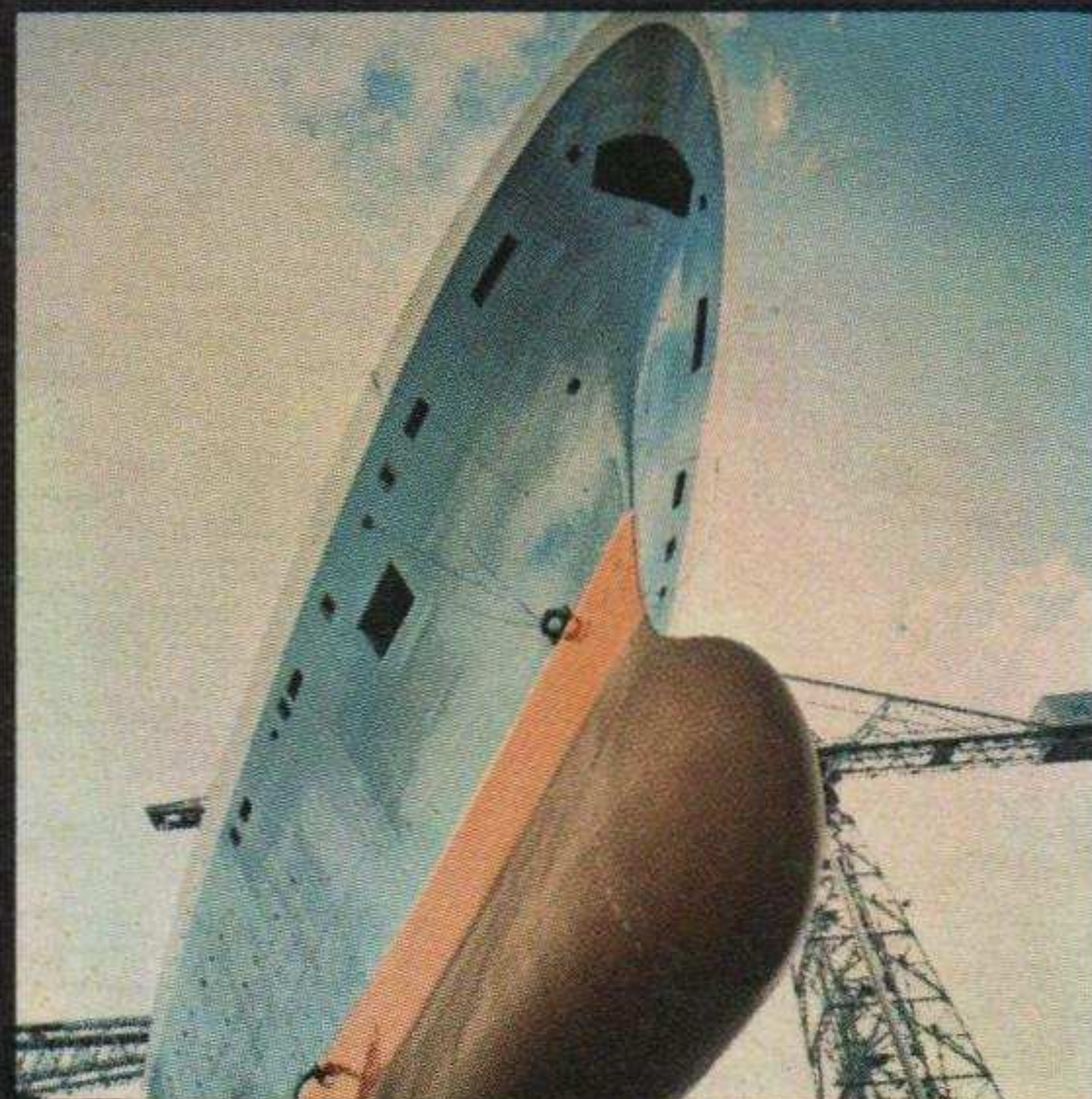
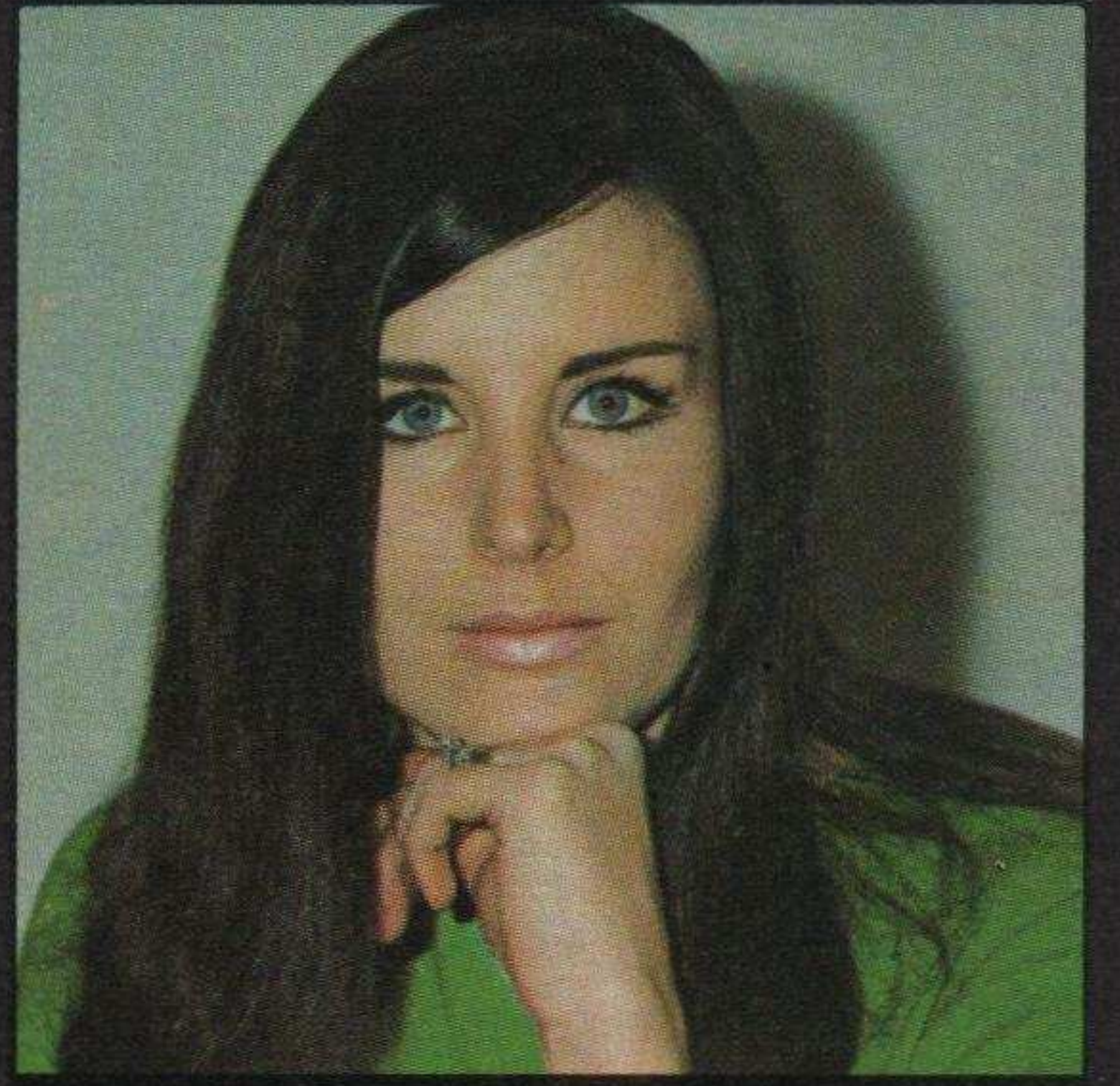
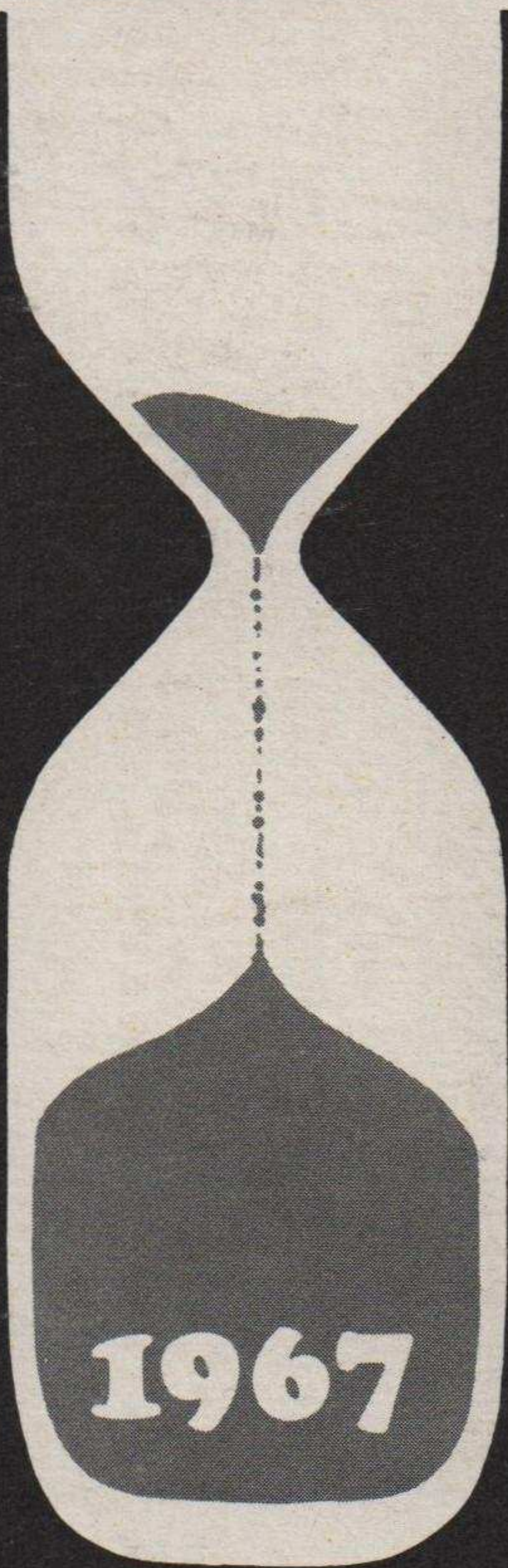
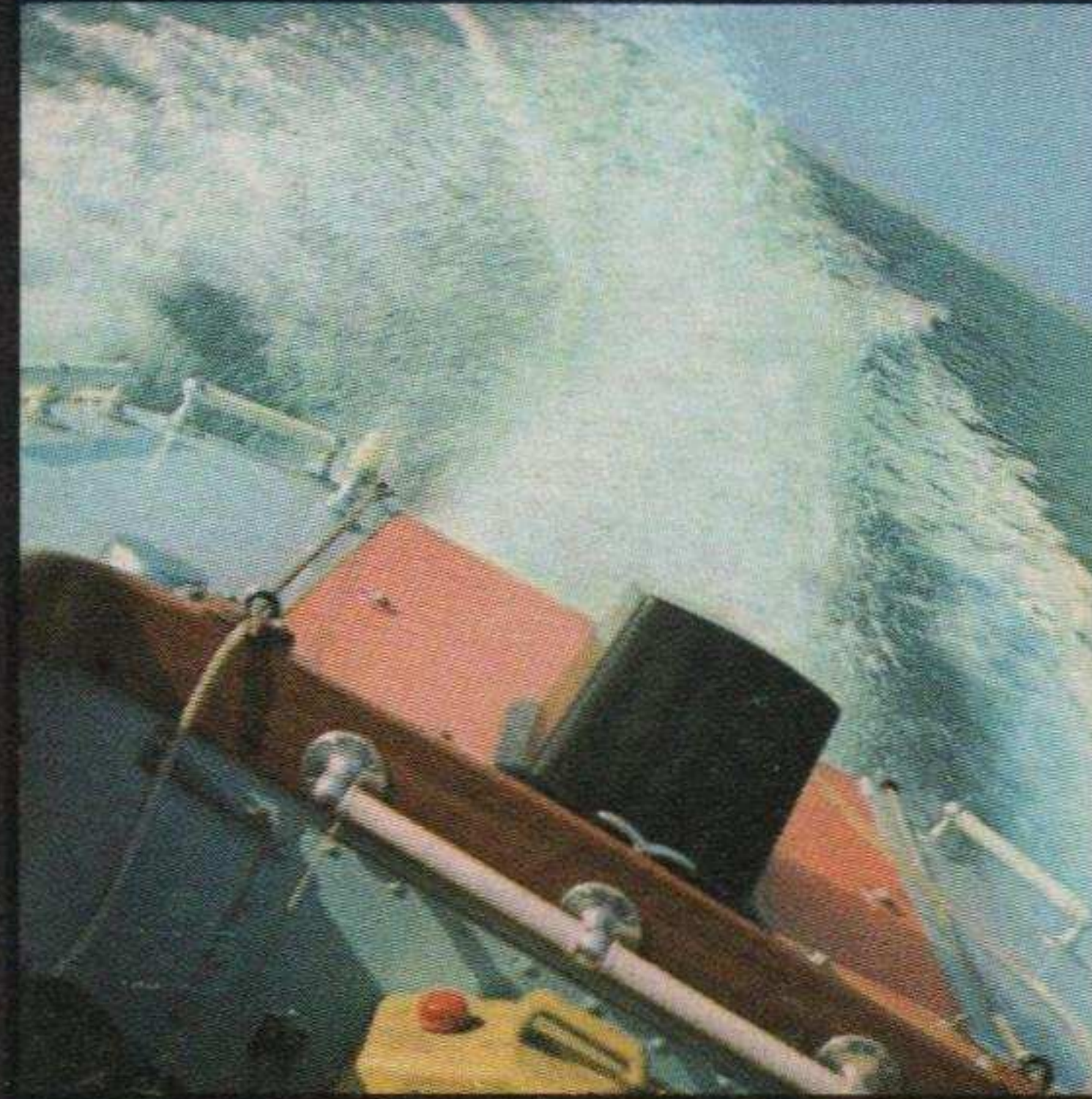
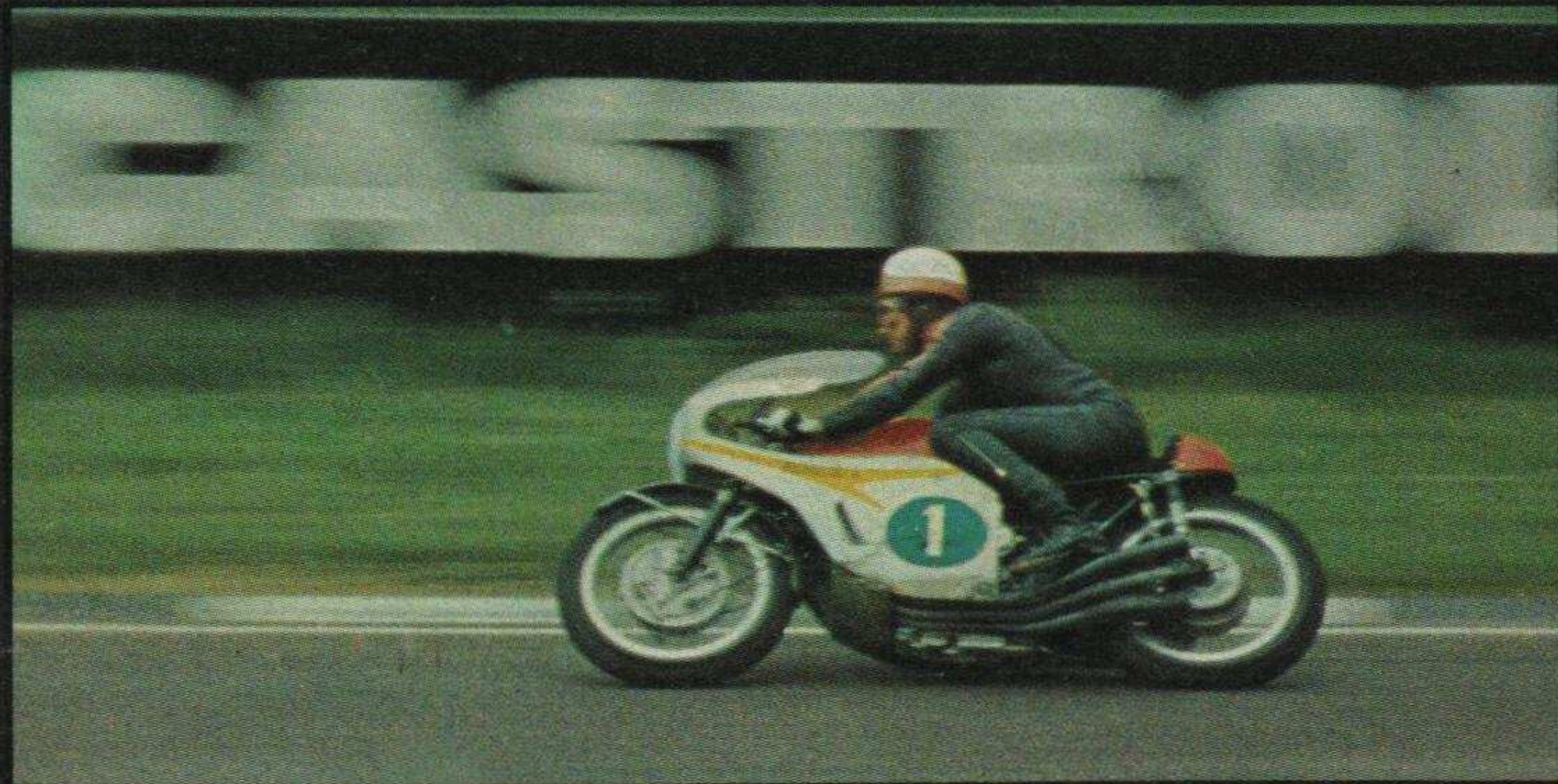


Achievements



Castrol take a look back at the exciting world of speed and action with an editorial and pictorial presentation of some of the highlights & events of the year

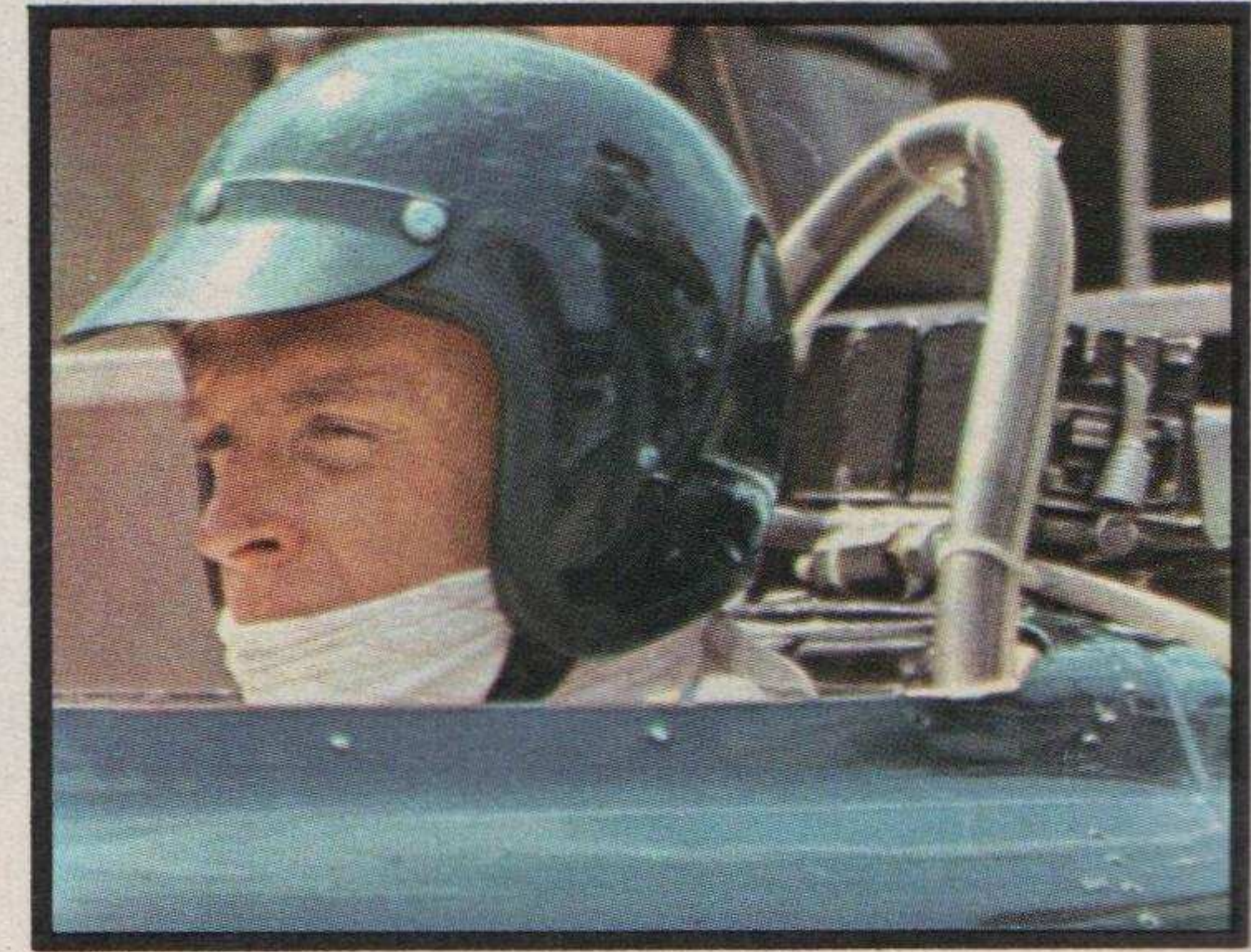
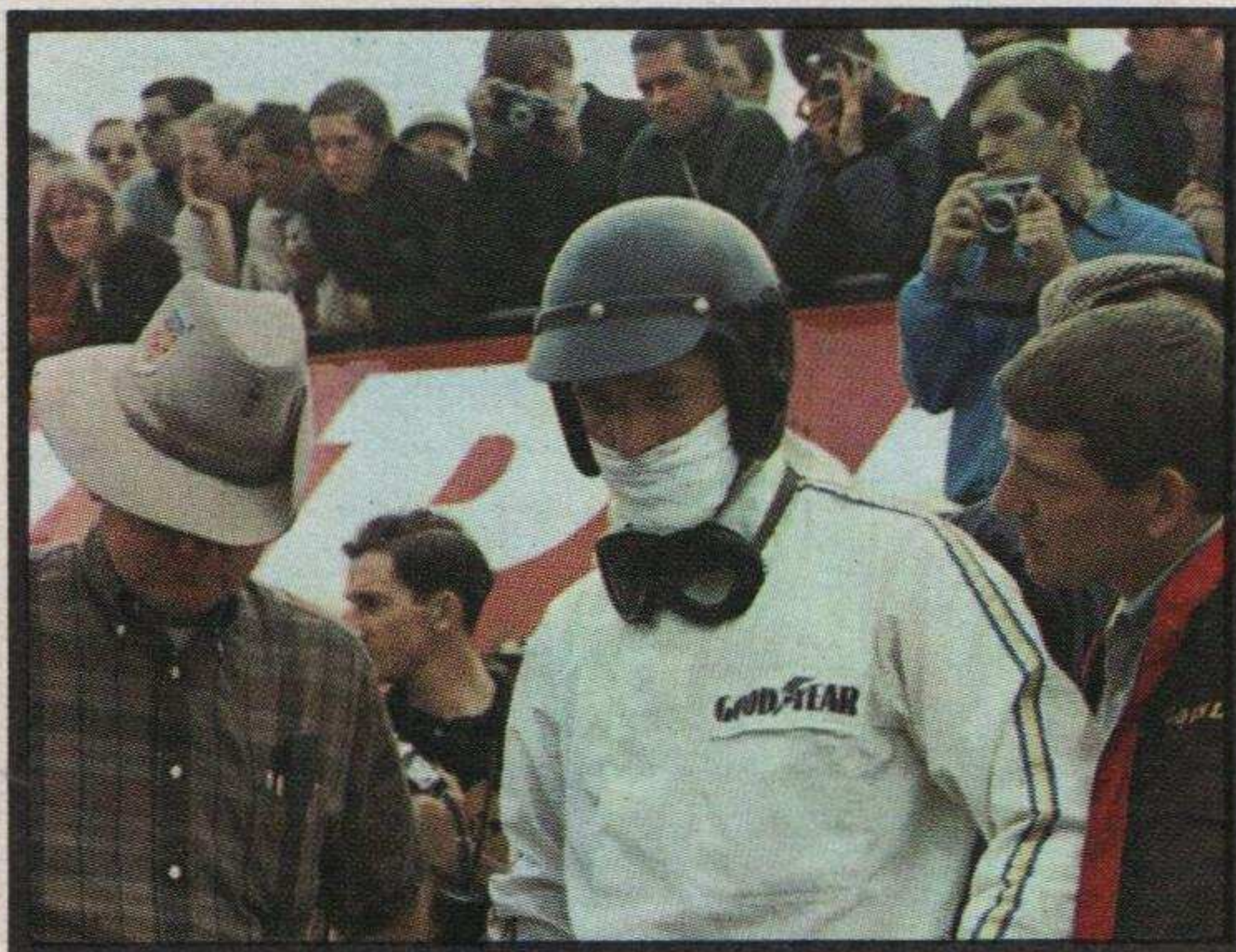




GURNEY -EAGLE

a winning formula

A winning formula indeed, as the tall Californian Dan Gurney demonstrated with his Belgian Grand Prix victory on the fast and difficult Spa circuit. Built in America to the designs of England's Leonard Terry, the Eagle chassis handles 415 bhp from its British-built V12 engine, the brainchild of Aubrey Woods and Harry Weslake. With this beautifully-wrought car, Gurney has a real chance to win Championship honours.



Achievements

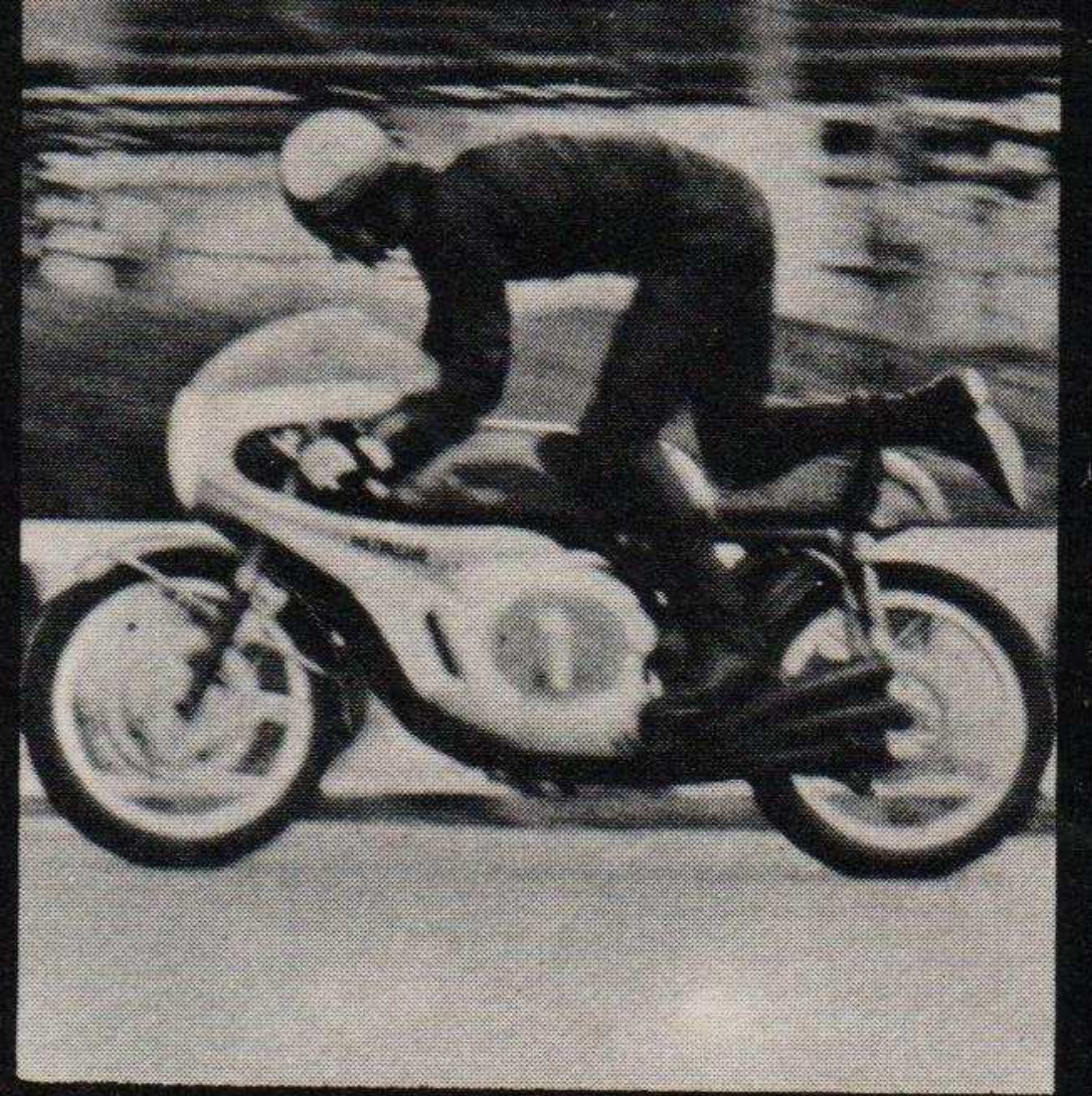
AGAIN, we look over our shoulder to a year of achievement. To the men and women whose skill and courage make nonsense of barriers to speed and progress.

To the engineers, the service crews, the craftsmen and the legislators whose work and planning are at the heart of every advance, every success—on land, on sea and in the air.

To the men who bring high-speed action to the work of rescue and safety. In capturing the colour and excitement of 1967 we pay tribute to the famous and the unknown, the professional and the amateur. We salute those who ventured as well as those who won.

To the keen and the brave, achievement is food and wine. It is the spur to progress. And, incidentally, it is the day-to-day business of Castrol.

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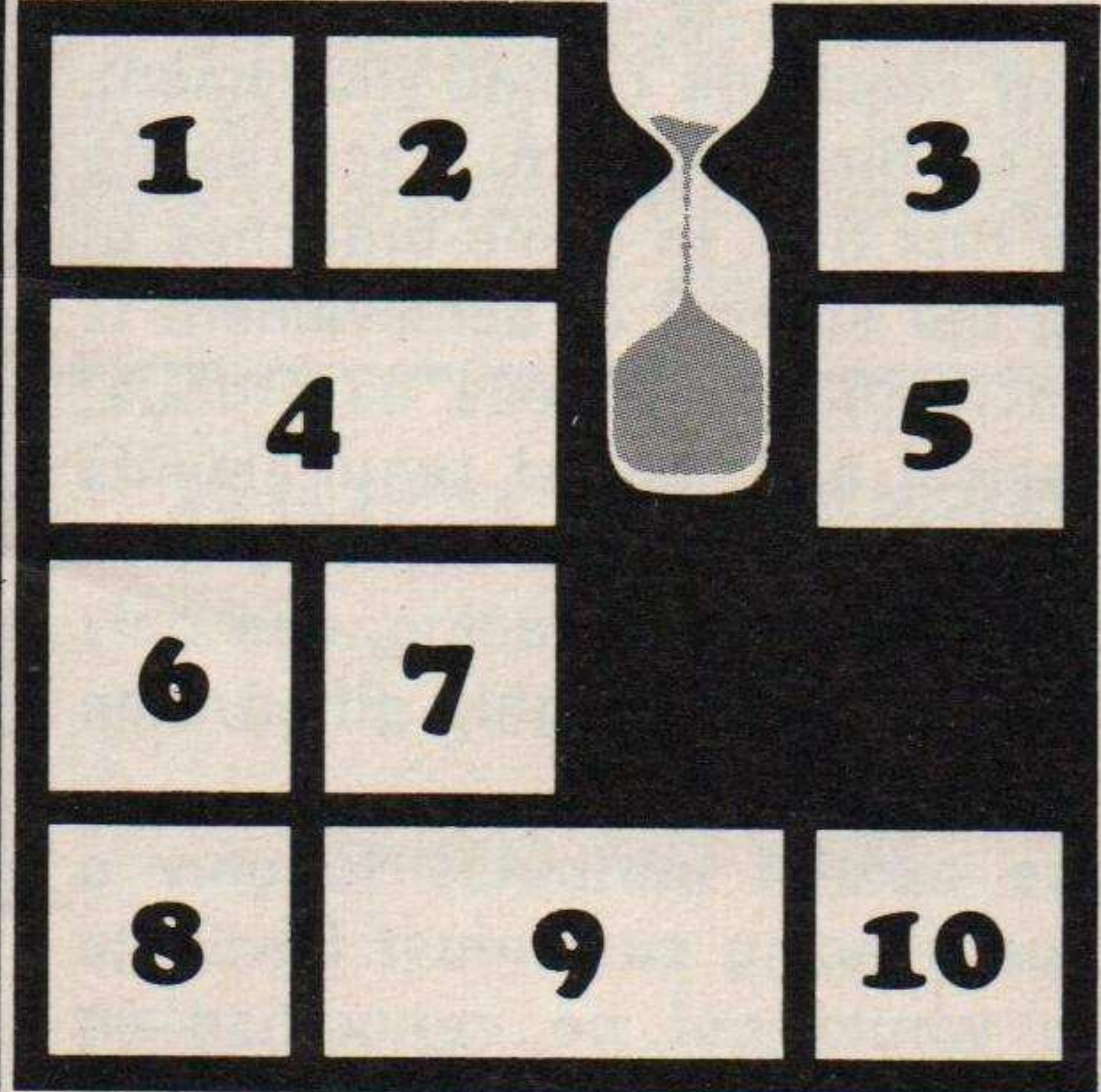


Champion of champions, winner of virtually every event in the motorcycle calendar, Mike Hailwood, M.B.E., mounts his record-breaking Honda at Brands Hatch. Mike's contribution to the 1967 racing scene is featured on pages 6-9.

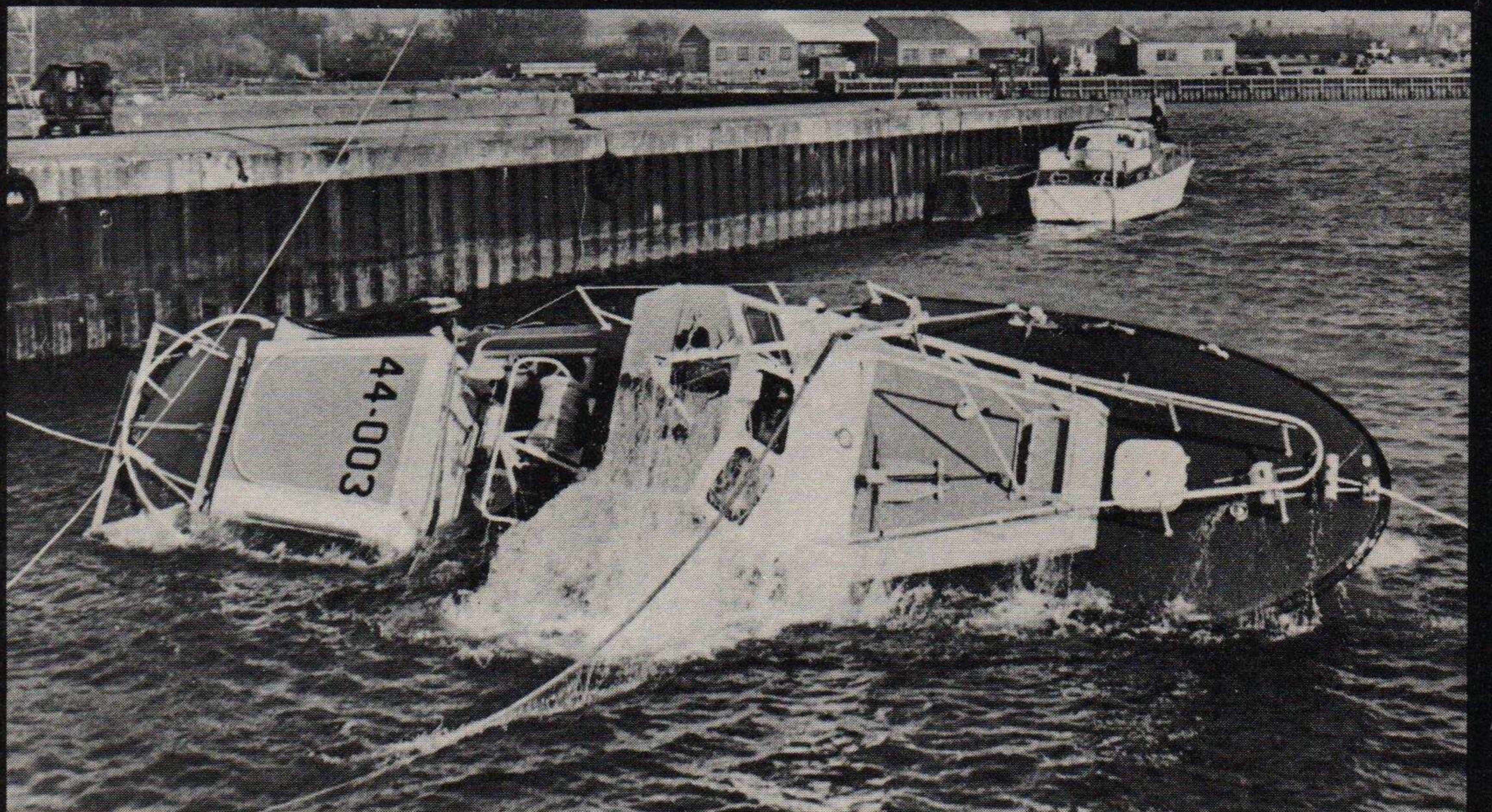


All roads lead to Scotland, especially when the increasingly popular rally staged in that country is under way. Here, competitors park for a lunch break before renewing the battle through some of the finest motoring terrain in Europe. In 1967, Roger Clark's Lotus Cortina won for the third time. See page 10.

