearbox, providing the valve gear is up to the job.
On the other hand, it will be apparent that an assessment of both extremes can point the way to a compromise design, which to some extent makes the most of both, while minimizing their shortcomings and offers a reasonable torque curve combined with high operating r.p.m. without valve gear failure. Needless to say, it just so happens that we have evolved such a cam in steel, for general Junior use. It also follows that for an ultimate engine you do everything with the cam design that valve gear can be devised to withstand, and this entails special tappets, pushrods, rocker gear, valves and springs, and in turn exceeds the capabilities of a single floppy timing chain. We therefore now produce gear drive mechanism for the camshaft, and the attendant accessories for reverse rotation.
Having evolved all the bits and pieces for running reliably over 7,500 r.p.m one finds that nothing much is gained in the way of power, and that a rapid falling away seems unavoidable well before " 8,000 " is reached, no matter how you graunch the head. A cut, followed by head removal, reveals the tide marks of incomplete combustion. A wistful think about special heads inevitably leads to thoughts about the means of getting an extra plug in the right place. After putting buckets under the Webers to catch the water running out of them, we finally evolved a practical way of fitting twin plugs to the standard Ford head and achieving dual ignition.
This opened up a whole programme for further development and at the time of writing the results are such that, without a special head, this promises to be the key to something well over 90 b.h.p. for Juniors next season, with a torque advantage throughout the curve.

To recap, it looks as if the top Junior engines this year will have dry sump lubrication, steel main caps as now, gear driven camshafts, all special valve gear, special con-rods, special cranks, or probably the 109 E crank and sleeved bores, and probably dual ignition and step-up transfer gears to the flywheel and clutch to reduce overall engine height. Talking in a modest way, we would add that our own concern can supply this special equipment, or better still, have a new engine, or an existing engine brought up to date. However, if anyone is interested, make due allowance for the time factor. We know all about panic jobs from last season-to everybody's cost!
(Mr. Martin is a director of Alexander Martin Developments, Thame Road, Haddenham, Bucks.)

## AN R.S.K. FOR PATSY

Patsy burt will be using an R.S.K. Porsche when competing in next season's European Hill Championship. However, she is retaining her single cam Cooper for some of the events in this country. This will be the first serious attempt at the European Championship from this country

John harris, who successfully drove a Mini-Minor last season, has just purchased an Austin-Healey Sprite which will be extensively modified for the coming season.

THe finest line-up of drivers and cars ever to be seen in the Union yet, made this, the 7th South African Grand Prix, the best we have seen. Outright favourite for the winner's laurels was Stirling Moss, fresh from his recent victories at Riverside and Cape Town. Jack Brabham was favoured to take second place and Jo Bonnier third, but, as was shown in the Cape Grand Prix, the Porsche is undoubtedly the fastest Formula 2 car at present on the tracks and the World Champion had to be content with third. In all fairness it must be admitted that he was physically handicapped for almost the entire race after a piece of glass had flown into his eye, but nevertheless, he had shown in the earlier stages that it took all of his considerable skill to make the Cooper stay up with the Porsches. None of the cars, as was widely publicised in the local newspapers, were true 1961 models. Porsche are at present testing a new car and Brabham's Cooper was only one of
I. Serrurier (Cooper-Alfa Romeo)
J. Shield (Cooper-Climax)
J. de Villiers (Lister-Corvette Sports)
S. Tingle (Connaught)
A. Kotze (Lotus-Alfa Romeo)
D. Jennings (Jennings-Porsche)
V. Procter (Vic-Alfa)
D. Gous (Porsche Spyder Sports)
G. Cannell (Cooper-Chev.)
E. Pieterse (Lotus-Alfa Romeo Sports)
S. Viljoen (Maserati 200 S.I. Sports)

Of these three were unable to compete. The first was Jimmy Shield, for reasons unknown, the second de Villiers, who had had an accident on his way down from Rhodesia, and the third Tony Maggs, whose car was beset with gearbox troubles. As a result all three of the reserves were called in to make up the field, these being John Hanning (AustinJaguar), Clive Trundell (Austin-Riley) and Nigel Payne (Lotus Formula Junior).

