# AUTOSPORT <br> EVERY FRIDAY <br> Vol. 13 



IN THIS ISSUE

JOHN BOLSTER TESTS THE TOJEIRO-JAGUAR ALFA ROMEO IS 50 : THE CISITALIA STORY

MEET THE "OFFY
NEW ZEALAND SURVEY
M.C.C. NATIONAL RALLY A CHANCE TO DRIVE

* The original letters from which these extracts were taken are open to inspection.

IKE HAWTHORN
"I have now covered a very considerable
mileage on the 'Road Speed' tyres,
mostly by way of long trips against
mostly by way of long trips against
time, and the way they have stood up to the necessarily harsh treatment under all conditions of road surface and $\quad$ RAYMOND MAYSweather ha been most impressive. I am particularly satisfied by the magnificent road holding which enables me to take full advantage of the handling properties of my car.

## IVOR BLEB-

"Having now done a large mileage on the 'Road Speed' tyres, I can only way that your Research Department have excelled themselves and that in my opinion the tyres are second to none for road-holding, silent running and wearing properties; and in wet weather they can only be de-cribed as fantastic.


TOP MEN IN
SPEED SAY THIS NEW TYRE IS A WINNER...

## DUNLOP

 "Road Speed"for CONTROLLED speedon the wheels and at the wheel!

# AUTOSPORT britain's motor sporting weekly 

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## EDITORIAL

THE SUEZ SITUATION - AND MOTORING SPORT

EVEN the most optimistic among us cannot but view the present situation in the Middle East as anything other than serious. The effect of the closure of the Suez Canal may possibly affect motor sporting events entailing fairly long distance travel on public roads, and the action of the French Government in curtailing the refining and delivery of high-octane fuels, and placing an embargo on long-distance private motoring, might have an effect on events such as the Monte Carlo Rally. Unless the present situation improves greatly within the next week or so, there is every prospect that even more drastic cuts will be ordered, and, as the major part of the "Monte" makes use of French roads, one can quite understand that the Government of that country would not find it easy to justify any relaxation of fuel precautions to permit the passage of several hundred cars for a sporting event-even although the restrictions apply only to French-registered vehicles. At the present time in Great Britain, the 10 per cent. reduction in supplies has not seriously affected road-users in general, but there is no guarantee that this will continue. Many garages will not supply more than a few gallons at a time, but this "rationing" is a purely voluntary measure. Nevertheless, whichever way one looks at it, the outlook is indeed grim. We can only hope that it will not be long before the position in the Middle East is resolved, and that the threat of war will be removed as speedily as possible.

## THE STRENGTH OF SCUDERIA FERRARI

$\mathbf{W}^{\text {HILST }}$ their rivals are chasing the signatures of this driver and that, the Ferrari organization has gone quietly ahead to form its Grand Prix team for 1957. It is now announced from Modena that this will comprise Fangio, Collins, Castellotti, Musso and de Portago, a most powerful combination led by the acknowledged master of modern motor racing, and backed up by more youthful men who undoubtedly possess above-average skill. The cars they will drive will be even faster than were the 1956 machines, and it is now certain that the Lancia-Ferrari-Fiat tie-up has been an unqualified success, both from results achieved and the increase in Italian automobile prestige generally. The mantle of Mercedes-Benz and Alfa Romeo has certainly descended on the shoulders of Enzo Ferrari. His cars will be difficult to beat, as Vanwall, Connaught and B.R.M. will be the first to admit. However, the signing of Stirling Moss by Tony Vandervell has given a fillip to the hopes of all British enthusiasts that at long last green cars will be able to take on the most powerful Continental opposition, at least on level terms.

## OUR COVER PICTURE

RACING IN AUSTRALIA: Doug Chivas (LotusClimax Mk. 6) leading John Archibald (M.G. TC Special) through Forest Bend in the 100 Miles Racing Car Championship event on the Bathurst circuit in Australia. Archibald won the handicap section of this race, with Chivas second, after both had duelled for the entire distance.
 PIT and PADDOCK


Louls chron will drive a DS19 Citroën $\mathrm{L}_{\text {in }}$ the Monte Carlo Rally, with Chino Longo as co-driver.
$\mathrm{C}_{\text {wagen }}^{\text {ECLI vard is down to drive a Volks- }}$ wagen in the Monte Carlo Rally.
John dalton and Archie Scott-Brown will probably share a works AustinHealey at Sebring next year.
Confirming rumours which have been circulating in Italy for several months, Alfa Romeo have recently been testing a prototype 750 c.c. car at Monza.
Last link with the great Italian drivers of the past, Ascari, Varzi, Bonetto, Nuvolari, etc., has gone with the retirement of Luigi Villoresi, following his serious injuries received in the Kome G.P. Villorest is still seriously ill in the St. Joseph Clinic, Milan.
Syd henson, well known to rally drivers, is the new competitions manager of Ferodo, in succession to Alan Collinson.
Tony brooks, who conducted successful tests of the Vanwall at Oulton Park recently, may sign for Tony Vandervell for 1957.
$M^{\text {ackay fraser was at Goodwood }}$ recently, driving a DB3S under the watchful eye of Reg Parnell.
Ferrari are producing a four-cylinder, $1 \frac{1}{2}$-litre Grand Touring car for 1957 . This is to go into fairly large (for Ferrari) production and will be exhibited at the Turin Show.
Next year the permanent cight kilometres mountain circuit of ClermontFerrand will be opened. It is expected that it will be named the Circuit de Louis Rosier.

The Italian town of Ravenna, too, will have a racing circuit next year. It will take the form of two straights, each of a kilometre in length, and joined by a shorter straight. I he course will thus be triangular, connected by what are reported to be "particularly difficult" corners.


Hope springs eternal. . . . Once again a Formula 1 race is mooted for Morocco. Included in the 1957 International Calendar is the Grand Prix of Morocco, on 27th October, to be run on a new circuit near Casablanca.


SOMEBODY'S Borough Envineer isn't using Persil! Above is one of the new signposts on the LondonMaidsrone road, wi:h "Scotchlite" reflecting surface on one finger. The other is painted in the normal
way, and the illumination is from dipped car way, and the illumination is from dipped car headlights.
SEATED (below, left) at the British School of Motoring's Reaction Tester is Stirling Moss. Beside him is H. J. Griffiths, formerly of the Alta Co., and now B.S.M.'s Chief Ensineer. Moss recorded .25 sec. againse a normal driver's 70 .

The changes in the International Sporting Code as they affect Appendix $\mathbf{J}$ (International Regulations for Touring and Grand Touring cars) are now available in printed form. Copies of the new Appendix can be obtained from the R.A.C. (Comps. Dept.), 85 Pall Mall, S.W.1, price 1s. 6 d .

Stirling moss bought a Healey Sports Boat at the Motor Show, which is now on its way to Nassau. Moss will use the boat for water ski-ing during the period of the Nassau road races early in December.

Bob gerard has ordered a new 1957 Formula 2 Cooper. Roy Salvadori and Jack Brabham will drive works F2 and sports Coopers next season.

The Ministry of Fuel and Power has formed an Emergency Committee to deal with problems arising from the application of measures to reduce consumption of petroleum products in the United Kingdom. Under the chairmanship of C. M. Vignoles, Shell-Mex and B.P., the seven other members of the committee represent the fuel companies of Britain.

A NEW respray paint has been introduced in the U.S. Called Dythol, the finish combines the drying characteristics of lacquer and the flow and gloss of enamel. With it, a car can be resprayed with two coats in some 22 minutes.


1957 F2 RIVALS, Archie Scott-Brown (Lister), on the left, Roy Salvadori (Cooper) and Colin Chapman (Lotus), right, chatting in the pits at Aintree af this year's Midsummer Meeting.


## PORTUGUESE WINS IBERIAN

 RALLYDRiving a Mercedes 300 SL, the Portuguese Fernando Stock took first place in the General Classification of the fourday Iberian Rally, which finished at Estoril last week. In second place came the Spanish driver Camps (Alfa Romeo) and third, Jose Valente (Porsche). The rally converged on Madrid from starting points in six towns of the Iberian peninsula, after which competitors drove a common route to Estoril. Of the 114 starters, only 62 finished the course. Favourites Schock and Moll, driving their Mercedes 300SL as usual, could manage no better than 23 rd place in the General Classification, while Maurice Gatsonides finished 19th.

## MONTE CARLO RALLY FACES CANCELLATION

 SPORTS NEWS


## WORLD SPORTS CAR CHAMPIONSHIP

No Engine Capacity or Fuel Restrictions The FI.A. announce that the series of races counting towards the World Sports Car Championship 1957 will have no limitation as to engine size, nor will there be any fuel consumption restrictions. This means, in effect, that the A.C.O. will either have to modify their 1956 regulations, or for the second year in succession, the Le Mans 24 Hours Race will not be included in the Championship. The A.C.O. will announce their decision before the end of the year.
It is stated in the F.I.A. regulations that points can be scored only by the

THE SPORTING SEARSES. Photographed or the Madeira Drive, Brighton, with their 1903 Mercedes, at the conclusion of the London-Brighton Veteran Car Run, are the Searses, father and sons, all keen participants in motoring sport. On the left, his
gosgles on his cap, is veteran car enthusiast goggles on his cap, is veteran car enthusiast
Stanley, in the centre, younger son Eric, and on the right, racing and rally driver, Jack.
highest-placed car of the marque in each event. Points will be awarded on the basis of 1 st, $8 ; 2$ nd, $6 ; 3$ rd, $4 ; 4$ th, 3 ; 5 th, 2; 6th, 1 . In any case, only cars entered as manufacturer's teams, or approved as forming a manufacturer's team, are eligible for the Championship. Thus it is likely that Ecurie Ecosse, if approved by Jaguar Cars, Ltd., will officially represent the marque in the series. Races are: 1,000 kilometres of Buenos Aires (20th January), 12 Hours of Sebring ( $23 \mathrm{rd} / 24$ th March), Mille Miglia (12th May), 1,000 kilometres of Nürburgring (26th May), Le Mans 24 Hours (22nd/23rd June), Swedish G.P. (11th August), R.A.C. Tourist Trophy (14th September).

## G.P. OF VENEZUELA

$A_{\text {FTER }}^{\text {examination of the time- }}$ keeper's sheets, certain positions in the provisional results of the Grand Prix of Venezuela at Caracas have been revised. It is now confirmed that Jean Behra (Maserati) took third place, ahead of Masten Gregory (Ferrari). Revised results are:-

1. Stirling Moss ( 3 Maserati), 2 h. 31 m . 49.8 s., 135.704 k.p.h. ( 84.33 m.p.h.).
2. Juan Manuel Fangio ( 3.5 Ferrari), 2 h .32 m .9 s.
3. Jean Behra ( 2 Maserati), 2 h. 33 m . 36.5 s .
4. Masten Gregory (2 Ferrari); 5, Joakim Bonnier (3.5 Alfa Romeo); 6, Carini ( 2 Ferrari); 7, Drogo (2 Ferrari); 8, Vivaldi ( 1.5 Osca); 9, Pola (2 Ferrari); 10, Cortese ( 2 Ferrari); 11, Rubirosa (2.5 Ferrari); 12, Dos Santos (2 Gordini).

Fastest lap: Moss, 1 m .39 .7 s., 136.030 k.p.h. ( $84.53 \mathrm{~m} . \mathrm{p} . \mathrm{h}$.)

25 started, 13 retired.


## 10th RALEYE

 LYON-CHARBONNIERESMChel blanchon announces that the 10th Lyon-Charbonnières Rally will be held on 21 st-23rd March, organized by the A.C. du Rhône, with the co-operation of the Casino of Charbonnières.
Starting points are London, Liège, Baden-Baden, Frankfurt, Paris, Lausanne, Lyon, Milan, Nice, Barcelona and Bordeaux. The 1,250 miles route will include three hill-climbs, one speed test on the flat, and a race-circuit event, probably on the new Charbonnières circuit.

Classes will be for all cars admitted by Appendix J of the International Sporting Code. Category A comprises normal series-production vehicles (1) up to 1,000 c.c., (2) $1,001-1,300$ c.c., (3) $1,301-$ 2,500 c.c., (4) over 2,500 c.c. Category B will be (1) up to 1,000 c.c., (2) $1,001-$ 1,600 c.c., (3) over 1,600 c.c. Category A will have an average speed of $56-58$ k.p.h. and Category B, 60 k.p.h. For the former there will be over $£ 1,500$ prize money, and for " $B$ ", $£ 2,000$. There will be special awards for foreign entries. During their sojourn in Charbonnières, competitors' meals will be paid for by the organizers. Highest-placed British entry will be awarded the Autosport Peter Reece Memorial Trophy, at present held by Kit Heathcote (Standard 10).

Regulations will shortly be available.

## FRED W. DIXON

FFriends, relatives and associates paid their last respects to that great motor racing personality, Fred W. Dixon, at South London Crematorium, last Friday. Among those present were Tony Rolt, Duncan Hamilton, Charles Brackenbury, Eric Adlington, Tommy Wisdom, Rex Judd, Gregor Grant, Eddie Withers, John Eason Gibson, Reuben Harveyson, E. C. Baragwanath, Jimmy Simpson, Frank Dixon (brother), Jean Dixon (daughter), Fred Hatton, Roy and Pamela Marriott.

## POSSIBILITY OF PETROL RATIONING

$I^{T}$
IT is learned that the Ministry of Fuel and Power is considering the issue of petrol coupons in order to conserve fuel stocks during the Middle East crisis. If approved, the rationing system may come into operation early in 1957. The 10 per cent. cut, it is assumed, has not obtained the saving hoped for by the Government. Already stalf occupied on driving test administration have been detailed for other duties and all further applications for driving tests will be refused until further notice.

No statement regarding motoring sport has been made either by the Government or the R.A.C., but presumably main road events will be frowned upon while fuel restrictions are in force.
It should be made clear that the Government will not resort to rationing if the present situation is clarified and if the return to normal fuel supplies can be expected within the next three months.

THE Standard-Triumph Motor Co. of New York has ordered 2,000 discbrake Triumph TR3s, an order worth $\$ 4$ million. There are already more than 4,000 of these cars in the U.S.


Photograph by Patrick Benjafield

## PIRTRAIT CiALLEHY

## No. 57-KEN GREGORY

From working as a $£ 5-\mathrm{a}$-week clerk in the R.A.C. Competitions Department in 1949, Ken Gregory has, at the age of 30, climbed to an influential and almost unique position in British motor racing. As business manager to both Stirling Moss and Peter Collins, and secretary of one of the country's largest and most active clubs, the B.R.S.C.C., which holds a continuous succession of race meetings each year at four different circuits, his abilities as an organizer and administrator are considerable and are often called upon in a consultative capacity. He has been a director of Kieft Cars, Ltd., team manager for Donald Healey and will be in Nassau in December as Clerk of the Course, for a second time, of Road Race Week.

Gregory's own racing career started in 1950, when he drove the first Kieft of all, at which time he was assistant to the secretary of the then 500 Club, thus being "in on the ground floor" of the club from the time it moved from Bristol to London and took ovet Brands Hatch. He organized the first race meeting for cars on the Kentish circuit in 1950, and took part in it himself. The following year he won the Brands Hatch Junior Championship.

In 1952, he became Stirling Moss's manager and for nine months gave up his work as secretary of what was by now the Half-Litre C.C. Returning once more in the same capacity, the club went from strength to strength under his guiding hand and, by 1954, embraced such wide activities that it was renamed again and given its present title. During these years, Gregory raced his Kieft at Mons, Rouen and Rheims, as well as at home, but eventually gave up the game in favour of management, and does not plan to return to the circuits as a driver. He took on the business management of Peter Collins early this year.

Having served in the army for $7 \frac{1}{2}$ years, part of the time as a glider pilot, before joining the R.A.C., Ken Gregory's hobbies are sailing and driving in rallies. As a director of Stirling Moss, Ltd., his activities take him far round the world (his collection of l.p. gramophone records is international!) and his work in the promotion of motor racing has earned him the gratitude of thousands of enthusiasts, not in this country alone.
M. B.

DEUX CHEVAUX: Heavily disguised by aerodynamic bodywork, this sleek sports car is, in reality, a special based on the famous 2 c.v. Citroën. With a cubic capacity of 500 c.c. and the original Citroën suspension, the car is capable of some 80 m.p.h. and has lapped Montlhéry at 55 m.p.h.