Achievements



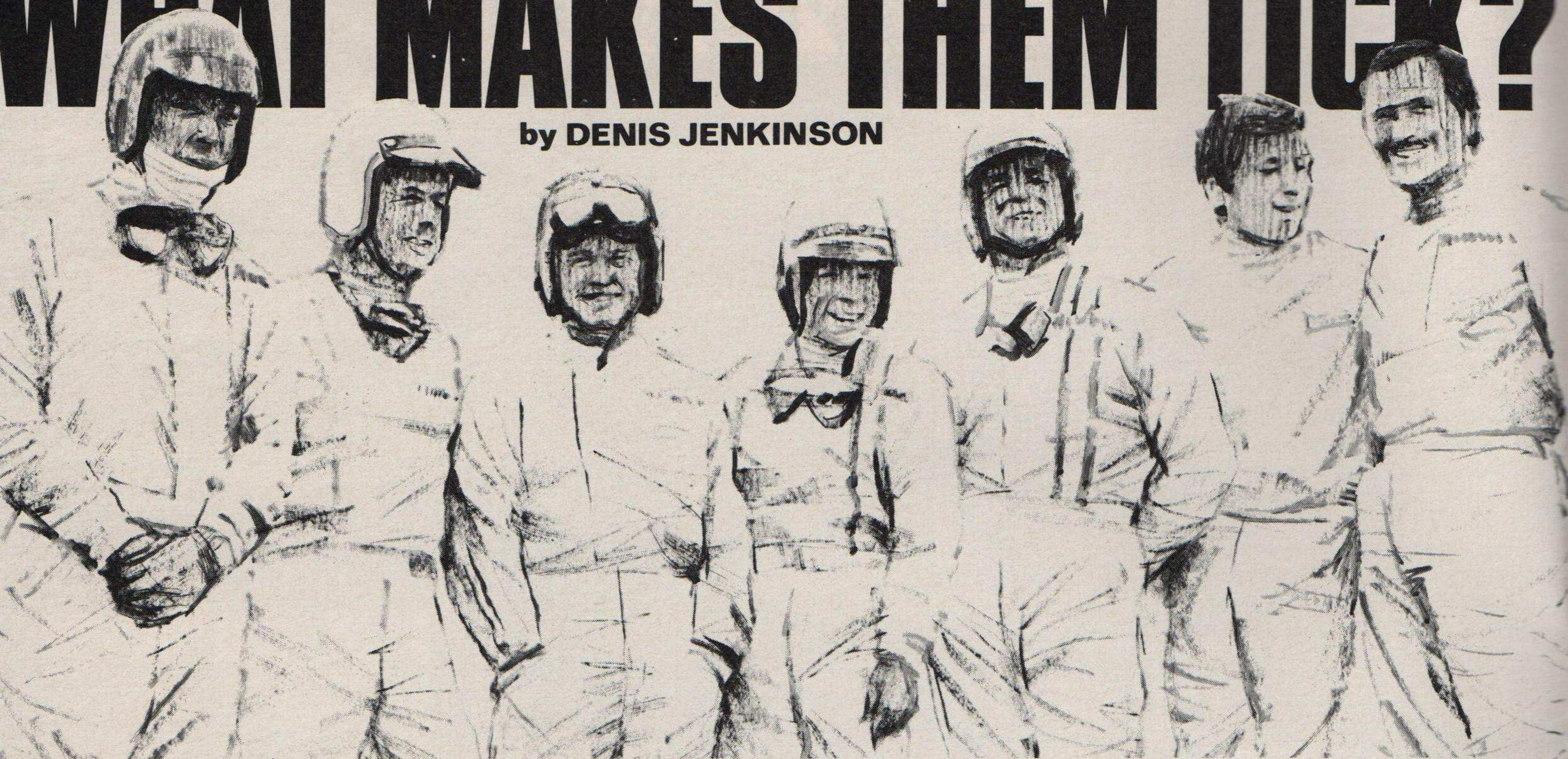
COVER 1 Frank Gardner, British saloon car champion, corners his Ford Falcon at Brands. 2 The "Hatch" 30ft. in-shore lifeboat on trials at Littlehampton. 3 John Rhodes aboard his Mini-Cooper S at Brands. 4 Gurney plus Eagle at Silverstone. 5 Glamour girl of racing, Anita Taylor. 6 Lola/Aston pit at Le Mans. 7 The Queen Elizabeth 2. 8 Paul Hawkins' Ford GT40. 9 Hailwood in the "Hutch." 10 Roger Clark's Ford Lotus Cortina in the Scottish Rally.



Capsizing trials at Lowestoft for a new American-designed lifeboat. See "For those in Peril," page 23.

WHAT MAKES THEM TICK?

by DENIS JENKINSON



Just why are drivers like Clark, Hill, Surtees, Gurney, Stewart or Hulme at the top of their professional tree? A lot of people think it is simply a matter of money and opportunity, but it is a much more complex affair than that. Certain physical attributes are vital: obviously drivers must be fit and healthy, but they must also be born with the right physical and mental make-up, the right combination of aptitude and attitude.

The physical attributes which must be well above average standard can be analysed: sensory perception, which involves keen eyesight in particular; nervous processes, which govern co-ordination and response; and intelligence of the sort that furnishes good judgement and anticipation. Somebody with all these things present in generous measure, like Clark, is a 'natural'.

There are plenty of potential 'naturals'—but they are not all Grand Prix drivers: their

interests lie elsewhere, and if they engage in some other physical activity they may excel in it as Clark does in motor racing. The 'natural' requirements are a basis: in addition there must be an interest in cars, a competitive urge, and above all the will to succeed. Add to this a measure of ruthlessness, a modicum of ire, even of temper, and you have the basic requirements of a true World Champion.

Let us return to physical requirements and see how the system works. What a driver sees or feels is relayed by his central nervous system for analysis by his brain, which in turn passes instructions to his muscles to provide the response to the original stimulus. First the sensory perception, then the nervous processes, with anticipation and judgement monitoring the whole business and providing a 'feed back' to the sensory system. In a well-co-ordinated driver there is much to be gained by interplay of these functions: anticipation can help his visual and balance systems, his natural reactions can speed the transmission of information, his judgement controls the degree of response. Anywhere

along the line, conditioned reflexes can speed up the process or compensate for deficiency, which is where experience plays its part.

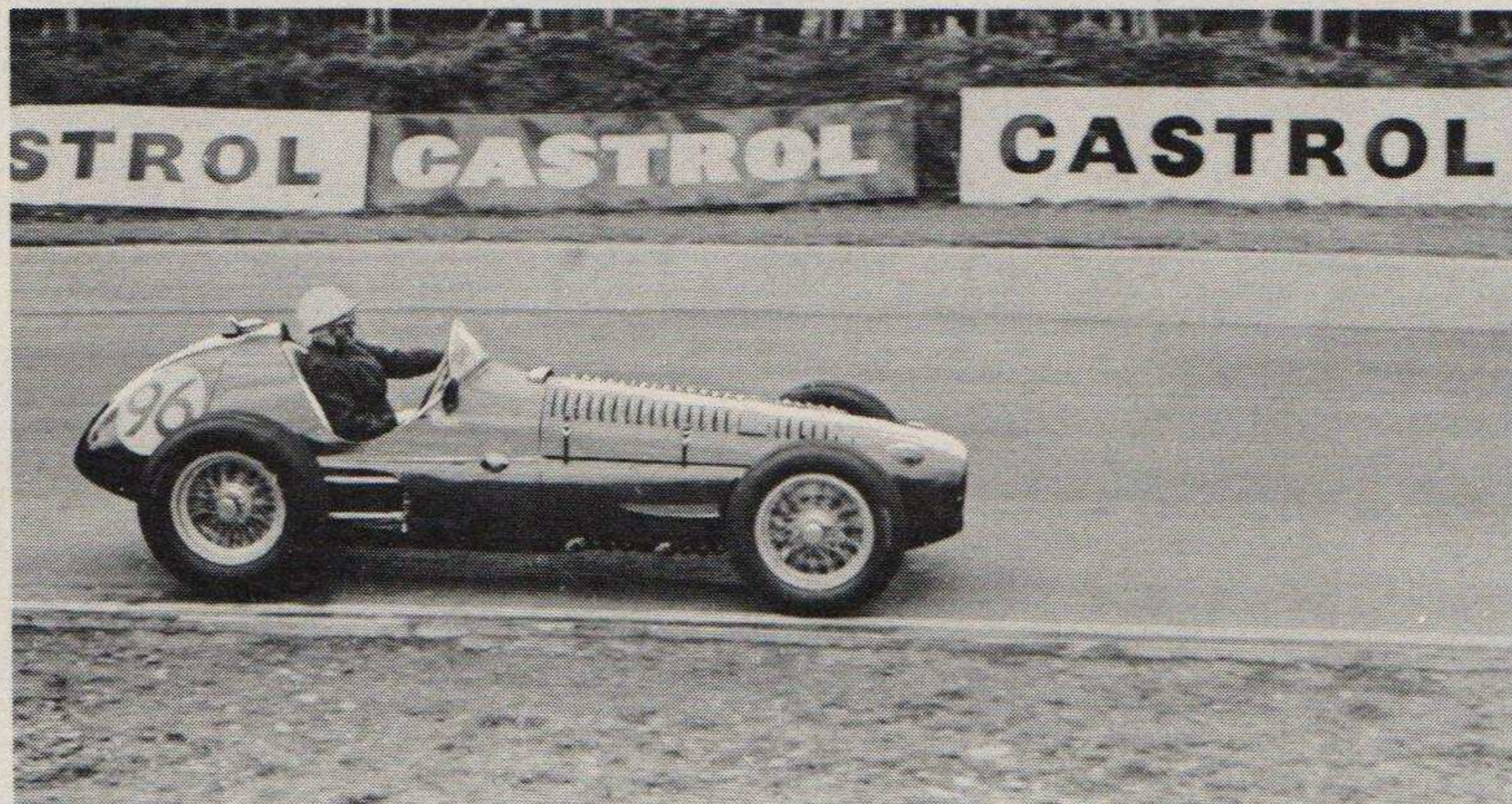
If a driver does not have this well-functioning system as a basis, if he is limited by poor eyesight, slow reactions or bad judgement, he is wasting his time hoping to reach the top of the Grand Prix tree. In some branches of motor racing the summit of achievement is easier to reach, the climb less hazardous; and the physical and mental requirements are on a different level. But the supreme form of motor sport, Grand Prix racing, can only attract the best—the few highly gifted men who set the pace.

Having these natural attributes is only a start. Obviously racing cars must fascinate you, or you would not be concerned—in which case, if you had the required physical make-up, you might go off and become a ski champion or something like that. It isn't even enough to like racing cars: you must want to drive them to their limit, have the urge to show that you can drive them to a higher limit than the next man. In other words, you must have the will to compete and win.

Moss again—with Gurney during the PAN-AM series.

MOSS RIDES AGAIN

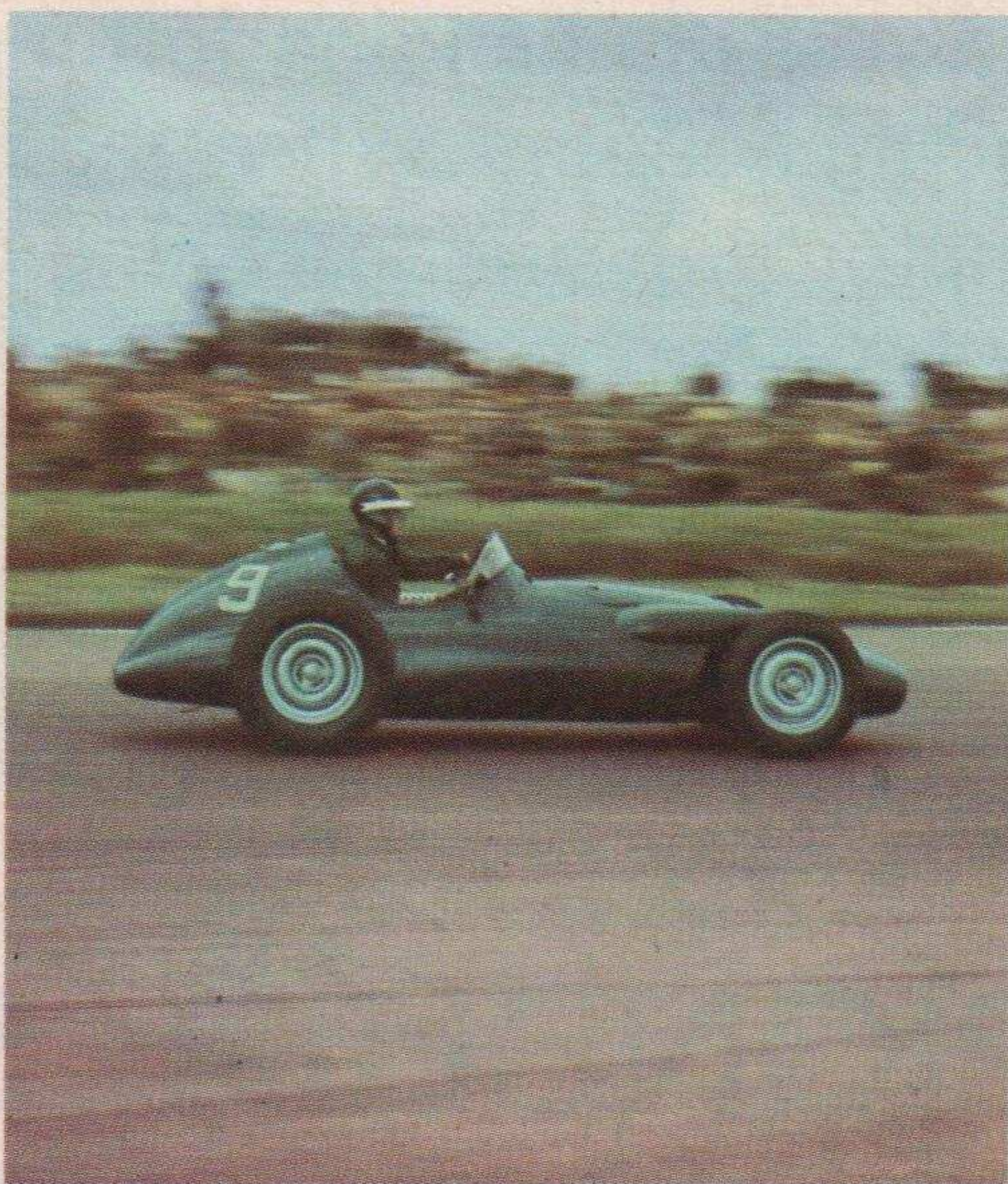
Stirling Moss. The name is inseparable from motor racing. In 1967 the driver who attracted the crowds and the plaudits as few have done before or since returned to a scene of former glory. He took the wheel of the supercharged BRM in an evocative demonstration run at Brands Hatch.



Merely to compete and be content with second or third place will never get anyone into my top rating.

With so many rivals trying to get to the top, a degree of ruthlessness becomes essential. You must have a slightly mean attitude towards competitors, not to such an extent that you are shunned by other people and banned from the race tracks, though I have known attitudes as extreme as that, but sufficient to imbue you with that lust for supremacy, that compulsive urge that says 'I am going to be first into the corner'. If you have consciously to say this to yourself, to give yourself moral encouragement, you can pack up right now; it has to be an inbuilt subconscious reflex. A driver who thinks about the chap in the car in front as being a friend is never going to win, for racing is competitive and competitors must be enemies. There are a number of professional drivers today who are never going to win anything worth talking about for this reason. They are basically nice peaceable chaps, and nothing will rouse them. Equally there are a lot of hooligans who are belligerent at all times, and they will never get to the top, for they obviously lack judgement.

Earlier I mentioned temper, and by this I do not mean flying into an uncontrollable rage; I mean having a nervous make-up that will react to the stimulus of adversity. Say to one driver "You'll never do it" and he will agree with you and not even try. Those at the top will react automatically by trying harder than ever and using all their faculties to their limits to produce remarkable results. Clark and Gurney are two present-day examples of



Hawthorn aboard the 4-cylinder BRM of the '50s.

drivers with this temperamental urge. If something goes wrong with the plan, whether it is their own fault or someone else's, they are able to draw on remarkable reserves of concentration, anticipation and judgement and play every situation right up to the thin dividing line between control and disaster; and they can surpass this with forays into the realms of disaster—to recover by exploiting their highly developed perception, judgement and response mechanisms.

Analysis of a top Grand Prix driver's career will show him to be outstanding not so much because of the successes he has had in winning races, but by the way he won them and also by the way he lost races. The 1967

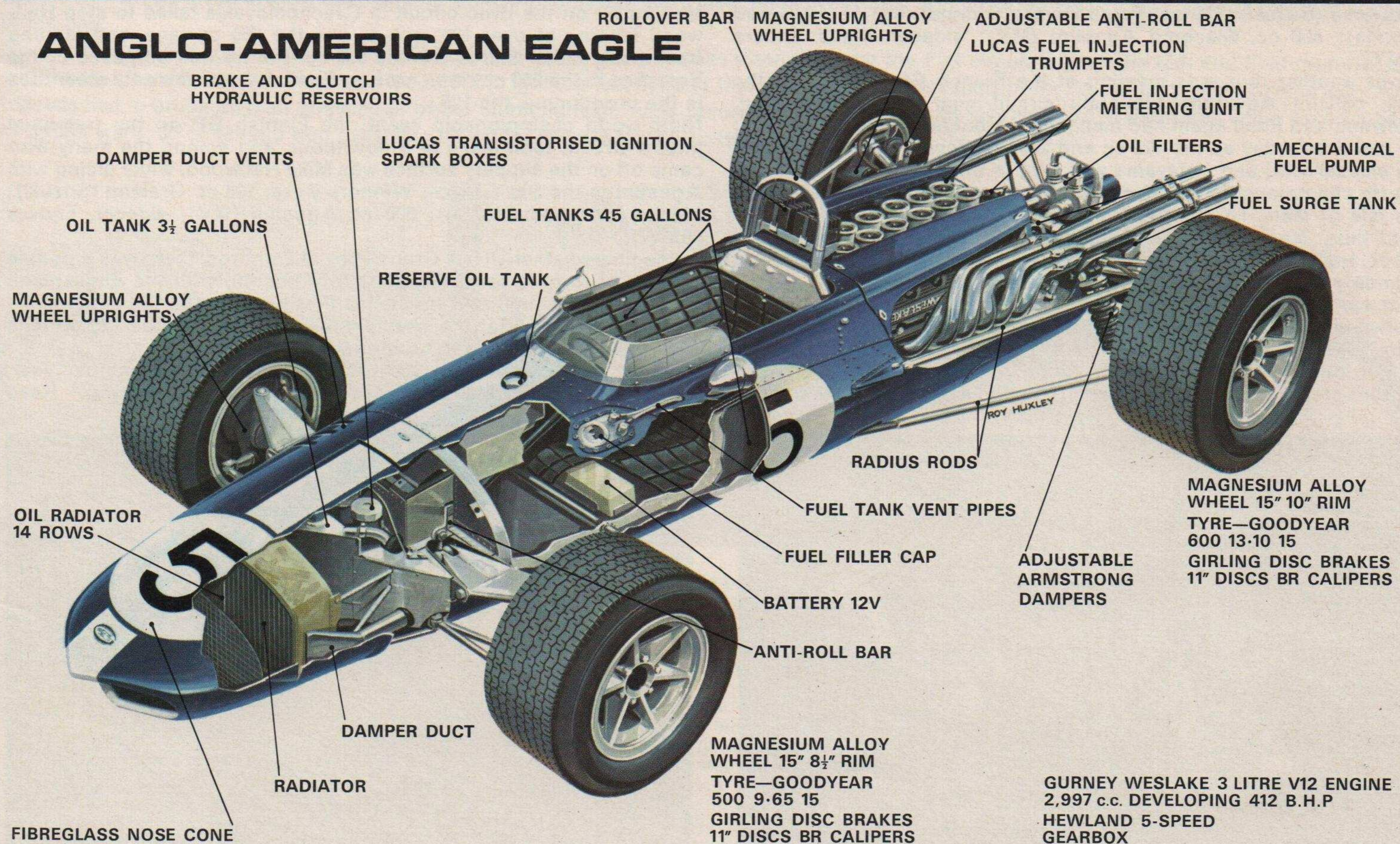


Collins sports the prancing horse of Ferrari—1958 version.

Italian GP on paper saw Clark third, giving no idea of the true situation where he outdrove all the opposition only to have victory taken from him by mechanical default on the last lap. The same applies to Gurney in the German GP in 1967, where he retired with mechanical trouble while leading by a large margin due to superior driving.

The path to the top is not easy, and once there it is even more difficult to stay there. Without the few basic physical requirements I have listed, which are born in the human being, not fed in at a later stage, there is no point in trying to reach stardom—especially while there are those in occupation who have all, or nearly all, that it takes.

ANGLO-AMERICAN EAGLE



It was a year of new records, a year of changing fortunes and see-saw positioning in the battle for motorcycle racing honours. When the contest was over Bill Ivy and Klaus Enders joined the championship brigade, along with Hailwood, Agostini and Anscheidt. But all credit to Phil Read, who was so nearly in the honours list.

CHAMPIONSHIP SCENE

by Cyril Quantrill

The Spanish Grand Prix on the fantastic switchback of Montjuich Park, Barcelona, set the 13-round world championship season on its course, and set the pattern of many races to follow. Mike Hailwood was leading the 250 cc race when his Honda suffered an inexplicable puncture. Bill Ivy won the 125 cc event, but only by sticking his neck out to stay in front after his Yamaha went dead on one of its four cylinders. In the absence of a Honda challenge, the Suzuki team walked away with the 50 cc race with a win for Hans-Georg Anscheidt. Only other race in the programme, the sidecar, was won by Georg Auerbacher, driving a BMW.

A modified but still ultra-fast Hockenheim circuit in West Germany was the scene for the next round, which included all six international classes. Ivy and Yamaha team-mate Phil Read were brought down by a slower rider they were about to lap when leading the 125 cc field. Hailwood lost the 500 cc race when halted by a faulty front brake. And Hailwood and Read in turn were slowed by plug changes in the 250 cc event. Race winners were: 50 cc, Anscheidt (Suzuki); 125 cc, Yoshimi Katayama (Suzuki); 250 cc, Ralph Bryans (Honda); 350 cc, Hailwood (Honda); 500 cc, Giacomo Agostini (MV); sidecar Klaus Enders (BMW).

It was another four-race meeting at the French Grand Prix, on the hilly, difficult Auvergne Mountain circuit near Clermont-Ferrand. Hailwood and Read again had mechanical troubles in the 250 cc race; Ivy had a field-day as the 125 cc and 250 cc winner; Enders repeated his sidecar win; and Katayama was first in the 50 cc race.

Fourth championship round was the Golden Jubilee T.T. meeting in the Isle of Man. To cut short a long and much publicised story, it went thus: 50 cc, Stuart Graham (Suzuki); 125 cc, Read (Yamaha); 250 cc, Hailwood (Honda); 350 cc, Hailwood (Honda); 500 cc, Hailwood (Honda); sidecar, Siegfried Schauzu (BMW).

Next came the Dutch T.T. at Assen again with six races and with Hailwood and his Hondas making a clean sweep of the three biggest solo classes as they had in the Isle of Man. Phil Read was the 125 cc winner, Katayama led the Suzukis home in the 50 cc and Enders took another step towards winning his first world title in the sidecar race.

Eight days later the championship circus had moved to the fast and formidable Francorchamps circuit for the Belgian Grand Prix. Winning their races, Anscheidt and Enders gained enough points to ensure that they would become 50 cc and sidecar world champions. Bill Ivy's Yamaha proved faster than Hailwood's Honda in the 250 cc race and Mike was again outstripped in the 500 cc race in which the winner, Agostini, raised the lap record to 128.50 mph.

Then came the East German and Czechoslovakian rounds, a fortnight and three weeks after the Belgian, to make July a really crowded month. The Sachsenring was still wet from overnight rain when the 350 cc race opened the East German meeting, difficult conditions which gave Hailwood's skill full play. Hope that there would be a great duel between the Honda man and his rival, Agostini, in the 500 cc race faded when Mike's gearbox failed. As he also retired in the 250 cc event, with a broken valve, this was not his happiest day. Race winners were: 125 cc Ivy (Yamaha); 250 cc Read (Yamaha); 350 cc Hailwood (Honda); 500 cc Agostini (MV).

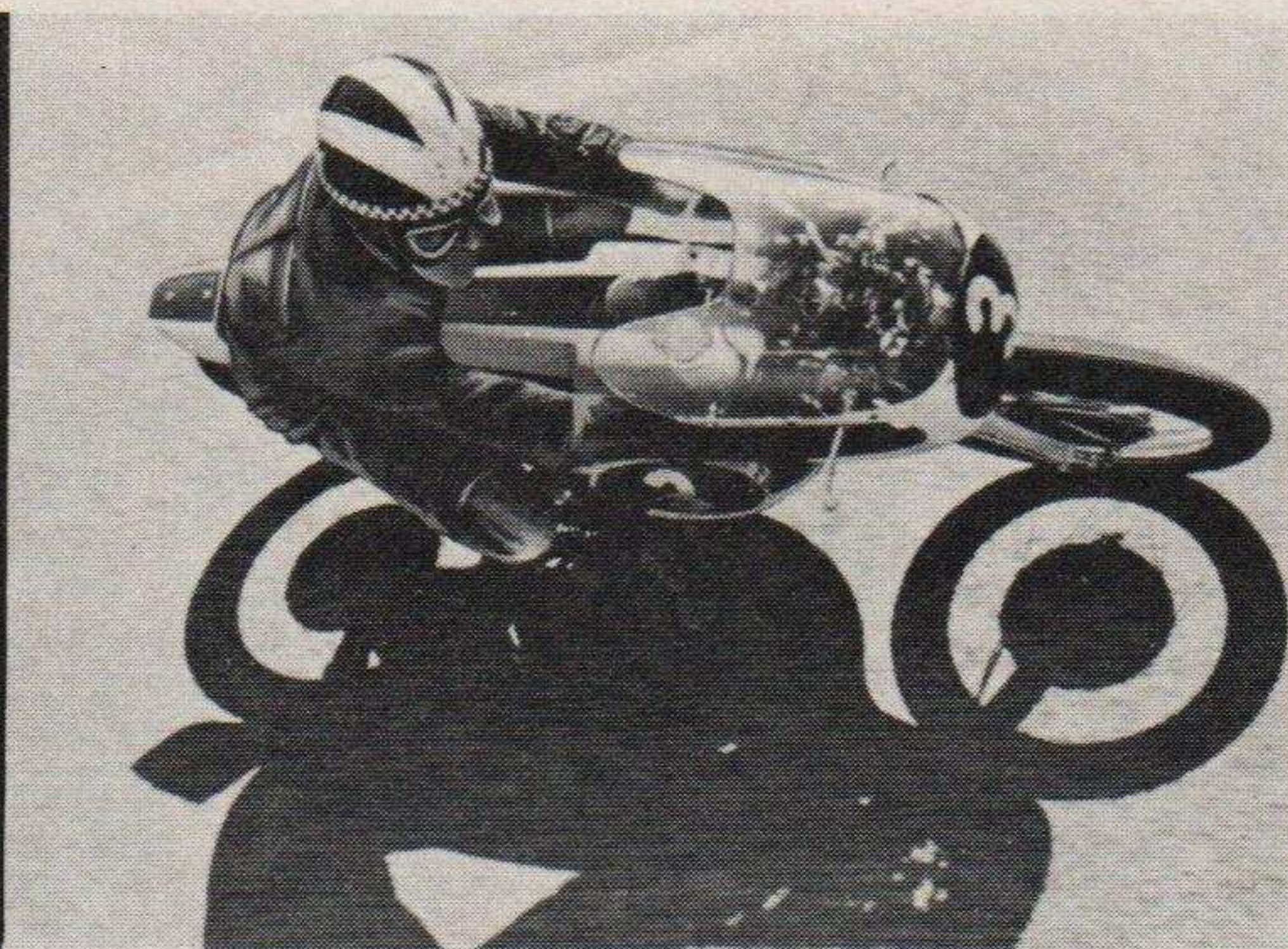
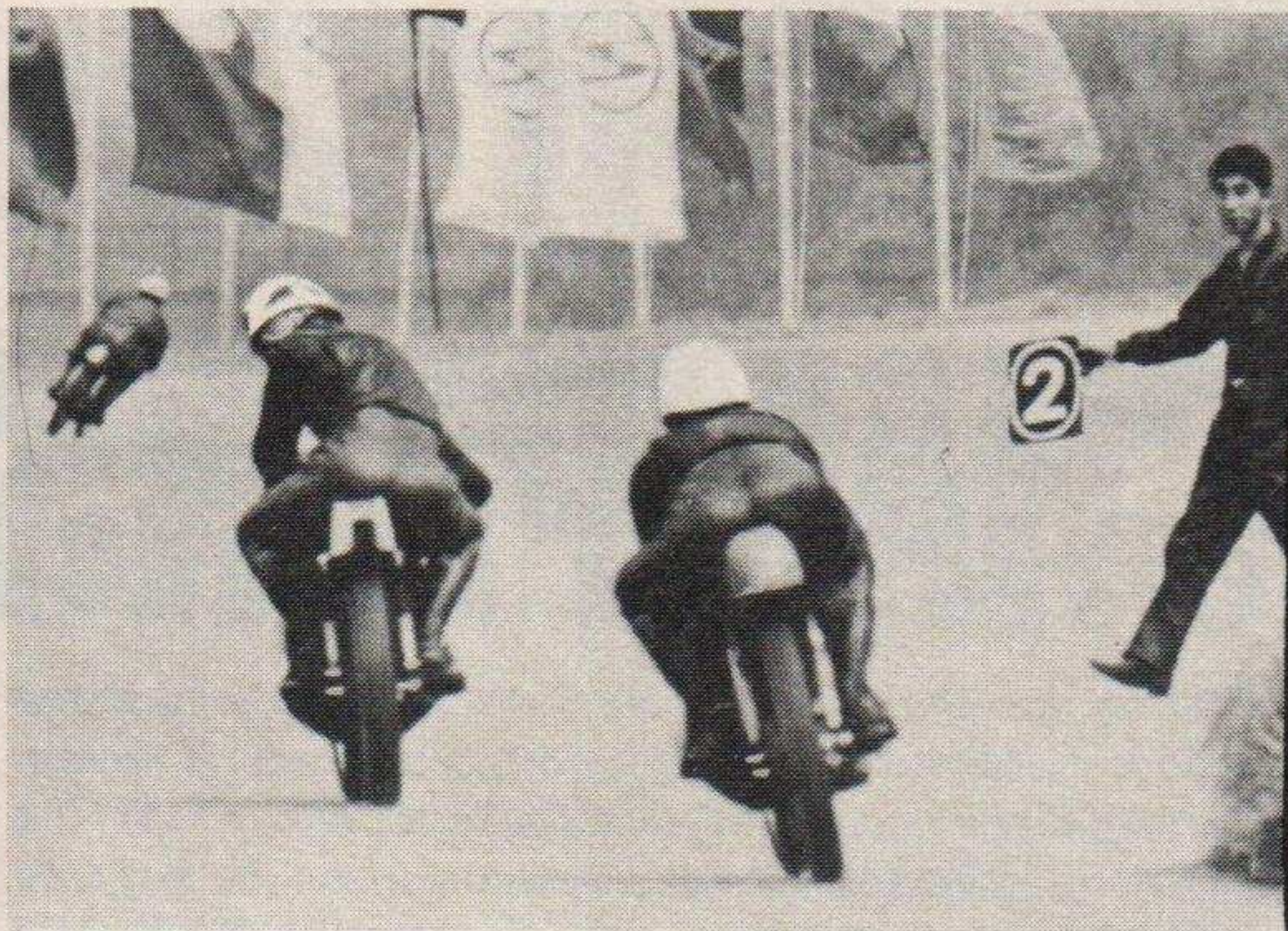
Melting tar on the Brno circuit in Czechoslovakia failed to stop Hailwood lapping at over 100 mph to win the 350 cc race, and lapping fractionally faster still to win the 500 cc. But he was outpaced by the Yamahas in the 250 cc class, won by Read. Ivy won the only other race in the programme, the 125.

Ninth world championship event, the Finnish GP on the tree-lined Imatra circuit, took place in a downpour, and among the many who came off on the slippery surface was Mike Hailwood, while dicing with Agostini in the 500 cc race. Winners were: 125 cc Graham (Suzuki); 250 cc Hailwood (Honda); 500 cc Agostini (MV); sidecar, Enders (BMW).

In the fine-weather Ulster Grand Prix, at Dundrod, there was a double change of fortune for Hailwood and Agostini, with the Englishman as the 500 cc winner and the Italian first home in the 350 cc race. Ivy increased his lead for the championship by winning the 125 cc race and Hailwood was the 250 cc winner.