The first day's practising saw Moss set up the fastest time with a lap of 1 min . 36.9 secs. This was an improvement of only 0.35 sec . on his own lap record, which he set up earlier last year in the

## The East London Grand Prix

## Another Win in South Africa for Stirling Moss (Porsche)

the 1960 Formula 1 cars fitted with the 1,500 c.c. motor

These three, Moss, Bonnier and Brabham, led the race from start to finish and were never troubled by any other driver.
Farther back in the line-up, we had Syd van der Vyver, the 1960 South African champion, in his new Lotus-Alfa Romeo. This was the car's second outing and it certainly went far better than it had in Cape Town, but Syd was handicapped by having had the wrong gears sent to him from the factory and in addition he had not had time to develop the engine to its utmost. Nevertheless, whereas the Climax engine is reputed to develop some 144 b.h.p., he had managed to get about 140 b.h.p. out of the Alfa and in view of the fact that he was up against no less than five national champions and some of the world's best drivers, he did extremely well to finish fourth. Taffy von Trips in the Climaxengined Lotus was dogged by engine trouble throughout the race and eventually had to retire, but even so it is doubtful whether he would have troubled van de Vyver. Wolfgang Seidel, in one of the older Coopers, drove a very steady race to finish fifth and Bruce Johnstone, who was the first South African to finish in the Cape race, came sixth in van der Vyver's old car (which finished third last year), but had to drive very hard to do so.

Two of the most interesting cars in the race, from a technical point of view, were John Love's Cooper-Maserati and Helmut Mentzler's Lotus-Borgward, but both were not yet fully tested and after showing up well in the beginning, Love eventually retired, though Mentzler drove a steady race to finish 10 th.
The complete entry was as follows:-

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S. van der Vyver (Lotus-Alfa Romeo)
W
W. Seidel (Cooner-Climax)
Count C. Godin de Beaufort (Cooper-Climax)
. Bonnier (Porsche)
M. Moss (Porsche)
D. Gibson (Cooper-Climax)
H. Mentzler (Lotus-Borgward)
J. Love (Conner-Maserati)
A. Maggs (Heron-Climax)
D. Phitn (Cooner-Climax)
D. Wright (Conner-Climax)
W. Johnstone (Cooper-Alfa Romeo)
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6th South African Grand Prix, and he was unable to improve on it in Monday's practice. Bonnier did 1 min .37 .5 secs. and Brabham, who had fuel pump trouble, did 1 min .41 .2 secs. This time, however, was only the sixth fastest. Van der Vyver was third fastest with 1 min . 38.3 secs., von Trips fourth with 1 min . 39.7 secs. and Seidel fifth with 1 min. 40.3 secs.

Monday's practice saw a slight change in these times, Brabham had really managed to make his car motor and set up the fastest lap of all with a time of 1 min. 35.9 secs. Bonnier brought his time down to 1 min 36.5 secs., which made him the second fastest, and put Brabham, Bonnier and Moss on the front row of the grid. Van der Vyver was unable to go any faster but remained fourth fastest. Von Trips managed to bring his time down to 1 min .38 .4 secs., Philp did a lap in 1 min. 39.8 secs., Seidel 1 min . 40 secs., Wright 1 min . 40.1 secs., and Love 1 min. 40.5 secs.

Following on the practice, we learnt that Bonnier and Moss were not going to drive as a team, as they had done in Cape Town, and Stirling assured us that he was going to go all out for a win. This was welcome news as it seemed as though there would now be a fine fight for the lead.