## THREE NEW CASTROL FILMS

Three new Castrol films have just been released and are available on free loan to motoring clubs. "The Thousand Kilometres" gives an insight into the way a factory racing team-in this case Aston Martin-prepared for battle in the Nürburgring $1,000 \mathrm{~km}$. sports car race of 1956. There are behind-thescenes glimpses of such things as car preparation, training procedure and tactical discussions between team manager and drivers, and the race itself is also fully and graphically covered. "The Thousand Kilometres" has a commentary by Raymond Baxter, The other two films, "North-West 200", and "Mud In Your Eye", are particularly for motorcycle enthusiasts. The first of these tells the story of the 1956 event in this famous series of road races in Ulster, and the commentary is by Wilson McComb. "Mud In, Your Eye", commentated by Nevil Lloyd, deals with the Grand Prix de France de Moto-Cross run this year, in appalling weather, over the Stade de la Corniche course at Rouen and won by the 1956 European MotoCross champion-Les Archer. The three films are in 16 mm . colour and applications for loan should be made to the Castrol Film Library, 46 Grosvenor Street, London, W.1.

## ECURIE ECOSSE TO BE FETED

To celebrate their Le Mans victory, the the R.S.A.C. are to dine and wine David Murray and his Ecurie Ecosse team at the club's H.Q., in Blythswood Square, Glasgow, on 20th December. The occasion is open to all members and their guests, and a large turn-out is expected. Tickets at 17 s . 6 d ., exclusive of wines, may be obtained from the Secretary, and a film of the event being celebrated will be shown during the evening.


## M.C.R.B.C.C. NEWS

The annual general meeting of the Monte Carlo Rally British Competitors' Club will be held in the Clarendon Restaurant, Hammersmith, London, W.6, on 6th December, followed by a dinner and the usual discussion on the "Monte". Tickets, $£ 1$ each, can be obtained from Hon. Secretary, Raymond Gough, 2 Malcolm Court, 38 The Avenue, Branksome Park, Bournemouth.
The popular baggage service to Monte Carlo will be run with Sheffield United Tours luxury coaches. Return fare for members and their friends is about $£ 15$. A cocktail party will be held in the Hotel Metropole, Monte Carlo, on Sunday, 27th January.

## HISTORIC MOTOR-CYCLES AT <br> EARLS COURT

AMOTOR-CYCLE which once held the World Speed Record is among the interesting historic and vintage machines which are displayed by the R.A.C. at the Motor-Cycle Show at Earls. Court. The exhibition includes 15 machines, the newest a youngster 38 years old. The


GRACEFUL LINES of the new Volvo Sport, briefly described on this page, are seen to advantage in this photograph. The body is of plastic reinforced with glass-fibre, and a top speed for the car of $100 \mathrm{~m} . \mathrm{p}$.h. plus is claimed, coupled with an economic fuel consumption.
record-breaking 'bike is a Brough Superior, owned by M. N. Mavro of Salisbury, Wilts. Ridden by H. le Vack, it covered the measured mile at a speed of $129.07 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. in August, 1929. Oldest machines on show are a Singer and a Dreadnought, both of 1902 vintage. The Singer has an unusual number-plate made of boot leather, while the Dreadnought is still going strong and was ridden in a competition as recently as September of this year.

## SPORTS CAR FROM SWEDEN

On the Volvo stand at Earls Court last month, and thus making its first public appearance in Britain, was the plastic-bodied Volvo Sport convertible, for which a speed of $100 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. plus is claimed. Mounted in a tubular steel chassis frame, the 1,420 c.c., fourcylinder, o.h.v. engine gives 70 b.h.p. at 5,500 r.p.m., and has a compression ratio of 7.8 to 1 . The gearbox has five speeds with synchromesh, the top ratio being 1 to 1 . The suspension is by helical springs and wishbones at the front, and helical springs and torque arms at the rear. The body is of glass fibre reinforced plastic, combining low weight with strength; heating equipment is fitted as standard, and a fuel consumption of $30-35 \mathrm{~m} . \mathrm{p} . \mathrm{g}$. is claimed. In Britain, the Volvo Sport is priced at $£ 1,400$, which with tax of $£ 700$, makes a total of $£ 2,100$.



T
THIS year marks a significant anniversary in the Italian automobile industry -the Golden Jubilee of Alfa Romeo, that famous make which has in its time dominated the racing scene just as effectively as Germany's Mercedes-Benz, and from whose great factory at Portello, Milan, emanates an unbroken flow of lorries, coaches, cars, utility vehicles,

## is <br> 

## A Famous Italian Marque

## Achieves its Half-Century

By CYRIL POSTHUMUS

attractive to foreign automobile enterprises. Panhard, Mercedes, De Dietrich, Clément, Napier, Wolseley-all gained a foothold there. So, also, did Darracq, that pioneer Parisian marque owned by an astute Frenchman named Alexandre Darracq.

With his 8 h.p. single, and 10 h.p. twincylinder taxis doing very well in Paris,


London and other big cities, M. Darracq felt that Italy, too, should enjoy the benefits of the products of A. Darracq et Cie., and M. Darracq and his associates, in return, the benefits of the sales. It was in the foundation of the Italian Darracq business in 1906 that the Alfa Romeo story started. Frugal records suggest there may have been two Darracq bases in Italy, one in Naples, where the partly finished frames, axles, engines, etc., imported from France, were assembled by Italian labour, and one in the Portello district of Milan, where Alexandre Darracq opened a modest works in 1906, possibly for sales and service of the completed vehicles, in the heart of the city where their sales were aimed at.
Like other foreigners, Darracq was to learn that motoring conditions in Italy were exacting, the hilly nature of the roads demanding good power output and good brakes. These same factors have determined the light, rugged, yet sporting character of the typical Italian car through the years, but those early Darracqs were deficient in braking power, and their popularity soon waned. Then political and currency problems began to make the lot of the foreign manufacturer a precarious one in Italy, and after sticking out for two further years, Darracq sold out to Italian interests.
The new company promptly transferred the Naples factory plant to the works at Portello, calling themselves the societa Anonima Lombarda Fabbrica Automobili (in effect, the Lombardy Car Manufacturing Co.) the initials of which created the now world-famous word ALFA. The old Darraca designs were considerably revised to suit local conditions, and the range of cars gradually widened to include $15 / 20,20 / 30$ and $40 / 60$ h.p. models. And to commemorate their establishment in the ancient Lombardian capital, the new Alfa marque embodied in their radiator badge Milan's ancient historic symbols, comprising the red cross in a white field of St. George and a large coiled serpent swallowing a human being, symbolizing the Saracen red ensign which 7,000 Milanese captured at Jerusalem in the Crusades.
As the new Alfa concern thrived, so they turned inevitably to competition motoring, and in 1911 the name first appears in racing records, two cars competing without distinction in the

1906: An example of the first Italian Darracq two-cylinder light car, as assembled in the original Alfa factory. The car is seen in somewhat neglected state, prior to restoration.
1956: (Right) Alfa Romeo's latest small car, the beautiful 1,300 c.c. Giulietta, with its twin o.h.c. four-cylinder engine, offers striking contrast with the first Portello product.
aircraft engines and equipment, and many other industrial products. But unlike Mercedes-Benz aforementioned, whose foundation and early history are meticulously documented, information on the beginnings of the Alfa Romeo concern remain vague and contradictory.

In comparison with France and Germany, and even with Britain, Italy was surprisingly late in entering the automobile industry. Fiat got going in 1899 , and as the new century opened other marques followed, but for several years yet the Italian market was highly



ALFA-DARRACQ: A 1913-14 six-cylinder model, impeccably restored, is contrasted with a modern Bell helicopter in Italy.


FIRST MAJOR WIN for Alfa Romeo came in 1923, when Ugo Sivocci won the Targa Florio in a $4 \frac{1}{2}$-litre six-cylinder push-rod o.h.v. car, similar to that shown.

Targa Florio. That same year, as it happened, also saw the début as a racing marque of the Bugatti, subsequently to become Alfa's greatest rival, and in 1911, also, a shrewd railway engineer named Nicola Romeo came along acquiring a controlling interest in the company. In 1914, Alfa scored their first racing success of note, with third and fourth places in the Coppa Florio falling to the two drivers Franchini and Campari.
Came the Great War, and Alfa's rising ambitions in racing perforce gave way to grimmer production tasks. In 1918 , the A.L.F.A. business was reorganized, still with Nicola Romeo at the head, emerging as Alfa Romeo, S.p.A. With the advent of peace, they lost little time in getting into competition, three machines of basically pre-war type running in the 1919 Targa Florio. None finished, but Romeo pressed on undaunted.

New cars of distinctly sporting character were now being produced at Portello, and one year later a young man named Enzo Ferrari took second place in the Targa Florio. Campari followed up with the first Alfa Romeo outright victory in the Circuit of Mugello the same year, and the marque was now emerging from comparative obscurity to distinction.
In 1921, the cars, still of basically sports type, did even better, Campari, Ferrari and Sivocci taking first three places in the Mugello race-Alfa's first, but very far from last, 1-2-3 victory in racing! 1923 brought triumph and tragedy. Ugo Sivocci won the classic Targa Florio race outright in a $4 \frac{1}{2}$-litre six-cylinder Alfa Romeo, with Antonio

CLASSIC The world-famous P2 Grand Prix Alfa Romeo, designed by Sig. V. Jano, and winner of the Euronean and Italian G.P.s in both 1924 and 1925.

Ascari second in a 3 -litre model. Five months later Sivocci was killed whi'e practising at the then new Monza track in the first Grand Prix racing Alfa Romeo to be built, the 1,990 c.c. supercharged six-cylinder P1 Model. Nicola Romeo withdrew the team from the G.P. of Europe immediately.

By the end of 1924 Alfa Romeo were more than just another sporting Italian marque-they were world-renowned for their victories in the. European G.P. at Lyons and in the Italian G.P. at Monza, with the wonderful 2-litre supercharged straight-eight P2. This machine was designed by Vittorio Jano, who had come to Alfa from Fiat the previous year, and who was to be responsible, 30 years later, for the V8 G.P. Lancia. Alfa repeated their European and Italian G.P. successes in 1925, by which time their various sporting six-cylinder models were making international friends, particularly the 3 -litre, six cylinder. push-rod o.h.v., twin carb. $22 / 90$ model, a fine looking vehicle with vee-radiator and a perform-
ance comparable to the 3-litre Bentley of its time.

The works Alfa team withdrew from racing after 1925, but the P2s were later resuscitated with excellent results, up to 1930, when Varzi capped their triumphs by winning the Targa Florio in the five-year-old design. 1931 saw a revival in racing, and a new 2.3 -litre, eight-cylinder blown Alfa Romeo as a stern contender. The result was a rousing season of Alfa-versus-Bugatti duels, and a fair apportioning of wins to both marques. Came 1932, and Jano produced the first of the famous line of monoposto Alfas, which gained countless victories in Europe within the next four years, including the unforgettable German G.P. of 1935, when the genius of Nuvolari in an outdated Alfa sufficed to beat the full Mercedes and Auto Union teams on their own Nürburgring.
In sports car spheres, the name was highly pevered, the rakish-looking 2.3and 2.6 -litre "Mille Miglia" straighteights with Zagato Spyder bodywork


MILLE MIGLIA WINNER: (Above) The 3-litre, eightcylinder, twin o.h.c. Alfa, winner in Biondetti's hands of the 1938 Italian 1,000 Miles Race. Alfas won this classic no less than 11 times altogether.
MONOPOSTO: (Left) The immortal Tipo B 2.9-litre straighteight single-seater Alfa Romeo, which dominated Grands Prix from 1932 until the German teams came on the scene.


12-CYLINDER, 1936: Nuvolari in one of the big V12, 4.4-litre Alfas with which he managed to defeat the German opposition at Barcelona, Budapest and Milan in 1936.


IN THE BEGINNING: (Above) The $1 \frac{1}{2}$-litre straight-eight Type 158 Alfa Romeo, drawn in 1938 voiturette form.
ULTIMATE: (Right) The Type 159 derivative, a formidable two-stage blown machine, which gained numerous Grands Prix up to 1951.


EIGHT-CYLINDER, 1938: Built for the 3-litre blown, $4 \frac{1}{2}$-litre unblown G.P. Formula, this type failed to match the pace of Mercedes and Auto Union. After the war, however, Wimille, seen above at Perpignan, gained several victories in one.

being amongst the most coveted of prewar road machines. In the decade between 1928 and 1938, Alfa sports class victories included ten Mille Miglias, four Le Mans 24 Hours, and four Belgian 24 Hours-formidable, indeed.

The sheer might of the German teams in Grands Prix eventually brought total eclipse to the Alfa Romeos, and although Portello built bigger 8 -, 12 - and 16 cylinder machines in an effort to stay the "silver arrow", they eventually turned to the $1 \frac{1}{2}$-litre, voiturette, class of racing, with the first eight-cylinder Type 158. This superb little vehicle, referred to at the time as the "Alfetta", and designed by G. Colombo, won its first race at Leghorn, in 1938, following up with further successes culminating in Farina's 1940 Tripoli G.P. victory. Then Italy entered the war.

The rest of the Type 158 's success story is surely too well known to require more than brief recapping. That which began as a voiturette before the Hitler War found itself the most powerful car of Grand Prix class by 1946 . "The roar of the destroying war has just ceased from the skies", said an Alfa Romeo handout, "but down on earth a new roar is rising; this is a song of revival. The works, which still bear the war scars, are already teeming with new life and the new Alfa Romeos are fanning out towards the roads of the world, which again will be paved with their victories.

That prophecy was right enough. The 158 Alfas, soon to acquire two-stage
blowing, and eventuakly to become the Type 159 s , completely dominated the Grand Prix world, winning every race they ran in, from the 1946 G.P. of the Nations at Geneva, to the 1951 British G.P. at Silverstone. There, at last, they met defeat at the hands of the new Ferrari marque, owned by that same Enzo Ferrari who had driven the old $22 / 90$ s, the $P 2 s$, the famous single- and twin-o.h.c. 1,500 and 1,750 sports models, and then had started his own racing stable, the Scuderia Ferrari, using the famous Alfa monopostos as his instrument for innumerable victories in the early '30s.

But Alfa Romeo's defeat at Silverstone, and subsequently at Nürburgring the same year, were no occasions for shame. Progress overtakes all designs eventually, and for one born in 1938 to dominate affairs until 13 years later was a matter for great pride at Portello. Alfas built no more Grand Prix cars, and devoted less and less time to sports car racing as timed passed. What had begun as a compact little garage in 1906 was now a colossus, and Alfa Romeo's responsibility to its investors and its clients meant total devotion to commercial affairs. Their last works race victory was at Merano, in 1953 when Fangio won the first Supercortemaggiore G.P. with the $3 \frac{1}{2}$-litre "Disco Volante" sports car.

The great Italian marque's abstinence from racing may, however, be regarded as a temporary one. In the meantime, the fame of their past triumphs lives on,
whilst the repeated victories of Joakim Bonnier and other private owners of the wonderful little 1,300 c.c. Giulietta Sprint Veloce models, and the performances of the 1900 Super Sprint and the new Gran Turismo Sportiva, are adequately sustaining the fine reputation Alfa Romeo have enjoyed in the motor sporting world during the past 45 years.

## MARTINI LADIES' RALLY

Exclusively for ladies is the Martini 'Trophy International Ladies' Rally, to be run by the A.C. du Var from 10th to 17 th March next year. First organized in 1924, this event has been completely reorganized and it is hoped that, in its new form, it will become the leading ladies' motoring competition of Europe. From starting points at Barcelona, Brussels, Geneva, Hanover, London and Milan, all routes will converge on Paris, and then proceed to Geneva (via Rheims and Brussels), Milan (via Grenoble and Turin), and Toulon (via Turin and Digne). Special tests will be held on the Rheims and Monza circuits and at the finish at Toulon. Fifteen entries at least can be accepted from Britain, prize money amounts to 5 million francs, and special arrangements are being made to cover British competitors' expenses, including the London-Calais car ferry. All enquiries to Martini Trophy Rally, Martini \& Rossi, Ltd., 7 Chesterfield Gardens, London, W.1.


## A CHAVCE TO DHIVE

"Anyone who is really determined can go motor racing-but . . ."