By then sure of retaining the 350 cc world title for another year, Hailwood concentrated on the 250 cc fight against Read



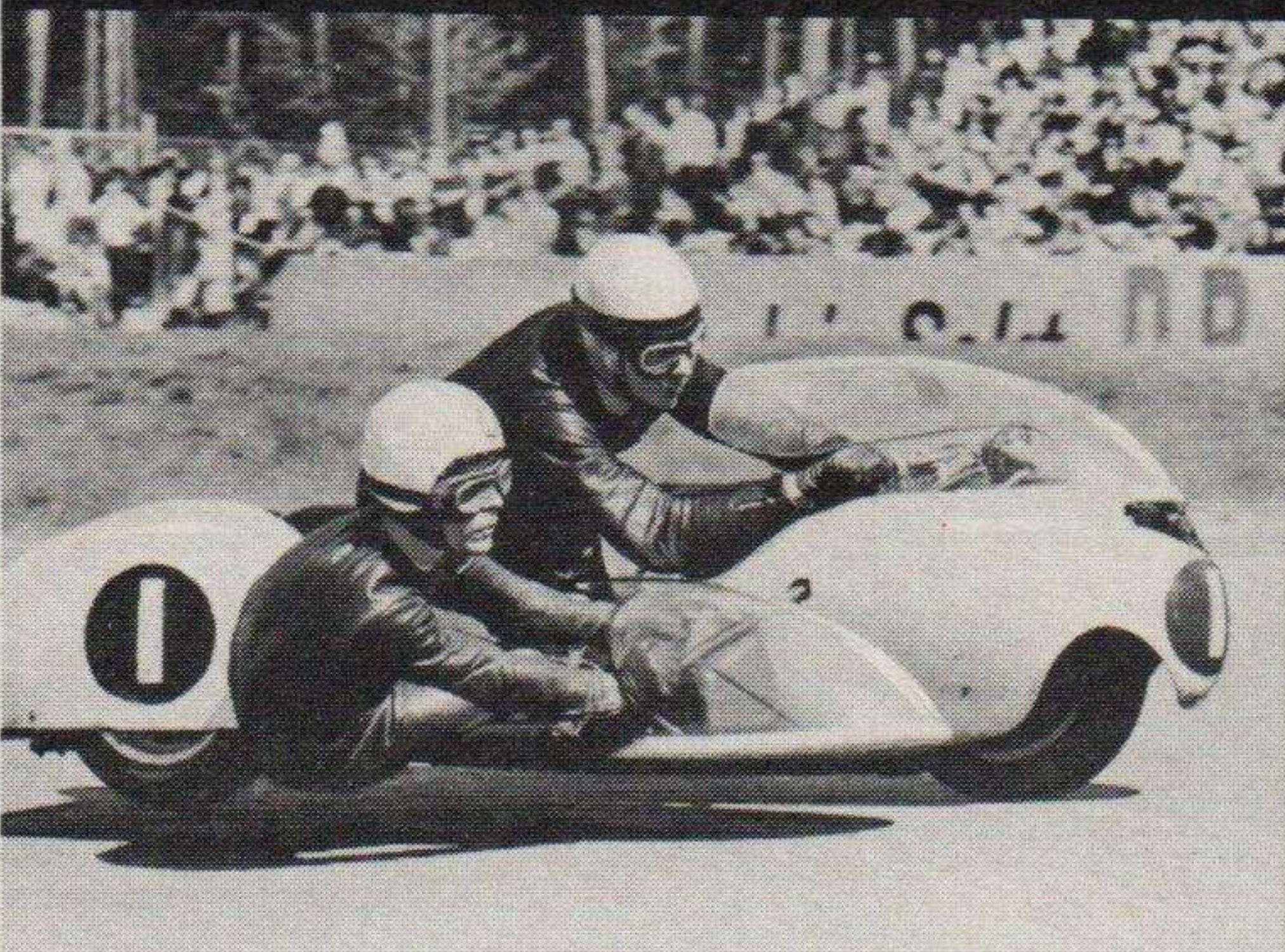
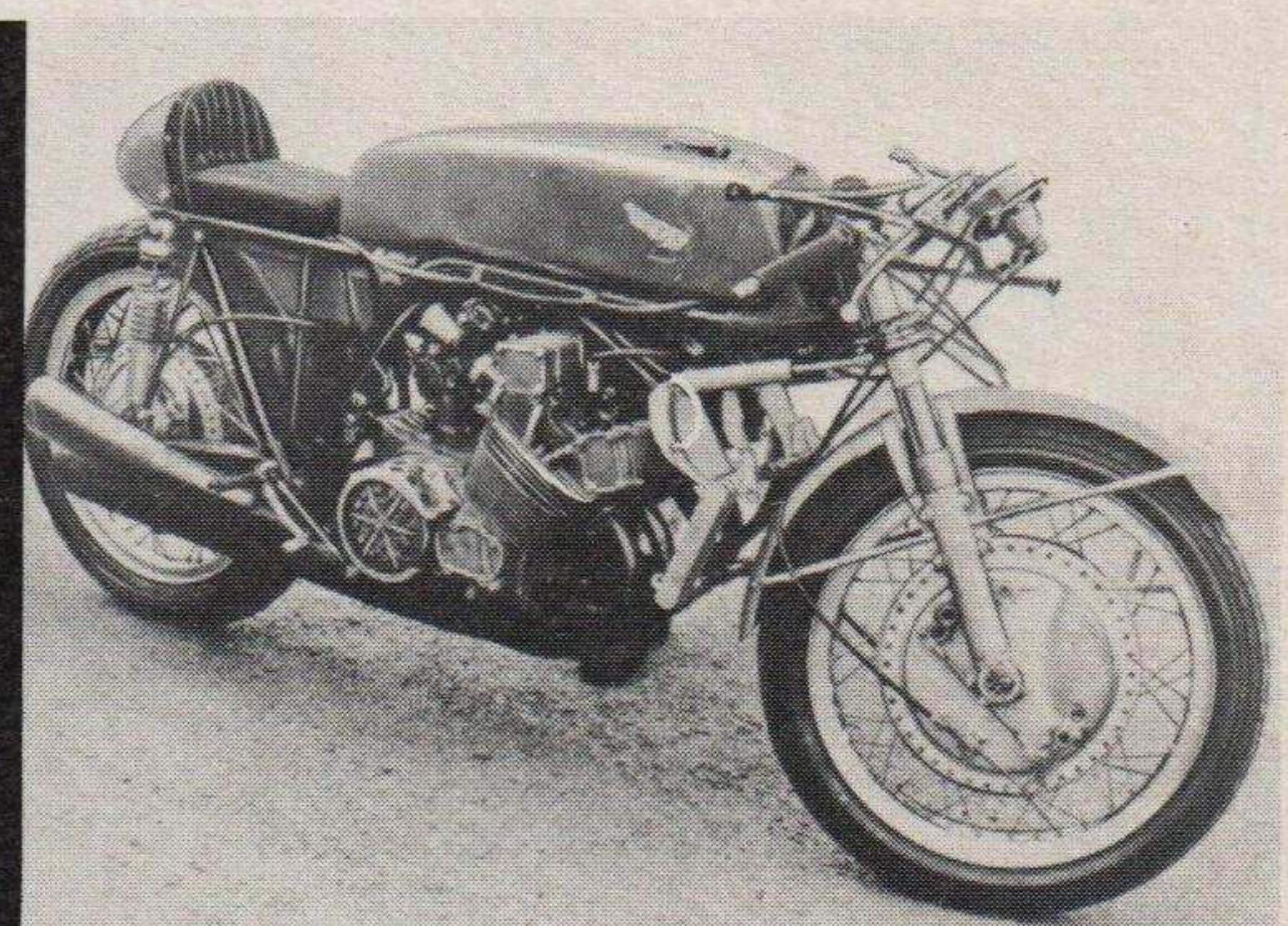


and his 500 cc duel with Agostini when the Italian Grand Prix took place at the beginning of September—only to suffer mechanical trouble in both races. Winners were: 125 cc Ivy (Yamaha); 250 cc Read (Yamaha); 350 cc Bryans (Honda); 500 cc Agostini (MV); sidecar Auerbacher (BMW). Once-only world championship status had been granted to the Canadian Grand Prix, for the centenary year, and a handful of the world-famous joined the local enthusiasts at Ontario's Mosport Stadium on the last day of September. Agostini had to do no more than finish in the first five to hold on to his 500 cc championship, so he tailed Hailwood from start to finish. Mike got home just ahead of Phil Read in the 250 cc race, which



left them sharing the top of the championship table, with only one more meeting to go. For Ivy, winner of the 125 cc class, a world title was already in the bag.

So all attention was concentrated on the 250 cc event when the Japanese Grand Prix on the Fuji circuit formed the 13th and final round of the world series in mid-October. Hailwood led until his ignition failed, Read then led until his crankshaft broke; in the end Ralph Bryans won. And officials had to brush up their knowledge of the championship rules before they could decide to give the title to Hailwood. Other race winners in Japan were: 50 cc Mitsuo Itoh (Suzuki); 125 cc Ivy (Yamaha); 350 cc Hailwood (Honda).



(Left) Enders leads Auerbacher in the French G.P.; Ivy ahead of Read in the Ulster. (Top panel) Phil Read, 125 Yamaha, takes a backward glance in the German and a forward spurt in the French; Bill Ivy pulls in at the pits during the Italian.

(Centre panel) Canadian G.P. with Bill Ivy, Mike Hailwood and Fraser McAninch, all aboard 250s. (Bottom panel) single file in the Ulster; the Honda van provides Castrol sustenance at the Dutch TT; the big Honda at Brno; sidecar ace Helmut Fath in the West German; Auerbacher at the Castrol tender on the Auvergne circuit.



WORLD CHAMPIONS



Scoring for the world championships is complicated enough to confuse many followers of motorcycle racing. In 1967, it even confused senior officials of the FIM (the international motorcycling federation) when the last race of the season faced them with a tie for the 250 cc title between Mike Hailwood and Phil Read, leaders of the rival Honda and Yamaha factory teams.

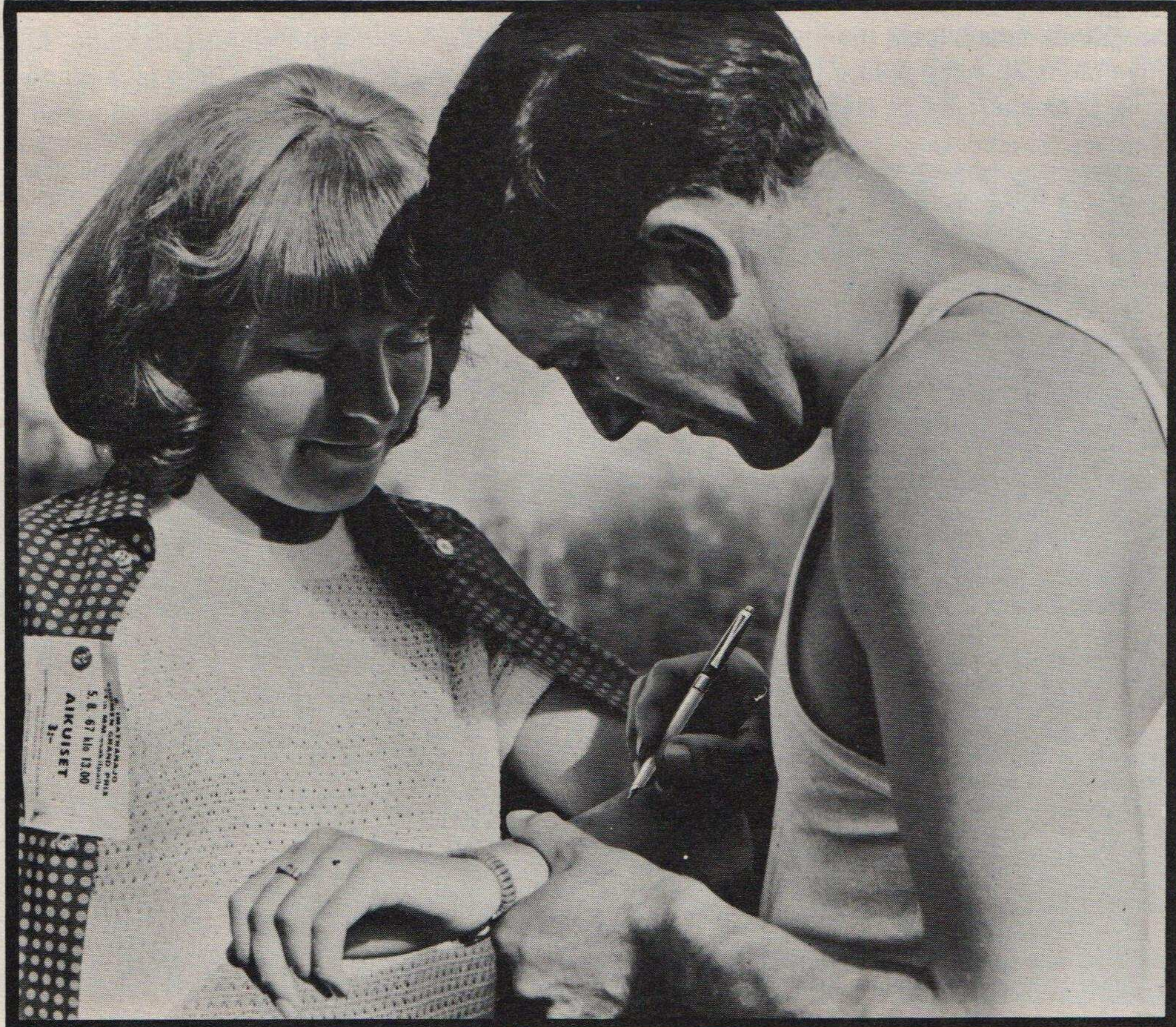
Only each man's best scores (8, 6, 4, 3, 2 and 1 points for the first six finishers in each race) in half-plus-one of the total number of races held, are taken into account when deciding the championship for the five solo and one sidecar class. The 250 cc title was the most keenly contested of all, with Hailwood and Read arriving at the 13th and final meeting, the Japanese Grand Prix, with exactly the same effective score of 50 points. Mechanical trouble prevented both from finishing in Japan and Phil thought that, with six additional non-scoring points against Mike's four, he must have regained the title for Yamaha.

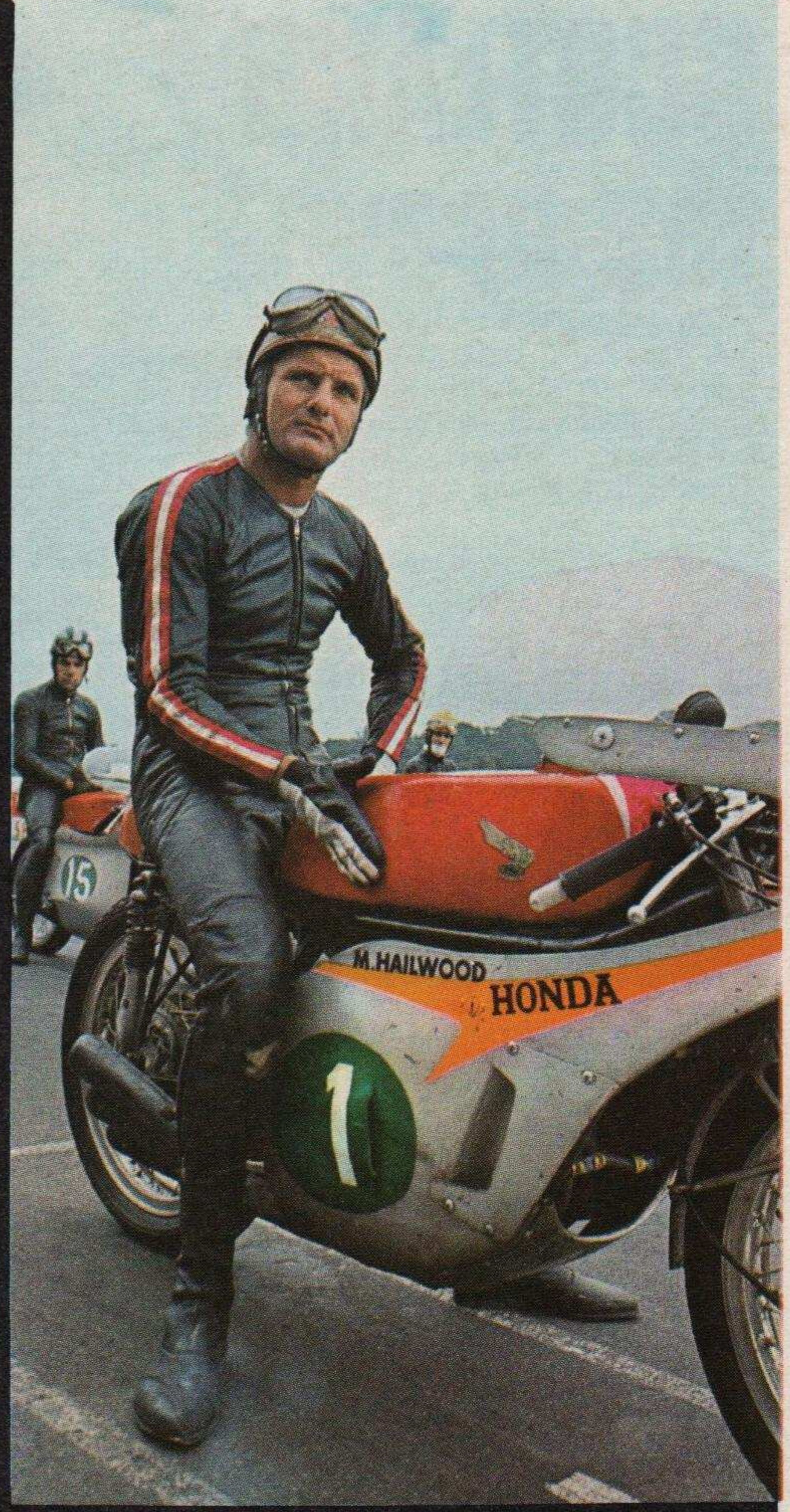
A few seasons ago he would have done, for ties were decided by taking an additional result into account. Subsequently the FIM's rules—but not, at the time of the Japanese meeting, its printed rule book—were amended so that the total number of wins became the tie decider. In the course of the season, the Honda ace won five 250 cc races, his rival won four: so Mike the Bike retained his title for another year.

Hailwood and his Honda also held on to the 350 cc championship. And at one time it looked like being a 'treble' for Mike, he put up such a strong challenge to Italy's Giacomo Agostini, who nevertheless retained the 500 cc title for MV-Agusta.

There was a same-as-before result, too, in the poorly supported 50 cc championship, with Suzuki's West German rider Hans-Georg Anscheidt holding on to his crown. Newcomers to the ranks of the champions were Yamaha's little Bill Ivy, who won the 125 cc title, and the West German pair, Klaus Enders and passenger Rolf Engelhardt, the latest in a long line of BMW users to become sidecar champions.

Pictures show: (above) pensive Hailwood; jubilant Ivy on the winner's rostrum; (below) Read autographs an admirer's arm; victory smile from Enders and Engelhardt.





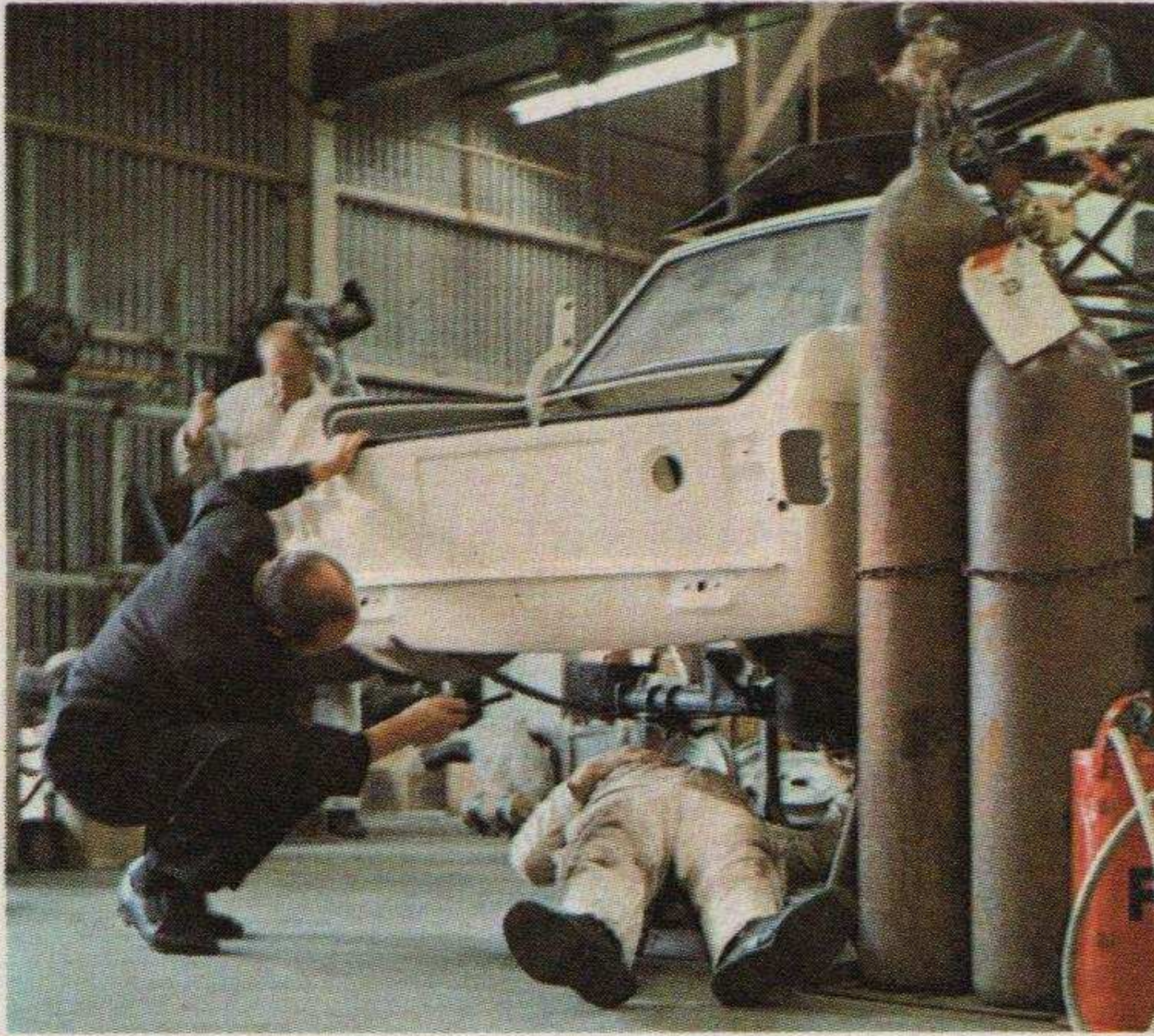
HAILWOOD — DAY AT HUTCHINSON 100

For Mike Hailwood, as for many other leading riders, the "Hutch" provides one of the best days' sport of the motorcycling year. And whether he's spotted at the wheel of his distinctive Iso Grifo, or more-or-less inevitably on the Victor's rostrum, Mike remains very much the centre of attention.



SCOTLAND— the brave!

In the tough and testing world of rallying, the "Scottish" emerges as one of the year's friendliest and most attractive events. This time, as on two previous occasions, it was won by Roger Clark, aboard a Lotus Cortina.



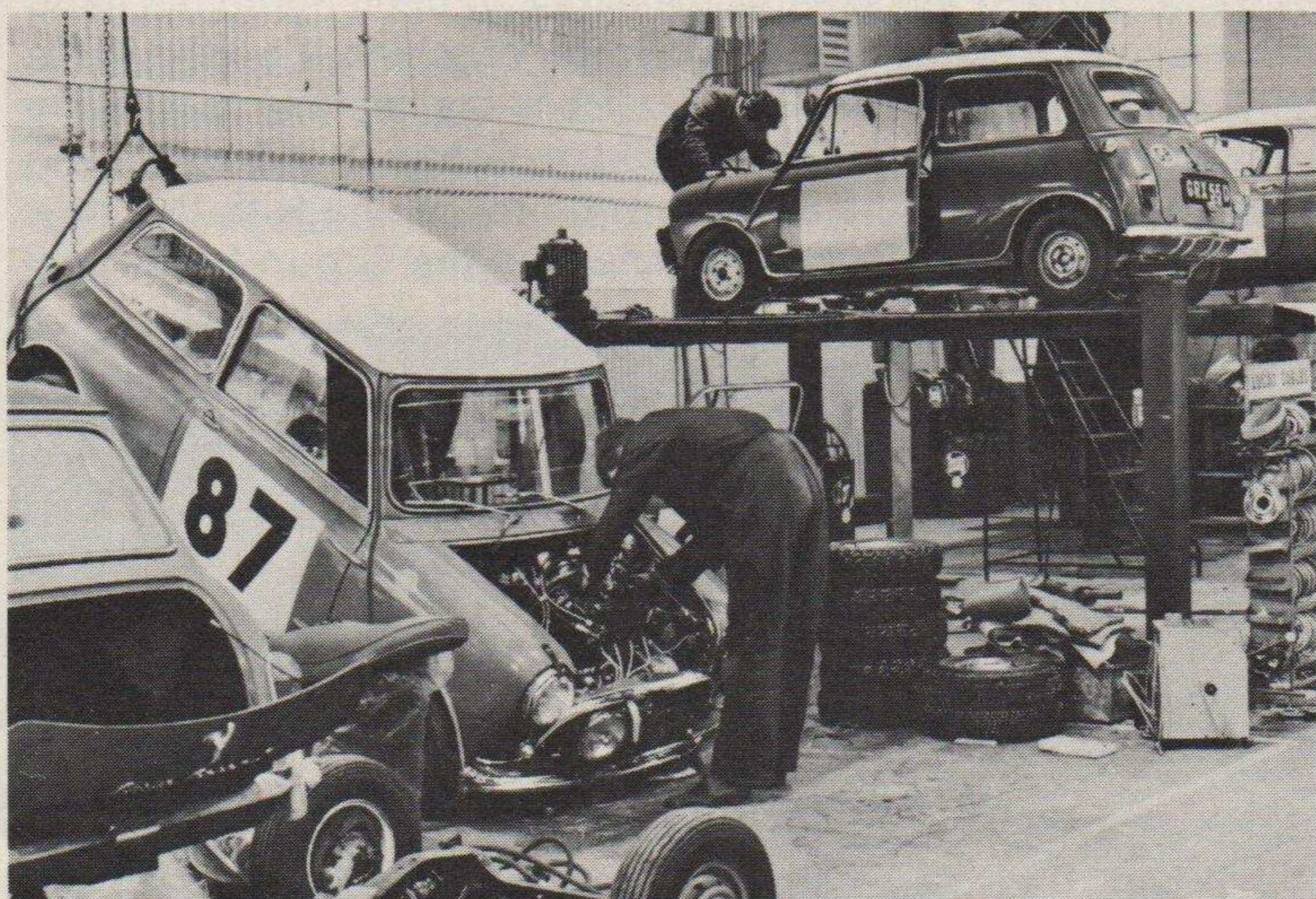
Rallymanship '67

by John Davenport

As far as the European rally season was concerned, the year 1967 was akin to the month of March which, they say, has the habit of coming in like a lion and going out like a lamb.

The lion's part was played by the Monte Carlo Rally which was one of the most exciting for many a long day, while the year ended in disappointment with the cancellation of the RAC Rally. Despite this last minute lamb, the year was a highly successful one for British firms who once again led the way in motoring competition.

Castrol's interest in rallying was centred on the two British works teams of BMC and Ford with whom they have been closely associated for many years. Of the two teams, BMC was by far the most active in rallying during 1967. Ford were having a more cautious year, as they waited to see what effect the building of a Formula One engine would have on their competition budget. In addition, Castrol supported many private owners amongst whom was the Polish driver Sobieslaw Zasada, who this year took the European Championship Group 1 away from the Opel team who won it last year.



The season opened as always with the Monte Carlo Rally which proved to be an intense fight between seasoned campaigners of BMC and the pretenders to the throne, Porsche and Lancia. In the early stages, Vic Elford in a Porsche 911S made most of the running and at the end of the first loop he held what appeared to be a comfortable lead from the three works Mini Coopers of Paddy Hopkirk, Timo Makinen and Rauno Aaltonen. However, the final night of six snowy stages saw front-wheel drive in the ascendent and he was passed by one of the Mini Coopers and a Lancia. Nevertheless, it was a close

thing and Aaltonen, the final victor, had only thirteen seconds between him and the second car, Ove Andersson's Lancia Fulvia. After such a start, it was a shame that Aaltonen could not quite repeat the dose in Sweden where he took third place and finally broke the Mini Cooper's run of bad luck in that rally. On the Rally of the Flowers in Italy, the luck of the Irish deserted Paddy Hopkirk where a broken transmission forced him to coast in to second overall but no such mishap interrupted him in





Ireland where he and Terry Harryman took their second victory in a row on the Circuit of Ireland. While Castrol and BMC were chalking up Hopkirk's home honour, Castrol and Ford were having a real go at winning the East African Safari which their Swedish driver, Bengt Soderstrom, led until he crashed in the last third of the route. Another Ford then led for a while, this one driven by local man Jack Simonian, but he too crashed and Ford had to be content with second and third overall and the very important team



prize. Another team prize was shortly to fall to Castrol when BMC won that laurel on the Tulip Rally as well as netting the Touring Category with a Mini Cooper driven by Timo Makinen. Until this point of the season, Zasada had been trying his hand with a Group 3 Porsche 911S but after crashing it on the Tulip Rally, he borrowed a similar car from the factory to win the Austrian Alpine and then bought a Group 1 912 which he drove for the rest of the season. His first outing with this new car was the Geneva Rally where he won the Group 1 category





though he was beaten in the general classification by BMC's Tony Fall who won the Group 2 category with a Mini Cooper. Later in the year, Zasada won his category on the Czech Rally and then won the Polish Rally outright and these results clinched the European Championship for him.

Tony Fall, the young Yorkshireman in the BMC team, produced several surprises during the year, for not only was he rallying regularly with a co-driver domiciled in Lancashire – Mike Wood – but he took an Austin 1800 on its first real international rally and won it outright. The rally was the Danube which runs through several countries of Eastern Europe and finishes by the Black Sea in Rumania. It was particularly pleasant for Castrol to see BMC winning this event in *their* new brainchild as before the rally was accepted into the European Championship, it was called the Castrol Danube Rally. To be able to turn back the clock is the prerogative of the raconteur so we must now pick up Paddy Hopkirk's fortunes in May when he went down to Greece to compete in the Acropolis Rally. The previous year he all but won it and so it was something of a personal triumph when, as the sole survivor of the BMC team of Mini Coopers, he finished in first place after an arduous but brilliantly judged drive. Ford too had their measure of success as Bengt Soderstrom finished third overall and second to Hopkirk in the Touring category driving a lone Lotus Cortina. Not content that the Acropolis and the Circuit of Ireland should be the only measure of success, in September Hopkirk also won the Coupe des Alpes which as a status symbol within the field of rally driving rates second only to the Monte Carlo. This last win was in the face of the very strongest opposition from foreign teams such as Renault, Porsche and Alfa Romeo.

In the initial stages of the rally some of these cars were able to outpace the Mini Coopers but only at the expense of their

own reliability and towards the end of the rally – especially in some stages clouded by fog – Hopkirk pulled away to win by quite a margin.

Although the year was to finish with the cancellation of the RAC Rally, the last two events to be held were characterised by the same type of close struggle that had opened the season. On the Munich-Vienna-Budapest, Soderstrom in a works Lotus Cortina had the tantalising feeling of leading once again only to be narrowly robbed of victory when his clutch disintegrated on the last special test in the very streets of Budapest and let the Renault driver, Jean-Francois Piot win. In Finland for the 1000 Lakes Rally, Castrol's hopes rested with Timo Makinen who had won the event for two consecutive years in a Mini Cooper. However, he was very hard pressed by Simo Lampinen in a Saab V4 in the first half and then when he had his bonnet fly open on a stage and had to drive with it obscuring his vision, the rally hat-trick seemed to be as good as lost.

Nothing daunted, the Flying Finn just went faster than was believed possible and secured his third consecutive win and Castrol's seventh outright win in the 1967 European Championship.

As with wines, many years must pass before the critics can apply the title of vintage to a season's rallying or racing, but of one thing there can be little doubt – the sport of international rallying is far from dead. For some time the pundits have been saying that in modern Europe there is no place for motor sport on the open road and yet it still flourishes and with a minimum of inconvenience to the general public. Part of the reason is that adequate sponsorship, not only for the competing teams but for the organisations which run the events, continues to be forthcoming so that the European rallies can be properly organised and receive an adequate amount of publicity.



RALLY CHAMPION

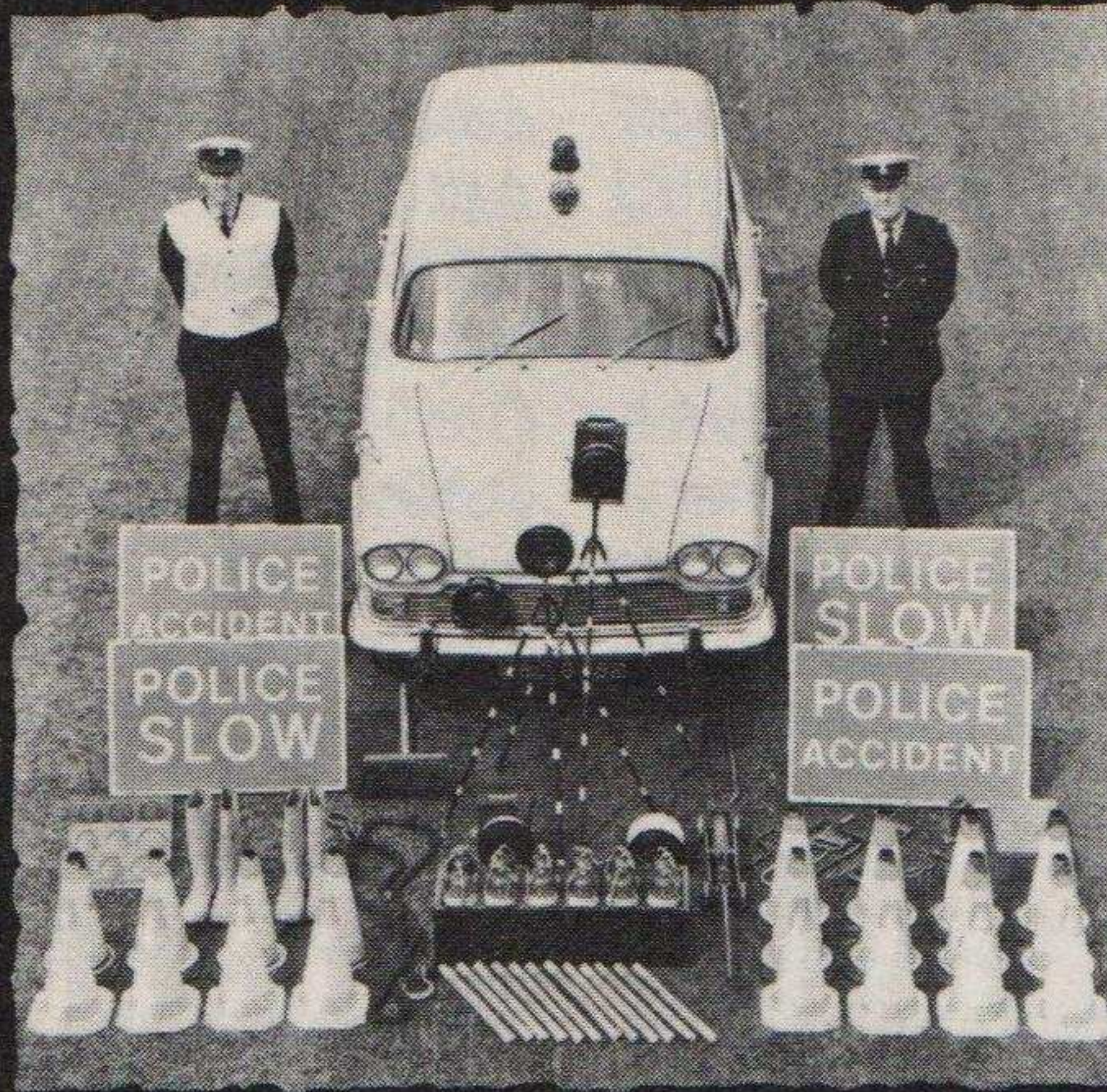
Zasada the popular Pole, erstwhile giant-killer of the European rally circus in his diminutive Steyr-Puch, topped the Group 1 category of the driver's championship in 1967 at the wheel of his privately owned, works prepared Porsche. He sliced through some very formidable opposition to gain 64 points, 20 more than Soderstrom who headed Group 2, and capping Group 3 winner Elford by 7. Immaculate, forceful and highly professional on the road, pleasant and unassuming off it, Zasada looks

capable of holding a place among the rallying elite for quite a time to come. He is often accompanied by his wife (pictured right) as navigator. His victory in the Polish Rally, where his native climate forced very nearly every other competitor out of the event, is evidence of his skill. His performances in the West German, the Czech and the Austrian Alpine for example, add to his stature. On those occasions he was placed 3rd, 2nd and 1st. A great season for a fine driver!



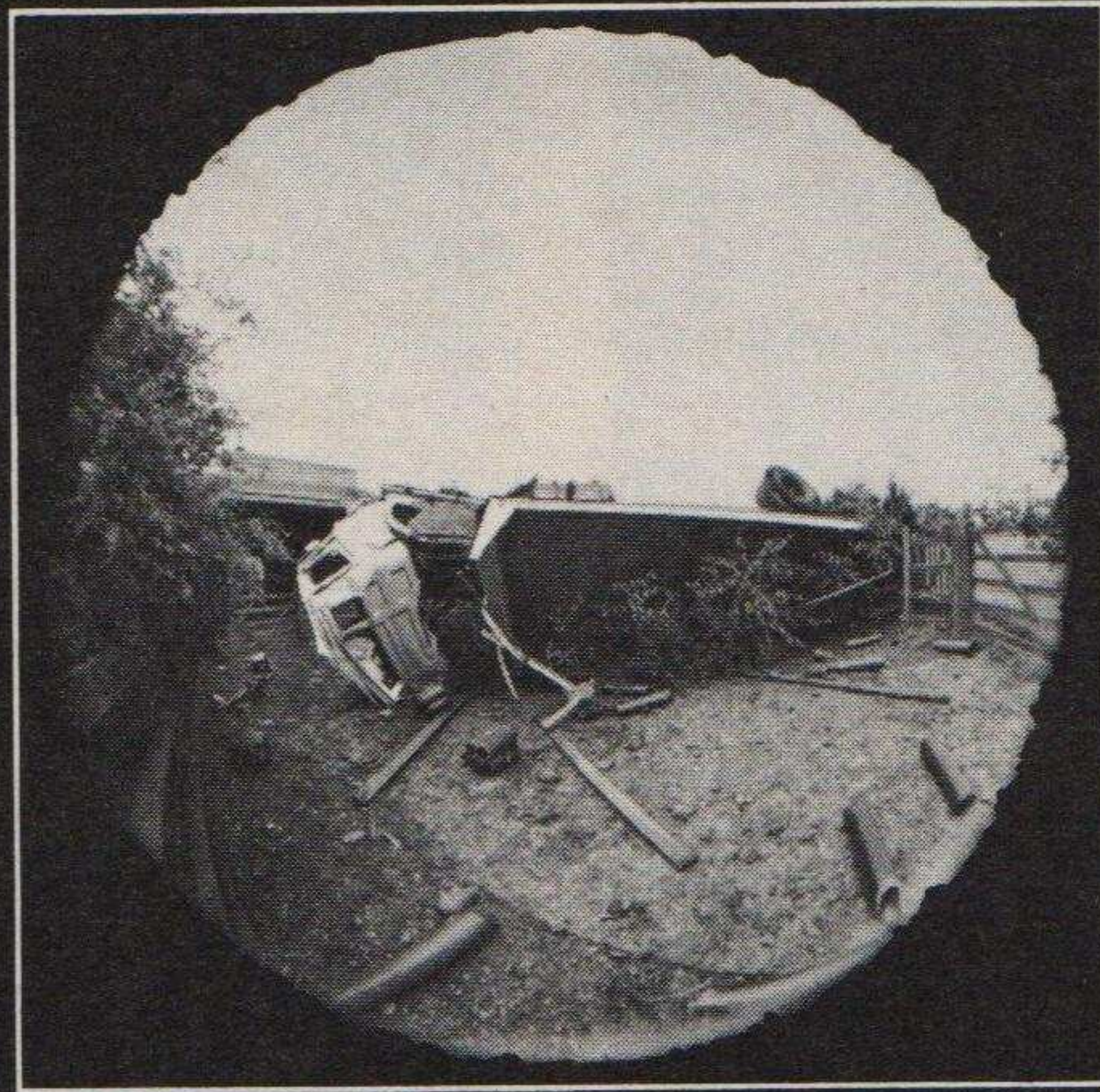


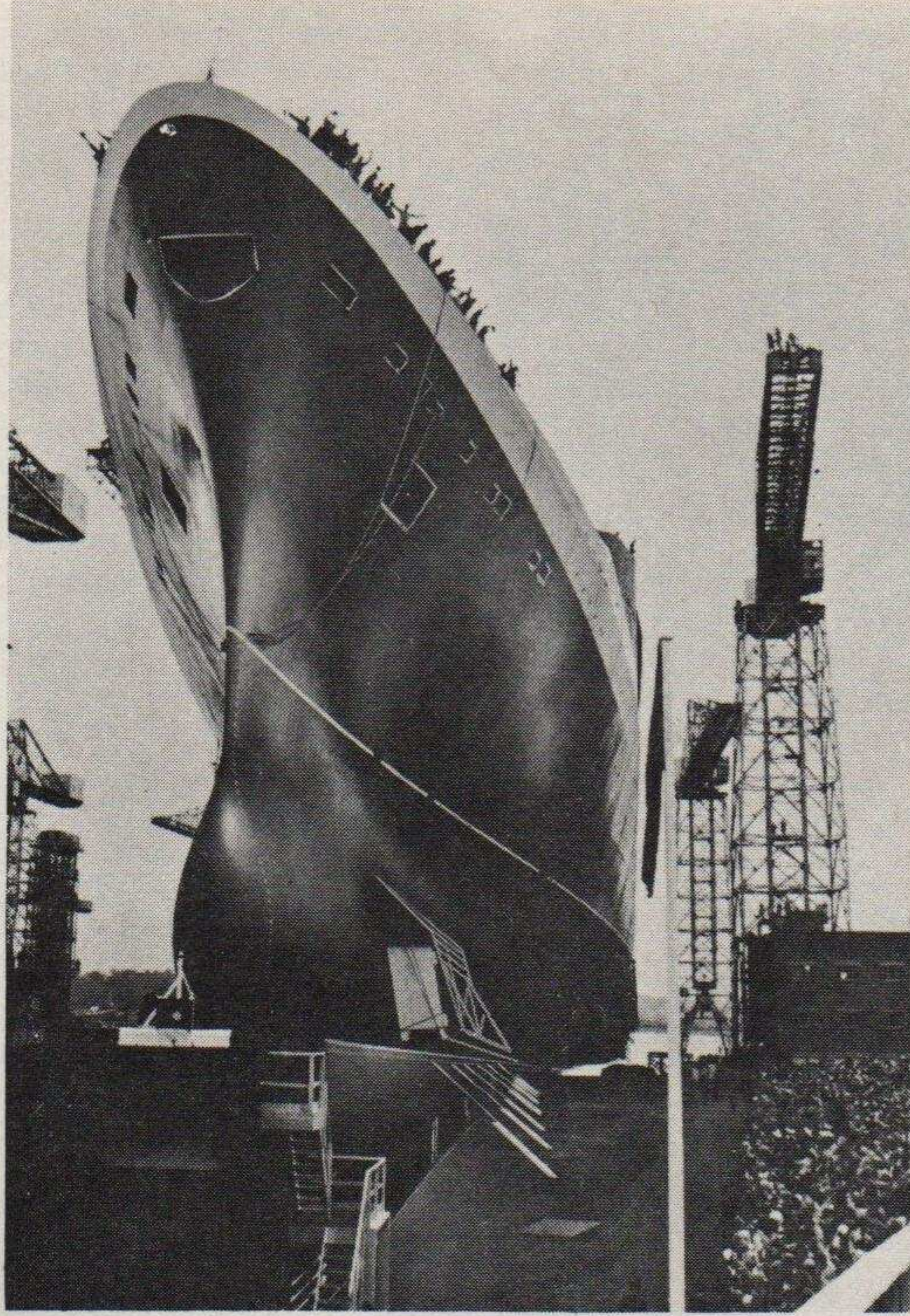
M.1 POLICE



Lorry over bank. Proceed northward, approximately 7 miles. The call goes out, the umpteenth of the day. The M1 Police Patrol under the command of Northamptonshire's Chief Constable John Gott, one time rally driver and captain of the BMC team, is perhaps the busiest, certainly one of the most efficient, motorised units of its kind in Britain.