The starting grid was made up as follows :-

| Moss (Porsche) | Bonnier (Porsche) | Brabham (Cooper) |
| :---: | :---: | :---: |
| Von Trips (Lotus) |  | er Vyver is-Alfa) |
| Wright (Cooper) | Seidel (Cooper) | Philp (Cooper) |
| de Beaufort (Cooper) |  | Love <br> r-Maserati) |
| Serrurier (Cooper-Alfa) | Johnstone (Cooper-Alfa) | Pieterse (Lotus-Alfa S.) |
| Gibson (Cooper) |  | Kotze <br> tus-Alfa) |
| Hanning (Austin-Jaguar) | Jennings (Jennings-Por.) | $\begin{gathered} \text { Mentzler } \\ \text { (Lotus-Borg.) } \end{gathered}$ |
| $\begin{gathered} \text { Payne } \\ \text { (Lotus FJ) } \end{gathered}$ |  | ingle nnaught) |
| Viljoen (Mas. Sports) | Gous (Por, RS Sports) | $\begin{gathered} \text { Cannell } \\ \text { (Cooper-Chev.) } \end{gathered}$ |
| Trundell <br> (Austin-Riley) |  | $\begin{aligned} & \text { roter } \\ & \text { ic-Alfa) } \end{aligned}$ |

At the drop of the flag, Moss shot into the lead with Bonnier level with his rear wheels. As they shot through the Potter's Pass curve, Bonnier forged ahead, but Moss wrested the lead back almost immediately and led from then on until the end of the race. Brabham was right behind these two with van der Vyver on his tail and Philp a short way behind. At the end of lap one the order was the same, but a gap had already appeared between Brabham and van der Vyver. Von Trips was now challenging Philp and they came down the straight side by side. Philp, however, managed to keep him off until the next lap. By lap three the leaders were already well spaced out and van der Vyver had fallen at least 200 yards behind Brabham, and there was a large gap between him and the rest of the field. At this stage the order was Moss, Bonnier, Brabham, van der Vyver, von Trips, Philp, Seidel, Johnstone, Serrurier, Kotze, Love. On lap four the leaders began lapping the slower cars; the order was still the same, but Johnstone passed Seidel as they went past the pits. Tony Kotze's car was already beginning to play up and provided a fine spectacle as it came past the pits with its rear section waving in the breeze. This flew off as he went through Potter's Pass, giving a number of drivers a few rather hectic moments as they tried to dodge it. But, fortunately, they all managed to do so. On lap five, John Love, who was really motoring, also passed Seidel. It was by now obvious that Moss was going all out in a bid to establish an early lead and was slowly but surely drawing away from Bonnier. Brabham was sticking as close as possible to the latter but was having to thrash his poor car to do so. The pace that these three were setting was really hot and van der Vyver had fallen well back.
Farther back in the field Ernest Pieterse was just managing to keep ahead of Doug Serrurier, de Beaufort was a short way behind them and he was followed by Tingle and Hanning. Wright, Gibson and Mentzler were all lying well back after making bad starts, but Wright was making up at a tremendous pace and shot up from 23rd to 14th in seven laps.
As they came round on their sixth tour, it could be seen that Love had moved up on to Philp's tail and Serrurier on to Pieterse's. On the next lap Philp drew slightly ahead of Love and Serrurier passed Pieterse and began leaving him behind fairly quickly. Johnstone, however, had not managed to increase his lead over Seidel. On lap eight Brabham moved right up on to Bonnier's tail and tried hard to pass him, but the Cooper just didn't have enough steam. Moss had, in the meantime, increased his lead to about 400 yards and Serrurier was beginning to pull well ahead of Pieterse. Philp, Love, Johnstone and Seidel were all remaining fairly equally spaced out. Van der Vyver was falling back little by little but remaining a good 300 yards ahead of von Trips. On lap 10 Love began closing on Philp and on the following lap passed him to take sixth place. On the same lap Kotze retired with failing oil pressure. On lap 11, de Beaufort, who was lying 13th, suddenly made a spurt, moving up one place only to call in at the pits on the following lap with plug trouble, subsequently dropping back to 23 rd. Dave Wright, who was lying 14th, moved up two places at the
(Continued on page 25)

## YES,YOU CAN HAVE <br>  <br> GREATER GRIP <br> UNDER ALL CONDITIONS!

No doubt about it, AVON WAYMASTER is way out in front of any tyre for leech-like traction whatever the surface...in rain, mud, slush, snow or come-what-may! And that is not all! Because it is an Avon it must and does give you the higher mileage for which all avon tyres are famous. For a 'plus' on your power and a 'minus' on your running costs, choose waymaster.