Hundreds of letters have been written to various motor racing personalities and publications by young enthusiasts who wish to become Grand Prix drivers. "Why", they bleat, "won't the racing car manufacturer or team manager give me a chance to prove my worth? I know I can drive as well as Fangio."
The usual answer is that motor racing is expensive, etc., etc., while it is sometimes suggested that the optimist concerned writes to a personal enemy or business rival! But seldom is he told the hard truth. Why do so many men imagine that their driving is of Grand Prix standard? I think a few home truths about driving and drivers might answer this question.
Although very few will admit it, the first truth about driving a car well is the extreme simplicity of the operation. Chíldren can do it-and so can grandmothers; in fact, almost anyone can do it. Which is more than one can say for riding a bicycle or playing the piano.
It is the very ease of controlling a motor vehicle that leads drivers to imagine that they are exceptionally good. Women seldom fall into this trap; they have less vanity and more sense, and they realize that when they press the loud pedal it is the pedal that makes the car go faster, not the very clever foot that does the pressing.
Recently, I watched a demonstration of figure skating by world champions, I was struck by the similarity between this sport and motor racing. Almost anybody can just skate round and round; this equals normal road driving. After years of practice, some can perform the elaborate figures of the experts; this is motor racing. Very, very few reach the top; this, in motor racing, is the Grand Prix class.
In both cases the experts make it look very easy. In ice skating, however, we don't get people running around claim-
ing to be as good as Miss Sugden because anyone who has a pair of skates can try to emulate her, and a shocking pain in the lower regions immediately drives it home to them that they cannot do it. The budding Fangio requires a Ferrari and Silverstone to discover he isn't, both very difficult to acquire, therefore he continues to delude himself.
If he is really keen he attends race meetings and gets into the paddock, peers at rev. counters and exclaims: "Coo! it only does $80^{\prime \prime}$, unlike his Austin 7 Special which sports a $120 \mathrm{~m} . \mathrm{p} . \mathrm{h}$ speedometer. He sneers at a race average of 75 m.p.h.; after all, he travels much faster on the way home. As to the race itself-well, look how slowly they seem to travel, give him the chance, hell show 'em! ... He arrives home in record time ("including a stop for a noggin"), sits down and composes a letter to Autosport, containing the aforementioned bleat and bewailing the fact that "Racing is for millionaires only". Which is nonsense. Most of you could have a go at racing if you want to. But

ONE RECIPE for economical racing buy or build a 750 or 1,172 Formula car -"many races under the 750 Formula are more exciting than a Grand Prix ..."
first let me deal with the team manager who won't give you a trial.
He is not in a trade union, trying to keep racing a closed shop. The trouble is, he understands his business (why do enthusiasts love to call it a "Game"?). Uppermost in his mind is the cost of the cars and their upkeep. He certainly wouldn't like to see them bent. Quite apart from the high cost of taking a car to a circuit, and the enormous cost of tyres, a single blow-up could cost a fortune, and a racing engine in inexperienced hands blows up very easily. By far the greatest deterrent to such tests, however, is the fact that they would do no good whatsoever. No driver could get straight into a Grand Prix car and even approach the lap times of the experts, even if he drove the blooming thing all day. It takes many races to gain the skill and experience which is required to prove yourself. Various attempts have been made to test drivers, and these have shown that only a very small percentage of the drivers tested can even approach the times of thirdrate experienced drivers. Do you still wonder why the longed-for test never comes? The team manager would like to give you a trial, but there is no point in it, and he has no money to waste in proving his point.
But didn't I say something about most of us being able to have a go? So I did, and here's where I stick my neck out. I say that anyone who is really determined can go motor racing, but he must be prepared to put it before anything else.

The first essential for racing is a car, and you must get one yourself. So you had better decide how much money you have, and how much you can save. If you don't earn enough money to save, give up cigarettes, girl friends, cinemas and the odd pint, and ask yourself again, surely it's worth a few hardships to become World Champion!
Today there are very few who couldn't manage to save 30 s . a week at least, and small though this may seem, it is enough to start racing in about two years. I can almost hear the shout, "Two years! that's no good to us-we want to race now!" Well, you can't and that's that! It's a jolly sight better to race in a couple of years time than never!-and
"THEN there's Autocross-one of the cheapest forms of circuit 'racing', providing enormous fun."

never it will be unless you do something about it.

We now move ahead to the time when you have accumulated that wad of 200 smackers-or more, according to your will power. Motor racing is within your grasp! No, not Grands Prix, you're not ready for that yet. But with this modest sum you can take your choice of quite a wide range of very thrilling branches of the sport. You can buy a 750 class car or better still build one yourself. Motor racing is only comparative, and many races under the 750 Formula are more exciting than a Grand Prix. What about 1,172? Plenty of races and enormous fun there. Or you can have an old Cooper-J.A.P. and join the Formula 3 school. Then there's Autocross "one of the cheapest forms of circuit "racing", providing enormous fun.

Whichever car you decide to buy, no
matter how lowly a weapon it is, race it, and you will gain skill and experience, and a tremendous amount of fun. If you have the makings of a World Champion, you will have put your foot on the first rung of the ladder.
If you have the latent skill and the determination, nothing can stop you reaching the top. On the other hand you may find that you are just an alsoran, but it won't matter. You will have discovered why so many people still race, although they always come in last. You will enjoy the tremendous thrill of waiting for the flag to drop, the rush for the first corner and, best of all, talking about it when you get home. And whether you reach the top or not, you will appreciate racing as you have never done before, and nothing can dim the glory of having participated in it.

Ron Searles.

## GRAND RACING ON THE "GRAND CENTRAL"

Johannesburg Drivers Fergusson (Cooper) and Shiers (M.G.) Raise Pretoria Circuit Lap Record at Transvaal Club Meeting

Arace meeting held at the Grand Central circuit, Pretoria, South Africa, on 29th September, was wellhandled by the Transvaal Motor-cycle \& Car Club, and turned out to be infinitely better than anyone had expected. It was an ideal day for racing, and two Johannesburg drivers managed to clip the lap record by a second each. A number of spectacular incidents occurred on one particular corner, owing to oil having been spilt there earlier in the day. The 10-lap Racing Car Handicap over the tricky 2.6 -mile circuit was most interesting. From the start it was a private battle between Fergusson (Cooper Mk. IX) and Shiers, piloting the exBrodie M.G., probably the most famous racing car in South Africa today. Fergusson conceded 30 secs. to Shiers. and from the drop of the flag he was after the M.G. The latter, with its more powerful engine definitely had the edge on the Cooper on acceleration in third gear, but the cornering ability of the Cooper offset this. Seven M.G. racers, all beautifully finished, a number of sports cars and a few specials were among the contestants for this race. Gelinsky's TR2 and Barnard's AustinHealey were first away on handicap, and were engaged in a thrilling battle throughout the race, Gelinsky leading Barnard until the eighth lap before being overtaken. A Porsche-engined special, despite its good name, was rather disappointing, barely managing to hold the Fiat 1100 and Prefect Special, both, incidentallv. masterpieces with regard to body appearance.


Van der Vyver's B.R.M.-Cooper began to force the pace now, and was threatening Maritz's M.G. racer which, at this stage, had forged into the lead. Shiers (Brodie M.G.) overtook these two and broke the Grand Central lap record by one sec., lapping in 2 mins. 15 secs. Most unfortunately, Fergusson, who was fast coming into the picture, left the track on the western bend, and this jaunt probably cost him the race, or, at any rate, a place. The Fiat 1100 and the Prefect Special both retired towards the end of the race. Most amusing was the Netuar of Hartman, which ejected vast quantities of black, oily smoke each time he accelerated on changing gear, and, besides this, was not very rapid. With Fergusson a safe distance behind, the way was left open for Shiers, followed at a respectful distance by Van der Vyver and Maritz.
Result: 1, A. Shiers (M.G.): 2, S. Van der yver (B.R.M.-Cooper); 3. Maritz (M.G.).
The very first event of the day was a scooter race. After McKenzie's Puch had spilled him off on the 160 degree hairpin, and in the following motor-cycle races, when a number of riders fell here, the surface became extremely oily, and the corner, already vicious, had its danger thus intensified.

The first car race was a Sports Car Handicap. From the start it was clear that the remaining field would have to push their cars to catch the DKW, being superbly handled by J. Aukema. As expected he won by a large margin from Shiers (Modified M.G.) and Silberman, also in an M.G. The host of TR2s and other sports cars lapped with regular monotony, and Gelinsky made a point of spinning his TR2 on almost every other lap.

The second event was more interesting and also faster. Almost all the cars that were to compete in the main event took part in this Invitation Handicap, and it inevitably developed into a thrilling and spectacular race between Shiers and Fergusson, driving an M.G. racer and a Cooper Mk. IX respectively.
The race was over five laps, and it took Fergusson four of them to reach Shiers' tail. One of the favourites for
this race, Jimmy van Staden, spun his $1 \frac{1}{2}$-litre Riley on the oil-saturated corner while leading, and spoilt his chances of success.

In his efforts to catch Shiers, Fergusson clocked 2 mins. 15 secs., and so bettered the lap record by a second. He shot past Shiers on a curve and won by a thrillingly narrow margin.
Result: 1, Fergusson (Cooper Mk. IX); 2. Shiers (M.G.); 3, Van der Vyver (B.R.M.-Cioper).

The Production Car Handicap was surely the most spectacular race of the day. Entries included two of the latest VWs, two DKWs, a Prefect-engined Minor and several sports cars. While leading, on the very first lap, Lynch somersaulted his red DKW, which, after what seemed an age of mid-air suspension, came to earth on its roof. A number of spectators jumped the safety fence and came to his aid, and he was back on the track within 50 secs. The car sustained light damage. It took Aukema (DKW) only one lap to pass the two Volkswagens, and his only thought was to create as large a space as possible between himself and those following. D. Lang, in a Prefect-engined Morris, accelerated much too fiercely, and had no hope of taking that fateful 160 degree hairpin, so he merely carried straight on into the field, scattering officials and ambulance men in all directions. The front wheels of Viljoen's Austin A70 performed strange antics on the corners, slewing and bouncing as if to "hula" music. This car was particularly noted for its nosedives when brakes were applied. Woodley all but overturned his VW in his efforts to go faster, yet remained behind a similar car driven in a much saner mood by H. Espach. Serrurier's TR2 and Barnard's AustinHealey duelled for second and third spot, the former getting the better position eventually. Aukema (DKW) won comfortably.

Result: 1, Aukema (DKW); 2, Serrurier (TR2); 3, Barnard (Austin-Hea'ey).
Thus ended a particularly exciting day, unspoilt by any serious injury to either riders, or drivers, although many "incidents" occurred.
W. A. Buys.

## NEW MOTORING MAPS

The R.A.C.'s specialized knowledge of the motorist's requirements and the long experience in map making of John Bartholomew \& Son have been combined in producing an entirely new motoring map of Great Britain. The scale is large enough to show all essential motoring information and allows the whole of Great Britain to be covered in eight sheets. The first six sheets were issued last year and the final two are now ready. Each sheet measures 20 ins. x 33 ins. and covers an area of 20,000 square miles. The folded size is 10 ins. x $4 \frac{1}{4}$ ins. They are obtainable from the R.A.C., 83 Pall Mall, S.W.1, price $3 s$. per sheet.
Next summer French Railways will run a car-sleeper express between Boulogne and Lyon, which will enable motorists taking their cars to Southern and Central Europe to avoid a great deal of that long and rather dreary drive across France. Details from the A.A., R.A.C., travel agents, or French Railways, Ltd., 179 Piccadilly, W.1.


FIRST AGAIN at Indianapolis, for the 13th time since 1938, was an Offen-hauser-engined car. This is Pat Flaherty's 1956 winner, the Zink Spl. with the latest type unit.

The present-day "Offy" is THE racing motor for America; powerful, rugged and dependable, it summarizes many years of development which started on a simple and sound design. A direct descent in the Miller-Offenhauser dynasty, the modern 270 cubic-inches type boasts of an honest output of 330 B.H.P. at 5,000 r.p.m. on alcohol. An ideal power-curve for speedway racing plus a remarkable capacity to stand heavy work, have enabled it to dominate the field for years at Indianapolis and the rest of the oval tracks in America.
From the $255 \mathrm{cu} . \mathrm{in}$. Miller of 1930the first "four" to attain speedway prominence in modern racing-many changes and improvements have been made. Fred Olfenhauser, builder of the 220 cz . in. Miller of sprint-racing fame, took over Miller's business when Harry went into bankruptcy in 1932. The main product of the Offenhauser line was,

## MEET THE "OFFY"

## A Visit to the Meyer \& Drake Racing Engine Factory in Los Angeles

Big-time racing in the United States, unlike Grands Prix in Europe, has long since ceased to be a battle of different rival marques and factory teams, being at present one fought amongst individuals; a battle of driving ability, stamina and pit-work efficiency, backed by the mechanical dependability of the men who perform the "garagework". Currently, the Offenhauser or, as it is popularly known, the "Offy", is practically the only engine in major events, either Championship, sprints or midgets, and the chassis show no basical differences among them. However uninteresting this condition may appear to European eyes, it derives from the fact that racing is conducted there as a strictly individual enterprise. Drivers, mechanics and car-owners do the racing, while research, development and building are, generally speaking, in the hands of several important concerns which, in turn, pay little-if any-attention to
track operation. However, racing being the epitome of competitive business, said manufacturers are striving all the year round for improvement, and their production is always the ultimate in speed and reliability.

To the European auto enthusiast, unfamiliar with the American style of

## By Dr. VICENTE ALVAREZ

racing, and to some European critics, the fact that the "Offies" have enjoyed a monopoly in the last two decades could appear as evidence of lack of urge or engineering ability on the part of American designers. The truth is, instead, that "Offies" have attained their present position thanks to their extraordinary qualities, and this supremacy has been challenged-more often than it is generally known-without success.
until 1937, the " 255 " four. In 1938 , this engine was enlarged to $270 / 74 \mathrm{cu}$. in. to take advantage of the A.I.A.C.R. displacement requirements for unblown motors.
Indianapolis three-time-winner Louis Meyer, and race-equipment builder Dale Drake bought the Offenhauser factory in 1946. They kept on production of Offenhauser's line, which consisted, at that time, of $270 \mathrm{cu} . \mathrm{in}$. (Championship), 220 cu . in. (Sprints) and 97 cu. in. (Midget) motors, and also kept the name "Offenhauser" on them. Later on, a new 183 cu . in. supercharged unit was added, which, although exceedingly fast, still needs some further development to be able to stand on its own against the bigger, unblown " 270 ".
A visit to the Meyer \& Drake plant in Los Angeles is a must for the raceminded tourist; Walt Sobraske (with the Company since the early days of Harry Miller) acted as the host to the writer,


ACCESSIBLE: The Offenhauser barrel-type crankcase, with detachable flywheel housing and hand holes for assembly purposes.


OUTMODED? The "Offy" still uses tubular conrods. Picture shows two sets for the " 270 " unit. Cotter pins have been entirely eliminated.


SPEED WIZARD: Leo Goossen, Chief Engineer of Meyer-Drake. He joined Miller's staff in the early '20s, and has created the most powerful and successful of America's racing engines in the last three decades.
and the most charming host that could be expected, for that matter. The tour began with the design-office, where we met Chief Engineer Leo Goossen, the man behind the greatest creations in American racing engines for over three decades. Another member of the original Harry A. Miller staff, Goossen is the outstanding authority in high-speed engines in the New World; in the prime of his ability at present, he is very busy with some new projects. Although the general feeling is that the " 270 " isn't even nearing the limit of its possibilities, it will, evidently, get there some day. But Leo will then come up with the next thing and it will certainly be a "hot" one.

Long aware of Leo Goossen's reputation as a race-motor wizard, the writer was most pleasantly surprised to find that his drafting room was not, by any means, of the "ivory tower" variety and that Leo, himself, is a talkative, congenial gentleman with a refreshing sense of humour. After an hour of highspirited conversation in the drafting room, during which-naturally-some motors were discussed, the tour about the factory got under way. Being on the eve of the " 500 ", most of the work
in progress was being done on the " 270 " units, and we could follow closely all steps from the barely shaped block to the finished motor. The plant is equipped with the most modern of machinery and the degree of efficiency of the personnel is quite apparent. Meyer \& Drake build their motors from the ground up; materials are simply THE best available and their products are distinct specimens of first-class workmanship and neat finish.
A great deal of rebuilding is performed by Meyer \& Drake as well; we had the opportunity of seeing an oldmodel midget block, on which signs of "do-it-yourself" fixing were quite evident. "Been racing for 20 years, but we'll fix it to run like new," was their remark.