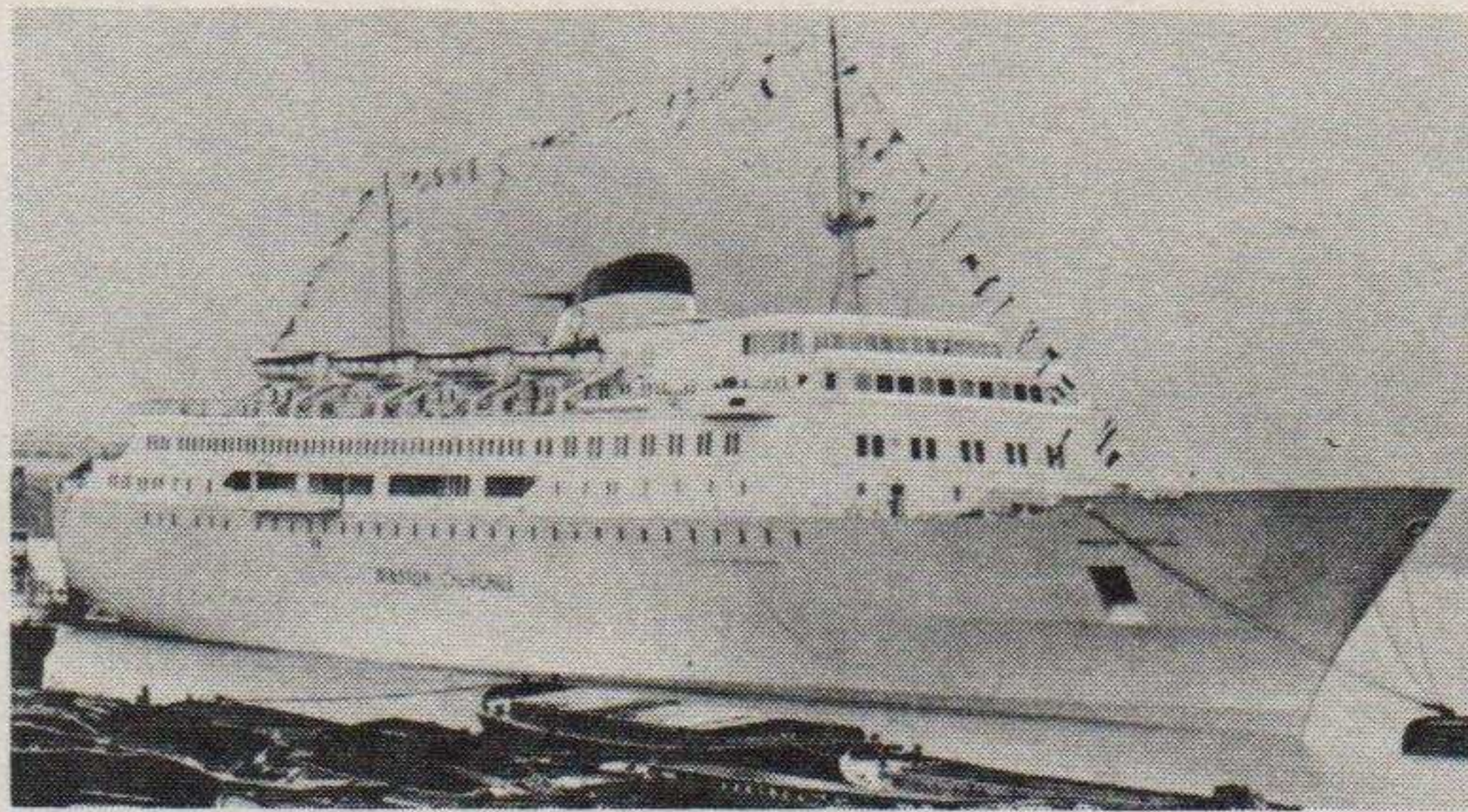
Lorry over bank. A vehicle of the Police fleet, chosen for its capacity to provide the space for special equipment and instrumentation plus the requisite pace, makes its way northward. A confusion of upturned machinery and clay pipes litters a field. A breakdown vehicle is called, the lorry righted and towed away. Driver OK. The patrol proceeds, one car at least on the road every hour of the day, bringing emergency action fast to the scene of mishap or disaster.





Queen Elizabeth 2. In September 1967 ship number 736, alias Q4, finally Queen Elizabeth 2, made its majestic way onto the Clyde. When ready for its transatlantic maiden voyage, the world's most advanced liner will be capable of carrying more than 2,000 passengers in unsurpassed comfort. Its highly efficient steam turbines, lubricated by Castrol, will transmit 110,000 shaft horsepower to twin props, producing a service speed of 28½ knots.

United Steamship's 10,000 tons m.v. Winston



Churchill, was officially named by Lady Spencer-Churchill at Greenwich before entering service on the Harwich-Esbjerg route in June. Flag ship and pride of the Danish Company's fleet she, like so many ships and boats ploughing the seas, the lakes and rivers of the world, is Castrol lubricated.

SR-N4. Britain's newest and biggest Hovercraft, of the 'Mountbatten' class, cushioned its way into the limelight of 1967. The British Hovercraft Corporation's SR-N4 carried the hopes of a youthful and vital

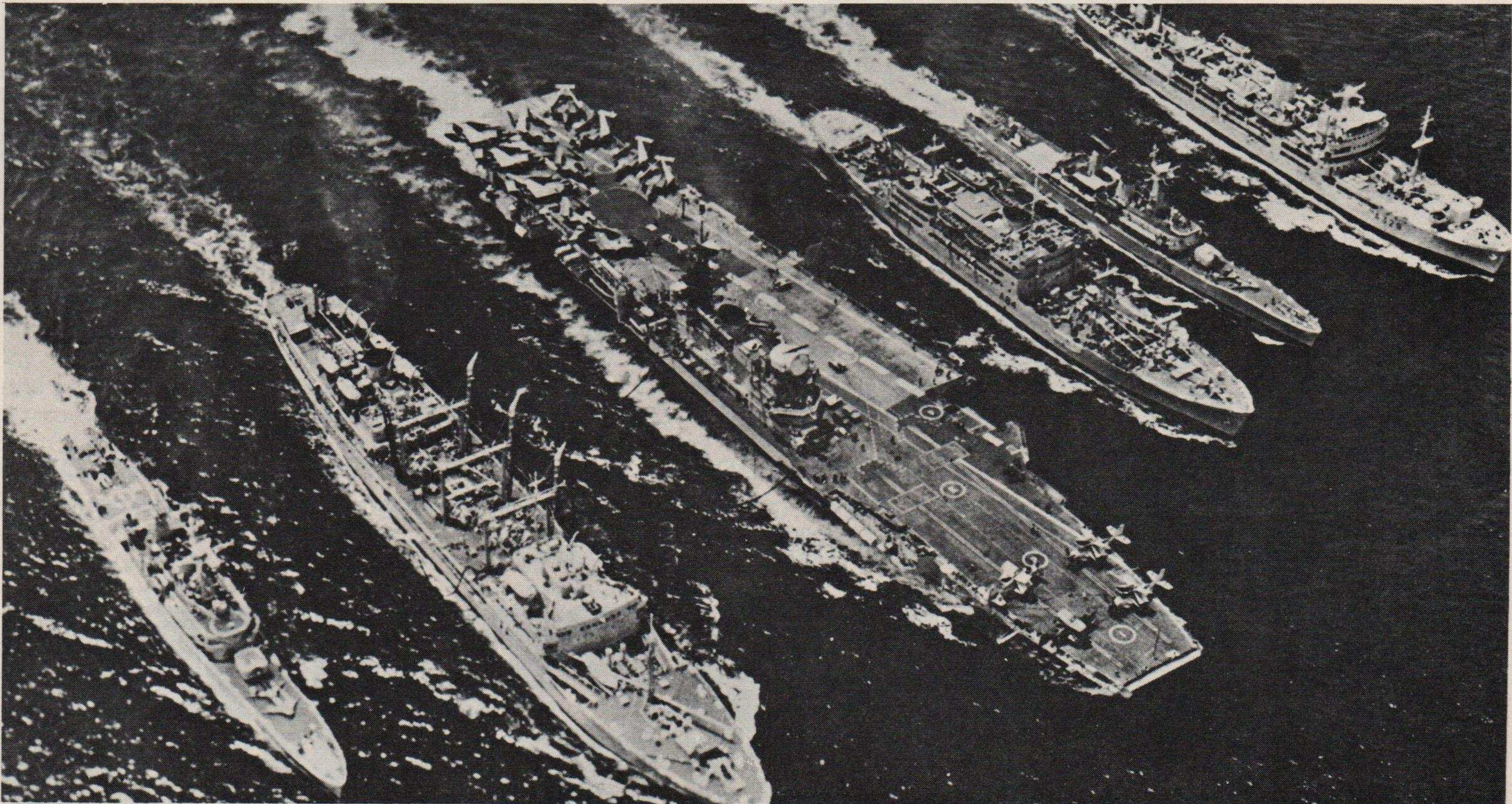


industry as it underwent hover and thrust trials, preparatory to full-scale tests on land and water. Those hopes were quickly realised. This leviathan Hovercraft—70 knots, 165 tons, 5,800 square feet of payload area, four Castrol-lubricated Bristol-Siddeley Proteus engines—proved an unqualified success.

EU Class Champion. Manuel Alves Barbosa won the EU Class of the European Outboard Championship with an outstanding performance at Praia da Rocha, Portugal, in August.

SEA-SCENE

The Royal Navy, diminished in strength but seldom to be outdone in muscle-flexing spectacle, pictured off Hong Kong. HMS Hermes and Minerva are seen being refuelled by the Tideflow, while the carrier Hermes also receives supplies from the air stores support ship Reliant. HMS Galatea is taking aboard stores from the Fleet Auxiliary Retainer.





Entered by such firms as Ferrari, Porsche, Ford and Lotus in several major races of 1967, and justifying their faith with some meteoric drives in prototypes and saloons, Paul Hawkins has also been his own entrant with a Ford GT40 coupé in Group 4 sportscar events, campaigning so successfully that he carried off the Autosport sports car championship.

Alan Mann has been an immense success as builder and developer of specially adapted racing Fords, and an Alan Mann entry is sought after by race organizers throughout Britain and Europe. His blisteringly fast red-and-gold Falcon won the 1967 British saloon car championship . . .



. . . in the hands of Frank Gardner, 36-year-old Sydneysider, who fought for the title throughout the year, finally clinching it at the very last round of the series, the 50-lap event at Brands Hatch in October.

While all the world was trying to beat the GP Ferraris, John Cooper and his father built the revolutionary rear-engined car that beat all the world. Still in the forefront of Formula One, he also supervises the racing of his brainchild the Mini-Cooper, running the factory team of 1300 cc saloons that have proved virtually invincible in their class.



Spearhead of the Cooper factory team in saloon racing is John Rhodes, the man whose feats of legerdemain at the controls of the fabulous Mini-Cooper S result in a spectacular tyre-smoking progress that keeps the crowds enthralled—and the class championship secure!

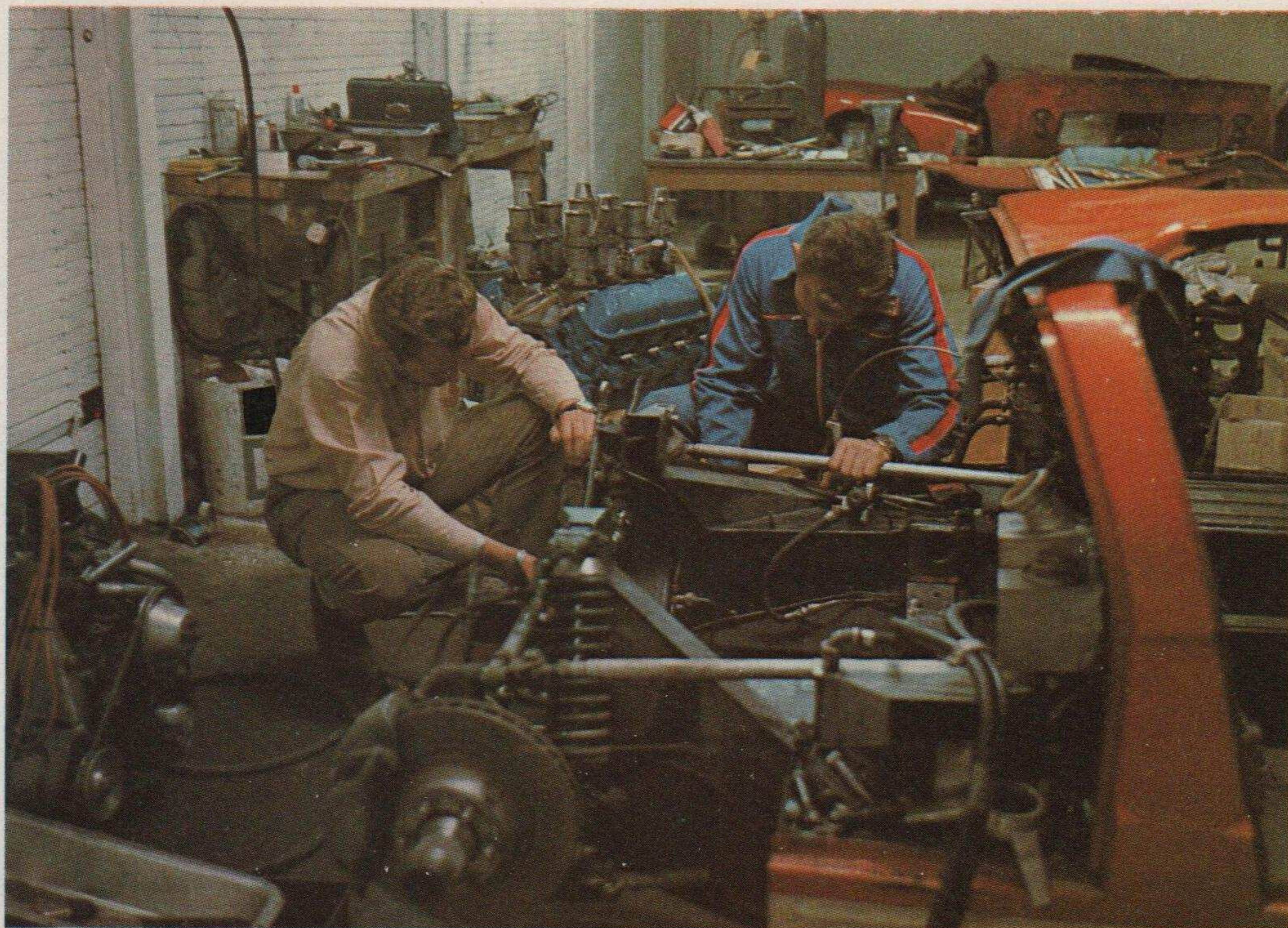
The man who made Fitzpatrick's 1000 cc Anglia so incredibly quick that it worried the 1300 cc class and nearly won the championship, Ralph Broad masterminds the whole preparation and campaigning of the Broadspeed racing outfit. Like so many other championship and class winners, he is a Castrol user.



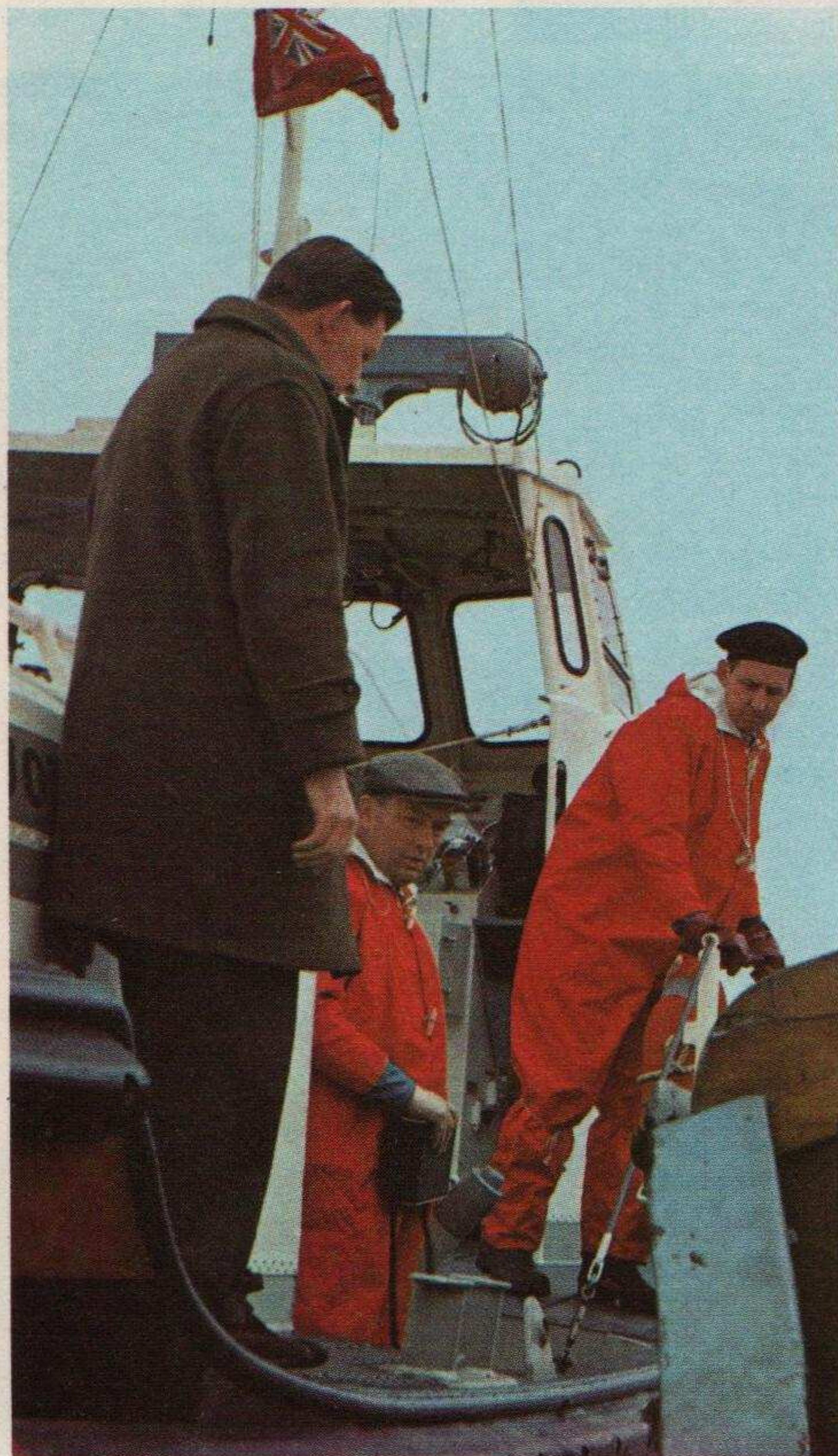
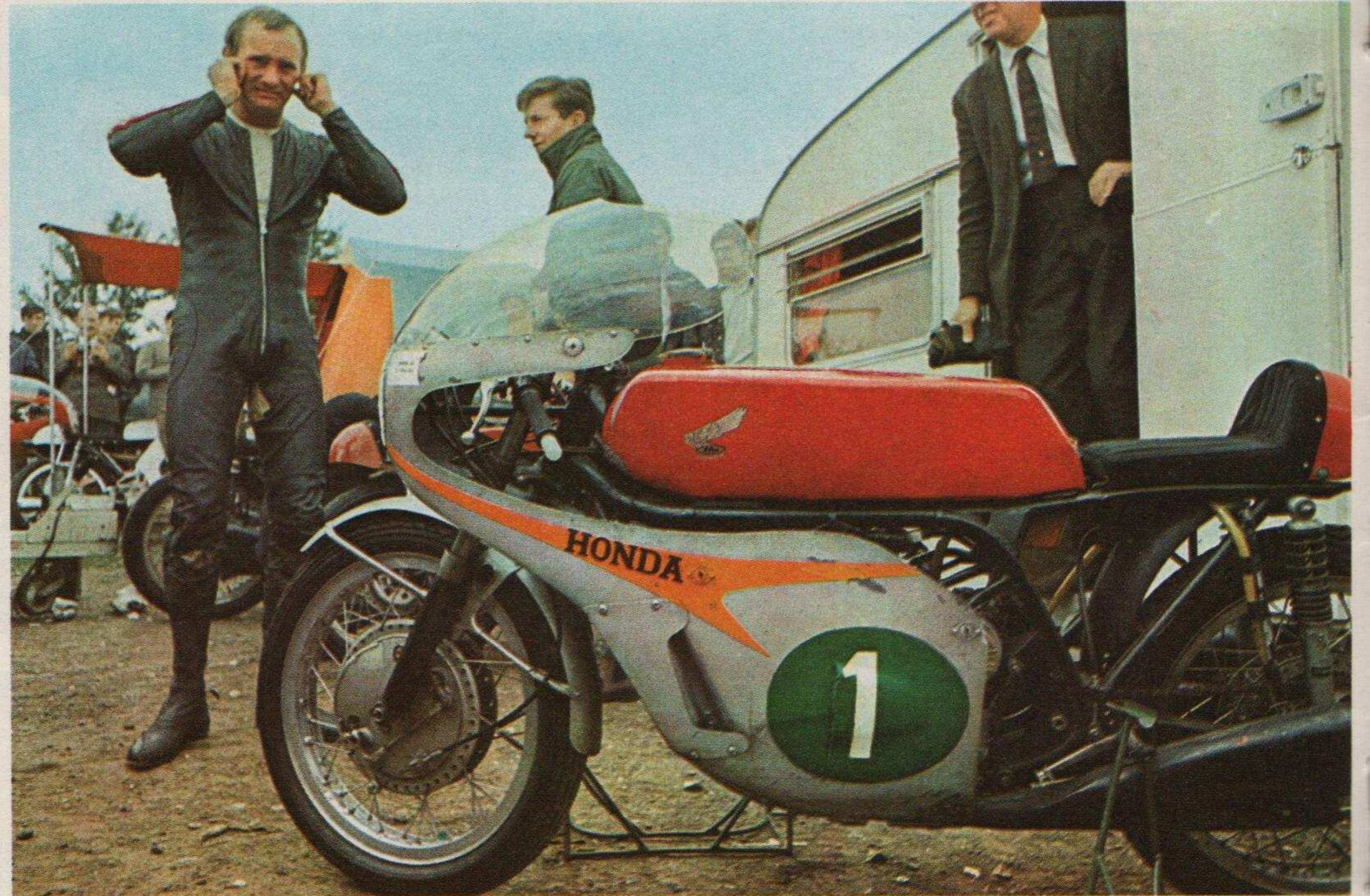
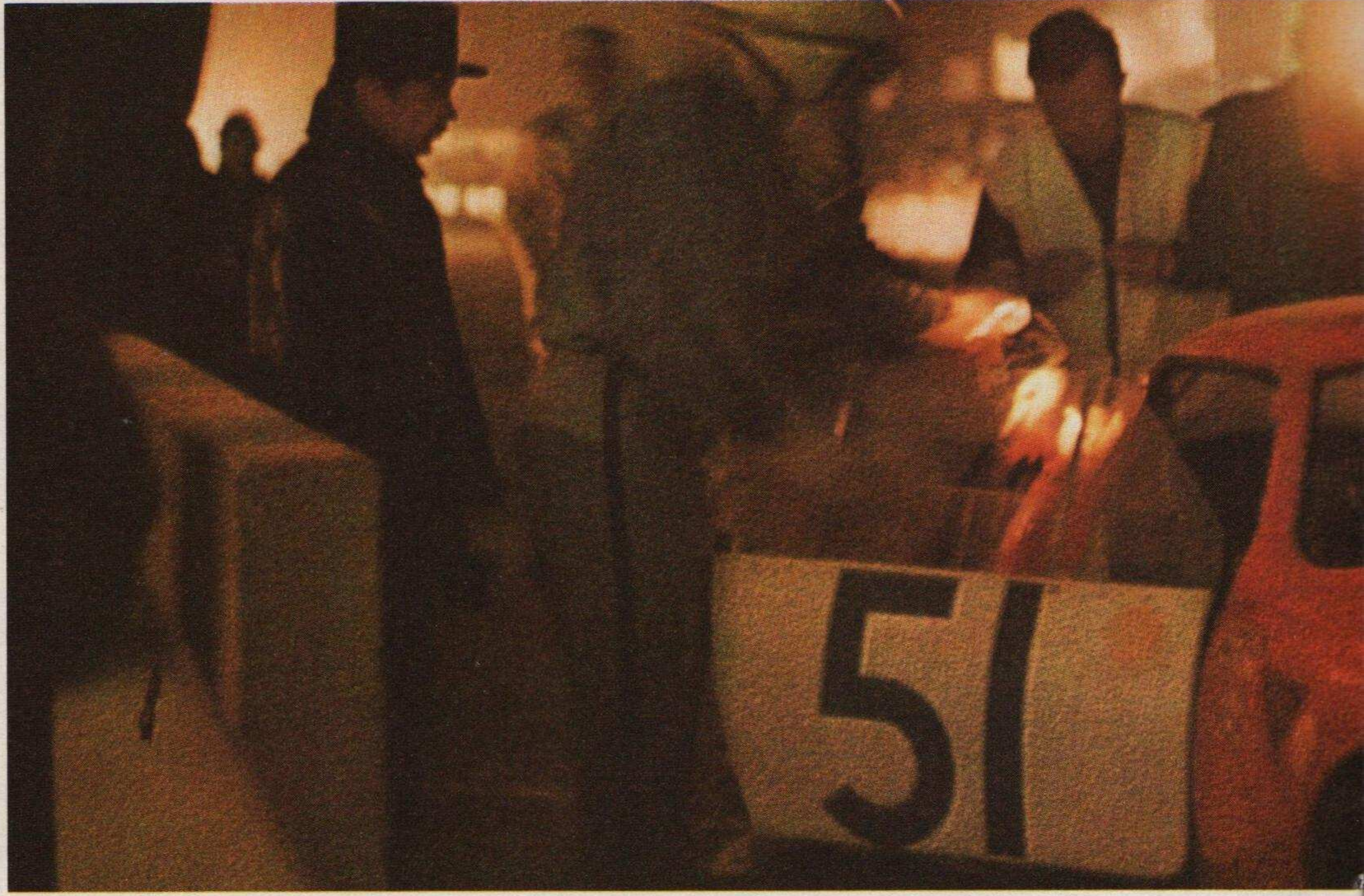
Biggest rival to Frank Gardner was John Fitzpatrick, the saloon champion of 1966. Fitz harried the mighty Falcon all the way to the final flagfall, driving a 1000 cc Anglia in the well-known maroon colours of the Broadspeed team.

For every man behind the wheel, there is another behind the scenes, doing the worrying, the paperwork, the financing, taking the critically important decisions such as what car to enter, what driver to employ, what oil to use.

CHAMPION COMBOS

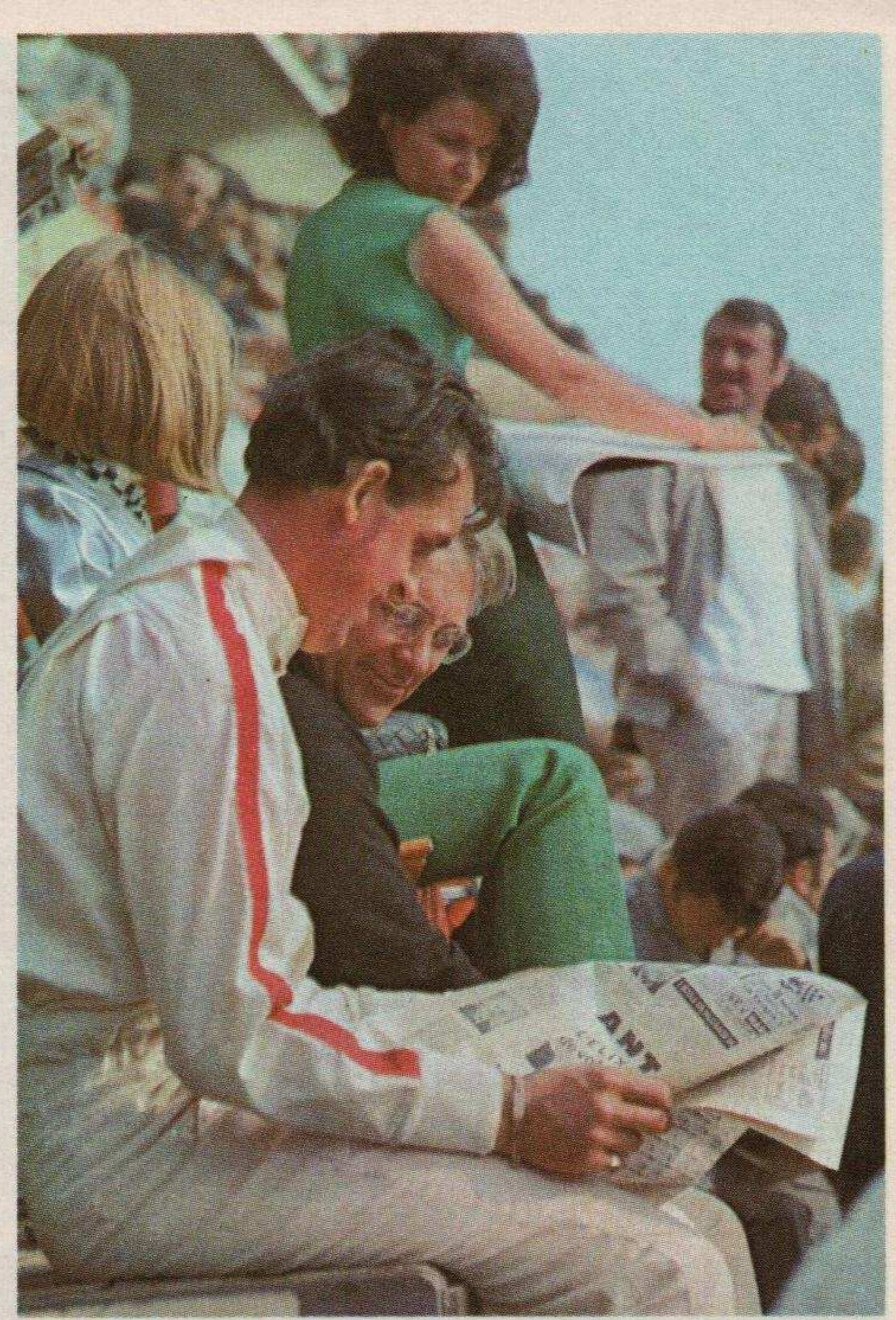


As one weekend follows another through the 1967 motor racing season, the circuits of Britain take it in turns to resound to the clamour of Group 4 sports and grand touring cars competing for the Autosport championship. They are dominated by the exultant whoop of a Castrol-lubricated 4.7 litre V8 in the bright red Ford GT40 driven by rugged Australian Paul Hawkins, as he notches victory after victory. All through the year, too, the BRSCC saloon car championship circus goes the rounds – and three of the five engine-capacity classes in which it is run are likewise dominated by Castrol users, who include the outright winner of the saloon championship, Frank Gardner in Alan Mann's Ford Falcon, and the runner-up John Fitzpatrick in a Broadspeed Anglia. Remarkable speeds have been achieved in 1967. At the Silverstone meeting, for instance, Frank Gardner won the saloon race at an average of more than 101 mph. The Cooper team of 1300cc Minis were timed at 128 mph approaching Woodcote corner, and in the sports car race Paul Hawkins made 'fastest lap' at nearly 111 mph. Despite the absence of serious competition in saloons from Europe or the East, it has been like this all the year – a wild, hectic season in which cars have been caned unmercifully, the weak have fallen by the wayside and the champions have emerged. As for the more international sports/GT category, Paul Hawkins showed how true champions behave by going and seeking out the opposition in their lairs abroad, winning at Clermont-Ferrand in France, and later winning the Austrian Grand Prix for sports cars.

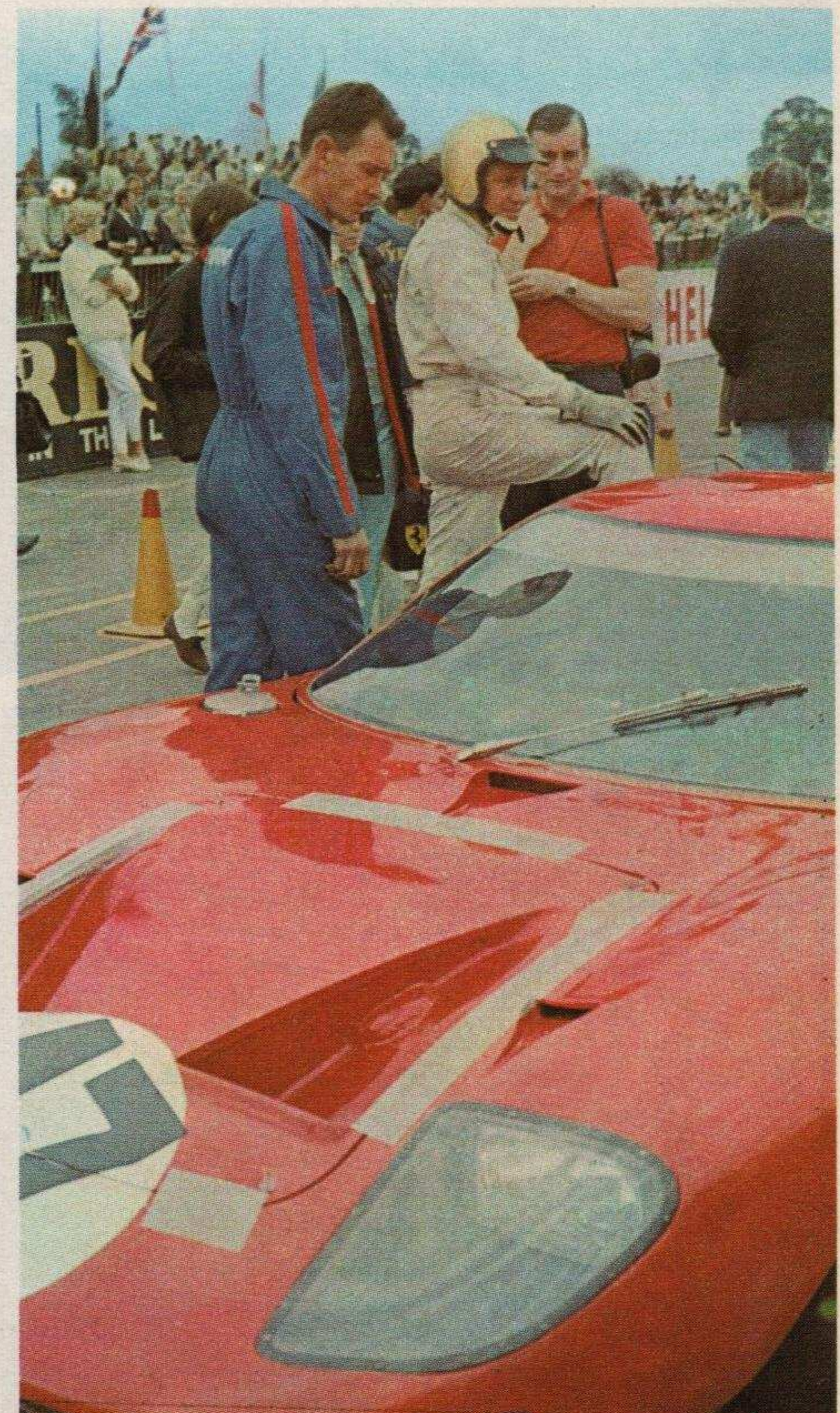


Colour. Drama. Glamour. On the racing circuits and the rally routes, on land and water, our cameramen captured the excitement of competition, the contemplation of victory and defeat, the pomp and the parade, the intense preparation in the pits, the spectacle of speed on the road.