## CORRESPONDENCE

## The Inuaga Race

Because I come to U.S.A. country with not any moneys, I have at the sink of drug store in Brooklyn to wash dishes. There I learn to speak like a all-American boy. Also, I learn of cars, as you say, in "back-yard".

Therefore, I enter my car in big race at Inuaga. But you err-it is not Kaiser Spl. It has big diesel of 13.8 litres from earthmover, as used on make of notable English M. 1 roadway. This very lasting but much weight, so I am not fastest. But am biggest, therefore I could from ditch push no car! So I go home. No puzzle, and into no thin air vanish.
BROOKLYN, U.S.A.
K. RJinisky.

IWe apologize to Comrade Rjinisky for this error. However, press information released to our correspondent, Mr. Everard Boyd, made no reference to this fact.-ED.l

Congratulations on the Inuaga G.P. report. Could you perhaps arrange an entry for me in the 1961 race? I want to enter my Go-Kart with Foden engine and supercharger (designed by X . Centric).
S. Thynne.

## Reading, Berks.

IFEEL that I must congratulate you on your excellent report on the meeting at Inuaga. Having been present myself, I was very interested in the way in which you presented your report.
I am interested to know if this is the first dead-heat that has occurred?
Chichester, Sussex.

## Tricia Geoghegan.

With regard to your excellent commentary on the Inuaga 250 miles race, I would like to point out that Chuck Daigh in the 3 -litre Scarab was 2 mins . behind at the finish and not, as stated in your article, 2 secs.

You see, I was there!
Newport, Shropshire.

## K. C. Fortune.

I Enjoyed the very accurate account of the Inuaga G.P. very 1 much, but I was surprised you left out the rather unusual circumstances that occurred to Alf Francis before he cut the cup in half.
He was frantically excited at the finish as it was so close, so he decided to climb on to the top of the pit to see better. But after the finishing flag had fallen, he found that he could not get down from the pits again. Fortunately many of the spectators saw his predicament and they all stared up at him so he walked down the "stairs". However, when he got to the prizegiving what he saw made him so sore that he took the "saw" and cut the cup in half.

Actually he was rather depressed about Daigh getting fastest lap and he was contemplating "chucking" motor racing and joining the new divisional scheme of British Railways, probably the Midland Division which is to be known as B.R.(M.) as they are keen for him to let off steam there.
Frome, Somerset.
Rob Walker.
Having spent two years in Inuaga on an engineering project, I was rather amazed to learn that the natives of Little Inuaga had to construct the circuit without the aid of mechanical equipment. When I left the islands, a considerable number of bulldozers, concrete-mixers and other plant were left behind, and no doubt could have been borrowed by the inhabitants of the smaller island. On the other hand, labour is ridiculously cheap so perhaps it paid to use manual labour exclusively. Anyway the whole thing showed considerable enterprise and should be a lesson to the road engineers in this country, not only as regards speed of execution, but in utilizing what can only best be described as completely useless swamp country. Wallingford, Berks.

Peter C. Ross.

## The R.A.C. Rally

I READ with great interest your report on the R.A.C. Rally and, excellent though it was, I find it more than a little hard to agree with your opinion that this year's R.A.C. was "quite the finest International event ever run in this country".

The deciding penalty marks were for the most part gathered in the first evening when the competing cars were passing through fog and mist. Now whilst the ability to drive fast in fog is a highly desirable skill, I do not think that the results of an event which decided the destinations of both European
championships should have been so largely dependent on this particular attribute.
Furthermore, it is perhaps even less satisfactory that a twomile special stage should conclusively decide the winner in an event 2,000 miles long.