## The "Offy" Family

The big brother is the " 270 ", a fourcylinder with twin overhead camshafts, and a bore and stroke of $4 \frac{5}{18} \times 4 \frac{5}{8}$ inches; $4 \frac{1}{2}$ and $4 \frac{3}{3}$ crankshafts are optional. Block and head are integral, of nickel iron alloy; crankcase is of the barrel type.

Aluminium pistons (.013 in. skirt clearance) are employed, with a raised piston-top that fits the "inverted $V$ " shaped combustion chamber, recessed in order to clear the valves. There are three piston-rings, and the wrist-pins, $1_{1 \frac{1}{18}}^{1}$ in. diameter, are free-floating, secured by aluminium end-pads. Com-pression-ratios usually vary from $13: 1$ to $14: 1$.

Crankshafts in all three sizes are drop
forged from 6145 chrome vanadium steel; and run in five main bearings. The main bearing diameter is $2 \frac{3}{8}$ in.; but $2 \frac{1}{2} \mathrm{in}$. can be obtained as optional. Main bearing shells and retainers are held in circular supporting plates which fit in the holes cast in the crankcase; preheating of crankcase is needed to slide the crank-shaft-with bearings and supporters fitted -into place. Counterweights are supplemented with bronze plates.
There are four valves per cylinder, all of the same size, with a 36 degree inclination in relation to the centre line. The valve guides are of Meehanite, and dual valve springs with $250 / 100 \mathrm{lb}$. pressure are used.
The two overhead camshafts, run on five aluminium bearings, driven by a central gear on the front end of the motor; the gear-train consists of three gears, and takes off from the front end of the crankshaft.
The inlet valves open 20 deg. before t.d.c., and close 56 deg. after b.d.c. Exhaust valves open 48 deg. before b.d.c. and close 16 deg. after t.d.c. In the centre of the combustion chambers are located the 18 mm . sparking-plugs, which fire through a small hole, thus "masked" for protection. The 13.2 to 1 compression " 270 "-the most usual alternativewith 25 p.s.i. fuel-injector pressure, on methanol, develops 330 b.h.p. at 5,000 r.p.m.

Meyer \& Drake build the transmission, too. The clutch has a seven-plate unit on the hub and six plates on the outer
$O F F Y$ ENGINES. (Right) The latest " 270 " unit, with intake on the right and exhaust on the left. This arrangement is for use on sports cars, when the unit is placed close to the nearside frame members, either vertically or inclined.


The old type " 270 " engine, having the intake, with Hilborn fuel injection, on the nearside.


The "Midget Offy" engine, which varies in size from 91 to 107 cu . ins., and which has ranked as the midget motor since its inception in 1935.
drum. The flywheel housing is cast integral with the crankcase in the latest model. The gearbox has two forward speeds and reverse. This powerplant is the conventional one for Indianapolis and the rest of National Championship races.

The " 220 " is commonly used for sprint racing. Apart from the size, it does not differ much from the " 270 "; inlet valves ( $1 \frac{1}{2} \mathrm{in}$.) are slightly larger than exhaust valves ( $1 \frac{3}{8}$ ). It develops 250 h.p. at 5,000 r.p.m.

The midget motor, of a displacement varying between 91 and 107 cu . in., according to the particular bore and stroke used, has only two valves per cylinder, at 45 deg. inclination. The 107 cu. in. alternative-compression ratio $15: 1$-develops 125 b.h.p. at 6,000 r.p.m.

This motor is currently made in cast aluminium, with steel cylinder sleeves and steel valve-seats inserted. An interesting variation of this small powerplant is the supercharged version. A centrifugal blower is fitted, which develops a boost pressure of about 30 pounds. Naturally, this blown job is not eligible for midget-formula races, but it is used successfully in the sprint category, either on a "stretched" midget frame or on a sprint frame, which can then be made smaller and lighter than the conventional which houses the larger 220 cu . in. motor.
The " 91 " midget motor has been fairly successful in sports car racing, equipped with a starter, as per regulations. However, this type of conversion has been only performed by individuals and is not originally produced or advertised by the builders.
The most powerful "four", although not the most successful as yet, of the

Meyer and Drake products is their own (original Meyer \& Drake creation) threelitres ( 183 cu. in.) supercharged motor. Basically, it resembles closely the " 270 " but for the size. A 24-blades centrifugal supercharger, running at six times the crankshaft speed, gives a 28 pound boost pressure. This " 183 " uses an aftercooler and is said to deliver about 550 h.p. at 6,500 r.p.m.
On 25th July the Indianapolis Motor Speedway Corporation announced that the size of engines eligible to compete in the 1957-58-59 " 500 " had been cut down, "hoping to check more deadly increases of speed". The new specifications limit the piston displacement to 256 cu . in. in non-supercharged engines and to 171 on supercharged ones. The current Formula, dating back to 1938 A.I.A.C.R. Grand Prix rules, was 274 and 183 cu. in. respectively. Diesel engines are allowed up to 335 cu in., while no limitations have yet been im-posed-perhaps not even figured yeton turbine motors.

Meyer and Drake made their announcement, too: they will soon be able to deliver the necessary parts to bring all motors to the new specifications.

The supremacy of the "Offies" in the American scene is most likely to last for years to come. In the large-displacement class, their only serious compctitor is at present the 183 cu . in. blown Novi (originally a Goossen design, too) but a notorious hoodoo has prevented this fabulous outfit from crashing the "Offy's" long-winning streak.
Power, simplicity and ruggedness are offered, at a comparatively low price (about 7,000 dollars for a " 270 ") and each "Offy" motor in its category fits every possible requirement to perfection.


POWER, for the transmission of-the beautifully constructed five-bearing camshaft of the " 270 " engine.

A careful checking of the Offenhauser's past and present performances, considering the peculiarities of American speedways, leads inevitably to the conclusion that challengers to that supremacy are risking many headaches and heartbreaks, not to mention expenditures. And some recent ill-fated attempts are still very fresh in everybody's memory. Whether some people like it or not the fact appears still to be that "it takes an 'Ofly' to beat an 'Offy'".

## HOOK HEVIEWS

Title: Gentlemen, Start Your Engines.
Author: Wilbur Shaw.
Size: $5 \frac{1}{2}$ ins. x $8 \frac{3}{4}$ ins., 320 pp., 53 illustrations.
Publishers: The Bodley Head, 28 Little Russell Street, London, W.C.I.

Price: 25s.
Indianapolis is, of course, the scene of the annual 500 Miles Race, America's most important motoring event. It is the ambition of every professional driver in U.S.A. to qualify for this "five-century grind", and no one could have told the background to the highly specialized racing which takes place across the Atlantic, better than the late Wilbur Shaw, so tragically killed in an air crash in 1954. In Gentlemen, Start Your Engines, famous names flash across the racing scene; such as the brilliant Frank Lockhart, whose modified Stutz "Black Hank" machines were years in advance of their time; the Duesenberg brothers, whose shoe-string racing brought them world-wide fame, the early Miller 2-o.h.c. engine which inspired Bugatti, to the present-day Offenhauser units built by Meyer and Drake, which are almost standard wear for American racing cars. Lee Bible, Cliff Bergere, Bob Blair, Harry Harz, Bob Burman, Shorty Cantlon, Wild Bill Cummings, Ralph de Palma, Pete de Paolo, Leon Duray, Ralph Hepburn-these are only a few of the people who dominated the tracks, and are referred to time and again by the author. There are also interesting sidelights on the ill-fated Rooseveldt Speedway races, and a wealth of material concerning the famous imported Maserati with which Wilbur was so successful at Indianapolis. Undoubtedly this book gives a true picture of American racing activities, and also produces the best arguments as to why the U.S.A. holds to its own formulæ, rather than enter full-scale Grand Prix events. To anyone seeking to discover the why's and wherefore's of American motor racing, Wilbur Shaw's book is a must.

## Title: Motor Racing Management.

## Author: John Wyer.

## Size: $5 \frac{1}{2}$ ins. $x 8 \frac{3}{4}$ ins. 160 pp. Many illustrations. <br> Publishers: The Bodley Head, 28 Little Russell Street, London.

 Price: 18s.IN Motor Racing Management John Wyer gives the complete low-down on running the David Brown Aston Martin team. From this absorbing book one gathers that to succeed in this highly specialized field, team managers must be complete masters of the arts of tactics, diplomacy, mathematics, automobile engineering, and so on - in fact, one cannot have too many qualifications! In addition a certain amount of ruthlessness is necessary, or so John (Poker Face) Wyer would have us believe. Aspiring racing team managers, after reading this book, might be persuaded to take up park-keeping, or any such job entirely unconnected with motor racing, as J. W. does not hide the fact that behind the glamour of seeing the cars on the starting grid is a tremendous amount of really souldestroying hard work. He pays tribute to drivers and mechanics who have worked with him in the past, and points out that, unless the cars are aimed at the highest possible honours, it is useless to attempt to attract the really top-line men. The value of club racing as a recruiting ground for eventual team drivers is fully realized by the author, who stresses that Great Britain has a fairly abundant supply of possibles. The technical side of running a team is, fully "described, with an admirable discourse on the "for" and "against" of keeping lap charts. Written in a most readable style, the book contains many passages in humorous vein which emphasize the lighter side of motor racing, such as the shock Dennis Poore must have had during the Goodwood Nine Hours Race when he was signalled "GOON". He should have read this in better spaced form as "GO ON". This reviewer can add, as a tribute to Wyer's efficiency, that a certain very famous driver remarked: "John Wyer could easily fill Herr Neubauer's shoes-but not his suits!"


AT SPEED: This photograph of the Tojeiro-Jaguar emphasizes its low, sleek lines, not entirely dissimilar to those of the Jaguar D.
horsepower to the road. One lets in the clutch at 3,000 r.p.m., and thereafter one takes the motor up to 6,200 r.p.m. in each gear with no wild sliding of the tail or smell of burning rubber.

The consequence of this quite exceptional traction, coupled with the advantageous shape of the Jaguar power curve, was that by far the best set of performance figures were recorded that have ever appeared in Autosport. The acceleration graph is somewhat spectacular, to say the least, and comparison of the figures with those of other extremely fast sports cars prove that the "Toj" is in a class of its own. A standing quarter-mile in 13.6 secs. is a breathtaking achievement, as is $0-50 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. in 3.8 secs. or $0-100$ m.p.h. in 12.6 secs. I recorded these staggering times straight away, with no practice and only a brief acquaintanceship with the car. It is probable, therefore, that even these

## JOHN BOLSTER

$\mathrm{A}^{\mathrm{T}}$ the risk of repeating myself, I must pay homage to the Jaguar engine. Here we have a highly efficient twin-overhead-camshaft unit which produces power, and lots of it, right through the revolution range. Yet, it is smoother, and more flexible, than the engines of many luxury limousines, even when it is in race-winning tune.
I therefore anticipate with pleasure a road test of any Jaguar-engined car. In the present case, however, the recipe was something very special. Take a D-type Jaguar power unit and insinuate it into a very small but beautifully made multitubular chassis. Give it independent suspension by wishbones in front, and fit a de Dion axle at the rear, on parallel trailing arms and a bronze slider block. Cover it with an aerodynamic shell, and keep the weight down to $15 \frac{1}{2}$ cwts. including water, oil, and four gallons of petrol; and you will have one of the most potent sports cars that has yet been built!

There has been a certain amount of correspondence about intractable sports racing cars, and I have personally met such machines which were almost undrivable on the road. In this case, though, I lunched at the Steering Wheel with John Tojeiro and John Ogier, and then look my seat in the 250 b.h.p. bomb which was to be my normal means of transport for the next week. The big machine started at once on the button, and glided into the traffic stream with only a low rumble from the exhaust to indicate its latent power.

Once out on the open road, it was

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# THE TOJEIRO-JAGUAR 

Jaguar D-type Engine in Light Tubular Chassis with De Dion Rear Axle Gives a Sports Car of Fantastic Performance

obvious that the performance set an entirely new standard; 333 b.h.p. per ton is a startling enough figure, one must admit, but many cars of much lower potency are plagued with. wheelspin and unable to make use of their full engine power. The Tojeiro has plenty of weight on the rear wheels, where it is wanted. It has a de Dion axle, and the unsprung weight is kept to a minimum by mounting the disc brakes inboard. Finally, it has a ZF limited slip differential. The result of these things is a capacity to transmit all that
stupendous figures could be bettered after further experience!

The maximum speed requires a word of explanation. The gear ratio fitted to the car was the one that had been employed on typical road circuits, where one has no room to exceed $150 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. Under test conditions, however, I speedily found that one could over-rev. on top gear, and in fact I had to ease my foot slightly for this reason when timing the machine at $152.5 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. I do not doubt that something like 170 m.p.h. would be available with a "Le


Mans cog" in the final drive, 150 m.p.h. is quite a fair velocity, though, and it can be attained on even relatively short straights, when the sensation of sheer speed is immense.

I was warned by John Tojeiro that he was not entirely satisfied with the roadholding of this prototype car, and was incorporating improvements in subsequent production models. The machine holds well on the straight, I found, but the cornering power is not up to the rest of the performance. It is almost impossible to maintain a genuine fourwheel drift through a corner, because the rear end is for ever breaking free. My guess is that there is insufficient rear axle movement, and that the de Dion tube is coming up against the bump stops. Much greater travel is to be allowed in future, I understand, and a torsional anti-roll bar is to be added to the front suspension. At present, one has to get the car fully straightened up after a bend before giving it full throttle.
The only other point for criticism is the brakes. These are discs without a servo, and they do not possess that reserve of power which one appreciates
on a very fast car. The D-type engine can be supplied with a servo pump, and this facility is to be employed in future. Obviously, the phenomenal traction and light weight of this car give it a far higher performance than that of any other Jaguar-engined machine. Once its cornering power and braking have received the proposed modifications, it should lap the circuits at an extremely high velocity.
Having taken my performance figures and thrashed the car round a road circuit, I used it for normal road work. Some of my passengers became highly emotional when I first pressed that little pedal on the right, for really such acceleration is a somewhat startling experience. On returning the Tojeiro, I drove it again in London's traffic, and all the time I used the same sparking plugs, nor did I have to give the machine any mechanical attention.

The Tojeiro-Jaguar is an exceptionally well-made competition car of delightfully functional appearance and electrifying performance. We shall hear more, much more, of this ultra-high-performance British machine.


BONNET-OFF view (above) shows the radiator, front suspension and the air-intake ducting from the nose to the carburetters.


CLOSE-UP (left) of the front suspension reveals helical springs, tubular wishhones and disc brakes. On future production madels of the car the brakes will be servo-assisted to improve their power.


## ACCELERATION GRAPH

## Specification and Performance Data

Car Tested: Tojeiro-Jaguar Mark 11 sports-racing two-seater.
Engine: Six cylinders, 83 mm . x 106 mm . $(3,442$ c.c.). Twin overhead camshafts. 250 b.h.p. at 5,750 r.p.m. 9 to 1 compression ratio. Three twin-choke Weber carburetters. Lueas coil and distributor.
Transmission: Borg and Beck racing multi-plate clutch. Four-speed gearbox with short central control lever. Ratios: 3.5, 4.2, 6.1 and 10.1 to 1 and ZF differential and ZF differ
Chassis: Multi-tube space frame. Double wishbones and rack and pinion steering in front. De Dion axle on parallel trailing arms and central bronze slide block, at rear. Arms:rong piston-type dimpers and helical springs all round. Dise brakes, inboard at rear. $6.00-16$ ins. (front) and with hnock-off hub caps on light alloy disc wheels with hnock-off hub caps.
Equipment: 12 -volt lighting and starting. Rev. coun er, ammeter, oil pressure and water temperature gauges.
Dimensions: Wheelbase, 7 ft .3 ins. Track, 4 ft .2 ins. Height to top of scuttle, 2 ft .8 ins ,
Weight, 15 cwt .
Performance: Maximum sreed, $1525 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. Speeds in pears: 3rd $122 \mathrm{~m} . \mathrm{p} . \mathrm{h} .$, 2nd $84 \mathrm{~m} . \mathrm{ph} ., 1 \mathrm{st} 50$ m p.h. Standing quarter mile, 13.6 secs. Acceleration: $0-30$ m.p.h. 2 secs., 0-50 m.p.h. 3.8 secs., $0-60$ m.p.h. 5.4 secs., $0-80$ m.p.h. 8.2 secs., $0-100$ m.p.h. 12.6 secs., $0-120$ m.p.h. 16.8 secs.