A colour



At Le Mans and Monza; overland from Cape Town to Southampton; with Hailwood and Hawkins; in the event and at the victor's rostrum; at Royal Air Force stations around the world; in the North Sea with the all-steel John F. Kennedy lifeboat; Castrol was there, to share and to record the colour of 1967.



rful year



By jet to Malta in a BAC One-Eleven of Laker Airways. Our flight was one of the first contract hire sorties from Gatwick, inaugurated in 1967 by that irrepressible man of the air Freddie Laker.

The highly efficient Rolls-Royce Spey by-pass jets of the One-Eleven develop a minimum take-off thrust of 11,400lbs, cruising the craft across 1154 nautical miles between Gatwick and Malta in 2 hours 55 minutes. Another successful venture for the pioneering Freddie Laker. Another contribution to cheaper and more efficient travel in this fast-moving world.

FLIGHT-GK231

CORSAIR v WINDSOR CASTLE



THE WINDSOR CASTLE VERSUS A FORD CORSAIR—A JOURNEY OF 9000 MILES BY SEA, 11000 MILES BY LAND. "IT'S QUICKER BY CAR BUT SAFER AND MORE COMFORTABLE BY SHIP" SAYS ERIC JACKSON

So you dig the fat fool in his ribs at 3 a.m. and yell *You're on again, mate!* You're on a track in the Congo that Dan Archer wouldn't take his tractor down, trying hard to average 40 mph. The compass says roughly North and it's over 80°, hot and sticky. *Where are we?* grunts the idiot. *Africa, chum, don't you wish you were home?*

Oh Gawd, three hours gone already, but I haven't slept. Not slept, says he – he's been snoring his head off ever since I took over driving.



Compatibility – that's the most important thing, when you are trying to drive flat out from Capetown to Southampton, over some of the roughest country in the world.

Actually Ken Chambers and I get on like a house on fire; we have to, otherwise on trips like this we wouldn't stand a chance. So when people ask what is the most important thing of all, the answer must be the ability to stand the sight of each other's face hour after hour, day after day, through the most trying of conditions and complete faith in the other chap's skill – not only to drive fast and safely while you are sleeping, but to be sure that he is not going to finish up in the wrong country, navigating alone. Mind you, Ken and I have done rallies in Canada and all over Europe together; we have driven to Capetown from London, downhill as it were; have broken records at Monza, and driven round the world in another Corsair. By now we are just about used to each other.

Of course you need a good car, that's why we chose the Corsair as being as nearly indestructible as anything we know. Our biggest problem was weight. At times we had to carry 80 gallons of petrol and 20 gallons of water, plus all the spares, tools and tinned food that we thought we might require: in all, a cruel load, something like 800lbs extra. This in turn played havoc with our tyres; they are just not designed to carry so much, so fast. I don't suppose anyone will ever know just what that car had to stand up to on some of the rocky stages and in the Sahara. I have taken part in the East African Safari Rally and this journey was like doing five Safaris, one on top of the other.

We had 27 blow-outs in about 300 miles of particularly murderous road, and actually ran out of tyres, tubes and patches, so someone had to volunteer to walk the 12 miles to the nearest village, and Ken is bigger than I am, dammit, so you know who had to walk through the bush in the dark. I wasn't worried about animals, but I didn't like the idea of treading on a snake. I was lucky, however, we could have been 100 miles from the nearest village. Lucky, too, because I got tyres, even if they were all different sizes and cost a fortune.

The Congo was unbelievable. The rains had turned the jungle into a sea of mud. Zambia, Tanzania and Kenya had been bad but nothing compared with this. The worst obstacle was a 'puddle' a hundred yards long and waist deep in yellow shiny water with 'orrible wriggly things in it. Needless to say we finished up, after charging at it, right in the middle on the end of a rope with a horde of natives pulling us out.

This was not our only trouble. We were marched at gunpoint more than once

for document checking by soldiers. Trigger-happy Congolese are not the most charming people in the world. Some were fine, but others were like unbalanced children – except that they had FN automatics to play with. To cross the gigantic rivers we had to lend the primitive ferrymen the battery from our car to start the old engines on their boats. We didn't find one ferryboat in the whole of the Congo with its own battery. Africa is one of those subjects you can only learn the hard way. The rains drizzled continually through the jungle,



making everything dripping wet, including the little pygmies who were so wide-eyed and timid, so small that at first we took them to be children. Every time we stopped we were almost eaten alive by blackfly that bit so hard I reckon they were crossed with crocodiles. The friendly people of Rhodesia and South Africa seemed very far away – they were, several thousand miles by now.

Petrol was our major problem. Every filling station was smashed, looted or burnt, and we scrounged our petrol where we could, from planters, survey gangs, farmers and even a Convent.

What with one thing and another I can recommend the Congo as a very good place to stay away from. We had several encounters with elephants on the roads, sometimes in quite big herds. They are a very real hazard, because if you hit one you will be able to put your car in a suitcase by the time they've



finished with it. We had to do a quick reverse up the road a couple of times, and don't you believe it about the lion being the King of the Jungle – he gets out of the elephant's way just as quick as Corsair drivers do.

The most dangerous terrain was the Sahara. I suppose that with two 4-wheel-drive vehicles travelling slowly and in daylight you should not have any real troubles, provided you don't do anything daft. We hadn't a spare vehicle, and we kept going fast day and night. We were fortunate, however: we didn't go off route at night, and we didn't get

stuck in the soft sand very often. We had learned a lot on our previous trips. The heat during the day is frightening. You gasp for breath in 125° in the shade. Put your arm on the side of the door and you lose the skin. In parts the Sahara has a quite decent track and good speeds are possible. There are mountains, rocks as big as houses, with soft and hard sand thrown in for good measure, but mostly *nothing* lives, not a bird, a tree or a blade of grass.

At one stage I almost put paid to the entire trip. I took off over a ridge of hard sand and went about 8ft in the air, breaking virtually all the glass in the car, bending the steering gear, breaking the roof rack and flattening the roof with the jerrycans of petrol. But after a few repairs we were on our way again, subdued and very thoughtful; the Sahara is no place to come unstuck.

At last we started seeing people and camels, and when we came to In Salah, a desert town, we knew the worst was over. Another 300 miles of rough stuff and soft sand and we were in El Golea; from then on it was hard packed sand all the way to Algiers, with even some tarmac on the last stretch. We crossed the Mediterranean and through France the Corsair went like a bomb; over the Channel to Lydd, and the only excitement was when a policeman stopped us for a dirty rear number plate.

We arrived at Southampton slightly ahead of the *Windsor Castle*, but only just. The ship looked beautiful and serene. The Corsair looked a shambles.

FOR THE RECORD

The *Windsor Castle* travelled a little over 9000 miles; the Corsair a little less than 11000 over 15 different countries. They had no trouble whatsoever, and fed rather well; we each lost a stone in weight.

We had 34 blow-outs.

We broke one dynamo bracket and casing.

We changed one noisy dynamo, and were bitten by almost every insect in Africa.

We wore out three fan belts, and between us skinned five knuckles fitting replacements.

We broke one battery in half before Nairobi, and broke another in West Africa.

We bent the chassis frame and both suspension legs, flattened the roof rack, cracked the windscreen, holed one petrol-tank, bent our front bumper and radiator grille, knocked off two spot lights, and ground off one jacking point over the rocks. We refitted the exhaust twice. We used no oil between three oil changes in Nairobi, Bangui and Algiers, but gave it a drop on each occasion.

We used a heck of a lot of fuel, but not as much as the ship.

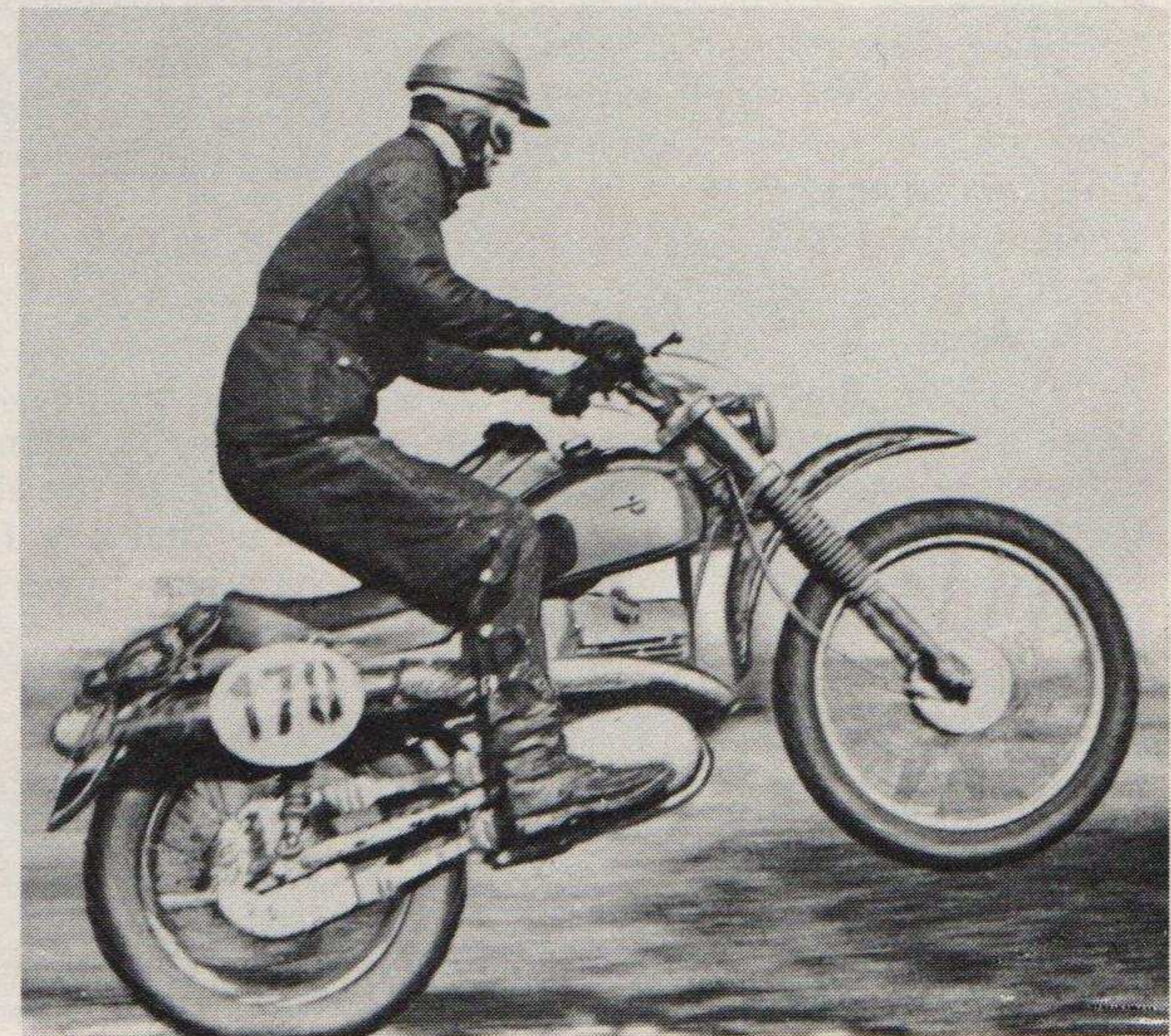
We proved it is 65 minutes quicker by car from Capetown to Southampton; it's safer and more comfortable via Union Castle.



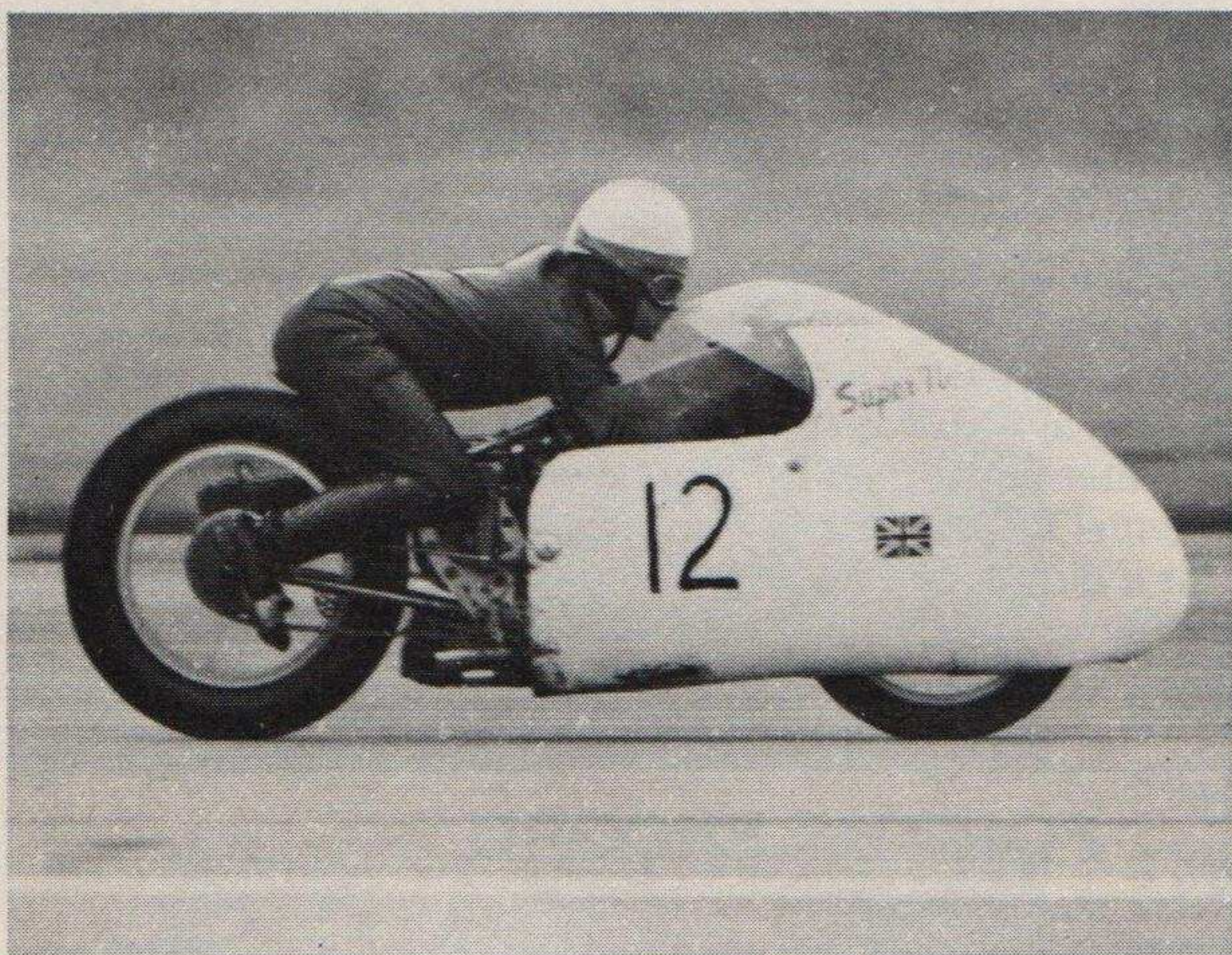
The International Six Days Trial, toughest test of endurance and reliability in the motorcycling calendar, took place in 1967 at Zakopane in Southern Poland. And for the 5th consecutive year the fantastic East German MZ team rode to an outright win, taking in their impeccable two-stroke stride the International Trophy, the Manufacturers' Team Award and the Club Team Award. The Czechs eased their way back into the Six Days' order of merit by carrying off the Silver Vase.

If the reliability of Castrol lubricated machinery was demonstrated at Zakopane, the quality of "sprintability" was underlined a month later by veteran George Brown at Elvington in Yorkshire and Greenham Common Airfield in Berkshire. On the latter occasion George shattered a total of eleven world and national records over the kilometre, the mile and quarter mile distances. His Elvington sprints—including 171.68 m.p.h. for the flying kilo and 128.7 for the standing mile on his "Super Nero"—would have counted as world records, had it not been for the FIM rule which says that men of 55 and over cannot qualify in the World stakes. He had just passed the age limit, so they stand as national records. At about the same time Anthony Brown, George's 20-year-old son, cracked the three-wheel standing start quarter mile record to become the youngest ever world record holder.

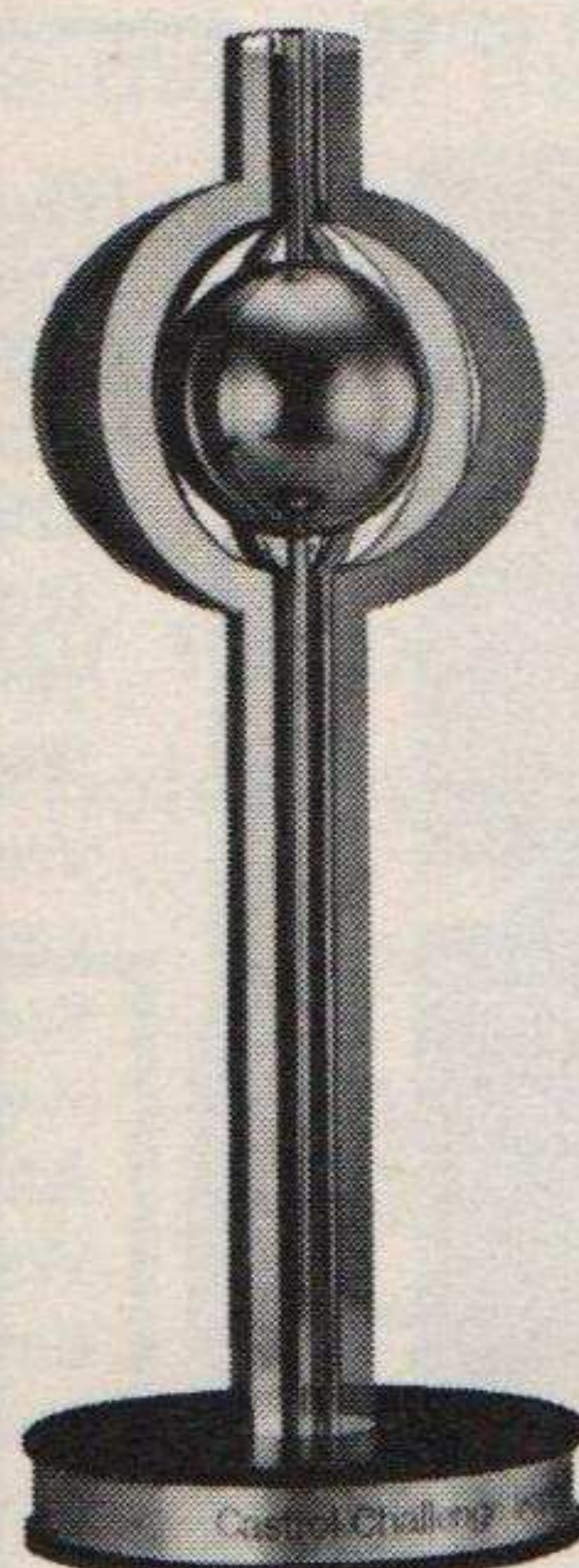
Another triumph of experience and machinery, and another triumph for Castrol, was the 1300cc World Record set by Alf Hagon at Elvington. He cracked the standing quarter mile in 9.95 seconds on his supercharged Hagon/JAP machine.



RELIABILITY-SPRINTABILITY



Who is better qualified to set the seal on a year of performance than Mike Hailwood, runaway winner of the Castrol Challenge Trophy, introduced in 1967 and already a major attraction of some of the outstanding meetings of the motorcycle year? The Trophy was contested by many of the top performers of the two-wheel circus—Hailwood, Phil Read, Derek Chatterton, Derek Woodman, Dave Degens, Trevor Burgess, Peter Inchley, Tommy Robb, Dave Simmonds and Chris Vincent. And they shared the prize money in that order.



CASTROL CHALLENGE TROPHY

The Castrol Challenge Trophy was presented to the rider gaining the highest number of points in the principal 250 cc events at certain selected international road races.

Points were awarded for the first six places and £1000 was distributed as prize money together with a replica of the magnificent trophy.

Runners up received commemorative medals.

Ever since its foundation in 1824, the Royal National Lifeboat Institution's boats have been busily employed rescuing ships and saving lives off the rugged coasts of the British Isles.

After 144 years the RNLI now has 150 lifeboats in service, stationed at strategic points around the 5,000 miles of coastline that defines Great Britain and Ireland.

The varying nature of the coastline means that launching conditions differ widely. Accordingly the Institution uses several different types of boat, each one chosen or designed specially for the particular conditions in which it will operate. From open beaches, for example, the standard type is the 37ft Oakley self-righting lifeboat. It gets its name from Mr. R. A. Oakley, the RNLI Surveyor of Lifeboats, who introduced the design in 1958. In some ways it is a revolutionary design not least because of the way it literally spins on its axis to recover from capsizing in heavy seas.

The principle of this self-righting boat is quite simple, and depends on the shifting of a store of water, 1½ tons of it, kept in a ballast tank on the port side of the vessel. Should the lifeboat heel over so far as to be in danger of capsizing, valves automatically open to let the water flow through two trunks of rectangular conduit, and the resultant shift of the centre of gravity pulls the boat upright again. But the incredible thing is that, when capsized to starboard, the boat rights itself by completing the roll through a full 360 degrees! The normal time to come upright from complete inversion is only six seconds, though there must be times when those seconds seem to pass very slowly . . .

These Oakley boats come in more than one size, but the common 37ft version weighs nearly 13 tons complete with water ballast, equipment and crew. Two 52hp Ford diesels give her a speed of 8.1 knots, and she can take her crew of seven at that speed for 180 miles without refuelling.

A larger and older type of lifeboat is the Watson, a 42ft 17-tonner that was introduced in 1954. She goes a trifle faster than the Oakley on a trifle less power from a pair of Gardner diesels in a watertight engine room. Watertight compartments abound in lifeboats (the Watson is divided into 10) as do flotation bags or air-cases, of which this example carries 150. Even if the skin of the boat be punctured underneath the engine room, the in-

coming water will be trapped in the double bottom and in no way endanger the engine, which must be absolutely dependable to get to the scene of the emergency quickly and get back securely, with the lives of as many as 70 survivors at stake, as well as the crew of eight.

The boats described are built of wood, but the RNLI is beginning to make wider use of steel. The first of its boats to set the pattern was also an Oakley design, and is one of the biggest boats in the Institution's fleet. Displacing 79 tons and measuring 71ft in length, this boat is designed to stay at sea for days at a time if need be. As she is big, so is she powerful, with two 230hp Gardner diesels. She has power-assisted steering, the latest in radar and navigational equipment, and even carries two smaller rescue craft on board. One is an inshore rescue boat, carried ready-inflated and handled by derricks which can get it into the water fast. It has a 33hp outboard motor,

while an 18hp job graces the stern of a similar but smaller boat stowed deflated in the forward cabin. Steel is also the stuff of the John F. Kennedy, a 44ft boat launched in 1967 at Lowestoft and now stationed at Dunlaoghaire in Ireland. This twin-screw vessel incorporates all the latest mod cons, including car-type seats and safety harness for the crew and a settee and stretcher for survivors. Capable of 14 knots flat out, and able to cover 200 miles without refuelling, the John F. Kennedy is the first of six steel lifeboats of American pattern being built for the RNLI by Brooke Marine of Lowestoft at a cost of about £43,000 each.

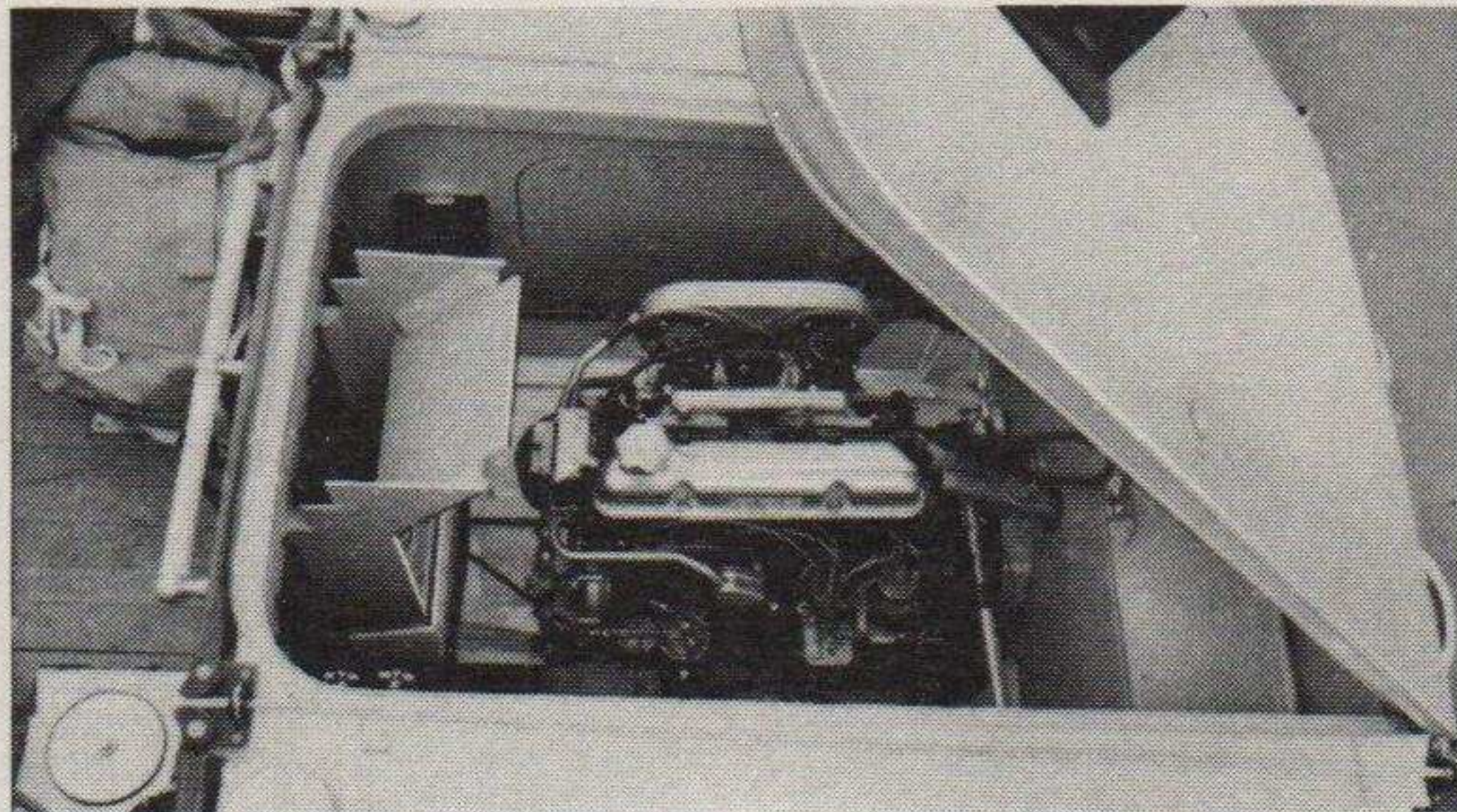
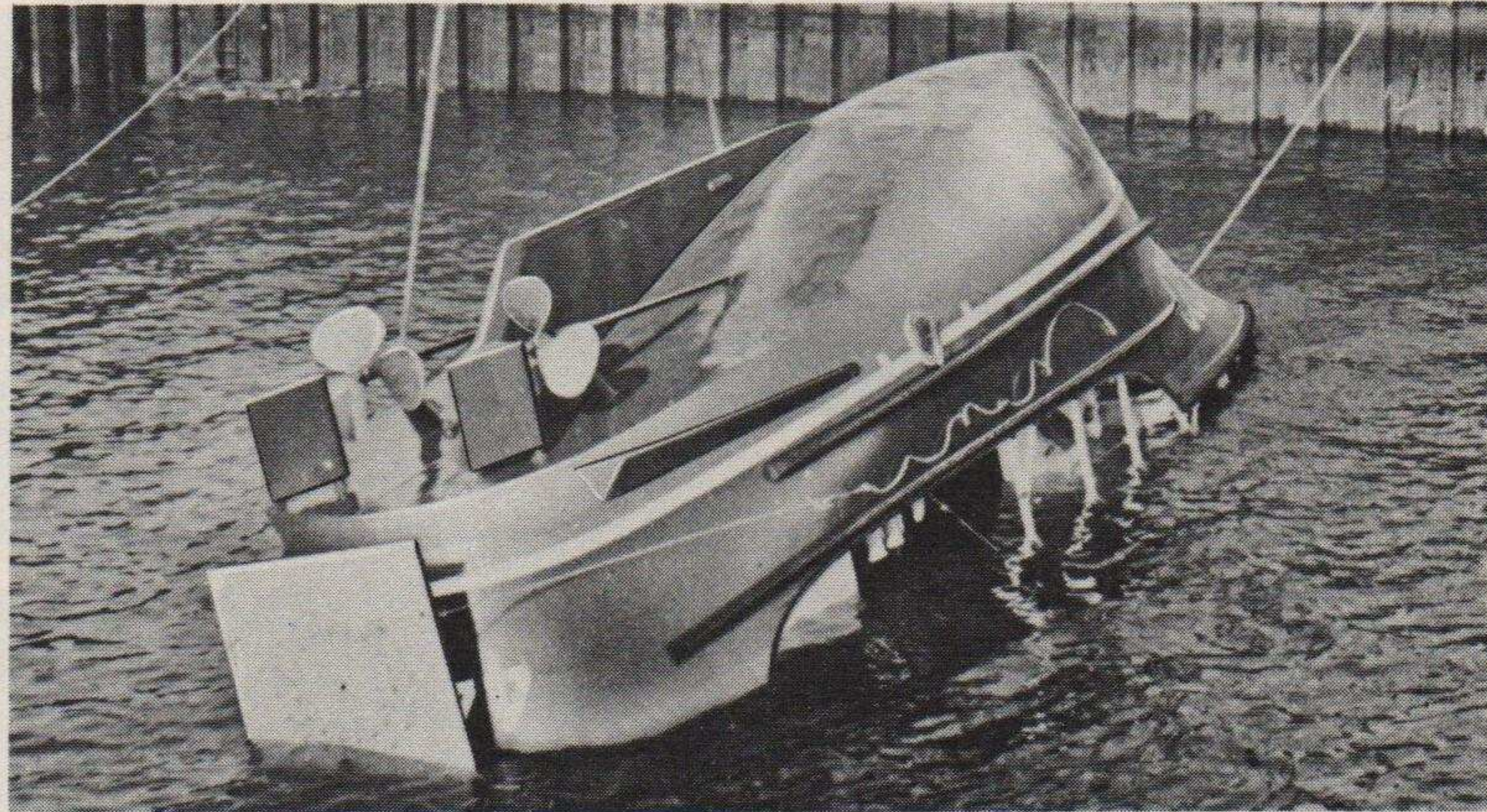
These modern American boats are faster than the older British timber jobs, but some of our inshore specials are a great deal faster still. Small and highly manoeuvrable, these close-range boats are in growing demand on account of the increasing number of non-professional (one would hesitate to describe them as unprofessional) sailors taking to the sea in small boats for pleasure. One such inshore lifeboat is 15½ft long, weighs 295lb without its 40hp engine, and will do well over 20 knots. It carries a crew of two, and has ample room for eight survivors. Three boats like this were paid for by children through BBC Television's 'Blue Peter' club.

Even faster and slightly larger, but just as handy, is the 30ft Hatch boat, named after its chief designer George Hatch and currently being tried out by the RNLI. This craft is powered by a Volvo inboard/outboard motor that gives it a cruising speed of 25 knots. It has seats for two and standing room for another 15.

With all this and more variety in the RNLI fleet, it is plain to see that a lifeboat has to be carefully thought out so that it can provide the most appropriate performance and facilities for a particular kind of job. It is a sort of horses-for-courses business, and it has to take into account the varying circumstances and specialised needs of different sections of our coastline. All the same, whenever a lifeboat is called out it is never quite certain what difficulties and dangers might be encountered. One thing is certain, however; the boat's engines must be absolutely and unfailingly reliable – which is why Castrol are proud to supply lubricants to all lifeboats in the Royal National Lifeboat Institution's fleet.

...FOR THOSE IN PERIL

1 The John F. Kennedy lifeboat 2 the JFK on self-righting trials 3 Cockpit of the Hatch 4 Volvo power unit of the Hatch 5 Hatch at full speed.



RALLYCROSS

THE NEW SPORT OF THE SIXTIES

BY JOHN SPRINZEL

New forms of motor sport are rare. Perhaps only one variety of competitive driving skill appears in each decade and actually becomes an established form of sport.

Rallycross was inspired by a play-back of the television film of the 1966 RAC Rally when Barrie Gill (then of the 'SUN'), Robert Reed (of ABC Television) and I felt that the excellent viewing obtained by filming the Forestry Special Stages could be made into a Saturday afternoon sport. Four cars at a time would be unleashed on a short circuit, to cover two or three timed miles—the main idea being to incorporate as many varied surfaces as possible. Each competitor would compete in three events—total time taken would be added up and the fastest man on aggregate would take home the prize.

So simple an idea, but Rallycross was quickly adopted by factory entries from BMC, Ford, NSU, Renault, Porsche and Rootes, and within a few months of the first televised meeting, Britain had a full National Rallycross Championship. The professionals compete for the ABC World of Sport Trophy while the clubmen battle it out for the Castrol Trophy. Spectacular racing has been the general rule, and whether the conditions have been wet and soggy or hard and dry, television audiences have been treated to a demonstration of spins, slides and driving skills which left them breathless.

Surfaces have varied from tarmac and gravel, through grassy 'jumps' and slippery chalk hillsides, to thick glutinous mud. Even a sprinkling of snow and ice to recreate the very real surface changes which are everyday hazards to a rally driver. Naturally, the drier days gave

very close racing, with fractions of seconds separating the leaders at the end of the day. As with all sports, personalities have emerged, veteran rallyman Peter Harper has become 'the man to beat' with Cooper 'S' driver John Rhodes providing the main—and most spectacular opposition. Roger Clark and Tony Chappell in works' Cortinas (and later the twin-cam Escorts) have adopted some sensational slants and Paddy Hopkirk and Tony Fall in BMC Minis and 1800s have also assumed angles which viewers would do well not to emulate. Among the leading clubmen, Mike Dabbs, Roy Edwards and Brian Chatfield—all Cooper 'S' mounted—have had thrilling races while they and Mike Butler in his Renault have often given the professionals a very close race. Vic Elford's Porsche and Graham Hill's Lotus Cortina have also provided eye-opening entertainment with full power slides and high leaps across the meadows.

Organiser Bud Smith with enthusiastic help from club members and a veteran earthmover have altered the circuits for every meeting, so that competitors are faced with constantly changing hazards to justify the 'Rally' designation.

Rallycross has given the factories an opportunity to show their cars and crews to millions of people who now have a far clearer picture of the skills involved in driving in such assorted conditions. In fact, Rallycross is here to stay.