Surely the R.A.C., with a considerable mileage of Forestry Commission road at its disposal, could have organized a series of stages just as tough as the all-important "Monument Hill" stage. This would also have allowed those without X-ray eyes an opportunity to compensate for their time lost in the Yorkshire fog.
Until some such steps are taken by the organizers, the R.A.C. International will always remain of little importance when compared with the top Continental events, and under no circumstances should we congratulate ourselves on our contribution to the European Rally Championship.
Oxford. Stephen P. Robinson.

## Competition Numbers

IN reply to a reader's criticism of the undersigned in the 9th
December issue of Autosport re the state of my car, etc., after completing the R.A.C. Rally I would make the following comments.

The numbers which were painted on each side of my car were the standard size. Unfortunately, due to the fact that the wrong type of paint was used, they stayed on for 48 hours after completion of the rally. In fact the whole of the paintwork had to be stripped down and the doors resprayed.

My car was not capable of tearing about at terrific speeds due to the fact that there had been considerable damage to the back axle, and in fact the car is still in a garage with the tail end in the air. In view of Mr. Jones's apparent interest I would suggest he joins the local special constabulary.

Had Mr. Jones ever taken part in an international rally such as the R.A.C. Rally he would begin to understand why the car was so dirty.

As for the excessive noise I would plead guilty to this having lost two exhaust systems on the rally and badly holing a third.

Mr. Jones states, almost with glee, "That this competitor did not figure among the award winners" and I would beg to inform him that we are the proud holders of a finisher's award which we will value as highly as a first in a local rally. Obviously Mr. Jones was not taught that to an English sportsman the participating is more important than the winning!
Syston, Leics.
Thomas J. Bramble.

## Passing of an Epoch

I AM a fervent reader of your magazine, which gives good reports of car races, much better than the French maga-zines-which are very poor . . and monthly. There is not the equivalent of Autosport in France, and I think it is sad for young Frenchmen who love the sport to rely on foreign papers. But c'est la vie, and there is nothing to add on this subject. France, which was a great country in motor racing in the past, is now completely finished, and that makes me depressed. Let us hope that another Bugatti (or Gordini with money) will build a car, and that a new Wimille or a Behra will drive it. But I don't rely on miracles.

The main subject of my letter is the number of mistakes I found in the article "Passing of an Epoch" from the 25th November issue. There seems to be a confusion about the years.
(a) B.R.M. won the Dutch Grand Prix (Bonnier) in 1959, and not in 1957.
(b) The picture of Tony Brooks was taken in 1958 and not in 1959 (the German Grand Prix in 1959 was held on Avus).
(c) Vanwall won nine victories in the period, and not eight, which is confused with Maserati, who won only eight (and not nine).

The mistake comes from the year 1957. Vanwall won three events and not two (G.P. of Great Britain, of Pescara (which was a World Championship event, because of the cancellation of both Belgian and Dutch G.P.s) and Italy). On the contrary, Maserati won four G.P.s and not five (Argentine, Monaco, France and Germany).

Now I would like to point out that, in your "Roll of Honour", you omitted to name Castellotti, who in a short career had still won the Mille Miglia and was showing-for my taste-considerable skill and courage.
PARIS, 8 me .
René Urtreger.

The Editor is not bound to be in agreement with opinions expressed by readers.