Fuel Consumption: $15 \mathrm{~m} . \mathrm{p} . \mathrm{g}$. (approx.).

FOLLOW-MY-LEADER: Over the Yorkshire Moors, near Newton, goes the M.G.C.C. team of Rohin Richards, S. G. Cobban and Ron Randall. Richards finished second in general classification.

LAAST meek-end there finished at Hastings -that very motoring-conscious Sussex resort-one of the most enjoyable largescale rallies to be held in recent years. The Motor Cycling Club's National Car Rally for 1956 had been an undoubted success and the slight changes in the familiar formula were generally welcomed. This year, for the first time, a "real" navigation section was slipped into the route, and although fairly simple, it effectively sorted out the "navigators" who had only come along for the ride, whilst tonsiderably increasing the interest

# A GOOD M.C.C. "NATIONAL" 

## R. W. Datglish/G. Brass (TR2) Win M.C.C. National Rally, With

P. Simister/G. Bickerton (Ford Anglia) Winners on Formula New Navigation Section Catches Many Crews

for the keener types, to whom an entirely route carded route had hitherto seemed rather tame. The weather co-operated by being gloriously fine during the daytime runs over some beautiful areas of the Peak District, the Yorkshire Moors and Lakeland, yet provided pouring rain to toughen up the hours of darkness on the navigation section and in the wilder parts of Wales. Although by no means as concentratedly strenuous as many shorter events, the course of nearly 1,250 miles was long enough and varied enough to be a searching test of car and crew, while the driving tests on the way and at the finish showed up weaknesses in both that might otherwise have gone unobserved.

It is a regrettable fact that entries for this event have steadily decreased in the last few years; it is difficult to pin down exactly why, but it seems likely that this slight change of character may attract the big numbers again this time. This year

there were 165 entries, of which 144 set out on the Thursday morning from the seven starting points at Manchester, Kenilworth, London, Taunton, Norwich, Cardiff and Glasgow. After a 250 -mile run via two intermediate controls, each initial route converged at Harrogate soon after dark. The writer left the London start at Olympia as co-driver in Bill Gunson's A.C. Ace-the only one entered -and we went by way of controls at Bourne and Buxton: a very enjoyable run at an easy average.

At Harrogate there was an official one-hour break and on our arrival there we were supplied with a hot dog and a cup of tea with the compliments of the Harrogate and D.C.C., and the route card for the navigation section that was to follow. This proved to be a 45 -mile section to be covered at a $30 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. average, six controls being located by 6 -figure grid references, plus a route card

HURRYING (left) down a hill near
Slaidburn is J. A. G. Ewer's Volkswagen.
He subsequently retired.
MEMBER of the winning sports car team was W. A. G. Goodall (below) seen at the Keasden cross-roads test where he was second fastest.
that took you part of the way to each one; there were also secret route checks to be reckoned with. Thus, while you could transfer the route card to the oneinch map and follow that, you still had to keep an eye on the route card to make sure you were right-rather trickier than simple map reading, although one had the advantage of time to think about it beforehand. However, no less than 63 competitors contrived to lose marks on this section alone, some of them disappearing into the night, never to be seen again. An interesting experiment, which it is hoped will be used again next year.

After this excursion around the Yorkshire Wolds, we reverted to a detailed route card and travelled north, after a petrol stop near Pickering, over the North York Moors by way of Rosedale Abbey. Then we turned west, through the Cleveland Hills, all on minor roads, eventually arriving at the Piercebridge control, west of Darlington, where there was a 30minute break. It was 02.09 on Friday morning when we left there and set off into the wilds again towards Tan Hill control on Arkengarthdale Moor; then north down into Teesdale and across to Daddry Shield in Weardale, thereafter regaining first " $B$ " and then " $A$ " class roads for the 30 -mile run to Penrith, on which the navigator could take a nap. This occasional inclusion of main roads was obviously deliberate, so that by intelligent planning of driving shifts, even a two-man crew could get a reasonable amount of sleep.

As dawn was breaking, we laft Penrith

for the Lake District section, having been more than 20 hours on the road, the last 12 being spent in the dark and over fairly rugged terrain, with several hours of rain and a certain amount of fog in patches. We made first for Keswick, then set off on a loop to take us over Honister Pass, where the first of the tests was sited. This was found on a steep down gradient with a wet surface, and involved starting from a line, stopping with all four wheels over another, reversing uphill over a third, then forward to stop between two more. Robin Richards (M.G.A) made best time here, with Ron Randall (M.G.A) and Yarranton (Morgan) second.

By now the sun was really up and after a run south there was the exhilarating tackling of Wrynose and Hardknott Passes, arriving in crisp autumn sunshine at the Traveller's Rest at Ulpha in nice

THE LADIES were well represented this year and performed well. Anne Hall was second in the rally on formula, and is seen in action (right) at the Keasden cross-roads test. Pat Moss (below) won the Ladies Award in her M.G.A hardtop. She is seen in the Rohertson's Hill test at Hastings.

time for a welcome breakfast and a wash, before heading back towards Yorkshire again. On Hardknott, there was the traditional hill-climb through two hairpins on a 1 in 3 gradient, where Dr. Spare (TR3) carried the day, with Goodall and Yarranton second, both in Morgans.
From Sedbergh, we set off over the moors again to the Stot Scales route check which was supposed to be at a huge railway viaduct on Gayle Moor. However, it had been apparently impossible to man it at the last moment, but although this was obvious, a number of crews wasted time looking for a nonexistent marshal. From here the route still went south to the cross-roads test, near Keasden on Burn Moor. Dr. Spare was also fastest on the shuttling here, with Morgan and Blair (Morgans) and Jacoby (TR2) equal second.

The run continued over the top before reaching civilization at Waddington, but even these lonely roads were carrying a certain amount of local traffic by this time and we witnessed one example of wildly irresponsible driving by a competitor that resulted in bent metalwork -the more incomprehensible because at the time we had plenty of time in hand and he should have been running half an hour behind us!

From Waddington, there was a long drag through the afternoon down to

Chester, a 45 -minute break and a meal. We left the city to start on the Welsh phase of the journey at 3.26 and made first for Llangollen (a route check there), and by a devious cross-country route to Bala as darkness fell again, then on, nearly to Dolgelley and round to the
next check at Dinas Mawddwy. So far so good, although it had begun to rain hard again. The fun began on the next leg, with the special test on Bwlch-yGroes. This was a stop-and-restart on one of the famous hairpin bends, on a loose surface, and 32 competitors were penalized for not completing this one according to the book, wheelspin being quite a problem.

Back, then, to Bala Lake, whence the real trouble started. We had to go over the Hirnant Pass to Lake Vyrnwy, and the Hirnant Pass is at the best of times pretty rough, having very little in the way of "metalled surface". We arrived in pouring rain near the summit to find a long queue of stationary cars, while up in front headlight beams weaved about in the sky, accompanied by the merry sounds of spinning wheels. The track was running with water and a number of competitors did not appreciate how much of a run they needed to get over the top; spinning to a standstill they were holding up the more clueful drivers behind. However, after about 20 minutes we did get a clear run and galloped up in trials fashion, now sadly behind time. In trying to make up time, we made the mistake of following another car up the wrong road for much too far, and when we finally regained (Continued overleaf)

## Provisional Resnlts

Best Performance on Marks Basis: 1, R. W. Dalglish/G. Brass (Triumph TR2), 11.08 marks lost; 2, R. N. Richards/L. G. Eckett (M.G.A), 12.34; 3, D. O'M. Taylor/Mrs. R. Taylor (Triumph TR2).
Best Performance on Formula Basis: 1, P. Simister/G. Bickerton (Ford Anglia), 124.84 marks; 2, Mrs. Anne Hall/Mrs. Mary Hopkinson (Ford Anglia), 115.28; 3, J. R. Robinson/F. B. Baxter (Hiliman Minx), 49.28.
Class Awards. Production Touring Cars, up to 1,000 c.c.: 1, S. D. Silverthorne/T. Fisk (Renault Dauphine), 13.82 marks lost; 2, T. T. Kyffin/J. T. G. K. Le Grys (Morris Minor), 16.32. 1,001-1,300 c.c.: 1, F. E. Still/R. Forster (Ford Prefect). 157.30; 2, D. J. Morley/G. E. Morley (Ford Prefect), $233.36 ; 3$, Miss Pat Ozanne/Mrs. N Gilmour (Ford Prefect), 265.98 . 1,301-2,600 c.c.: 1. P. C. Wadham/W. H. Wadham (M.G. Magnette), 13.78 ; 2, G. V. Howe/L. Willacy (Sunbeam Rapier), $13.90 ; 3$, C. J. Plummer/M. J. Stringer (M.G. Mapnette), 16.72. Over 2,600 c.c.: 1, R. W. Russell/D. F. Russell (Jaguar Mk. Vli), $17.68 ; 2$ 2, J. S. Reeves/I. H. Tyrrell (Austin A105), $18.38 ; 3, ~ D . ~ A . ~ B r a e n / I . ~ G . ~ F r a n k l i n ~(A u s t i n ~ A 90), ~$ 31.14.

Modified and Grand Touring Cars, up to 1,000 c.C.: 1, D. R. Mihon/D. R. Milton (Austin A30),
13.78 . $1,001-1,300$ c.c.: 1, I. F. Walker/P F $\begin{array}{llllll}\text { 13.78. 1,001-1,300 c.c.: 1, I. F. Walker/P. F. } \\ \text { Steiner (Ford Prefect), } & 12.96: & \text { 2, B. J. Warr/J. } & \text { D }\end{array}$ Irlam (Ford Anglia); 3, D. W. Watkin/A. J.

Worrall (Fiat $1100 T$ V), 49.16 . 1,301-2,600 c.c. 1 , D. H. Wilson-Spratt/H. I. Bayliss (Triumph TR2), $13.40 ; 2, \mathrm{~A}$. Birkett/E. Horsfall (Triumph TR2) 13.44 ; 3, P. H. Channon/P. E. Portch (M.G.) 13.90. Over 2,600 c.e.: 1, W. H. Morgan/P. P.
Roberts (Jaguar XK 140), 16.98.

Sports Cars, up to 1,300
c.c.:
Morgan/R. Meredith Morgan/R. Meredith (Morgan 4/4 series 2), 15.14 (Triumph TR2), 14, H. B. Jacoby/W. K. Webster Triumph TR2), $14.70 ; 2$, B. Phipps/ $/ \frac{1}{(M i l l} / \mathrm{I} . \mathrm{K}$ Morgan Plus 4), 15.22 ; 3, J. N. M. Hills/J. K
Morris (M.G.A), 15.48 . Over 2,600 c.c.: 1, H. S Ludeke/J. E. Shenan (Austin-Healey), 426.98 .
Starting Control Awards: Manchester, B, J. Warr D. O. Irlam (Ford Anglia), 13.32; Kenilworth, 12.54; London, R. N. Taylor (Triumph TR2), (M.G.A), 12.34; Bathpool, J. M Noble (P. Eckett Talbot (M.G.A), 25.84; Norwich, D. J. Morley G. E. Morley (Ford Prefect), D33.36: Morley J. N. M. Hills/J. K. Morris (M.G.A): Clasgow, R. W. Dalglish/G. Brass (Triumph TR2), 11.08 ,

Team Awards. Touring Cars: S. D. Silverthorne (Renault Dauphine), P. C. Wadham (M.G.), C. J. Plummer (M.G.), 44.32 aggregate. Sports Cars: P. H. G. Morgan (Morgan $4 / 4$ series 2), W. A. G. Goodall, A. L. Yarranton (Morgan Plus 4s), 58.14.
M.C.C. Members' Award: D. O'M. Taylor/Mrs. R. Taylor (Triumph TR2), 12.54.

Ladies Award: Miss Pat Moss/Miss Ann Wisdom (M.G.A), 18.60.

TRIALS technique of bouncing was used by Ted Lund's passenger in the Castle Hill test, to try and combat wheelspin on the wet road surface.
the A458 for the run to the control at Machynlleth, we had just 29 minutes in which to cover 24 miles-on winding Weish A-roads-at night-in the wet! By dint of inspired driving, Bill made it with about 30 seconds to spare and we breathed again-we were still "clean". Others were not so fortunate, however, and in all 52 competitors arrived late at the end of that section, a situation that caused quite a rumpus at the finish. It was now 9 p.m. on our second night on the road and everyone was beginning to feel more than a little tired, driving shifts becoming shorter and shorter. More cross-country motoring was on the schedule and we set off for Staylittle and Llanidloes, where we refuelled, before carrying on to Rhayader and the Elan Valley control. On this section there was a loop out into the wilds carrying a secret check, which caught out a few optimists who risked missing it. Patsy Burt was one of these and her anguish was eloquent, for she had lost no marks up until then.

The last stages were quite intricate, allowing the navigators no rest. There were checks at Abergwesyn, Llanwrtyd Wells and Garthbrengy, near Brecon, followed by a very tricky section to Crickadarn, for which we were most thankful for having a one-inch map of the area. A time control was at Painscastle and then the "tough stuff" was over. All that remained was the long, main-road run to the finish at Hastings, by way of controls at Tewkesbury, Stockbridge and the final one at the Beauport Park Hotel, Battle, where breakfast awaited us.

Incidentally, before we reached Battle, we had had a shock. During the night we had discovered the nearside rear damper adrift from the wishbone, but although it made the handling of the car a little peculiar, it did not seem to warrant wasting time in fixing it. Having time to spare at Battle, we took it into a garage and were horrified to find that the damper was in fact secured to the wishbone swivel pin, which had been able to work its way almost right out. Had it dropped out completely, the

whole rear suspension would have collapsed!
But the event was by no means over yet, for there were still the final driving tests at Hastings to be tackled. The Castle Hill test, involving dodging round a pylon on a steep wet gradient, caught everyone with their wheels spinning madly. However, R. Crawford (TR2) kept things under control to put up best time, with Dr. Spare next best. On Robertson's Hill there was the downhill braking test, modified this year by having a wiggle-woggle between pylons on the way down, and on which A. J. Blair (Morgan) took the least time. Lew Tracey caused a commotion, for as he braked at the end, a hydraulic pipe burst and he careered across the road, scattering marshals in all directions.

There were the usual two tests on the sea-front. One was the forward-andback affair, stopping astride a series of lines, and once more Blair was quickest, Dalglish second and Dr. Spare third. Finally, there was the famous "scissors" test, too complex to describe, but a delight for the large crowd to watch. Yarranton was fastest of all, with Dalglish a close second, well ahead of Blair and Randall, third. Others who made a good show were Freddy Still (Prefect), and Ian Walker (Elva Prefect), S. D. Silverthorne (Renault Dauphine), C. I.

Plummer (M.G. Magnette), L. G. Smith (Standard 10) and M. J. Reid (M.G.A). Not so happy was P. Norgard, whose Morgan went through the test with the big-ends knocking pathetically, while the harassed crew stopped to consult the instructions half-way. D. Burnell (TR2) lost charge of the car en route, wiping up pylons and mounting the kerb, sustaining a buckled wheel. Two Americans, H. S. Ludeke and J. E. Shenan, in an Austin-Healey finished the tests and in fact won their class, but were just moving away from the finishing line when the clutch linkage collapsed.

So that was it. There had been 165 entries and 144 starters, out of which only 108 had finished the course. Only 36 cars had completed the course without loss of time anywhere (ourselves included), 63 losing marks on the navigation section and 65 elsewhere on the road. Of those who did finish no less than 16 were penalized for damage or failure of vital equipment.

There was a strong protest that evening about the Hirnant Pass section, and in the provisional results, it was scrubbed from the scoring. This evoked an even stronger protest from those who had got through that section clean, who maintained that although perhaps the section should not have been included, (Continued on page 656)


ERROR of judgment by Ken Richardson on the Robertson's Hill test cost him valuable marks when he slid over the penalty line in his TR3.


NO ERRORS were made by Ian Walker, who took his Elvaheaded Prefect through to win the 1,300 c.c. Grand Touring car class.

# The Gentle Art <br> of <br> GHING THE HLAG 

The Second of a
Series of Variations
on a Theme


CONSCIENTIOUS (above). Flagging the winner in the manner "according to the book" is Kenneth Evans, while Stirling Moss acknowledges it properly from the cockpit of the Vanwall. The race was the Daily Express Trophy event at Silverstone last May.

CONCERNED (left) about who crossed the line first, when Gonzalez tried to beat Fangio to second place in the French G.P. of 1953, Charles Faroux lowers his enormous "tablecloth" flag to point to Juan Manuel.