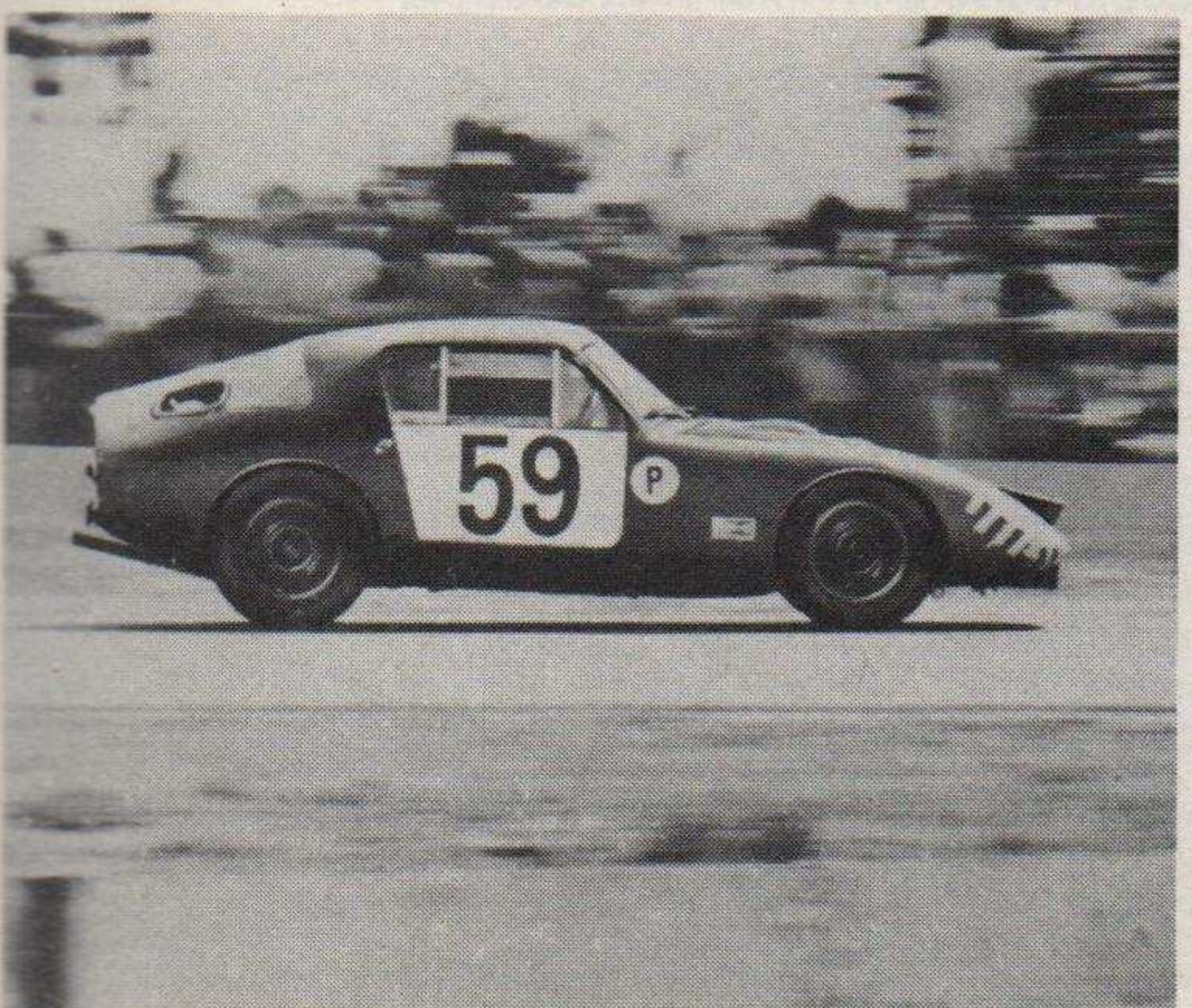
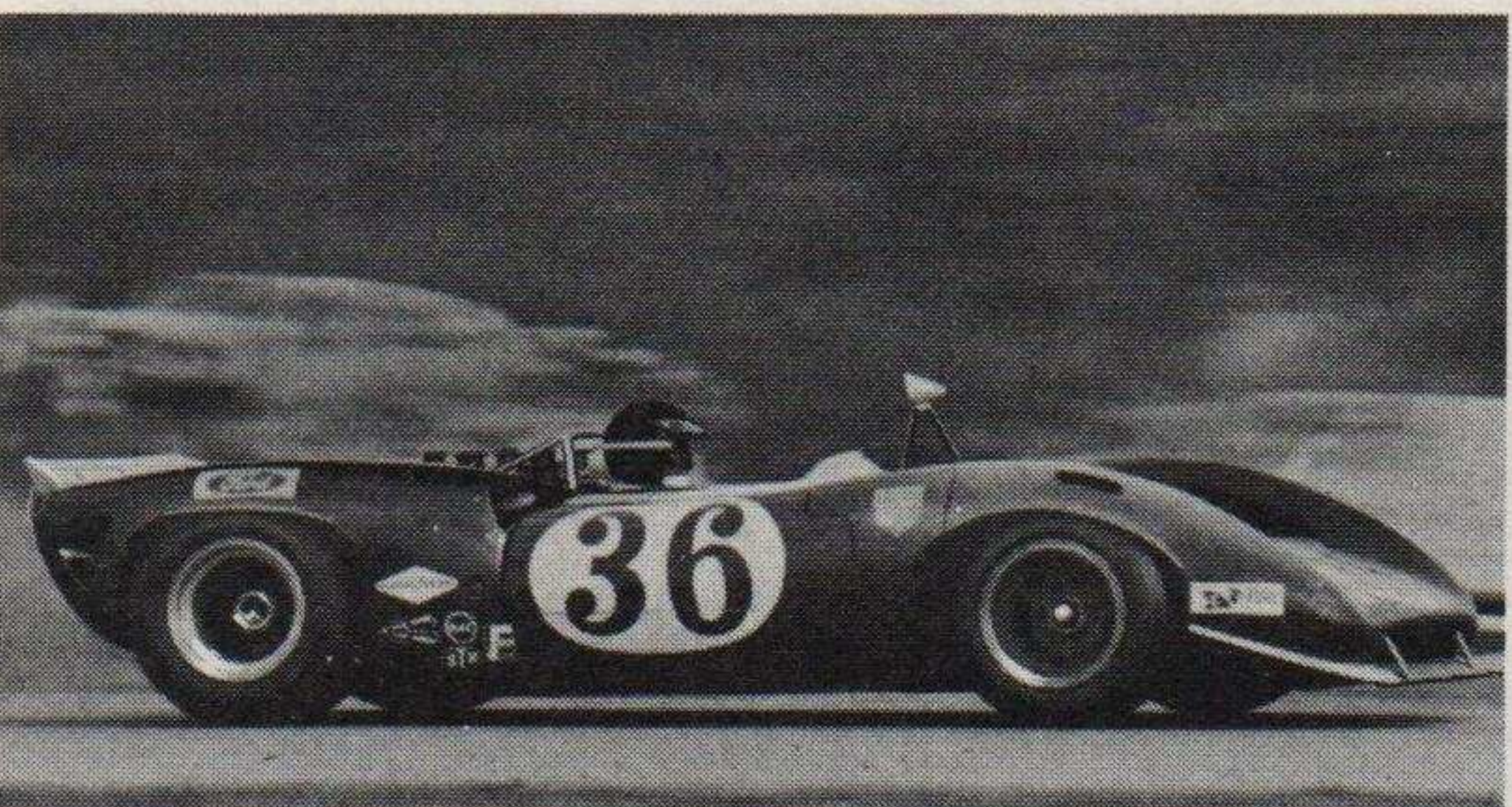
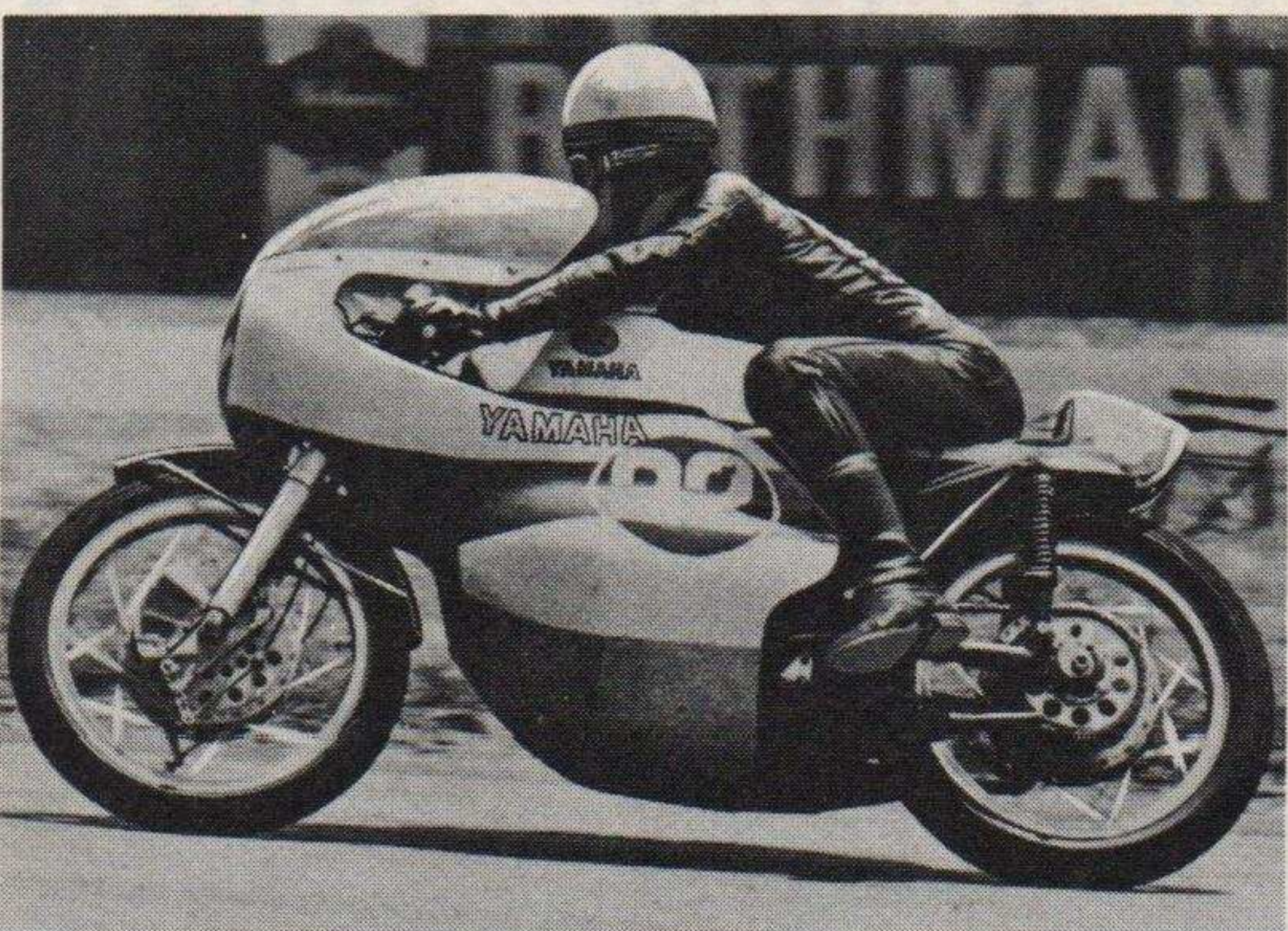
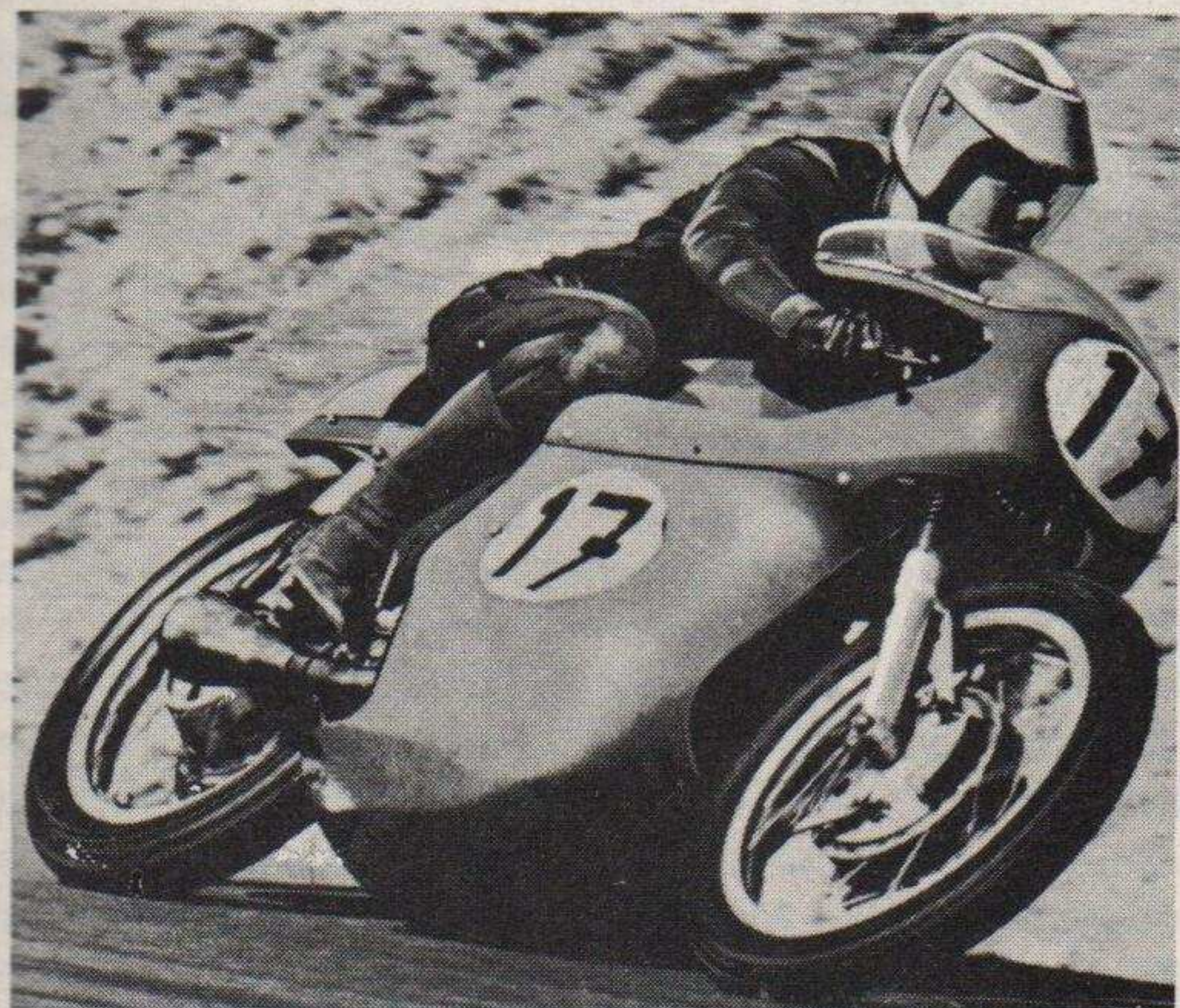
THE WORLD OF CASTROL

Left to right. Bo Granath, triple Swedish National Motorcycle Champion, astride his 125 MZ and 500 Matchless mounts. American National Champion Gary Nixon wins at Daytona on a Triumph.

Araoka, winner of the 350 motorcycling event on his 338 Kawasaki, in the Singapore GP. Yamaha rider Motamashi, victor in the 250 race at Singapore. Brian Foley, saloon and touring car winner in his Mini Cooper S at Singapore.

The American Bolander Cortina team in action. Dan Gurney in CAN-AM series, Elkhart Lake, Wisconsin. Gurney aboard a Cougar, Sebring.

The Rauno Aaltonen/Clive Baker Austin-Healey Sprite prototype, class winner at Sebring. Completing the Gurney led Cougar team in the 12-race CAN-AM series, Peter Revson at New Hampshire and Parnelli Jones at Daytona.

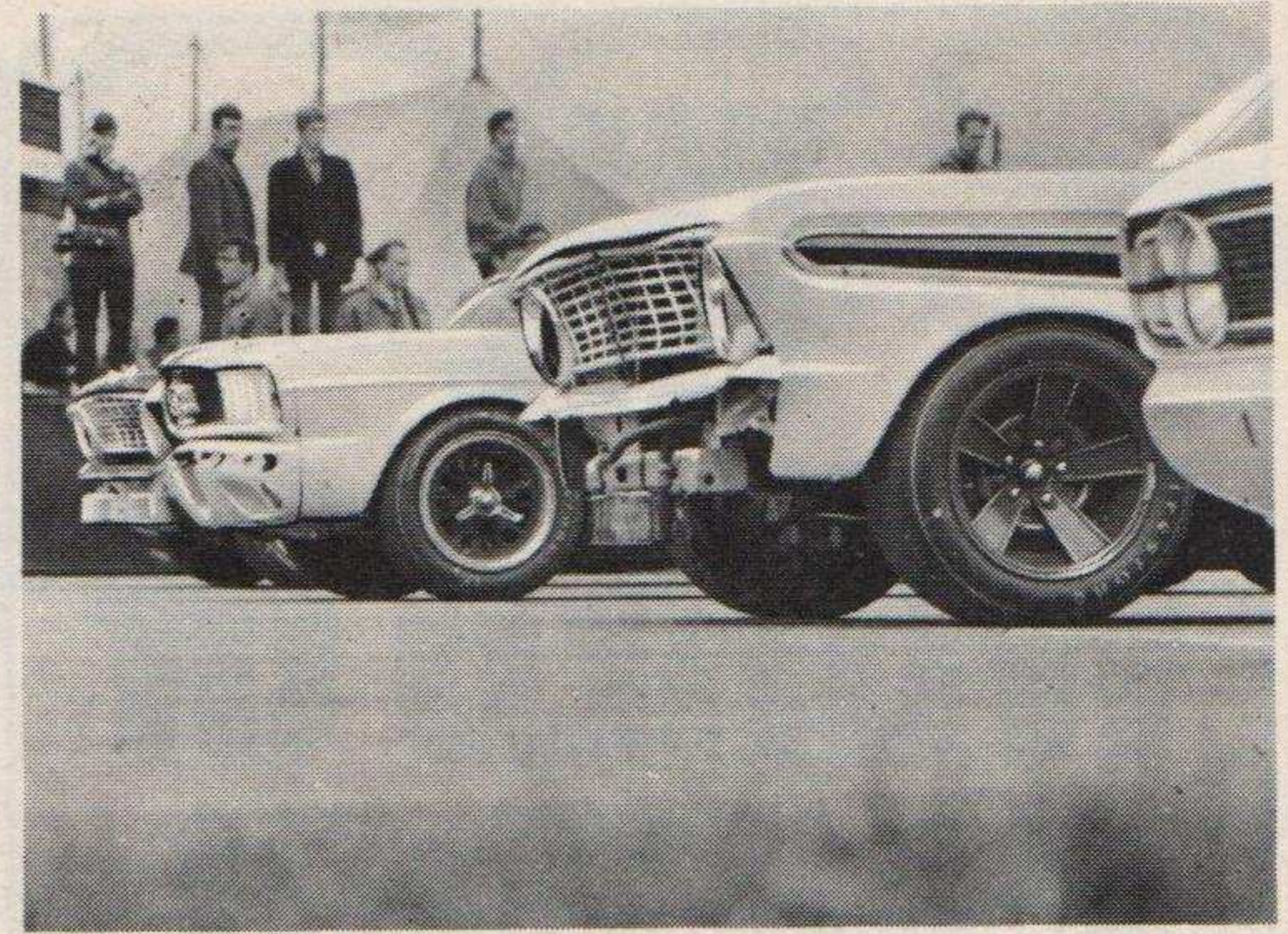


FULL HOUSE

BY NICK BRITTAN

by the Ilford-based Superspeed concern. The two Cosworth-engined Ford Cortinas entered by Lotus were driven by Graham Hill and the up-and-coming young Belgian Jacky Ickx, with Paul Hawkins and John Miles taking over when Hill and Ickx were off on Formula One and Two jobs. Vic Elford broke the Ford victory run on two occasions with his 2-litre 911S Porsche, and added variety to a class that has previously been a Cortina monopoly.

The unlimited-capacity class was all American heavy metal. Australian Brian Muir drove Sir Gawain Baillie's light blue Ford Falcon, Roy Pierpoint (a previous championship winner) drove his own similar car, BOAC pilot Hugh Dibley appeared halfway through the season with a Chevrolet Camaro, and among the Mustang exponents was Jack Oliver, the young Essex driver who graduated to the Lotus F2 team during the year and drove to victory in three of the ten saloon championship races.



unchanged; but under the skin all sorts of radical changes are permitted. Style and method of suspension may be altered. Many of the successful cars—the Mann Falcon and the Broad Anglias to cite just two—are converted from leaf to coil springs at the rear. Super-wide wheels are fitted, and the wheel arches are re-jigged to accommodate tyres often up to 10 inches wide.

The book says you can do almost anything you like to the engine so long as you retain the standard block and original camshaft location. In other words you can't convert a push-rod engine into an overhead cam job. But today's tuners are cunning folk: the Lotus-Cortinas used the Formula 2 FVA engine which fits the regulations very neatly; Broad's Anglias used what were basically Formula 3 Cosworth engines with fuel injection; the specifications also demand that the interior of the car must retain all the normal trim, with the exception of carpets which are removed since they present a fire risk. Glass windows may be replaced by plastic ones, and the driver may fit any type of seat he wishes. So you wind up with a motor car that from the outside, and perhaps from the inside, looks very much like the one you can buy from your local friendly dealer. Under the skin, however, it's a complete out-and-out racer often producing over three times the power of the normal model. At what sort of price? Putting a price on a racing car is never something that can be done easily or accurately. You can account for the parts and roughly for the time involved—but pricing the development work is very difficult. Ralph Broad would sell one of his 1,000 cc Anglias at the end of the season for £1,500, but to get it into race-winning trim would probably cost him more like £4,000.

Nobody, not even the most devoted enthusiast, would believe that the racers of today are the road cars of tomorrow; but the manufacturers have a reason for sponsoring their saloons in racing. They don't want to sell race-tuned cars to the public; any such car would be completely at a loss on normal roads. But they do learn lessons from motor racing, and the lessons learnt on the track are often put to good use in the designs of new models.

Castrol are in a similar position. The lessons they learn about their lubricants in racing help the boffins develop new oils for road-going cars. Saloon car racing is one of the most exciting and most popular forms of motor sport. In the spring of '68 the cars will be lining up on the grids again and before the winter there'll be a new Champion, though his name could have a familiar ring about it.



Heading the list was the man who emerged at the end of the season with the title: Frank Gardner, in Alan Mann's red-and-gold Falcon. It was no easy victory for the balding 36-year-old Sydneysider. He fought every round, and it was only by winning the final event at Brands Hatch in October that he clinched the title with four points to spare. Seven of the ten rounds fell to him; twice he finished second to Oliver, and once he fell to fourth after a hectic first lap coming-together with Graham Hill's Cortina, a quick pit stop and then an epic dash through the field to claim back his place and a new circuit record in the process. His biggest challenge in the points chart came from the reigning champion John Fitzpatrick. At Silverstone in July 'Fitz' ran out of luck—he was forced to retire when his gear lever uprooted, after leading the class for more than half



the distance. He still managed to collect seven victories (the same number as Frank) but Frank's placings in the remaining three events were better than John's and that's the way the title went, with 'Fitz' finishing a worthy runner-up.

Castrol Competitions Manager Ray Simpson gave up worrying about the destiny of the championship title halfway through the season when it became obvious that it must go either to Gardner or Fitzpatrick. Both their cars were running on Castrol oil, which left Ray in the happy position of having successfully hedged his bet.

So much for the men. What about the motor cars? What in fact is a Group 5 saloon car? Basically it's a regular straight-up-and-down family saloon car heavily modified to a stringent set of regulations. These specify that outwardly the car must remain

Picture thirty gaily coloured saloon cars packed shoulder-to-shoulder on a grid. Tension mounts as the starter walks to his rostrum, flag in hand. The grid is cleared of mechanics and well-wishers. As the revs rise and as thirty left feet are poised on thirty clutch pedals the tension mounts even higher. The Union Jack is raised—there's a faint pause—and then the flag drops. Wheels spin; chunks of rubber fly as the tyres bite into the tarmac, looking for all-important adhesion; and within split seconds all that is left is a pall of smoke and the acrid smell of scorched clutch linings. Another Group 5 saloon car race is on the move. They hustle and bustle their way towards the first corner; sometimes kissing paintwork, sometimes avoiding each other—sometimes not! During the 1967 season this scene was re-enacted 10 times at five different circuits throughout the



country. Some of the cars were run by ambitious privateers, others by works-supported teams; some were driven by amateurs, others by professionals. All had one objective in view, to win the Lombank Trophy and the coveted title of British Saloon Car Champion. In the small class John Fitzpatrick defended his 1966 title in the immaculate maroon Broadspeed Anglia. With his partner Anita Taylor in a similar car, they were up against Imps in the familiar blue-and-white livery of the Rootes-backed Fraser team

In the 1300 cc class the tyre-smoking Mini Coopers were challenged by three maroon Anglias entered



Wheelwench with winning ways

Girl-watching is a familiar exercise at race meetings and Anita Taylor is a particularly beautiful specimen for scrutiny; though you have to travel fast to keep her in sight! On occasion she has proved able to outdrive all the opposition in the small saloon racing classes, which she graced in a Ford of the Broad-speed team. She was born into a motor-keen family



(her brother Trevor has driven in Formula 1), and her enthusiasm for the sport led to a succession of racing saloons, mostly Fords, as Anita in turn explored her driving limits, the British circuits, the surrounding scenery, and finally the heady atmosphere of top-flight saloon racing. The Championship series will not be the same in future, for this wheelwench with the winning ways has decided to give up motor racing. Miss Taylor is no more, you see—the name is now Mrs Matthews.

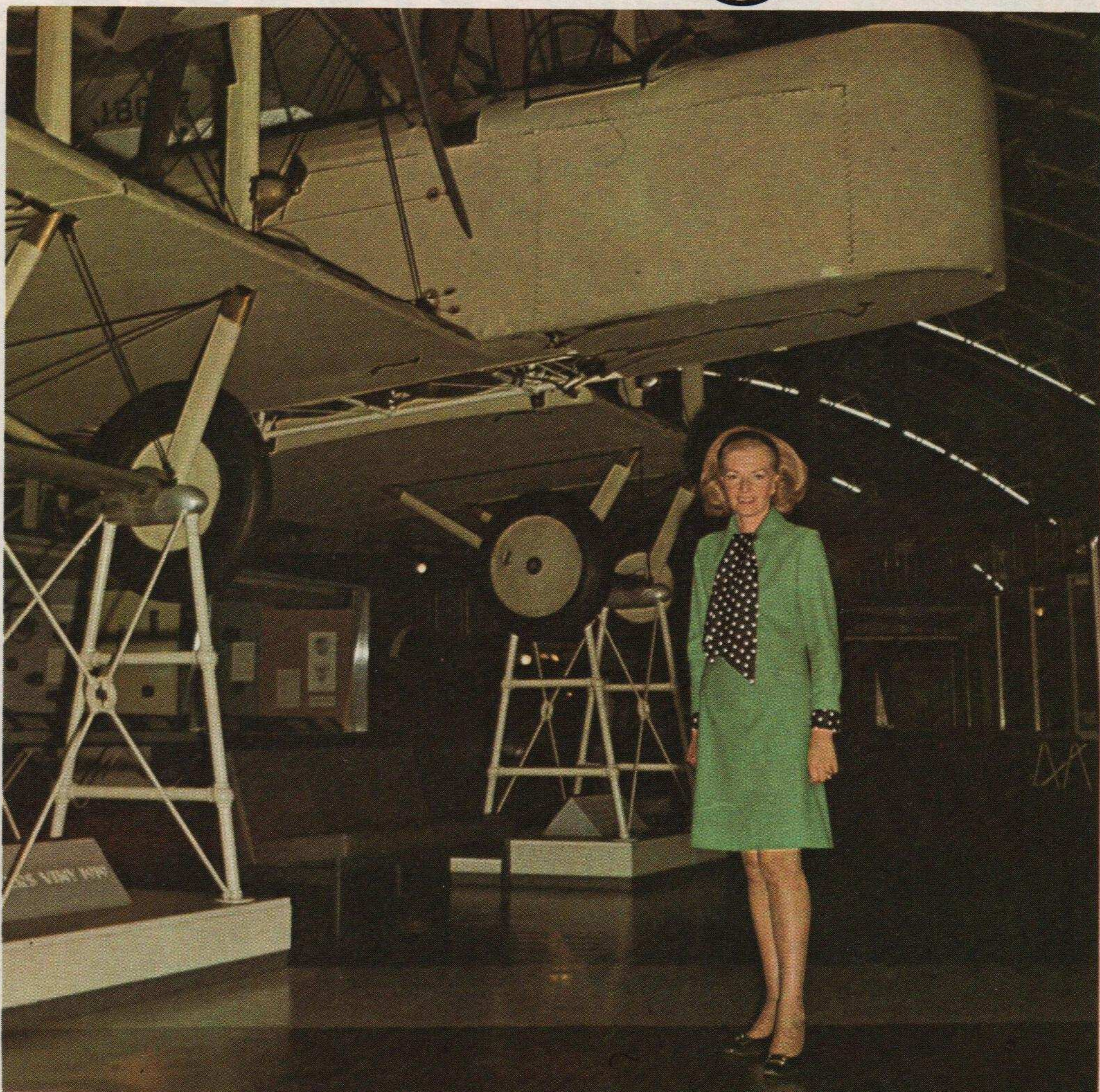


Let's look at the girls

The intrepid Sheila Scott

Sheila Scott, O.B.E., a good-looking willowy blonde, has been a West End actress, a model and a racing car driver with dozens of cups to show for it. But flying is the fascination of her life. Six years ago she read an advertisement "Why not learn to fly?" and said to herself "Why not indeed?" Since then, she has broken practically every record there is for solo flights. Round the world—32,000 miles—in a single engined plane. London to the Cape and back, solo over the South Atlantic and then the North Atlantic. Then she decided to fly over the North Pole, again putting her life into the custody of one small engine. Does she get scared? "Heavens yes," she says, "there have been times when I have been terrified. It's not so much fear of death as of being hurt. But up in the air, you can find peace and beauty. I suppose that is why I keep on flying."

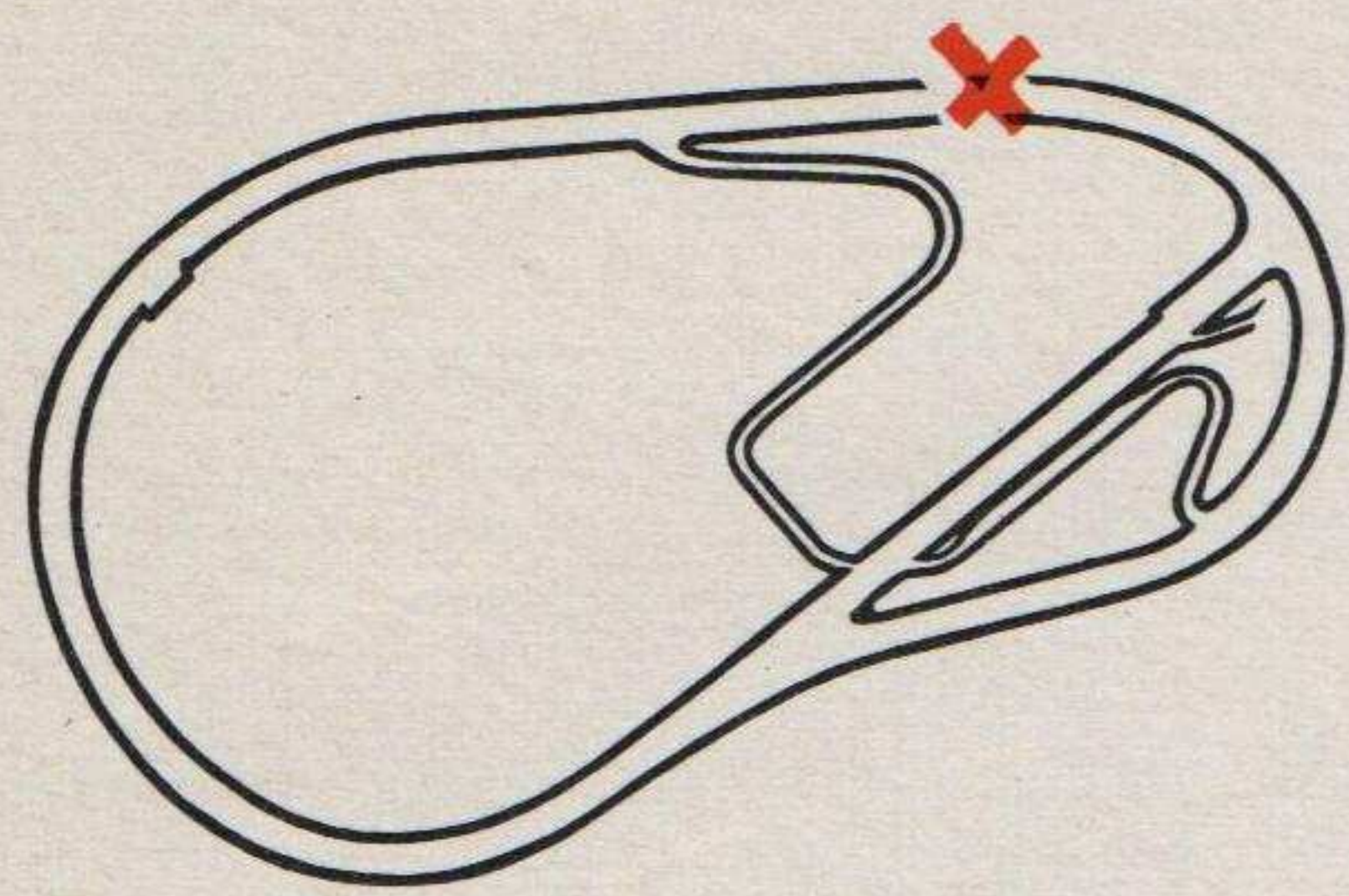
Miss Scott has been married once and says that if the right man came along, she would love to be married again and have a family. For all her flying skill and, like Chichester, her navigational gift, she remains very much a woman. Before coming in to land, she frequently changes into an attractive dress, gives herself a face do and makes sure that her hair is just right.





Nostalgia

Nostalgia: Repining, home sickness, longing for past times; return to familiar scene e.g. *Castrol at Brooklands, Donington, Pendine*; lamentation, sentimental recollection, etc.

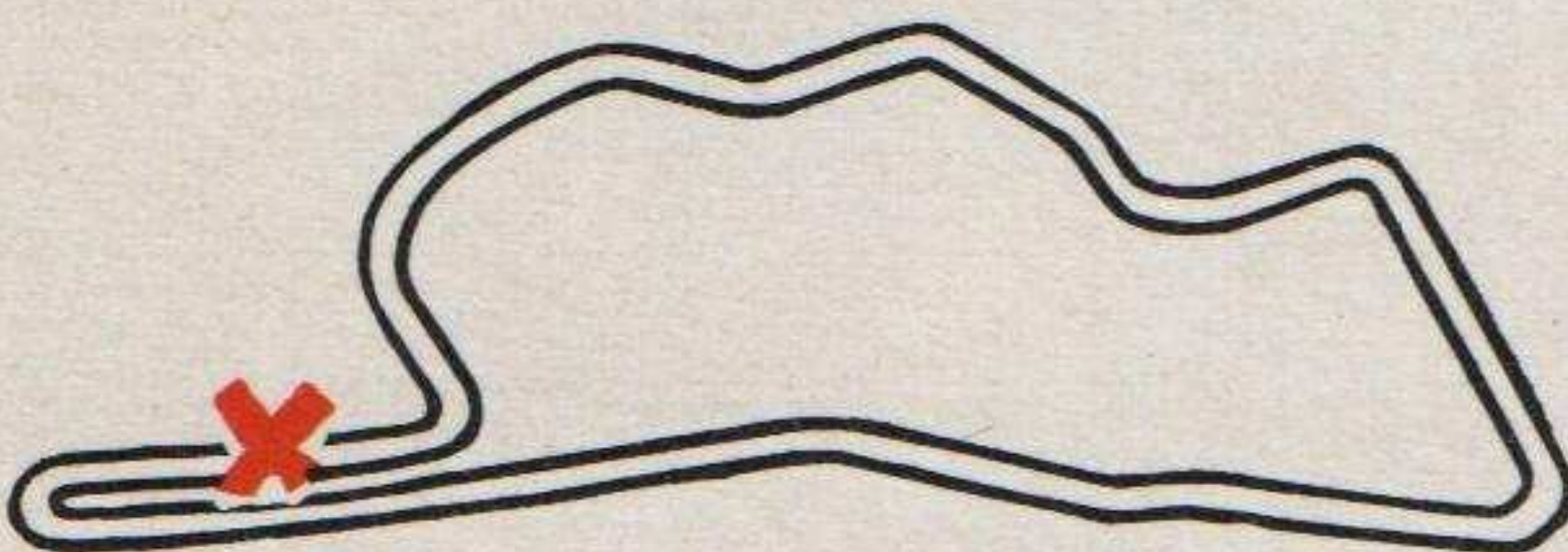


BROOKLANDS

We returned to Brooklands in its sixtieth year to depict the works supercharged OHC 750 cc Austin single seater driven by Bert Hadley overtaking the supercharged side valve model driven by Kay Petre on the Members' Banking approaching "the hump" during practice. By contrast we show a modern relative of these cars in the form of a Castrol lubricated Austin Cooper "S" rally car.