## Motorists "feel" me...

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# Club News 

By MICHAEL DURNIN

Does one discover, invent or perhaps evolve a new form of motoring sport? Whatever the correct word is-it has been done. The sport is named "Autopoint" and is the brain child of Raymond Baxter, Goff Imhof and other members of the London M.C. and Col. "Bing" Crosby of B.A.M.A. Autopoint is something between a trial, an autocross and a point-to-point-hence its name.
Shortly before Christmas the B.A.M.A. challenged the L.M.C. to an inaugural contest on military ground near Aldershot. We won't attempt to describe the events but, briefly, the idea is that two vehicles from each team are set off together on the course which has two opening stages which later join a common course. There is no hard and fast route laid down, all that is required is that competitors should pass on the far side of several fixed points before returning to the start. The sight of a Triumph Herald and a 1 -ton truck both approaching the converging point as fast as possible when there seems to be every chance of a dead heat is really something! Surfaces ranged from soft sand, through rocky scree to deep water.
Autopointing is a most exhilarating spectator sport, to judge from its first showing, and I hope it will be expanded and popularized during the coming year. If it is, there can be little doubt that it will be found to have something new and exciting to offer trials and autocross drivers.
Oxford University M.D.C. will have their 7th Targa Rusticana on 4th-5th March. This 300 -mile event is described as a "no nonsense rally based on simple navigation on tough roads". The route will be given out 15 minutes before each crew's "off time". The start will be from a point near Hereford. Invited clubs are London M.C., Combined U.M.C., B.A.R.C., Oxford M.C., Craven M.C., Knowldale C.C., Godiva M.C., Hereford M.C., South Wales M.C., Swansea M.C., and regs. are available from R. E. Abbott, Merton College, Oxford, who should have all entries by 4th March.
B.A.R.C. (S.-E.) will have their closed Seaford Rally on 21 st January. Regs. from D. Peck, 6 Queens Gate Place Mews, London, S.W.7. . . . Fylde M.S.G. are to promote their 10th Welsh Rally on 4th-5th February. Starting at Preston and Rochdale the event will cover some 250 miles in North Wales from a converging point at Chester. Regs. are available from Miss J. Pickup, 36 Shaw Road, Blackpool, and entries close on 29th January. The rally is open to B.A.R.C. (N.-W. and Yorks), Bolton-le-Moors C.C. Knowidale C.C., Lancashire A.C., Lancs and Ches C.C.. M.G.C.C. (N.-W.), Yorkshire S.C.C., Elland M.C. and Liverpool M.C. .. . New secretary of the Chiltern C.C. is that well-known competitor, David Dixon, Woolmer House, Priory Close, Stanmore, Middlesex. On 12th January John Sprinzel is to give the club a talk in the Beech Tree, Beaconsfield, at 8.30 p.m. On the 22 nd they are to have a closed trial about which further information may be had from David Dixon.

Herts County A. and Ae. C. will have their Three of Herts Rally on 21 st22nd January. This event will cover 170


AUTOPOINT: Ron Kemp, unfamiliar in a crash hat, leads up Hill No. 1 to win the B.A.M.A.-L.M.C. Autopoint relay event for the London M.C. after a stirring battle. Photograph: R. Stanhope-Palmer.
miles from a start at Waters' Garage, Hatfield, and will include a "Tulip section". Co-promoting clubs are Chess Valley M.C. and Verulam A.C. Secretary of the rally is K. E. Westover, Fulling Ridge, Oakhill Drive, Welwyn, Herts.
The Tempest Rally, a 260 -mile event co-promoted by Sutton and Cheam M.C., East Surrey M.C., B.A.R.C. (Surrey) and Mid-Thames C.C. will take place on 18th-19th February. Regs. for this close event (which starts at Leatherhead and finishes at Hindhead) are available from A. C. Simond, 71 Higher Drive, Banstead, Surrey. . . . Regs. for the Royal Military College of Science M.C.s Rallye Militare will shortly be available. The event will take place on 18th-19th February, will be similar to previous Militaires (but will, the organizers hope, be harder) and will cover about 350 miles. . . Cambridge University A.C. will run their Miniature Monte on 28th-29th January. This 350 -mile rally will follow the welltried pattern of previous years; the club

## Coming Attractions

7th January. Racing Car Show. Royal Horticultural Halls, London, S.W.1, finishes.

6th-7th January.
S.W.A.C. Welsh National Rally. Starts at Cardiff, Gloucester and Church Stretton at approximately 7 p.m.
6th-7th January. M.C.C. Exeter Trial. Starts Launceston, Kenilworth and Longford, 9.20 p.m.
15th January. Leicestershire C.C. and Shenstone and D.C.C. production car trial. Starts Stoneybridge, 11 a.m.