CALLOUS (above) treatment of the man with the flag occurred at Goodwood this year, when Colin Davis's Connaught bowled over starter A. V. Ebblewhute Undaunted, however, "Ebby" got to his feet, unhurt, and the next car in the handicap race left the line on schedule.



COMIC (below, left) is the way they do it in the United States, when the flagman leaps into the air, like a ballet dancer executing an entrechat, almost on top of the car, in this case a Porsche.
COR! (below, right). Another American finish, with the fiagman well off the ground, but we can only asstume that he, the car, the spectators and the camera were all travelling in different directions at the same time, at considerable speed.


# LATDUTE IN VAIN 

## The unhappy story of the Porsche-designed Cisitalia Grand Prix Car, which ended its life in Argentina as the Autoar

AMONG the many interesting post-war projects for Grand Prix racing cars which sprung up in factories and sheds all over the world, are the PorscheCisitalia, the C.T.A.-Arsenal, B.R.M. and Sacha-Gordine. It is interesting to note that all these designs incorporate eight or more cylinders, reflecting the preoccupation of designers with obtaining high piston area and a short stroke within the limitations imposed by 1,500 c.c.

One of the most technically interesting of these projects was the G.P. Cisitalia which was designed by the late Dr. Ing. H. C. Ferdinand Porsche and which can be considered the direct descendant of the V-12 Auto Union, designed for the 1,500 c.c. Formula which had been projected when war intervened. Both its technical innovations and its unlucky destiny make the Porsche-Cisitalia particularly suitable for a brief historical résumé.
Influenced by the results of Prof. Rumpler's Benz "Tropfwagen" of 1923, Prof. Porsche had always liked rearengined racing cars, and designed his 1934-37 Auto Unions of the 750 kg . Formula on this principle. Thus it is not surprising that, when the 1,500 c.c. project was mooted by the Zwickau concern, the heckmotor principle was employed by Eberan von Eberhorst, and appeared again with the Cisitalia.
Just before war broke out, design tendencies were inclining to a large number of small cylinders, high piston area and low reciprocating weight. Using "over-square", engines, piston area went up from 29.5 sq. ins. ( $1 \frac{1}{2}$-litre Maserati) and 32.8 sq. ins. (Alfa Romeo 158) to 39.6 sq. ins. ( $19391 \frac{1}{2}$-litre Mercedes). Then, Auto Union with their 3-litre V12 E-type, realized 40 sq. ins. piston area, while Alfas prepared their Tipo 512 with 12 opposed cylinders totalling 35.6 sq. ins. However, the first really important stride forward after Mercedes was given by Porsche, who achieved 45.7 sq. ins. with his flat-12.
When the Mercedes Type W. 165 appeared in 1939 with 278 b.h.p., that figure represented the highest yet obtained with 1,500 c.c., in spite of which the test cylinder built by Auto Union to obtain empirical data on their 1,500 c.c. project indicated a theoretical output of 327 b.h.p. at 8,500 r.p.m. A year later Colombo calculated 400 b.h.p. for his flat-12 Alfa, but Porsche estimated 450 for the car he was working on. However, there was a long way to go before realizing these figures on the test bench. One day in 1946, while Prof. Porsche and his technical team were working on this project, referred to as "Project T. 360 ", the brilliant Austrian was arrested by the French.
All the efforts of his team to have him released proved useless, until, in August, 1947, it was finally agreed that he would be set at liberty against a bail of one million francs. However, the money was not available, nor were there, in those days, means for Germans to remit the money abroad.

Meanwhile, Ferry Porsche, the Professor's son, had received at the little tech-

nical office at Gmund a commission from Piero Dusio, owner of the Cisitalia concern at Turin. This new Italian marque sprung up when Dusio was left holding a large consignment of bicycle tubing-the origin of the Cisitalia space-frame which later revolutionized racing car design, and Dusio wanted Porsche to build a Grand Prix racing car. Thanks to the kind intervention of Charles Faroux and Raymond Sommer, Dusio managed to have the bail transferred to France, and Porsche was released from incarceration: meanwhile chief designer Raube, Ing. Hruschka and Eberan von Eberhorst, as liaison officer, were already working on the car.
The work went on fairly quickly in Turin, but Dusio made one big mistake. Instead of purchasing certain items like camshafts and crankshafts from specialist firms, he started building machine tools to make them himself, and although he later intended to use these tools on the sports cars he was to build, this heavy expenditure proved too much for the little factory. Two years later, when one car had already been built, and two more were nearing completion, the Cisitalia concern failed, most of it being sold to Argentina, although Dusio himself bought most of the shares in the new concern. Among the medley of finished and unfinished cars, spares and tools which were shipped to Argentina, the only finished Porsche-Cisitalia was also included. Its construction had already cost 400 million lire.
This happened during 1949 and 1950. While on the one hand it is interesting to note that the car entered the country illegally, never having been cleared through the Customs, on the other hand the Argentine concern, in acquiring it, also acquired the moral obligation of developing it and bringing to fruition the dream of the great Austrian designer, who had by this time died at the age of 75 in Stuttgart.
For a long time the Cisitalia lay under a dust sheet in the Autoar factory, the first Argentine car-producing firm ever started, and which had been set up using the Cisitalia machine tools brought over from Italy. The enthusiasm displayed by Dusio-who was by this time in Argentina as well-was considerably hampered by lack of funds and by lack of sympathy on the part of the remaining Autoar directors. At last, around mid-

450 B.H.P. was Dr. Porsche's estimate of the power output of the $1 \frac{1}{2}$-litre supercharged flat-12 engine, built for the fourwheel drive Grand Prix Cisitalia. 280 b.h.p. only was attained by the Autoar
engineers, who took the design over.

July, 1951, work was started to tune up this technical masterpiece and make it go.

The frame was of the space type, pioneered, as has been mentioned, by Cisitalia in their 1,100 racing car, being built up of tubes of 1.36 in . diameter, immensely rigid and strong. The front suspension was on the familiar Porsche lines, with twin torsion bars running across the chassis, and carrying the wheels on ball joints, while at the rear the suspension was also independent, the wheels being cärried by radius arms and sprung by torsion bars.

In anticipation of the high power output the car was designed to achieve, Dr. Porsche introduced a four-wheel drive transmission in this car, driving through a multi-plate clutch to a fivespeed gearbox which was located behind the engine, in a rather inconvenient place. The gearbox acted rather like a motorcycle unit in that it was necessary to engage all gears when going up or down through the box, and drove to the rear wheels through a straight bevel with a limited-slip differential, while a longer prop-shaft with three gear trains went forward to the front wheels, which had a bevel box. The front-wheel-drive was not constantly in mesh, but could be engaged at will by means of a lever on the instrument panel. The object, of course, was to provide maximum adhesion in the lower gears, while in fourth or fifth gear it could be disengaged to avoid the natural power loss through driving four wheels.

The engine was a horizontally-opposed 12 with cylinder dimensions of $56 \times 51$ mm. Separate cylinder liners of the "wet" variety were employed, and the four overhead camshafts drove 90 -degree valves. The big-ends were one-piece, a built-up Hirth-type crankshaft being used. The two superchargers worked in parallel and not on the two-stage principle, being of the vane type.
Once it was decided to begin work on the car, the dynamometer was assembled for action, and as the engine had never yet fired-a fact which was realized when
it was seen that the piston crowns were quite clean-a 1,100 Cisitalia engine was coupled to it and it was left to run itself in for several days. Preliminary tests were carried out with much caution, as all the personnel were new to racing engines except the mechanic Macanti. Then, suddenly, Autoar found themselves with the opportunity, in January, 1952, to race the car in the City of Buenos Aires G.P., run under Formule Libre. A few days before 275-280 b.h.p. had been attained at 8,000 r.p.m., and the car was hurriedly tested the Friday before the race, on a straight in San Isidro, near Buenos Aires, where it was discovered that the ground clearance of slightly over $3 \frac{1}{2}$ ins. was insufficient in view of the soft suspension. Just in time for final practising and classification trials on the Saturday, the car appeared suddenly at the Buenos Aires Autodrome, where the ever helpful Felice Bonetto offered to try a couple of laps with it. It should be noted that it had been found that the final drive ratios in the front and rear drives were different, a discrepancy which it was attempted to eliminate by the use of differently sized tyres.

After its first lap, the car stopped at its pit emitting a vast quantity of smoke, but fears of a serious engine disarrangement were allayed when it was soon seen that an insufficiently tightened oil-line was allowing oil to drip on the hot exhaust pipe. The trouble was quickly remedied, and with the car still only driving through its rear wheels, Clemar Bucci did two laps relatively slowly, through being unable to make full use of the gearbox, and finding himself all too often in one of the neutrals which existed between each gear. Anyway, the sponsors realized it was impossible to race the car under these conditions, and the entry was withdrawn.
This was the first, unhappy, stage in the car's history. In order to ascertain

SOLE ACHIEVEMENT by the AutoarCisitalia was the South American "absolute" speed record, established at under 146 m.p.h. by Clemar Bucci, seen here completing his run on a highway outside Buenos Aires. With proper development, far higher speeds would have been possible.
the maximum speed of the car with the engine in the state of tune in which it was at the time, it was decided to carry out an attempt on the absolute South American speed record, once the troubles encountered at the Autodrome were eliminated. The goal which they set themselves was 300 k.p.h. (about 180 m.p.h.), and in this connection it is interesting to note that the estimated maximum of the car was 377 k.p.h. in its present state and 367 with a special, very low final-drive ratio.
Once everything was straightened out, the engineers in charge of the project very nervously-due to the total lack. of spares-tried several flat-out runs on the bench, on one of which 365 b.h.p. was attained at 10,500 r.p.m. In a later essay in the Autodrome, Bucci averaged 96 m.p.h. on the outer circuit, and a few days later-9th June, 1953-obtained over 9,000 r.p.m., equalling $160 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. with the gear ratios in use at the time. On the 11th, the official attempt was made, on the super highway linking the City of Buenos Aires with the new Ezeiza aerodrome, and a speed of 143.5 m.p.h. was obtained, after which a piston burned, perhaps due to the unorthodox method of mixing fuel carried out by the engineers, who stirred it up in a big tin and added ingredients by rule of thumb!
With the attempt now postponed for 18th July, the motor was found to be in perfect condition except for the holed piston. Before being taken back to the highway it went again to the Autodrome, where the outer circuit was lapped in 1 min. 11.4 secs., equalling 99.4 m.p.h. Then the South American record was again attacked, the record at the time being held by the Chilean Andrade, at $141 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. Unofficially, however,

Hans Stuck had attained 169 m.p.h. with an Auto Union-ironic quirk of fateback in 1937. June in South America is mid-winter, and the day was certainly wintry. A bitterly cold wind blew, so it was decided to preheat the plugs on an open stove, as the engine refused to go over 60 deg. on racing plugs. However, by the time the last plug was in, the first one was already cold. Under these unfavourable conditions the attempt was started. It proved impossible to attain over 7,000 revs, as the temperature, not far above freezing point, proved an obstacle too great to any further heating of the engine, in spite of the radiator being blanked off considerably. Therefore a speed of under $145 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. was attained the first time. Dùring the second back-and-forth run, nearly 148 m.p.h. was clocked, and then a third run was tried, while between each run the mechanics did all they could to heat up the engine. On the last run an oil pipe fractured on the return, the kilometre being covered in 16.8 secs. In face of this new misfortune, the 148 m.p.h. figure perforce had to be accepted, the 15.45 secs., average between the two runs equalting nearly 146 m.p.h., breaking the record, although not by the margin hoped for.

Naturally, these speeds could not be compared by those attained by Alfetta and B.R.M., and even some pre-war results, so it became evident that without specialized personnel and ample spares it was impossible to continue development, particularly as in any case the 1,500 c.c. Formula had already lapsed. Thus millions of lire and countless efforts of many men came to noughta sad story frequently repeated in the history of automobile sport.
R. Hansen and F. B. Kirbus.


TWO NEW MINIATURES: On the left is the 1957 Bond Minicar, which will be in production next spring. Mechanically the car is as last year, main improvements being made in body styling. On the right is the Reliant Regal, in Grand Touring style with a hardtop. This car is powered by a four-cylinder side-valve engine, and has a fourspeed synchromesh gearbox.

# The New <br> <br> Reallandl Scene 

 <br> <br> Reallandl Scene}

Problems of Motor Racing with Unsuitable Cars and Restrictions on Practising

THe standard of motor racing in New Zealand has improved 100 per cent. over the past three seasons, and for this the Auckland International Grand Prix must receive the lion's share of the credit. When this organization started from scratch to promote a Grand Prix meeting, there were many who were sceptical and waited to see just how such a project would turn out. Many predicted financial disaster with the first meeting. However, as it turned out, this body has gone from strength to strength, gained backing from municipal and Government departments, and the Grand Prix established itself as one of the main sporting events in a country which is extremely sports-minded.
The first New Zealand Grand Prix attracted the then best cars in the country, together with imported vehicles, such as the B.R.M., a Ferrari, CooperBristols and the Maybach. Against this, the local boys appeared in vintage Maseratis, Alfa Romeos, the backyard specials and sports cars. Since then, nearly every one of the "top 10 " have purchased vehicles to try to show their driving ability against the overseas importations. English drivers who bring a spare car to leave in the country have been eagerly sought after, and the drivers, some reluctantly, have come to the conclusion that a special, no matter how good, is no competition for a factory car, and that a standard TR2 has no place in a Grand Prix race.
When in New Zealand in 1954, Dean Delamont commented upon the type of vehicle which seemed to be favouredthat of the Italian factories, usually prewar vintage-and deemed it a pity that the New Zealand drivers did not buy British-Cooper-Bristols being particularly suited to local conditions for speed

FORMULE LIBRE prevails in New Zealand, where cars of varying types race together. In this 1955 Auckland Grand Prix scene, W ally Darrel's A.C.E. Spl. is about to be passed by Ross Jensen (Austin-Healey 100S) on Hangar Bend. Jensen was the first New Zealander to finish.
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events or racing. Instance of this is one of the latest Ferraris to reach New Zealand-the ex-Rosier car formerly raced by the factory. At its first start, when the smoke cleared, there was the car still sitting on the line. There was much speculation among the clubmen about the amount of metal fatigue to be found in this car, and it is only regrettable that New Zealand's best driver may have to contend with a piece of machinery which will not do justice to his talents. Another instance of "buying in haste" is seen in the two Maseratis from the factory, built for Indianapolis, and with far too high a power potential for the type of circuit offering in this country.

A surprising feature of the conditions in this country is the success of the Formula 3 Coopers, despite the fact that they are not designed for distance racing.


The three best exponents of the art in this country are Syd Jensen (an exIsle of Man T.T. motor-cyclist), Ron Frost and Arnold Stafford (who may be remembered for their appearances at Brands Hatch prior to coming to New Zealand). It has long been hoped to have sufficient of these cars to stage races restricted to Formula 3, but owing to the size of the available circuits, at least 20 would be needed to provide a spectacle. However, numbers are slowly increasing, and a Formula 3 race is fast becoming a possibility.
New Zealand circuits on the whole are suited to this type of car, being tight-turning, and having no long straights (with the possible exception of Southland).

One of the chief obstacles with which the New Zealand driver has to contend is lack of practice. The New Zealand Grand Prix is staged on an aerodrome and is not available during the rest of the year. The Wigram organizers are even worse off, the 'drome being available for one day only, practice taking place on the morning of the race. Entrants for the Dunedin Road Race may learn the circuit in saloon cars, coping with the normal flow of traffic, but as yet there is no place where a driver may pay a fee, and have a day or half a day to test both his car and his own ability.

A step in the right direction has been made by a new club-Levin Motor Racing Circuits, Ltd. (with Jensen, Frost and Stafford as prime movers), who have made an arrangement with the local horse racing club and have built a circuit of their own about a mile in length, patterned on Brands Hatch, which will be available to drivers for testing and practice. This club also hopes to stage at least four annual meetings of short events to give entrants more starts

PIT SCENE in the same race as depicted above, showing Arnold Stafford's 500 c.c. Cooper in with a broken chain.

Stafford used to race in England.