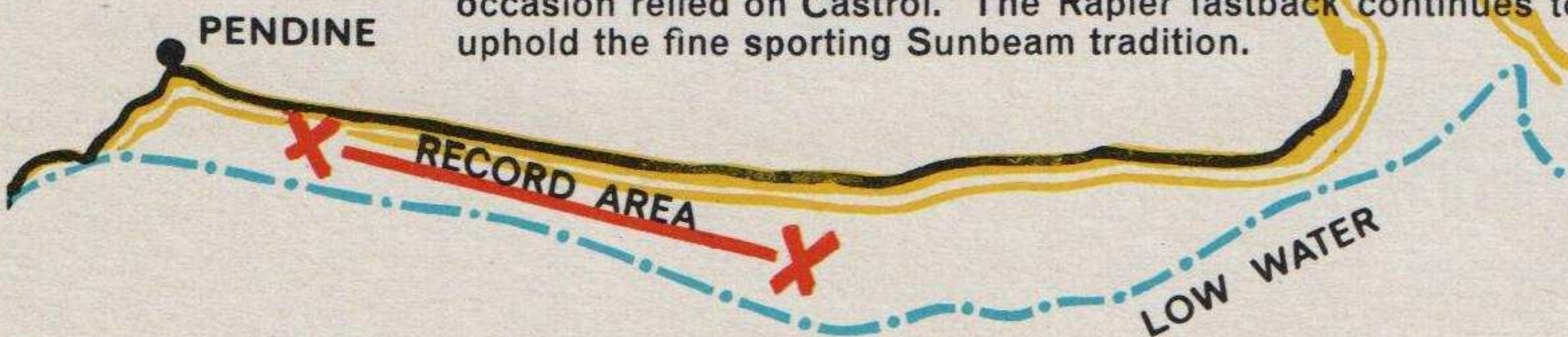
DONINGTON

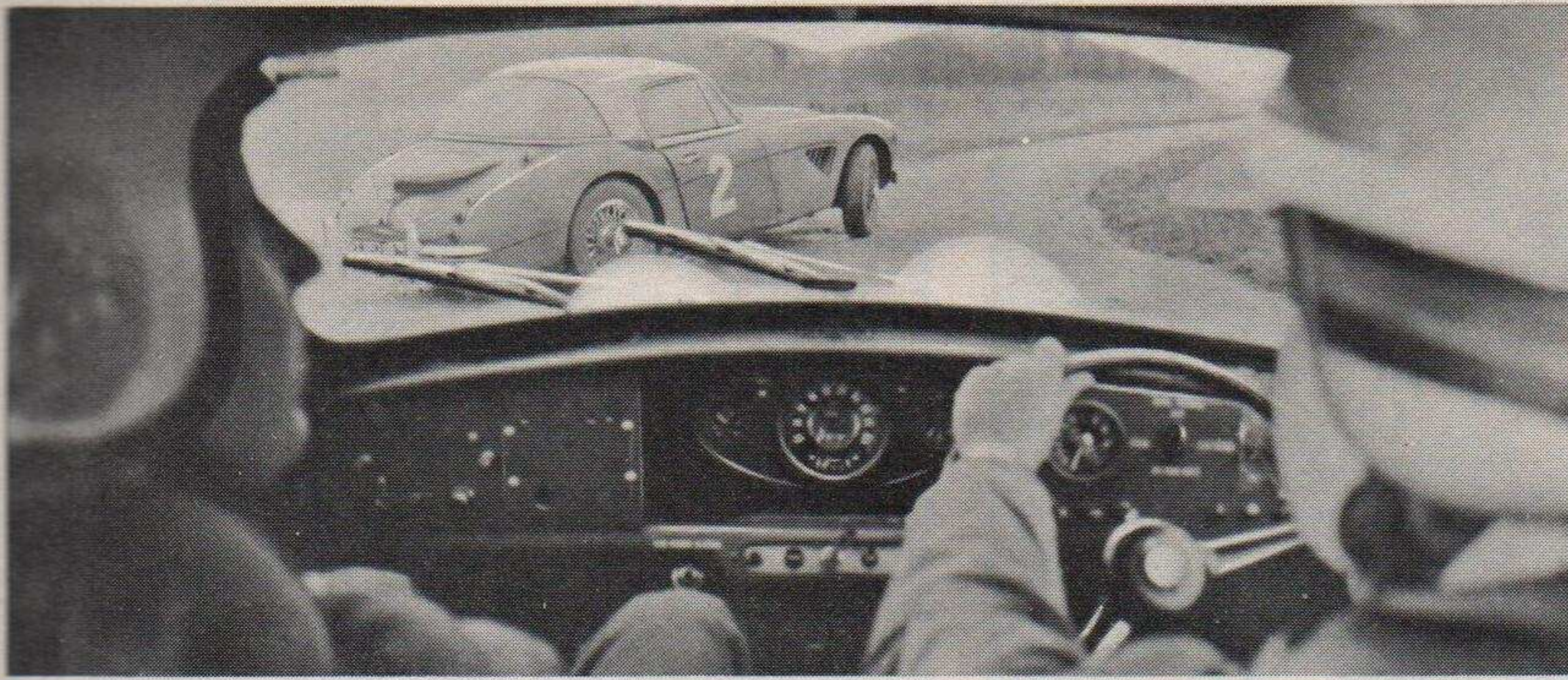
Jaguars, old and new. Memories of pleasant pre-war S.S. Car Club meetings at this venue are brought back by the 3½ litre S.S.100. Weighing twenty four hundredweight and producing 120 b.h.p., this 1939 car had a top speed of 100 m.p.h. In contrast the 4.2 E-Type develops 265 b.h.p., scales twenty five hundredweight, and tops 140 m.p.h. with a standing quarter-mile time of 15 seconds.



PENDINE

Sunbeam and Pendine Sands. All the atmosphere is still there as when Captain (later Sir) Malcolm Campbell, with a flying start, thundered down the measured mile in 1925 at an average of 150.76 m.p.h. to take outright the world land speed record. His 350 h.p., 18,322 cc 12-cylinder aero engine car on that occasion relied on Castrol. The Rapier fastback continues to uphold the fine sporting Sunbeam tradition.








FLAT LEFT OVER BROW

BY HENRY LIDDON

50 very FL+L° tightens into FL
Every trade, I suppose, has its jargon. We co-drivers, or navigators as we were once called, use a kind of verbal shorthand with which to flog our drivers through ice, snow, fog, hail, darkness and the ordinary hazards of highways and byways, in the direction of their various elysias. We call them pace notes, and in recording them we employ devices ranging from a pocket notebook to the famous roll upon which Denis Jenkinson jotted the directions for Stirling Moss's epic drive in the Mille Miglia some years ago. It can be a tedious job. But it is one of the most vital elements of successful rallying today.

COL DE LUENS.

Notes start at line ()

200 Brow 100 FL+FR
50 Long MR+R 50 
Very FL? + Very FR 50 HPL +
L 100 R 50  50 ML
Brow

(R) + Very FL tightens to Long FR 100

R min into SR 50 

Very FL into Village 100

through houses to  ML + MR


50 Very FL + L tightens into FL.


Here is a typical page of pace notes which we usually write in large 'baby', scrawl so that we can read them at night in a darkened car that is being hurled up or down a special stage by one of our brake-and-throttle exponents.

These notes start at a line drawn on the road by km stone 23 which is difficult to see (that is the reason for the brackets).

Then we have a 200 yard straight ending in a brow which can be taken flat (the circle 0 over anything means flat or maximum e.g. Bridge would be flat over bridge).

Then 100 yards before a fast left and then a fast right corner (these

are slow corners!) we still use the old language. Our whole range of descriptions has speeded up so much that the original language often does not make sense. In theory it would be much better to grade all corners 1-10 or A.B.C. etc. but this would cause the driver to think and have to translate this in his mind at a time when he is concentrating, we hope, on keeping the car on the road. Also the co-drivers would have to translate these notes in their minds to fit them to the road. Even a slight hesitation could be disastrous. Then 50 yards to a long medium right which is a very bad corner followed by a flat right then 50 yards to a road sign  before a very fast left and then coming very quickly a very fast right, 50 yards and hairpin left.

The line under the very F.R. 50 draws one's attention to the HPL, which comes very suddenly. We then have flat left 100 yards then flat right and now 50 yards to Sign  which warns that there is only 50 yards to brake for the brow and medium left over it - a very nasty corner but the notes here tell the driver which way to 'set up' his car over a blind brow.



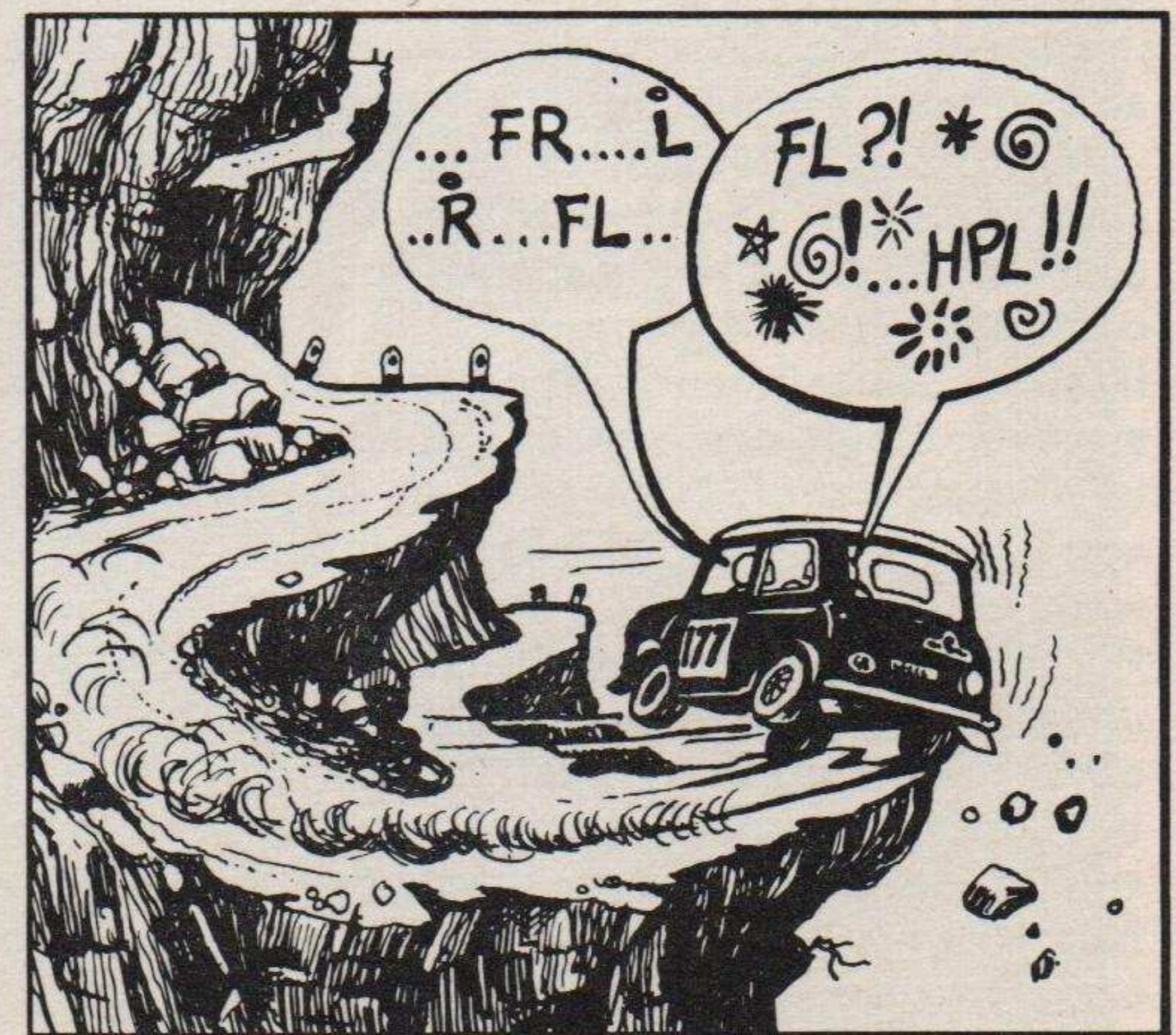
Next a hidden kilometre stone before a very fast left which tightens into a long fast right (a slow second gear corner). Then 100 yards to a bad corner right minus (in the original language it was worse than a fast left i.e. fast left minus) now this corner tightens into a SLOW right which is probably a 1st gear corner then 50 yards to a town sign and very fast left into the village

then 100 yards through the houses to a telegraph pole which we call an 'A' pole - this marks two bad corners. And so on.

This small example shows the way we can build a complete picture of a route. A driver/co-driver combination who trust one another can drive at virtually undiminished speeds even in thick fog or blinding snow. In fact, on the 1967 Monte Carlo Rally, Rauno Aaltonen and I ran into thick fog on our second test on the Col de Turini and, although Rauno could barely see 10 yards, if I said there was a 200 yards straight he kept his foot down and then pointed the car left or right according to my instructions.



A similar thing happened to Paddy Hopkirk and Ron Crellin in the Alpine Rally on the Col d'Iseran when in thick fog they overtook the French Alpine of Larousse which had started over two minutes in front of them and at that time was leading the rally.



All the top drivers today use some system of notes; some merely describe the nature of the road, some only mention the dangerous corners. Another method suggests a maximum speed for each corner (this is very popular with French drivers) but the system we use in the B.M.C. team describes all the corners and straights and includes as many geographical features as possible, so forming a map of the road. This method was originally introduced to the team by Paddy Hopkirk and Jack Scott in about 1962/3, but the notes that we used then seem crude and simple compared to the elaborate system in use today.

As I have said, all the drivers in the B.M.C. team can use each other's pace notes although each of them has his own pet idiosyncrasies. For example, Timo Makinen tends to call everything flat, including one memorable flat hairpin right (he and Paul Easter did not go off the road,



merely backwards into the hairpin).

Rauno Aaltonen used to over complicate his notes, whilst Tony Fall and Mike Wood on the other hand miss corners altogether! Paddy Hopkirk probably practises on his notes more than anyone else. If his notes read 'flat out' he knows that the corner is flat out.

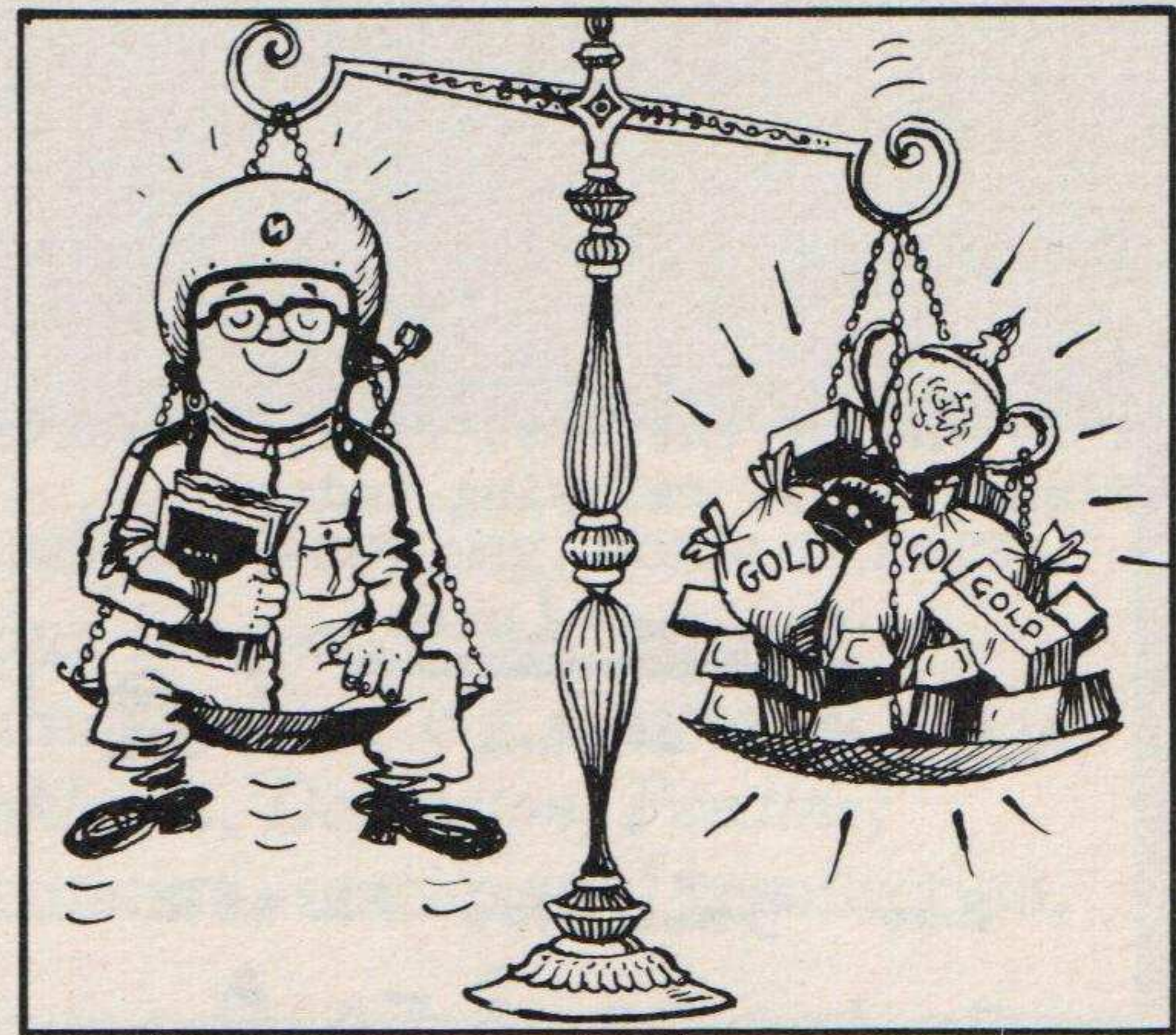
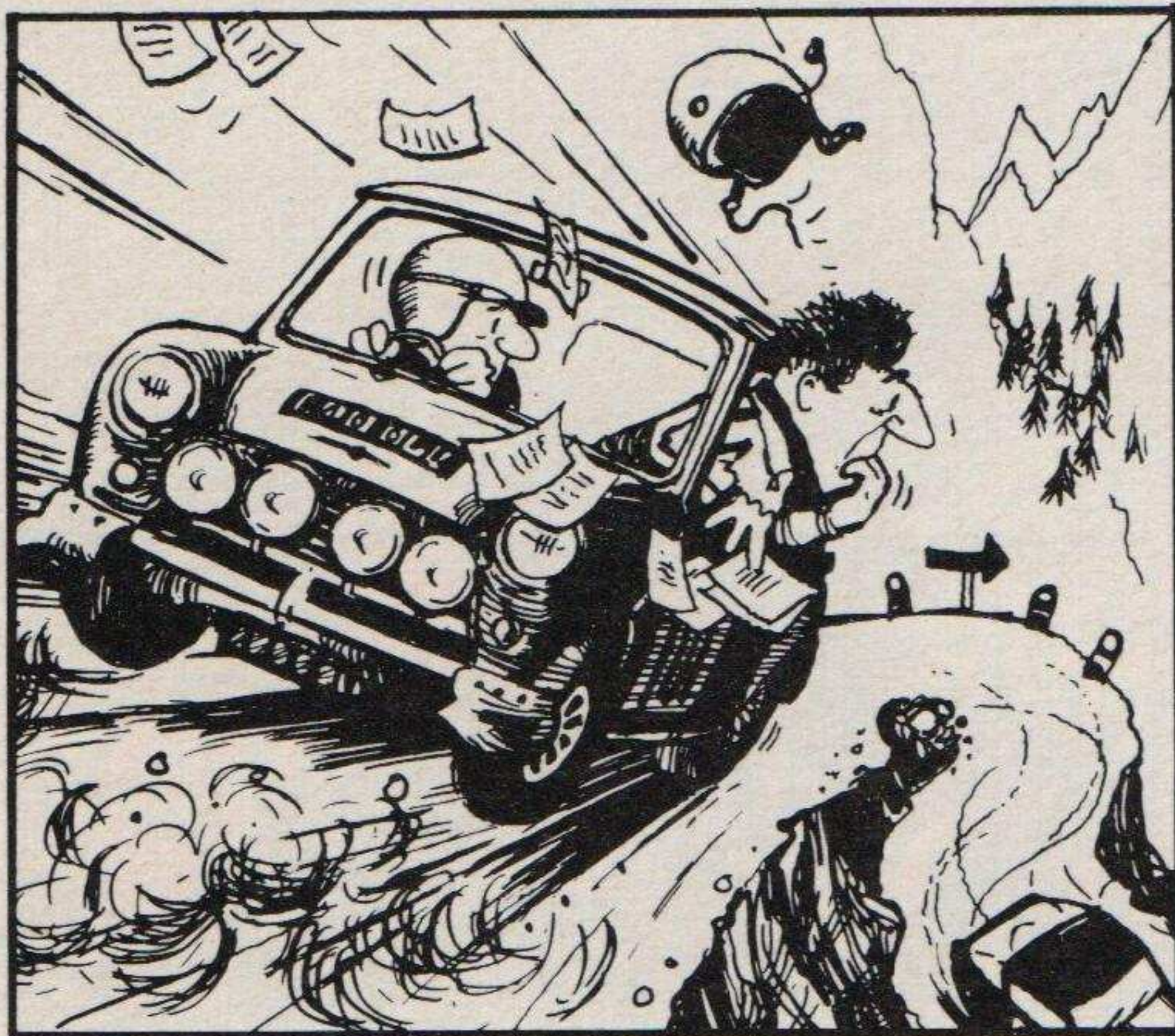
One happening that illustrates the dangers of using other people's notes:

In 1965 Paddy and I had been practising one particular downhill test on the Col Du Granier for the Coupes des Alpes and one very bad corner continued to cause Paddy trouble time and time again. We approached it either too fast (when I was scared) or too slow (when Paddy was annoyed) and so to remind him of the corner, I named it 'medium left and how!'. During that rally Rauno and Tony Ambrose were leading the touring car category (and being hard pressed by the Ford Cortina team). Because of the

difficulty of practising everything on the Alpine, they had not made their own pace notes of this test, so we had a photostat copy of my notes for them to use.

All went well and Rauno was driving to the limit of our notes and his ability, but on approaching our corner Tony hesitated with the notes and in the split second available made up his mind what was meant, and read 'medium left and house'. Hearing this, Rauno kept his foot down looking for the non-existent house. Needless to say they left the road in a big way - many precious minutes passed with Tony pushing and the Mini scrabbling its way back uphill through the bushes until they regained the road. I am glad to say that this error did not lose them the Coupe or the category.

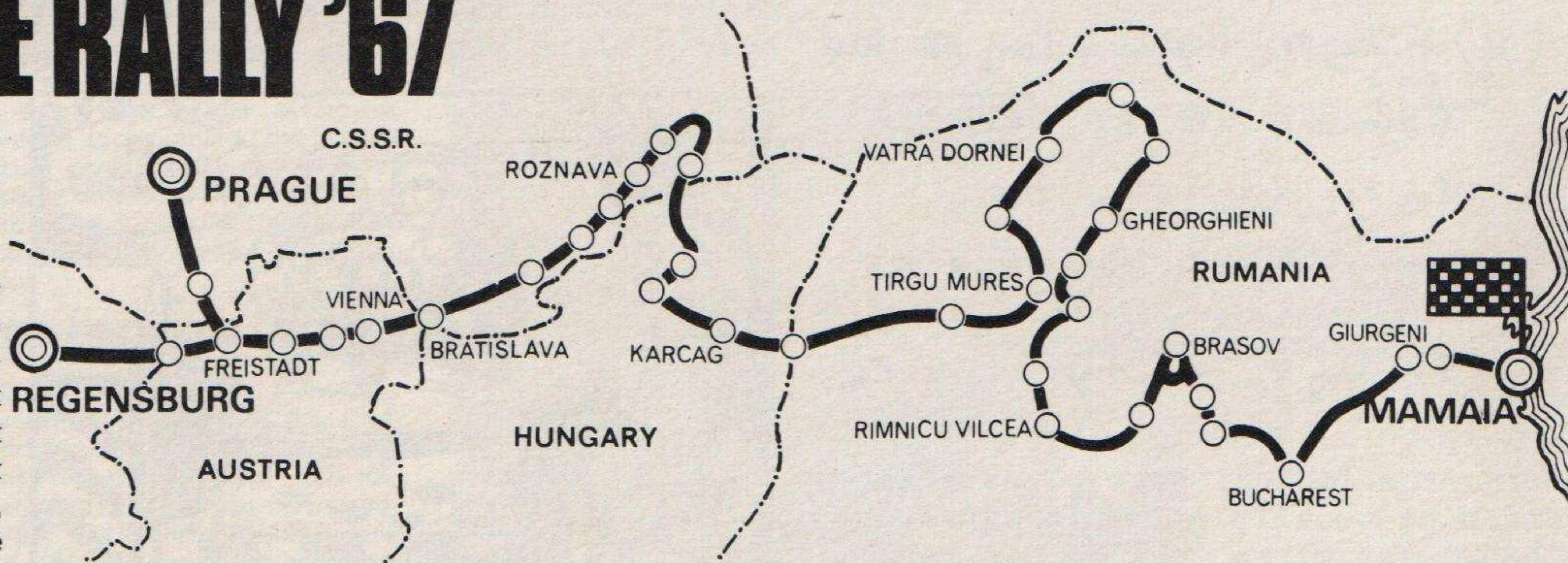
As a heavy co-driver I would like to think it is on occasions like these that we can be worth our weight in gold!

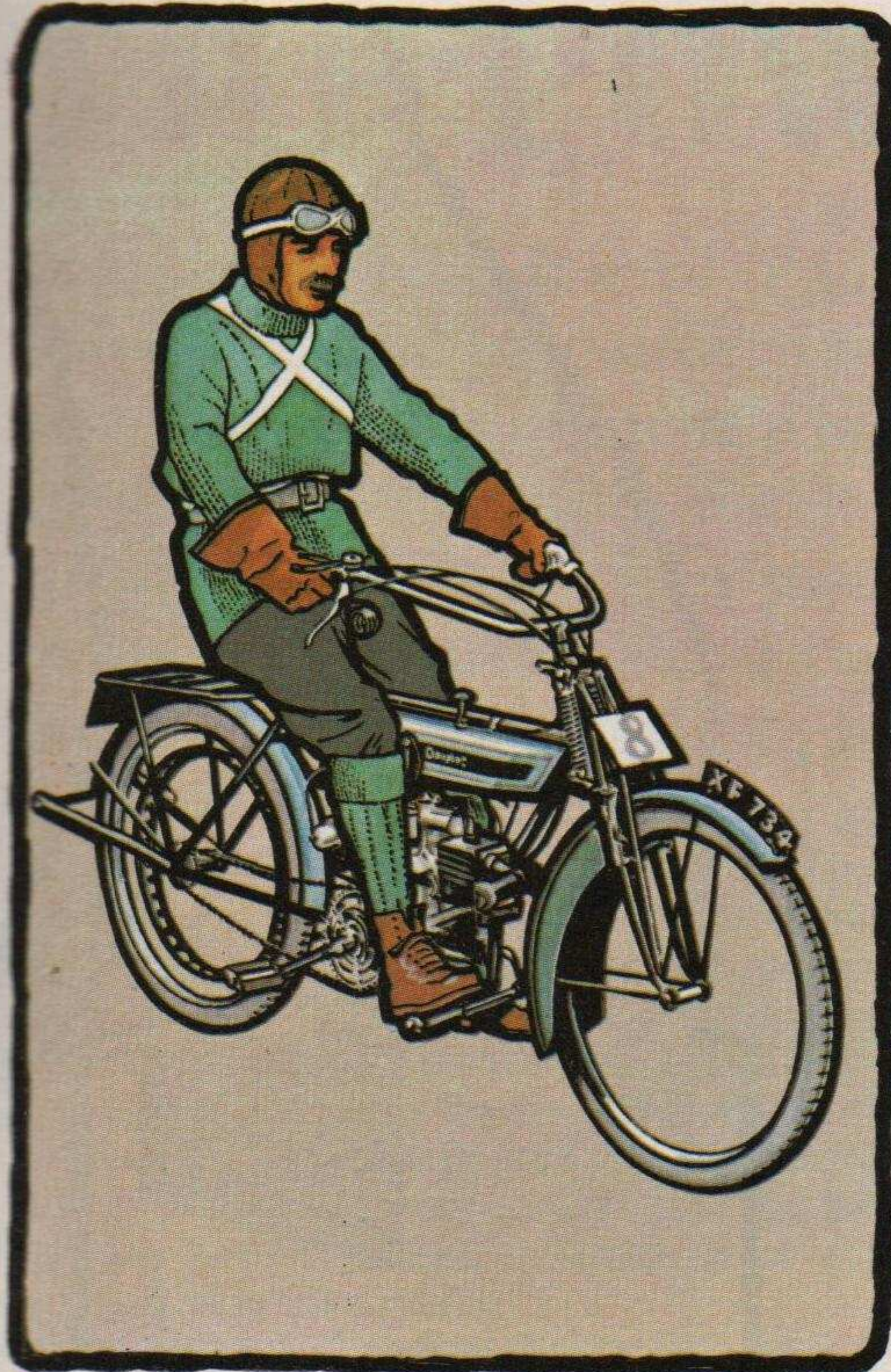


CASTROL DANUBE RALLY '67

It has been said that the BMC Mini Cooper S can do anything, or very nearly anything. The trouble with this great little performer in rallying is that it has already done everything—which is largely why Competitions Manager Peter Browning decided to give its big brother the 1800 or 'Super Land Crab' a go in stiff international competition. One of the toughest cars in the world, the 1800 did not need a lot of preparation but the engine was modified almost exactly to MGB stage 5 tune. Even so, it was not especially powerful considering the size of the car, the hope being that it would make up in endurance and stability what it might lack in sheer oomph.

After all, it is toughness that counts on a long and rough rally like the Danube. Driver Tony Fall expected to handle it that way, to depend on the car's ability to take punishment and come up fighting. Punishment? He found the car would streak serenely over endless miles of foul roads, holding a steady 117 mph with the engine unflinching. The 1800 proved so much to his liking that he was able to outstrip the whole opposition, Porsches and all, and bring home a virtually undented, undamaged outright winner. The rest of the international rallying fraternity were amazed; but the BMC Competitions Department, who know what is necessary to keep hardworked machinery happy, were laughing. They had pulled a fast one—in more senses than one.





'07 DIAMOND JUBILEE '67

1967 marked the diamond jubilee of the world's most famous motorcycling event—the Isle of Man TT.

The Tourist Trophy contest was devised in 1907 as a means of improving the reliability of ordinary road machines. Soon the special weight and fuel restrictions were dropped and the TT developed into a race meeting which captured the imagination of two-wheel enthusiasts everywhere.

It has always been held in the Isle of Man and the present 37-mile mountain circuit has been in use since 1911. Far longer than any other, it has more corners, more gradient and the fickle Manx weather, with its permanent threat of mist on the long 1,300-ft. climb over Snaefell mountain.

Added to the hazards of the course, there is the interval start, a feature which has always distinguished the TT from other races in the world championship series. Each rider pits his skill and his machine against the circuit and the clock, rather than against another competitor.

On the first day of the Diamond Jubilee meeting, Mike Hailwood equalled the long-standing record of 10 wins held by the great Stanley Woods. Midweek, he was congratulated by Stanley after yet another victory. And in the Senior TT which brought a memorable week to its climax, Hailwood had his 12th TT win. For this rather shy 27 year old bachelor who has achieved everything a racing motorcyclist can achieve, and for the Honda factory whose products he rides, it was a glorious week. For others like MZ, who value the island races as a form of high-speed development, it was a worth-while outing even though no winners' trophies were gained. For Yamaha, there was the disappointment of being beaten by Honda in the 250 cc race, jubilation over Bill Ivy's 125 cc victory. And for the fourth year running a BMW came first in the Sidecar TT, this time with Siegfried Schauzu and his passenger Schneider as first-time winners.

Pictures show : (Left to right) Mike Hailwood pushes the Honda at start of Senior ; Siegfried Schauzu takes the BMW through Sulby Bridge ; Derek Woodman, MZ, at Signpost in the Junior ; Bill Ivy, 250 Yamaha, at Gooseneck ; Phil Read, 125 Yamaha, on the Mountain





Achievement of the year



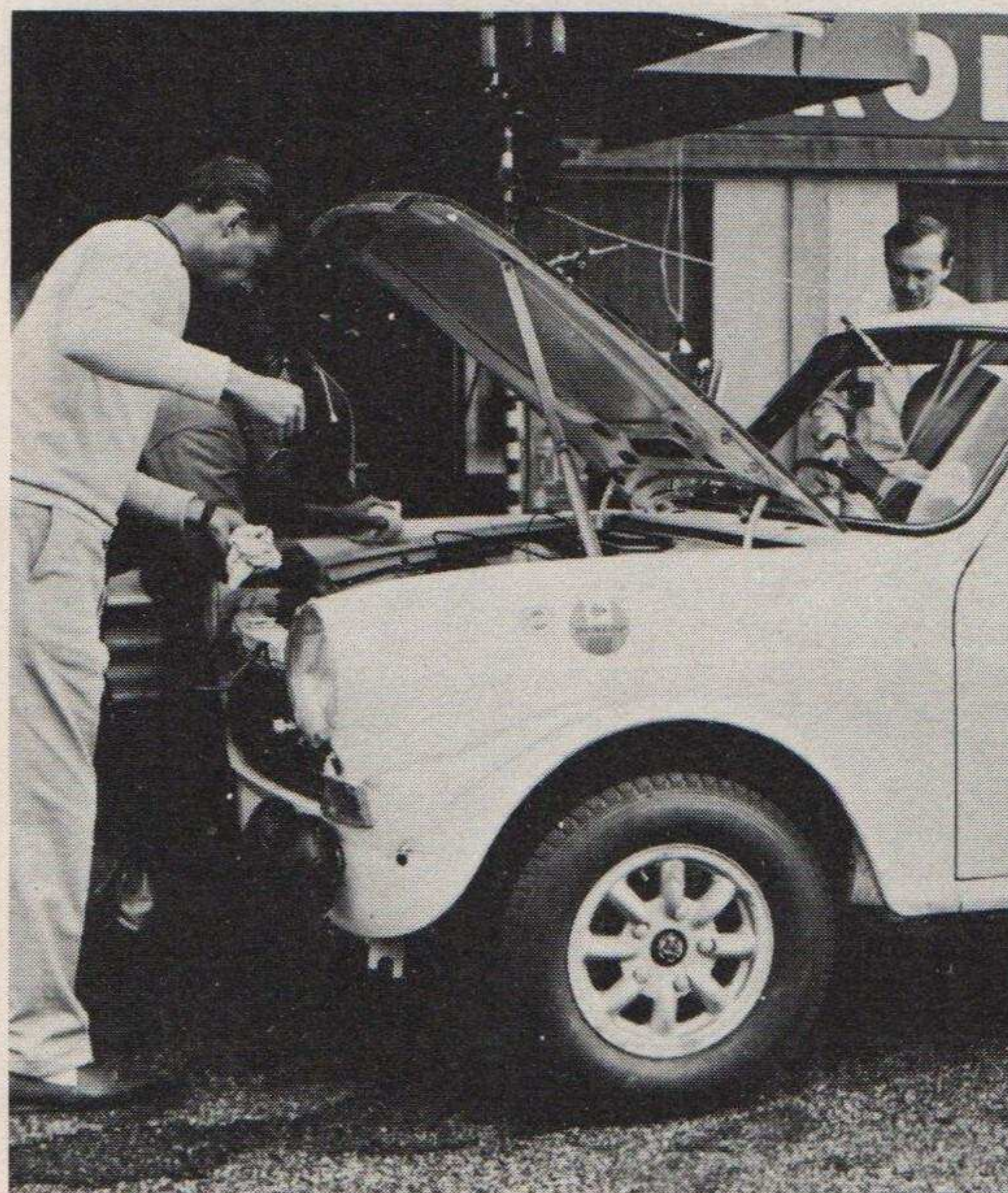
Castrol lubricated cars, motorcycles, aircraft, boats and ships made headlines all over the world in 1967. But Castrol's most spectacular achievement was accomplished well away from the newsreel cameras, grandstands and press conferences.

It was the development of Castrol GTX, the most advanced motor oil ever to be offered to the public. Initiated by data fed into the Castrol labs and computers by such exotic high speed test units as Gurney Eagles, Ford GTs and BMC works rally cars, the GTX project moved towards finalisation behind locked gates on a maximum security test track somewhere in Britain.

Twenty cars covered the equivalent of 14 years motoring in a continuous flat out eight week blast through all the variations in British weather conditions. The oil that emerged is now there for the asking on forecourts throughout the UK, Castrol GTX, the only motor oil to have every necessary high performance characteristic all in one. GTX is going to make a tremendous difference to engine life, running efficiency and oil consumption in many millions of private cars from now on. It is for this reason that Castrol count its creation their most spectacular achievement of 1967.

The entry of BMC's 1800 into international competition could hardly have been more successful: the car won the Danube Rally, first time out. No sooner was it back in England than Competitions Manager Peter Browning set his men at Abingdon a new task: prepare an 1800 for showing off again, but in a different way, just how fast and tough it is. Monza was to be the venue, the idea being to run the big Morris round Italy's concrete saucer in an attack on long-distance records for production cars. The regulations were strict: the car must weigh no less than the version normally sold to the public, all spares used during the attempt must have been carried on the car, engine tuning was limited to certain types of modification. Although the body was built specially light—with all those spares aboard, the car was still heavier than standard! A modest degree of engine tuning was deemed sufficient; there were two carburetors, for example. In mid-September the run started, with stars like Rauno Aaltonen, Clive Baker, Roger Enever, Tony Fall, Alec Poole and Julian Vernaeve taking it in turn to drive the smooth-riding saloon over the punishing Monza oval. Seven international records fell, from four days at 93.9 mph to 15,000 miles at 92.64 mph. The engine that stood up so manfully to this gruelling ordeal was lubricated by Castrol.