21st-22md January. Herts County $A$. and Ae.C., Verulam A.C. and Chess Valley M.C. Three of Herts Rally. Starts Waters' Garage, Hatfield, 7 p.m.
21st-28th January. Monte Carlo Rally.
28th-29th January. Cambridge U.A.C. Miniature Monte. Starts Strines Inn, 4.30 p.m.
have vowed to find the winner on the road "without resorting to any of this driving test nonsense" and also say that "navigation will consist simply of planning the car's route from one map reference to the next without any further blether"! Invited clubs are Airedale and Pennine M.C.C., B.A.R.C., Bolton-leMoors C.C., Cambridge 50 C.C., Combined U.M.C., Ilkley and D.M.C., Lancs and Ches C.C., London M.C., Nottingham S.C.C. and Sheffield and Hallamshire M.C. Regs. from N. H. Alexander, King's College, Cambridge, and entries close 21st January.

## NEW INTERIOR TRIM \& CLOSE RATIO GEARBOX FOR THE VOLVO 122 S

FFrom the start of the New Year the Swedish Volvo 122 S saloon will be supplied with new leathercloth upholstery at a price of $£ 1,31812 \mathrm{~s}$. 6 d . Until now, the new upholstery has been supplied as a special interior trim at an extra cost of $£ 70$. Changes have also been made to the gearbox ratios with a higher first and second gear and a lower third. Top remains the same. The new ratios are:

|  |  | New | Old |
| :--- | :---: | :---: | :---: |
| Top | $\ldots$ | $\ldots$ | 4.56 |
| Third $\ldots$ | $\ldots$ | 6.2 | 4.56 |
| Second | $\ldots$ | 9.1 | 6.0 |
| First $\ldots$ | $\ldots$ | 14.27 | 14.9 |

AN early export order to come out of the Racing Car Show was announced the day after it had opened by Alexander Engineering Co. Managing director Michael Christie said the company had received an initial $£ 1,000$ order for performance conversion equipment from Italy. The order came from two Enclishmen, Mr. Ian Saul and Mr. Bill Biggs who specialize in the conversions of foreign cars in Rome.

Mr. Biggs brought with him, when he visited the Show, one of the first Italian built Austin A40s to reach this country and Alexander Engineering are tuning it for use as a conversions demonstration car in Italy.

East London G.P.-continued
same time. The overall position remained the same until lap 15 when Seidel passed Johnstone for eighth place and Gibson passed Mentzler for 13th. The leading cars were travelling at a terrific pace and by lap 16, Moss had lapped everyone except those from Seidel up. On lap 18, Taffy von Trips ran into the first indications of the trouble which was to plague him from then on, and called in at the pits with his engine missing badly.

Moss, lapping consistently at about 1 min .38 secs., was now so far in the lead that he was beginning to take it easy, but it was noticeable that Brabham was beginning to fall back a little. As was discovered after the race, this was due to the fact that a stone thrown up by Bonnier's car had shattered the righthand eyepiece of his goggles and a small piece of glass had lodged in his eye. From then on he had to drive with one eye closed. It was also noticeable now that Love was drawing ahead of Philp and Seidel from Johnstone. Shortly thereafter, Moss lapped Johnstone who, at that stage, was lying fifth.

Von Trips, whose car was sounding terrible, then made another pit stop on lap 22, during which a complete plug change was carried out. The stop, which lasted for three minutes, dropped him from ninth to $22 n$. John Love was the next to go and on lap 26 he too called in at the pits, also for a plug change, and dropped from fifth to 24th. This was followed on lap 30 by another stop in which the batteries were changed. At approximately the same time van der Vyver was lapped by Moss for the first time. Von Trips's car was now sounding
much better and it could be seen that he was able to pull away from Seidel's and Philp's cars. Seidel was now drawing close to Philp and on lap 34 passed, and slowly drew away from him. On the same lap von Trips made yet another pit stop.
Brabham's car was now beginning to give him trouble with serious overheating, but although falling back, he was determined to carry on. The car began to get hotter and hotter until the temperature gauge eventually burst-and yet it still managed to finish the race without missing a beat! On lap 40, half distance, the overall positions were:-
1, Moss; 2 Bonnier; 3, Brabham; 4. van der Vyver; 5, Scidel; 6, Philp; 7, Johnstone; 8, Wright; 9, Pieterse; 10, Mentzler; 11, Gibson; 12, Serrurier.