Autosport, November 16, 1956
SPORTS CARS pulling out smartly at the Le Mans start of the supporting event of the Auckland G.P. meeting. Winner was Tony Gaze (H.W.M.-Jaguar).
during the season, as well as to encourage the Cooper enthusiasts, for whom the new track is ideal.
As the Auckland International Grand Prix becomes sufficiently stable financially, it is hoped that they, too, will purchase land, and construct a circuit with hills and bends to compare favourably with any in Europe. The advantages of having a permanent circuit are manifold, and will benefit not only competitors, but also spectators and organizers.
The natural geography of New Zealand also militates against the drivers. Main centres are hundreds of miles apart, and for a man to take his car to compete at all meetings, many days are spent travelling and shipping cars from one Island to the other. Added to this, local drivers are all part-time enthusiasts, who normally have to depend on their business, devoting spare time only to cars and racing.
Apart from the time and distance angle, the local driver is constantly dogged with financial worries (unless he is very lucky!). One Auckland competitor who completed the Southern circuit with a saloon car (thus lessening shipping costs for towing a racing car) had to take five weeks away from his business, and estimated his costs at $£ 120$.

Most of the clubs run on a shoestring. offering trophies and small prize money as an incentive to competitors. Paying expenses is virtually unknown, starting money unheard of, and it has been greatly to their credit that one or two

drivers in the past have taken their cars from one end of the country to the other, with no hope of breaking even financially, simply for the love of the sport. With the advent of the A.I.G.P., the case of the New Zealand driver has been given consideration; entry fees for the major event are returnable (great was the ire of drivers at one meeting, where entry fees exceeded total prize money, making a virtual sweepstake of the meeting), and the local driver is offered substantial prize money as well as an expense allowance. Three years ago this was a mere token payment of £40, but in 1956 this was increased by a performance bonus of $£ 1$ per lap for every lap completed, thus encouraging drivers (a) to improve the calibre of their vehicles, and (b) to prepare cars which will last the distance, rather than blow up after a spectacular lap or two.

In the main, this encouragement has paid dividends. Other clubs have seen that only by offering some form of financial encouragement will they obtain the fields necessary for their events, and more particularly so now that visiting English drivers have entered all major meetings and scooped the prize money pools. Only in Auckland and Southland, however, had any provision been made for the leading New Zealand drivers, who frequently put up excellent performances in outclassed vehicles.
Given a few more seasons to improve their stock and obtain the extra practice necessary, the overseas visitors will have to fight every mile to obtain placings. We look forward to the day when the all-black of New Zealand is ranged alongside the green of Britain, the red of Italy and the blue of France on the major circuits in Europe.

## A "BUILT-IN" SPARE TYRE

$A^{N}$ interesting innovation in the tyre world is the new Goodyear CaptiveAir safety tyre, claimed to do away with changes and repairs on the road. Its efficiency is such that the manufacturers believe that the need to carry a spare wheel no longer exists. As the illustration shows, the new Goodyear cover has a double air-compartment. Even if ripped wide open by a blow-out, the air-pressure in the secondary compartment is sufficient for over 100 miles of driving before the tyre need be changed.
The Captive-Air has been subjected to stringent tests, including 261 miles after a blow-out, driving over 3 in. spikes, deliberately slashing the outer casing to cause near-destruction, and even driving at speed over an exploding dynamite charge. In every case, the car was able to be driven for considerable distances on the inner compartment.

Construction includes the use of processed nylon cord fabric, combined with lightweight two-ply inner casing of natural rubber.
Another new Goodyear tyre is the "Suburbanite", specially designed for winter motoring. Although heavily treaded for maximum traction, scientific design has caused remarkably quiet running, even at high speeds. The "Suburbanite" is available as a separate tube tyre.


## A CHROME PROTECTOR FOR <br> <br> WIN IER

 <br> <br> WIN IER}AA NEW product designed to give lasting invisible protection for all polished metal surfaces is being marketed by the Pressurised Dispenser Division of Amber Oils, Ltd., of 11a Albemarle Street, London, W.1. It is called "Blink" Invisible Chrome Protector, and is a clear cellulose lacquer packed in a small aerosol dispenser. When sprayed on polished metal surfaces it forms an invisible coating, which remains intact for months; all that is necessary in order to maintain the original polished appearance is an occasional wipe over with a damp cloth or leather. Besides maintaining the appearance of metal surfaces, "Blink" also gives real protection against rust and rust spreading. Its sealing action prevents the deteriorating of chromium plating, and makes "Blink" the ideal weather-proof protection for car bumpers, radiator grilles, lamps, mirror backs, etc. It is extremely economical; the contents of one 6 oz . can being sufficient for the treatment of all the chrome on two medium-sized modern cars, and costing $8 s .6 d$.
British railways have introduced a winter "cars-by-rail" scheme between London and Edinburgh. It will operate from King's Cross, from 5th November onwards, cars being conveyed by the 10.15 pm . train, arriving in Edinburgh at $5.55 \mathrm{a} . \mathrm{m}$.


## CORRESPONDENCE



## Rallies-When is a Road "Non-damaging"?

I would like to take this opportunity of thanking that often forgotten group of people who organize and marshal rallies. As a week-end rallyist I usually have a lot of fun, make a lot of friends and sometimes see some interesting countryside! Why is it that occasionally the chap who organizes the route, and states in the regulations that the roads are non-damaging, suddenly goes haywire and picks a cart track which even in drought conditions would frighten a Land Rover?
To have a rally that is won "on the road" is a good thing, and there are many roads in England which have a bad enough surface to cut speeds to a minimum, yet do not cause stoppages and wholesale baulking.
During the last few months I have seen queues of cars stationary for hours because first one competitor gets stuckis man-handled out-then the next chap has to go on, and be pushed, through the same spot. Invariably the type of road that causes this sort of thing is a cart track consisting of two flattened paths for wheels with a huge grassy hump in the middle. In Great Britain we have rain. Nowadays when any organizer who says to me, "My dear old chap, that road's perfectly O.K. I went over it myself only four days ago," I have a tendency to look in the other direction and whistle. Another so-called legitimate argument is when they say, "Well, you didn't have to go that way." In nearly all regulations it says, "by the shortest route", and if you find a control stuck on a cart track, it might be reasonable to continue on said cart track if, in fact, that is the shortest route.
Nothing is more annoying than to be on time for threequarters of the rally, and then to get stuck. Usually before you actually stop moving, transmissions, springs, shock absorbers and exhaust pipes have taken a beating and everyone gete fed up.
What about a New Year resolution for organizers--that when they say "non-damaging" they really mean it?
G. W. Freeman.

London, W. 1.

## Advice Wanted About Starting to Race

Having been an interested and enthusiastic spectator of motor races for some years, I am now able, and desire, to participate in this sport myself. I have some technical knowledge and about 250,000 miles' driving experience in a wide range of vehicles. My basic problem is this:-
For a capital outlay of $£ 450-£ 500$, and an annual expenditure not exceeding $£ 150$, what form of motor racing will provide me with the most pleasure? Each group, 250 c.c., 500 c.c., 750 c.c., 1,172 c.c. and Vintage, has its distinct qualities, and I feel that it is from a group of this nature that I should choose, rather than a (possibly battered) secondhand LotusClimax or similar. I would, however, be very grateful for some expert opinion from other readers. Bachelor Enthusiast.
Luton, Beds.

## Classes in Speed Events

Having read with interest Mr. J. H. Brooks's observations on "Classes in Speed Events", and being the person referred to as having won three classes and been second in two others, I would assure him I am in full agreement with all he says. I would also point out there was no stipulation in the regulations that competitors were confined to their own class, therefore myself and other competitors entered for more than one class. This is a common practice, as Mr. Brooks should know; in fact, out of 19 race meetings which I have done this season, 68 per cent. allowed competitors to enter classes above their own. The exceptions to this being four International meetings and two National.

It appears to be more than a coincidence that Mr. Brooks "read the report of the sprint meeting in Autosport", when one considers that of 98 competitors at the sprint only one complained - Mr. J. H. Brooks. This gentleman being second in the $1,300-1,600$ class, the class which he would have won had I not been allowed to enter with my smaller capacity car. Mr. Brooks could, of course, have also entered classes above his own had he so desired, but he probably doesn't enjoy his racing as much as the writer and therefore deliberately restricts his opposition.
Leeds, 7.
J. W. Higham.

## Exaggerated Claims

One reads and hears a great deal these days about the modification of small "bread and butter" motor cars with the object of improving the performance to an interesting level, and this practice is, no doubt, most fascinating and rewarding. Some of the performance claims are, unfortunately, somewhat optimistic I feel.
Recently, the owner of a series II Minor stated, in an advertisement, that he was getting $90 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. and $62 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. in top and third respectively. A little arithmetic indicates that these figures represent approximately 6,750 and 7,100 r.p.m. engine speed. Now quite apart from the fact that 6,000 revs. is considered to be the safe limit for normal prop-shafts, 6,750 revs. in 5.375 top for 803 c.c. pulling something like $16 \frac{1}{2}$ cwts. is a little on the tall side.
I do not wish to run down these poor men's "Gran Turismos", I run one myself and they are excellent machines for those of us who, for various reasons, do not run pukka sports cars. But let us please be reasonable with performance claims. I went to the trouble of fitting an aceurate speedometer to my "hotted" s.v. Minor, and I reckon that my genuine top speed of just below 80 m .p.h. at 5,000 revs. with a 4.55 ( $9 \times 41$ ) axle is a good average for this sort of car, with about 55 m.p.h. in 7.01 third as a useful maximum, although it will overrun at higher speed still.

Patrick M. Kennett.
Preston.
Moss, Vanwall, and an Afterthought on the British G.P.
I applaud Moss's decision to drive the Vanwall next season, I but why is he going to drive for Maserati in sports car racing? Would it not be more patriotic to drive all British rather than half and half as he has done so often in the past? Also, may I praise Roy Salvadori for his many fine drives last season. It would be good to see him in the Vanwall team next year. Moss, Schell, Salvadori, with Les Leston as reserve sounds formidable!
As a closing thought-how about Dundrod for the British Grand Prix?
Balmoral, Belfast. William McKee.

## Freddie Dixon

How sad to read of the passing on of that great character Freddie Dixon. A giant among giants in those far off happy Brooklands days. Ever cheerful, always ready to give a helping hand, and with the uncanny flair for accomplishing the impossible. We, who were privileged to know him, to cheer him in victory, and commiserate in misfortune, will indeed feel this sad loss, but as long as this great sport of motoring persists, the magic name of Freddie Dixon will ever be remembered.
Special Builders Car Club, London, S.E. 21

## The Genius of Colin Chapman

I was unable to get to the Motor Show, but an understanding parent air-mailed Autosport of 26th October to me, and I saw the photographs of the Formula 2 Lotus.
Genius is described by the Little Oxford Dictionary as "exalted intellectual power". Another common definition is "an infinite capacity for taking pains". In my opinion neither of these definitions quite hit the mark where Colin Chapman is concerned, although the second is very close.

Colin Chapman's genius is painstaking, but essentially creative, and I can think of only a few others in recent times who have possessed this creativeness to such a degree. Dr. Ferdinand Porsche is one outstanding example, of course, and there are others; but the vast majority of successful cars today are soundly and logically designed without being necessarily "creations". Even the W 196 Mercedes-Benz was no more than a sound modern design, and although some aspects of it were revolutionary, they were logically and mathematically worked out. The sports-racing Cooper is not a design of genius, it is merely a logical extension of the Formula 3 design, albeit a clever piece of engineering.

Colin Chapman, however, is, in addition to being an extremely competent engineer, a brilliant "idea" man, and it is, in my opinion, this ability to nriminte ideas that cruse us layfolk to say, "Now why didn't I think of that?" that constitutes genius in car design.
S.S. Herminius, Mombasa.
W. J. Brooke.

The Editor is not bound to be in agreement with opinions expressed by readers.
Austin cars at Earls Court won no fewer than eight prizes for coachwork; three firsts, four seconds, and a third. The competition was arranged by the Institute of British Carriage and Automobile Manufacturers. Here is the whole impressive list.

| SECTION | 5 | Standard enclosed coachwork, list price not above $£ 700$ AUSTIN A. 95 |
| :---: | :---: | :---: |
| SECTION | 7 | Standard enclosed coachwork, list price not above $£ 3,000$ AUSTIN PRINCESS IV TOURING LIMOUSINE |
| SECTION | 9 | Sports coachwork, list price not above $£ 850$ AUSTIN HEALEY 100 SIX with hardtop |
| SECTION | 5 | Standard enclosed coachwork, list price not above $£ 700$ AUSTIN A.so |
| SECTION | 7 | Standard enclosed coachwork, list price not above $£ 3,000$ AUSTIN PRINCESS IV SALOON |
| SECTION | 9 | Sports coachwork, list price not above $£ 850$ AUSTIN HEALEY 1oo SIX. Open sports model |
| SECTION |  | Estate cars, list price not above $£_{\mathrm{I}}^{\mathrm{I}, 200}$ AUSTIN A. 95 COUNTRYMAN |
| SECTION | 4 | Standard enclosed coachwork, list price not above $£ 500$ AUSTIN A. 35 4-door saloon |

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## AUTUMN THEAL

## Cuth Harrison Wins North Midiand A.C.'s Event

For the second year in succession, standard cars, in closed and open form, accompanied out-and-out trials specials to make up the entry for the North Midland M.C. Autumn Sporting Trial. Although each category had its own route card, the hills were similarly named, and were fairly near to each other, enabling the spectators to view two different styles of approach within easy walking distance.
For 1956 the organizers had made the Autumn Sporting an invitation event, and as such had drawn such well-known names as John Dalton and John Waddington in the standard car section, while fine weather, good organization and well-planned hills made a delightful day for competitors and spectators alike.

As it is impossible to be in two or more places at once, your reporter decided to see all the standard cars at their first two sections and then to concentrate on the specials. This latter idea was nearly shelved as so attractive was the driving and the deportment of standard vehicles on wet grass, that it was with great reluctance we parted!

The first section for the standard cars started in a muddy lane, competitors proceeding through a gate, then up a grass verge with both left- and right-hand turns. The first real attempt was made by Mrs. D. Pilkington in an Austin A30 Countryman. Using nice throttle control she gracefully picked her way to section 8 , the highest yet. J. Dalton (Ford Prefect) made section 7, and J. Waddington (Fiat TV), section 6. Next came the only clean climb, in which expert S. Jenkins in a circa ' 34 Austin 7 two-seater, throttle at tickover, made his way neatly to the top. Others to reach section 7 included J. Thompson (M.G.), J. T. Wells (M.G.) and E. Sneath (Morgan).

Gratton Gradient 2 was a similar climb but with a muddy right-angled turn alongside a wall. This failed everybody, but not without some very valiant attempts. The following all made section 8 , then failed with wheelspin:

APPARENTLY stuck on a hump on Kock Farm L, Fred Harrison and his passenger survey the situation from above.

S. Jenkins, J. Waddington, J. Thompson, E. Sneath and R. Frolich in a Volkswagen.

The specials' version of Gratton Gradient went from a muddy start on wet grass, along to a wall, negotiated a left-hand taped hairpin turn to a grass verge, then 50 yards of adverse camber, up a bank to a wall, down and around two dips and a further hairpin, to finish over two bumps! This long and rather involved hill stopped the entire entry in its original state. Only Noel Carr made section 4. Many reacned section 3, but all slid to a standstill fighting the adverse camber before section 4 . A very good hill indeed, which perhaps could have been made a little easier by moving back the start line.

Lime Kiln 1 went down into a bowl and up a steep mud bank; fine in theory but in practice-no! All again admitted defeat, the names of the meritorious to make section 2 including N. Carr, J. F. Harrison, R. P. Habershon, A. E. Marsh and E. Harrison driving his latest acquisition, the Cannon 5 (ex-David Cannon). Lime Kiln 2 started from the same point, then came a right-hand turn up a very steep grass bank, right again and over two more grass bumps. This appeared impossible, but strange to say

N. Carr made it look simple, and so did T. C. Harrison, J. F. Harrison, R. P. Habershon, A. H. Smith, F. Harrison and E. Harrison, who were all clean. J. C. Broadhead made the nearest to a clean yet seen, failing only some 10 ins. from the top!

On Rock Farm 1 the competitors went up a deep-rutted and very muddy lane. over a vicious bump to a grass climb. down again, round a tree and up a grass verge alongside a wall.

A real tester, most of the failures occurred at the bump out of the lane; once over that, and the rest was plain sailing. Clean climbs were made by N. Carr, T. C. Harrison, T. A. Marshall. A. E. Marsh and E. Harrison. Poor F. Harrison, whose chassis had been lowered some $2 \frac{1}{2}$ ins. by a slight contretemps in the "Chase" last week literally grounded everywhere, having to be manhandled out.

Rock Farm 2 went down over a bump. through a mud gulley, up the other side to a grass climb over heather. Probably the best hill of the day, which was only climbed by N. Carr and T. C. Harrison. None of the rest passed section 3.

Rock Farm 3 went up and down a short steep grass bank, then through a gate, right and up a very long grass climb winding through rocks. Here failed only five, names of the culprits being N. Carr in section 5, W. L. Henshaw in section 1, A. H. Smith in section 8, A. E. Marsh in section 9, and E. E. Dibble who made section 7. Lastly, Wallside, a very long steep grass climb up the side of a wall. This required power and the nerve to turn is on at the right place and time. Successful were N. Carr, T. C. Harrison and A. E. Marsh.

Francis Penn.

## Results

Standard Galoons, up to 1,100 c.c.: 1, Mrs. D. Pilhington (Austin A30), 2. J. Datton (Ford Prefect) Open Cars: 1, J. S. Jenkins (Austin 7): 2, E. Sneath (Moryan). Closed Cars, over 1,100 c.c.a 1, R. Frolich (Volkswawen): 2, T. W. Dunning (Volkswagen). Trials Specials: 1, T. C. Harrison; 2, A. E. Marsh; 3, N. Carr.

OUT of his normal surroundings, bur not out of his depth, racing driver John Dalton, seen here on Gratton Gradient 1, took second place in his class with his Ford Prefect.

## Club News

## By STUART SEAGER

Well, it seems that we are in for a sticky time during the coming weeks so far as our sport is concerned. Rallies are scarcely compatible with national petrol economy and already road events are being cancelled wholesale-or rather being put on the shelf in the trust that they can be taken down and dusted off again in the near future. If petrol rationing comes into force, it will really put paid to rallying for the time beingwho knows, we may even get some decorating or something done during the weekends this winter
Incidentally, Government interest in motoring seems to have gone as far as actual manufacture. In the magazine of a one-make club recently, there was a description of a new model for which, it appears, "Whitehall tyres are an optional extra"

## POSTPONED

IN consideration of the Government's appeal for economy in the use of petrol during the Middle East crisis, the organizers of the following events, which were to have been held during the next few weeks, have regretfully postponed them until further notice.
Lagonda Club: November Handicap, 17th November.
Margate \& D.C.C.: Ramsgate Autumn Rally, 17th-18th November.
Swansea M.C.: November Night Rally, 17th-18th November.
Newquay M.C.: Newquay Rally, 18 th November.
Alvis O.C.: Essex Rally, 18th November.
Healey D.C.: Scorpion Rally, 24th-25th November
Herts County A. \& Ae.C.: Nocturne, 24th-25th November.
Malden \& D.M.C.: Rally, 25 th November.
Bugatti O.C.: Winter Rally, 1st-2nd December.
In addition, the Ford Sports M.C. announce that their Five Star Rally, which was to have been held last weekend, was cancelled, and both the Bolton-le-Moors C.C. and the Knowldale C.C. will not be running any events in excess of 25 miles in length until the fuel situation is clarified.


INTERNATIONAL rallyists John Milne (driving) and John Williamson (navigating) share a joke with M.G.C.C. Scottish Centre secretary Douglas Mickel at the start of the recent Moorfoot rally in their much travelled A50.

## W

 Hile a list of cancelled events appears on this page, we still have news of a number which at the time of going to press are still on the programme. Some of them are far enough in the future for the organizers to feel fairly hopeful that they may still be held, so we are including them here, although it would be as well to check with the organizers before actually sending in an entry. On 1st-2nd December, the Hants \& Berks M.C. and the United Hospitals and University of London M.C. ("Yoohoo") are jointly promoting a night rally. It is designed principally for the less experienced competitor, although "experts will be catered for". Mileage will be about 120 and details may be obtained from R. D. Gotts. Upton Lodge, Reading Road, Henley, Oxon. . . On 24th-25th November, there is the Burnham \& South Bucks M.C. night rally, which is open to members of the London, Chiltern, Guildford, Hants \& Berks, Sevenoaks and Windsor clubs. Mileage is about 250, entries close on 19th November and further details are obtainable from F. W. Saunders, 91 Haymill Road. Slough, Bucks. . . . The North Midland M.C. have their fifth Moonlight Rallyon 8th-9th December, open to the B.A.R.C., B.R.S.C.C., De Lacy, M.G., Nottingham, Sheffield \& Hallamshire and Shenstone clubs. It covers some 200 miles in the Peak District and the secretary of the event is Dr. T. L. Pilkington, "Fairlawn", Middlewood Hospital, Sheffield, 6. . . . On 25th November there is the Blake Trophy Rally of the R.A.F.A.M.A. This is a daytime event of 180 miles in Cheshire and Derbyshire, using the sealed watch system of timing, and it is open to the Bolton-leMoors, B.A.R.C., Glossop, Manchester University, Mid-Cheshire, North Staffs and Wirral 100 clubs. Entries close tomorrow (17th) with M. J. McGregory, 3 Chiltern Gardens, Sale, Cheshire.
The Morgan 4/4 Club have a night rally on 1st-2nd December, with starting points at Evesham and Luton and a $250^{\circ}$ mile course. The invited clubs are the B.A.R.C., London, East Anglian, Northampton, M.G., Hereford, and Midlands M.E.C.... The London M.C. Gloucester Trial is to be held on lst December. This is an R.A.C. Trials Championship event and one for the B.T.D.A. Gold Star and is open to the North Midland, More Club News overleaf

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TOP OF THE WORLD-or at least of the Yorkshire moors near Keasden, is L. S. de Meza's Ford Zephyr, crossing a cattle grid during the M.C.C. Rally.

Hagley, Lancashire \& Cheshire, Sheffield \& Hallamshire, Sunbac, Taunton and Kentish Border. The start is at Birdlip, Glos, and the secretary of the meeting is Mrs. P. Hoile, 19 Birchfield Close, Addlestone, Weybridge, Surrey. Entries close on 24th November.

## B.T.D.A. GOLD STAR PLACINGS

THe placings in the B.T.D.A. Gold Star Trials Competition up to date, but excluding the result of the High Peak trial, are as follows:-
1, R. Kcmp, 98 ( 6 nominated events); 2, G Newman, 92 (5); 3, J. C. Broadhead. 73 (6); 4, B.
Blundell,
66
$(5)$
5 Blundell, 66 (5); 5, R. C. Needham, 63 ( 6 ) 8, J. S. Jenkins, 61 (5); 7, F. T. Lewis, 56 (5); M. Lawson, 51 (3). (5); 9, J. Deeley, 52 (6); 10 ,

## THE DELAGE REGISTER

The second Delage Register meeting of 1956 was held on 13 th October at the Highley Manor Hotel, Balcombe, Sussex, and was well attended, with cars ranging from 1925 to 1938. Various suggestions for extending the scope of the organization were made, and it is anticipated that the pooled spares, information and general knowledge of these cars will become exceedingly useful to owners of Delage. Any owners interested are invited to communicate with the Honorary Secretary, M. J. Craig, 142 King Henry's Road, London, N.W.3.

## FALCON GUY FAWKES 200

Basically the same as in previous years, the Falcon Motor Club's Guy Fawkes Trial, held on 27th-28th October, catered for all types of cars from lightweights to saloons, and this year again had an increased entry over previous years, the 59 cars setting out from four starting points-London, Birmingham, Taunton and Southampton,

Twelve non-stop observed sections of varying character, surface and gradient; stop and restart tests and three timed climbs, situated in the Winchcombe, Stroud and Nailsworth area, were to be encountered before the finish at Cirencester during the early afternoon.

The sports car entry included A. Hay's Lotus, Wonnacott's L.R.G., five H.R.G.s, two TR2s and D. C. Bennett's Fairthorpe 1,100 , as well as the expected turnout of Dellows and Ford Specials. There were two much-modified Ford Populars and several Volkswagens amongst the saloon contingent and considering that all the cars covered the same route and observed sections, it is interesting to note that the specials after a "night out" in no way outstripped the sports cars of today or the well-driven saloons with modest preparation.

The competitors, away at one-minute intervals, converged on Andoversford for a time check, followed after careful navigation by the timed climb in the dark of Postlip, with its grassy surface and exciting hairpin bend. An easy confidence-inspiring non-stop section came next, also in the dark, but which caused little bother, followed by another timed and observed hill at Battlescombe, which was an appetizer for breakfast at

the Kings Head at Cirencester. Sections at Ferriscourt led to Fort 1 and 2, where notable performances were made by J. P. Davis (Popular) and O. B. Lock (V.W.).

Axe claimed further victims from all classes, as did time-honoured Nailsworth Ladder. Observations culminated with another stop-and-restart on the tricky hairpin on Knap.

## Results

Falcon Cup: G. S. Edwards (Dellow), 0 marks lost. President's Cup: D. Price (H.R.G.), 0. Peregrine Cup: J. P. Davis (Popular), 0.

Class Awards: F. Bruce-White (M.G.), 35; D. J. Waller (H.R.G.), $2 ;$ A. E. Cleghorn (Morgan), 18 ;
W. E. Wonnacott (L.R.G.) 0; F B Barker (Dellow), 0; T J Threlfall (V) F. B. Barker Robins (Vanguard), 2.

First Class Awards: A. May (Lotus), 0; Mrs. N. Parsons (Dellow), 0; A. Joyce (Dellow), 0; R. E. C. Brookes (Austin Sal.), 4. Second Class Awards: D. G. Fleming (Ford Spl.), 7; E, G. Walsh (Dellow), 13; Miss D. Freeman (Ford Spl.). 13;
O. B. Locke (V.W.), 4. Best Dellow: F. B. Barker. Best Ford: J. S. Bacon.

## North-East Notes

The Durham A.C. held their Autumn Invitation Rally on 21st October, when a warm sunny day was encountered. Starting points were at Newcastle and Durham and 59 cars converged at Sedgefield for the start of the

## Coming Attractions

November 17th. Bristol M.C. \& L.C.C. Roy Fedden Trophy Trial. Start, The Compass Inn, Tormarton, Glos., 10 a.m.
November $17 \mathrm{th} / \mathbf{1 8 t h}$. Tour of Corsica (S, T).
November 18th. Cemian M.C. Chiltern Cup Trial. Start, H.W. Motors, Ltd., New Zealand Avenue, Walton-on-Thames, 9.30 a.m.

Yorkshire S.C.C. Pennine Trophy Trial. Start, Cunning Corner Hotel, Rishworth (on RippondenOldham road), 10.30 a.m.
November 25th. Kentish Border C.C. November Sporting Trial. Start, Bull Hotel, Birchwood, Swanley, Kent, 10.30 a.m.
rally proper. Soon after the start the first of two regularity sections was held. Cars were required to cover a given course of five miles at their allotted average speed, passing three undisclosed points en route where timing was taken in seconds and where competitors were penalized for being above or below the required average speed. Best performance here was by S. Carruthers, who had a total error of only 35 secs. at the three points.
From here the route wound south through Yarm and eventually into the Cleveland Hills and on to the lunch break at Saltburn, where jackets were discarded and everyone enjoyed the warm sun. After lunch roads became narrower and more winding and good driving plus spot-on navigating was necessary. Back into the Clevelands again where competitors were faced with the second regularity section-one mile up a narrow road with one or two hairpins, again at the allotted average speed. Best here was P. G. Walton with an error of 10 secs. A Roman road section, followed by a series of gates, lost many crews the odd minute, but that appeared to be the organizer's last piece of guile, for from here three easy sections led to the finish at Rushyford.

## Results

Best Performance: 1, A. Foskett; 2, T. A Boothroyd; 3. J. Wheatley; 4, S. E. Bird; 5, P. P. G Walton. Best Novice: 1, W. S. Benson; 2, F. C Moore, W. S. Benson, R, Riseborough Moore, W. B. Ben. R. Riseborough.

$\mathrm{T}_{\mathrm{u}}^{\mathrm{m}}$HE following week-end, the Northumbrian M.C. held an R.A.C.observed rally with a view to an upgrading for 1957. This event was the Guy Fawkes Rally, run through Durham and Northumberland with two driving tests included. There were no clean sheets at the end of the 150 -mile route.

## Results

Rest Performance: 1, S. E. Bird (Popular); 2. W. R. B. Slack (Austin); 3, J. Robinson (Anglia). Best Novice: D. Howe (Magnette).

> Bob Allman-Smith.

## GLOSSOP \& D.C.C.

Cocktail Rally, 28th October
Best Performance: 1, Mrs. S. Woolley/S. Woolley (Austin A50); 2, Goddard/J. Winterbottom (Ford Prefect); 3, D. C. Travis/P. Smith (Triumph TR 3).

# AUTOSPORT 

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Saloons, up to $\mathbf{1 , 0 0 0}$ c.c.: W. J. Barnes (Renault). Up to 1,500 c.c.: R. Williamson (M.G.). Over 1,500 c.c.: 1, J. H. F. Burns (Austin); 2, J. M Clarke (Ford); 3, M. D. Einhorn (Ford).
Sports Cars: 1, K. Williams (Austin-Healey); 2 G. C. Hull (Triumph); 3, S. G. Haithwaite (Triumph).

RHYL \& D.M.C.
Driving Tests, 4th November
Regal Cup: J. W. Waddington (TR2), Bowmaker Cup: A. H. Hill (Renault). Ladies' Committee Cup: J. B. Hopton (Morgan). Special Award: T. A. Gold (TR3).

First Class Awards: R. Mayall (Renault); R. M. Craig (Renauit); W. B. Holland (Triumph); J. A. Ashall (TR3). Team Award: W. B. Holland W. G. Mackintosh, J. A. Ashall.

## FORCES MOTORING CLUB

Cotswold Rally, 4th November
Cotswold Trophy: J. W. Skinner (M.G. Magnette), lost 1 point.
First Class Awards: K. W. E. Ferguson (Austin A30), lost 13 points; M. V. F. Pim (Healey-Duncan, 37. Second Class Awards: M. R. Cooke
(M.G.Y), 38; A. Wyndham (M.G. Magnette), 42. Team Award: Beckett Hall, Royal Military College of Science (W. W. Virtue, M. R. Cooke, A. Wyndham), lost 149 points.

## OLD CULFORDIANS' MOTOR CLUB

Culford Hundred Rally, 3rd November
Best Performance: M. C. Goss (Ford Zodiac). Navigator's Award: J. Phelps. Best Performance by O.C.M.C. Member: W. O. Nunn (Austin A90). Second General Classification: W. O. Nunn. Third General Classification: R. M. W. Rash (Hillman Minx).

## AIREDALE AND PENNINE M.C.C.

Countryman Rally, 5th November
Touring Car Section: 1, K. Kellsall (Ford Consul); 2, A. Bosomworth (Austin A30); 3, W. Holmes (Austin A40).

Sports Car Section: 1. G. C. Sparks (M.G.); 2, E. Illingworth (M.G.); 3, P. Proctor (Aston Martin).

## M.C.C. Rally-continued

it was a negotiable hazard and therefore should be reinstated. Which it was, causing considerable changes in the awards list, although it seemed the fairest thing to do.

And so the weary crews, after two days and nights on the road, travelling over a remarkable variety of terrain,
often in a hurry, but often with time to appreciate magnificent scenery, and occasionally to eat and sleep, went off to make up such deficiency as there was.

It only remains to observe what a delightful motor car for rallying is the beautiful A.C. Ace. Its road-holding is, of course, renowned, rough and smooth roads being taken in its stride. It has just that much extra room inside that makes a difference to comfort on a lengthy event, the dash being far enough away for handling maps easily, while the bucket seats really hold one in place and the weather equipment really works. The two-litre six-cylinder engine is punchy and very, very smooth, whilst the gear ratios are ideal. The synchromesh, however, is almost nonexistent, necessitating an almost Vintage gear-changing technique. The boot is roomy, but there is no stowage space behind the seats, a serious snag for rallying. Still, it is a real thoroughbred, and took us all around the route "clean", in considerable speed, safety and comfort, and although perhaps not as handy as some in driving tests, it brought us in 29 th, out of 165 entries, and ninth out of 36 in the 2,600 c.c. sports car class. A most enjoyable rally.

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[^0]:    LOOKIN'G FORWARD from the cockpit over the powerful Jaguar D-type engine, with three Weber carburetters, which gives the car a possible maximum speed of approximately 170 m.p.h.

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