Two laps later both Love and von Trips retired. There was now 25 secs. between Moss and Bonnier and 38 secs. between Moss and Brabham. Until lap 48 nothing further happened, but on that lap Don Philp suddenly called in at the pits to retire with bearing trouble, a great pity as he had been lying well up in sixth place.

Bonnier now began speeding up slightly and was gradually closing on Moss, but the latter, with some 20 secs. in hand and well in the lead, had nothing to fear. The positions remained unchanged until lap 55 when Mentzler lost two places by stopping at the pits to take on more fuel. Serrurier, who was climbing steadily after a pit stop at the beginning of the race, passed Gibson on lap 58 and remained there until lap 70 when he passed Wright. Wright, however, immediately took his place back and from then on until the end of the race, all positions remained the same.

In the meantime Bonnier had been gradually closing the gap between himself and Stirling until it stood at 14 secs., but time was now far too short for him to be able to make up the deficit and Stirling was able to maintain his 14 -second lead.
The only excitement provided by the last few laps of the race was that of seeing whether Moss could lap Brabham before it ended. With four laps to go, he only had about 300 yards to go in order to do it. He closed this gap by 200 yards on the next lap and with only two laps to go, passed Brabham as they went into Beacon Bend. The World Champion, however, in coming third, had almost exactly emulated von Trips's great drive in the Cape Grand Prix. In that race Taffy had managed to finish third despite a very badly gashed hand and a car suffering from clutch trouble, and this race Brabham had managed to finish third with a piece of glass in his eye and a seriously overheating car.

## Results

(Subject to official confirmation)
1, S. Moss (Porsche), 2 h. 11 m .2 s .
2. J. Bonnier (Porsche), 2 h .11 m .16 s. d. Brabham (Cooper-Climax).
S. van der Vyver (Cooper-Alfa Romeo).
W. Seidel (Cooper-Climax).

6, W. Johnstone (Cooper-Alfa Romeo).
7, D. Gibson (Cooper-Climax).
8, D. Wright (Cooper-Climax).
9, L. Serrurier (Cooper-Alfa Romeo).
10, H. Mentzler (Lotus-Borgward).
Note.-De Beaufort finished way down but this was due to the fact that one of his gearbox bearings had seized, and burnt out. The trouble with von Trips's car was found to be shorting of the plug leads. Fastest lap and new lap record set up by Bonnier with the time of 1 min . 35.6 secs., 91.66 m.p.h. Race was held over 80 laps. Circuit length 2.4356 miles.

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KK 140, 1955. Roadster in midnight blue with matching interior and tonneau, with heater. High Road, Chiswick, W.4. Tel.: CHI 7871/2/3. JAGUAR XK 140, Oct. 1955. Late Richard Fairey. This is a fantastic car in immaculate condition and without doubt one of the fastest in the country. Full "C" type engine, 2 ins. SUs, 9.1 compression, racing exhaust system, c.r. gearbox, chrome plated wire wheels, excellent R.S.4s. New spare, H.M.V. radio, Halda Speedpilot. Chrome luggage rack, 33,000' miles. Two owners. £725 o.n.o.-Jeans, 39 Vincent Street, Yeovil, Som IATE 1947 2 $\frac{1}{2}$-litre JAGUAR saloon, Mk. V $\triangle$ front end, many mods. and extras, good allound condition, stacks of spares $£ 150$.-Price, 64 Berkeley Waye, Heston, Middlesex.
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(Continued on page 29)

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## STAND 63

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Classified Advertisements-continued

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High Road, Chiswick, $\dddot{\text { wis }}$.4. Tel.: CHI 7̈71/2/3.
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MK. II TERRIER, less engine/gearbox Fully tuned 100 E and $\mathrm{c} / \mathrm{r}$ box also

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(Continued on page 31)


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1960 Morgan 4/4. Competition model. Green with black upholstery, 7,000 miles. One owner ...... $\mathbf{8 6 2 5}$
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