MONZA MARATHON



THE POWER GAME

TUNING PRODUCTION BIKES
FOR RACING

You need a very special brand of fertilizer to get more out of a plot than will come naturally. The blooming of production motorcycle racing in the past few years has shown, in fact, that the manufacturers know quite a lot about the art of getting more power from their machines. So good are some of these firms that it would be silly to try to get the results by other means. In production racing, after all, the things that may be done to a machine are fairly succinctly regulated, and with the scope for development thus narrowed it is natural that the manufacturers have an advantage over the privateer in making things go.

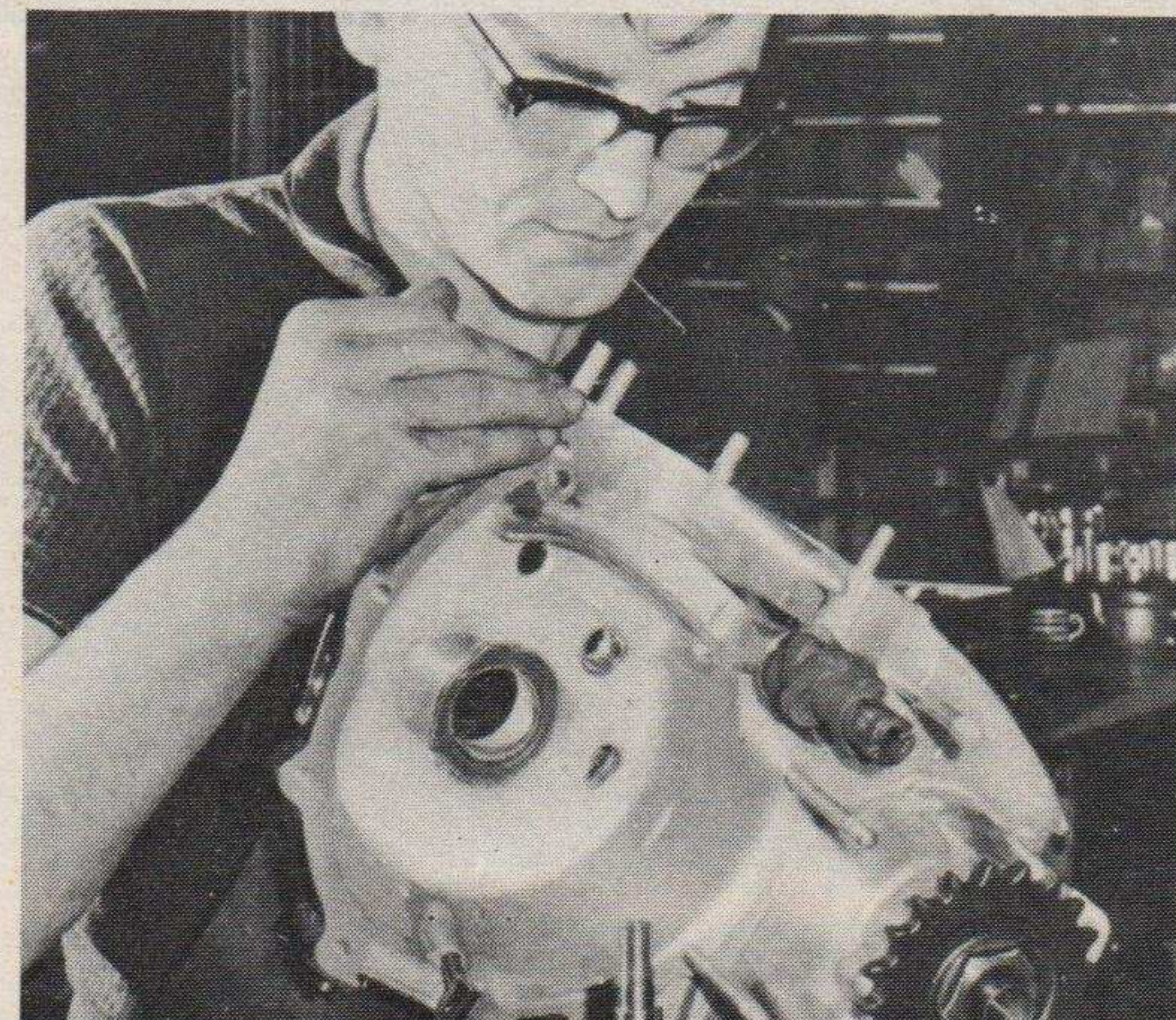
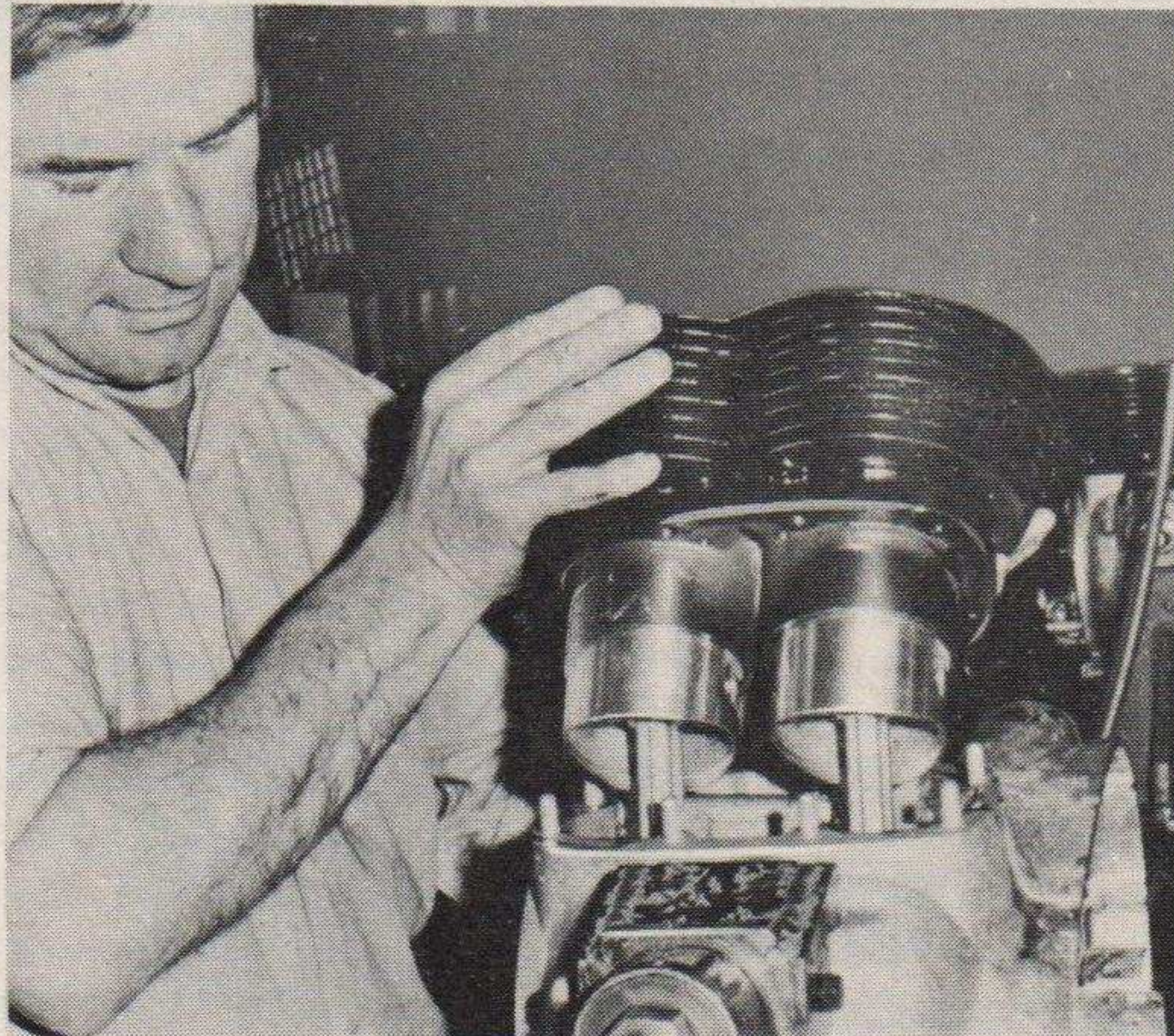
In fact the racing regulations insist that any special components employed for production racers must be available to the general public. So it follows that if the manufacturer doesn't make it, you can't have it—and if he does make it, he will probably know best how to use it. Hence the Triumph Bonneville that won the Production TT or the Brands Hatch 500 miles Grand Prix d'Endurance was built of bits that any enthusiast could expect to be able to buy through his dealer.

These famous Triumph twins are really a splendid example, for they won virtually every major production race in Britain and the USA in 1967. What's special about them?

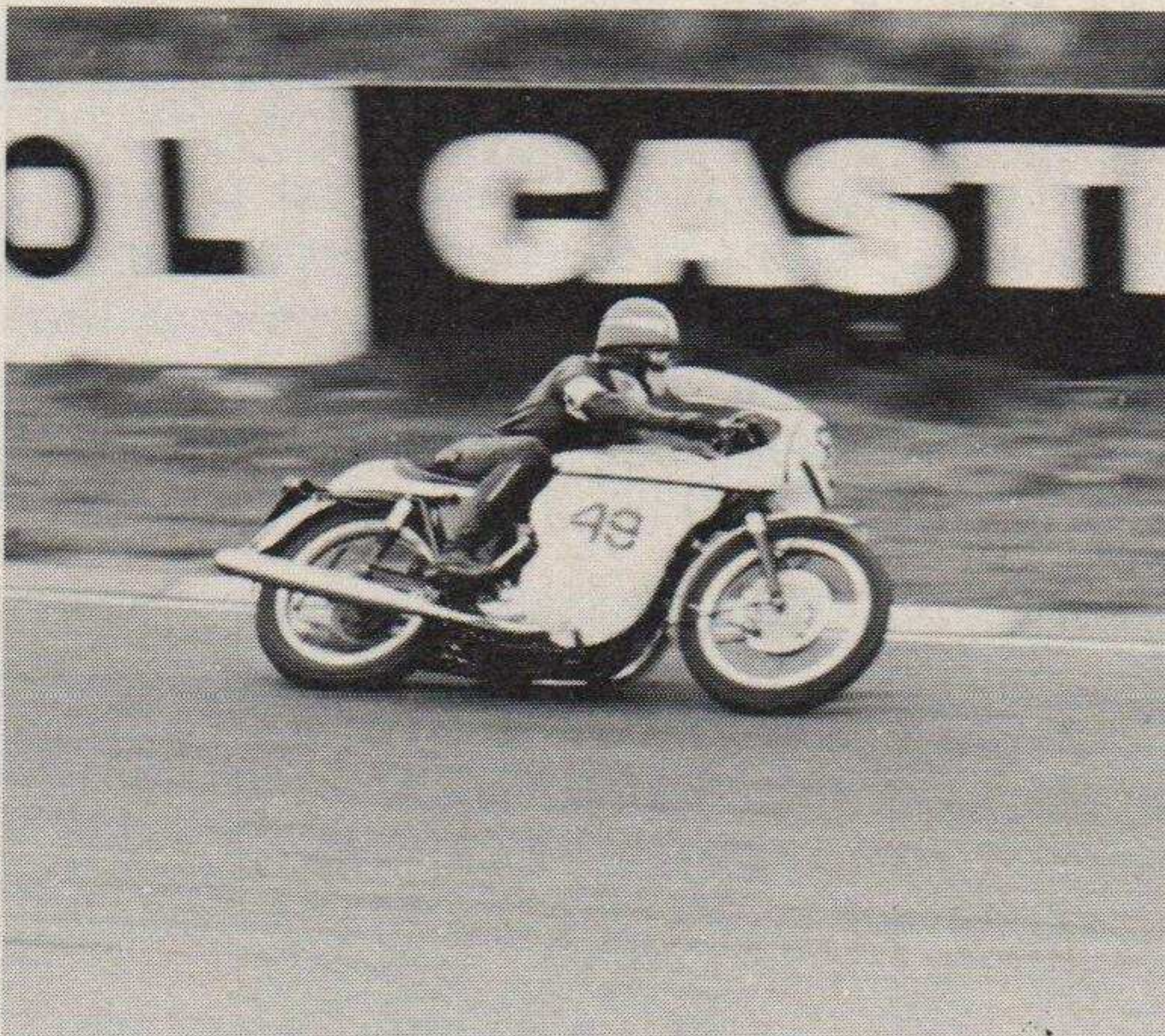
Meticulous preparation, for a start. Precise valve and ignition timing, careful port-working, accurate balancing, all the routine stuff that is not black magic but first-class mechanics' practice. Getting the bicycle to function properly is not beyond the abilities of anyone who is prepared to be careful and industrious. Getting it to perform better than its original design envisaged, however, is work for the engineer. The design of, say, effective resonant exhaust systems is still a somewhat imperfect science, but it is a great deal more technical than the average mechanic can even begin to appreciate. Triumph have a special exhaust all ready, just the right size and shape, with the intriguing balance pipe at just the right point to have optimum effect. After months of frenzied hacksawing and pipe-bending, you could still be looking for a better design. . . .

Follow the manufacturers' guidance, then, as far as it goes. You will still have scope for improvements of your own. Remember, for a start, that the motorcycle is one of the most unaerodynamic vehicles on the roads; and remember that fairings are usually permitted, albeit fairings that are very limited in their effectiveness by regulations that were introduced ten years ago and apparently have not been thought about since. Never mind; if you can devise a fairing that is lower and narrower than all the others, and still manage to tuck yourself away behind it, you will be doing yourself a good turn. Just as engine friction is reduced by choosing the right oil (take a tip: BSA and Triumph endorse Castrol) so can your machine's speed be increased by reducing the friction in the air through which it moves. A reduction of five per cent in frontal area is worth as much as a five per cent improvement in the efficiency of streamlining, and either is worth more than a ten per cent increase in engine power. Which do you suppose is easier—to lose nine square inches, or to find six bhp?

It is no use tuning a partly worn engine until one is sure it is in the best possible mechanical condition. Here, an operator assembles the crankcase of a modern vertical twin after satisfying himself those bottom end bearings are in perfect order. Of course pistons, rings, and cylinder bores must also be in top class order. The second illustration shows this important work being carried out.



International 500 Miles Grand Prix D'Endurance for production machines at Brands Hatch. Co-rider Rod Gould on the winning Triumph Bonneville which he shared with Triumph works tester Percy Tait. Pit stops play a very important part in this type of racing and on the right is shown one such frantic stop by the winning team. Their average speed was 79.2 m.p.h.



Fighting friction in the engine or in the air, in the tyres or in the hub bearings, it's all a matter of overcoming resistance. In this lies a clue to something tremendously important, the vital matter of selecting the right gear ratio for the transmission. Comparing your machine's power output with its weight or frontal area is meaningless as a guide to performance; what counts is the amount of surplus power available at any given speed to accelerate the whole apparatus, after deducting the power necessary to drive it at that speed.

If, for the sake of argument, your motorcycle needs 30 bhp to propel it at 100 mph, and is geared in top so that the engine is developing just 30 bhp at that speed, then it won't accelerate any further in that gear. Now lower the gear ratio so that at 100 mph the engine is

turning faster and developing say 35 bhp, and there will be some acceleration still in reserve. The acceleration will be twice as good if you lower the ratio even further, so that the engine is spinning fast enough at 100 mph to develop 40 bhp: for the surplus power will have been doubled.

Of course, all those extra revs place an extra burden on the engine, which may impair its reliability. Make up your mind: do you want to go faster than everybody else, or do you simply want to continue for longer than everybody else?

What's that? You want to do both? Then buckle down to it: take care to ensure that every component is in perfect condition, care to see that every assembly is put together just so; and take care, too, that you are using the right oil.

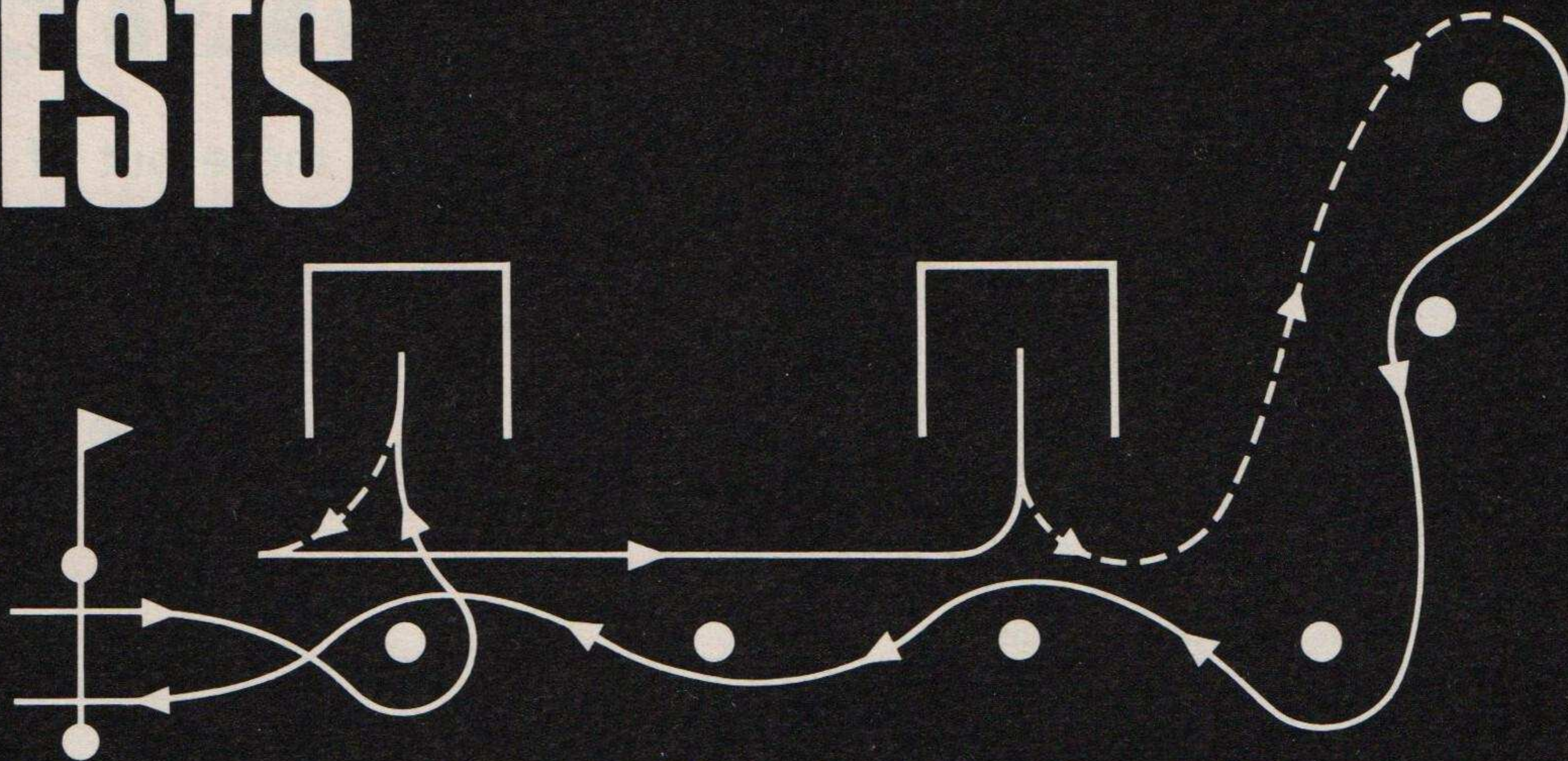
DRIVING TESTS

The sporting kind

AS TOLD TO
JOHN SPRINZEL

BY

Paddy Hopkirk



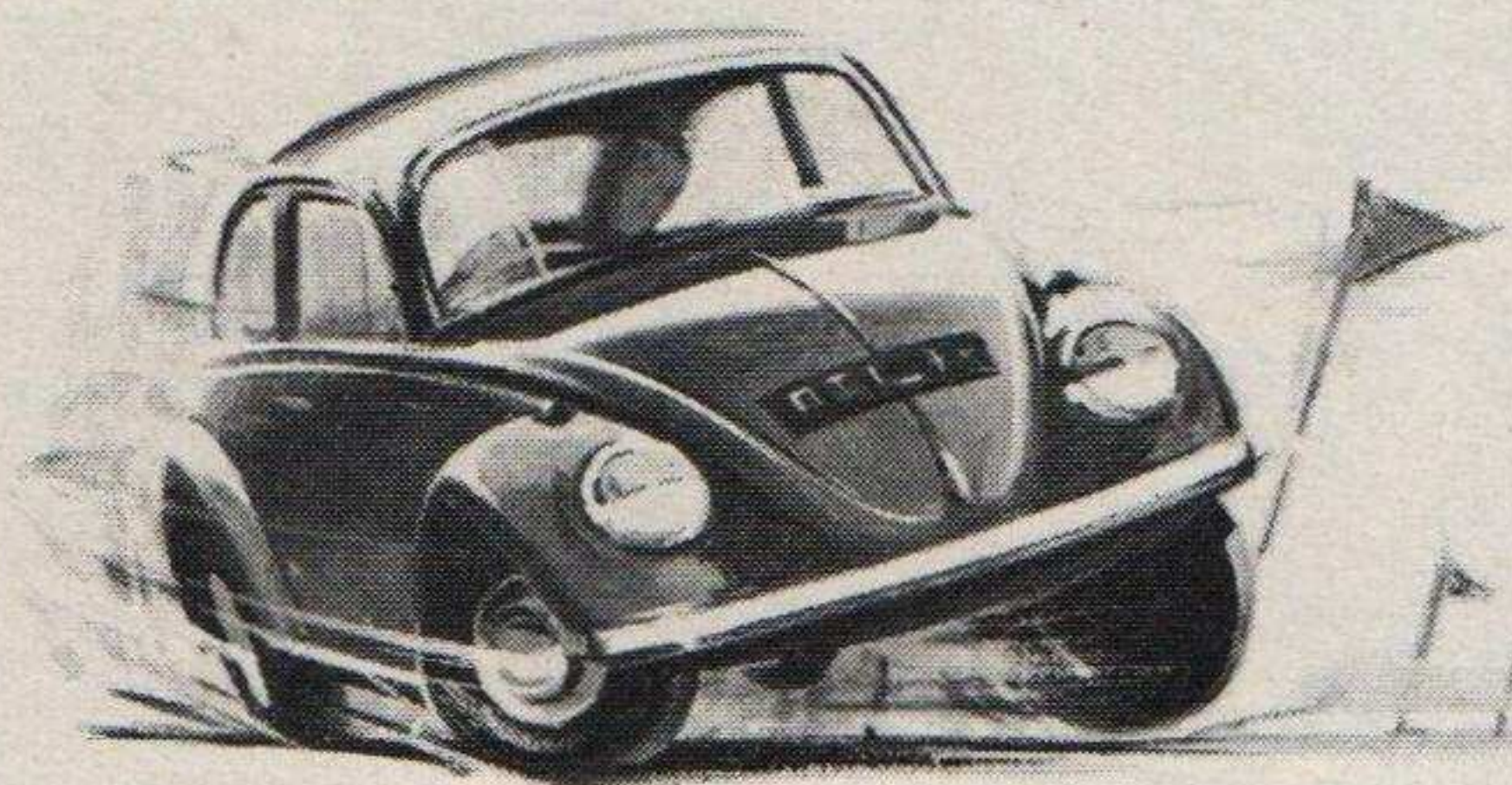
It may come as a surprise to those who only know Paddy Hopkirk as one of Britain's leading rally drivers that he began his very successful career in the hotly contested arena of manoeuvrability tests in Northern Ireland. In fact Paddy—who actually began with an old Austin 7 before graduating to the more popular Volkswagen 'beetles'—told me that he hopes to still be competing in motor-ing gymkhana type events long after he retires from professional rallying.

"For one thing" he said, "you don't have to practise for three weeks beforehand, and for another you don't have to go into personal training before the event."

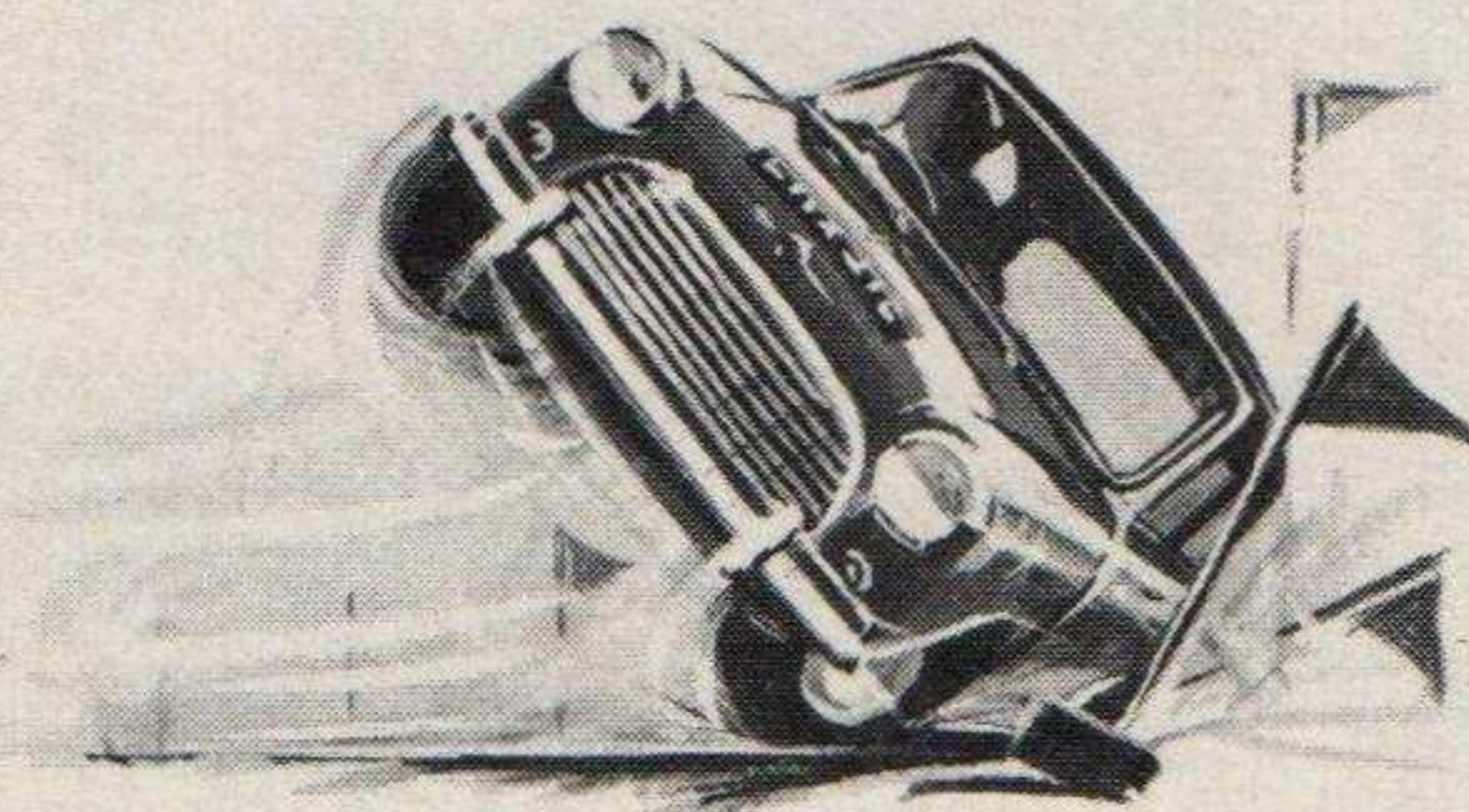
The two main manoeuvres in this kind of driving are the front end throw and the hand-brake turn—both are to reverse the direction of the car in the shortest possible time.



You begin a front end throw by driving in reverse as quickly as possible, then, for a turn around to the left, you flick the steering wheel slightly to the left and then give full right lock. During the turn first gear is selected and the lock reversed so that the car continues in a straight line, in the original direction of travel, but now facing forwards. The brakes are not used in this manoeuvre.



Northern Ireland is, of course, the land that has bred the top exponents of this difficult motor sport, and Paddy recalls leading the first Northern Ireland team to compete for the Inter-Nations Trophy on TV. They wound up winning by so large a margin that Paddy could only assume that the other British crews thought handbrakes were just for parking their cars.



Naturally enough, for a handbrake turn brakes are needed. The car is travelling forwards and the rear wheels are locked briefly with the handbrake to induce a tail slide which can then be controlled through 180 degrees by power application. The technique is varied by use of the clutch with front and rear wheel driven cars.

Paddy believes that almost the entire secret of front or rear end manipulation in driving tests is to be found in the 'Scandinavian' technique now used almost universally by the leading rallymen. The car is always flicked in the opposite direction to that required and then the counterskid is used to add momentum and speed to the actual turn.

Paddy reckons that team managers should watch for future drivers on the driving test grounds, where he says "It teaches you a heck of a lot about handling, and it makes fine anti-skid tuition. It also removes any fear of driving close to objects—for the pylons marking the course are passed with only inches to spare. One also learns a lot about the limitations of the car. If it will turn over, then it will do so on a driving test, as I found out to my embarrassment during an exhibition I gave in the Canary Isles. I succeeded in overturning during a particularly spectacular front end throw but fortunately the car was not badly damaged (it was not mine) and the crowd thought it was all part of the show.

"I would honestly say that if people want to get into motor sport, then driving tests are the simplest way to start. No maps, no complicated regulations and no long all night journeys. All you need is a suitable car—and most saloons can compete in one class or another. You simply fit a 'fly-off' handbrake and pump the tyres up very hard. Then learn the test layouts thoroughly before practice begins. If you have talent, driving test meetings will bring it out immediately."

Certainly this is an established and popular sport for both beginners and hardened veterans. Paddy is so keen on driving tests and the basic manoeuvres, that his telegraphic address is simply 'Handbrake Peterboro'.

PHOTO CREDITS



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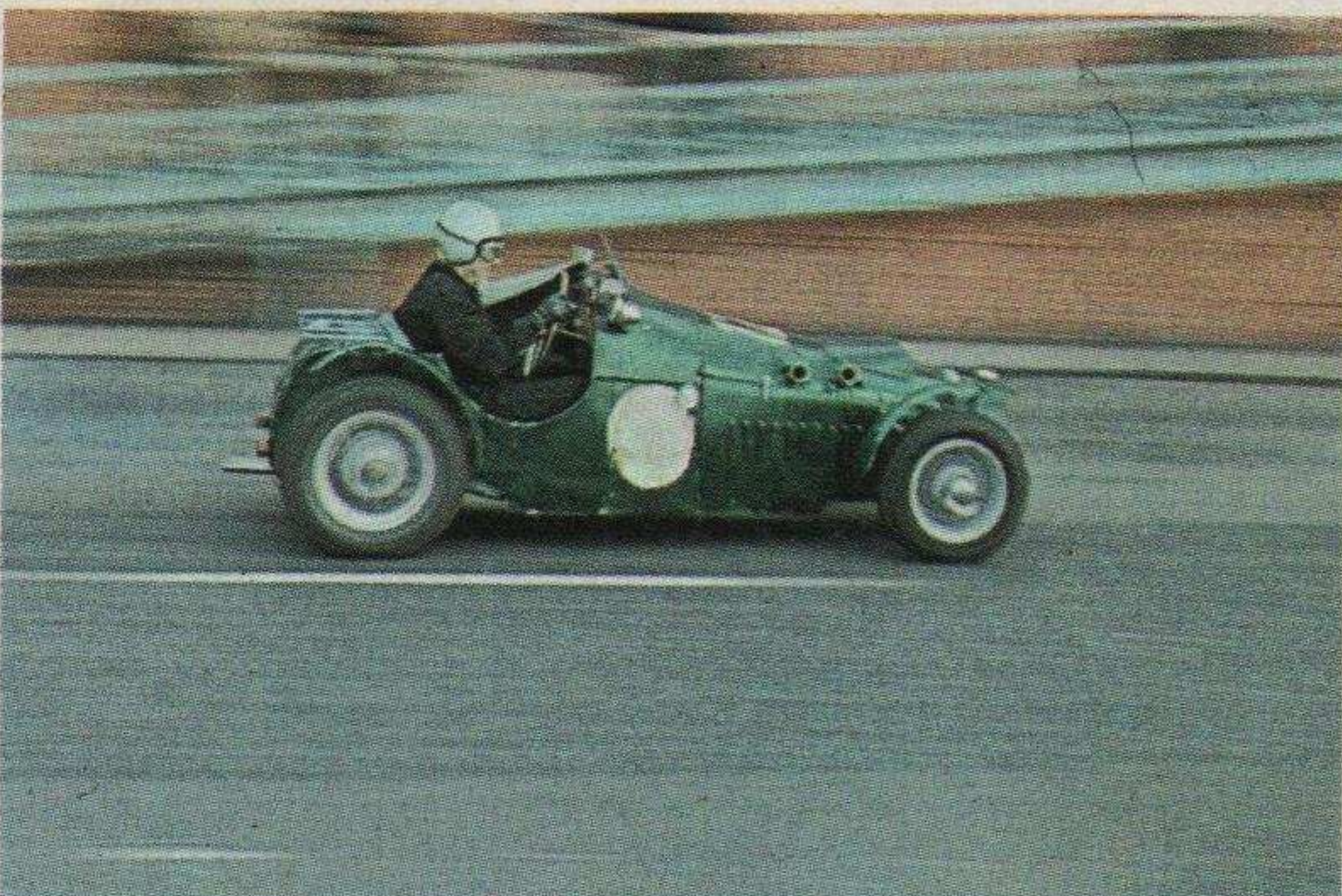
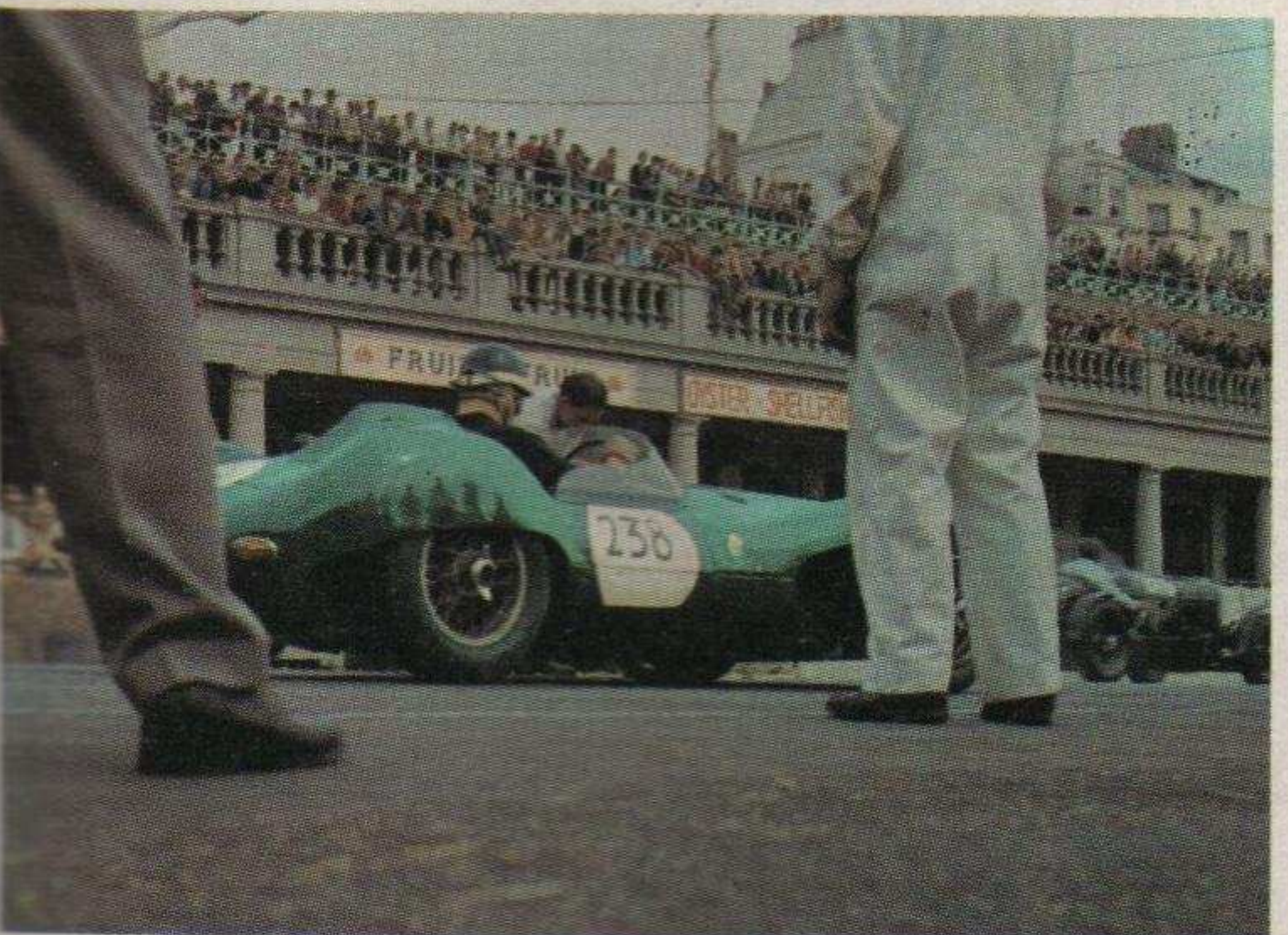
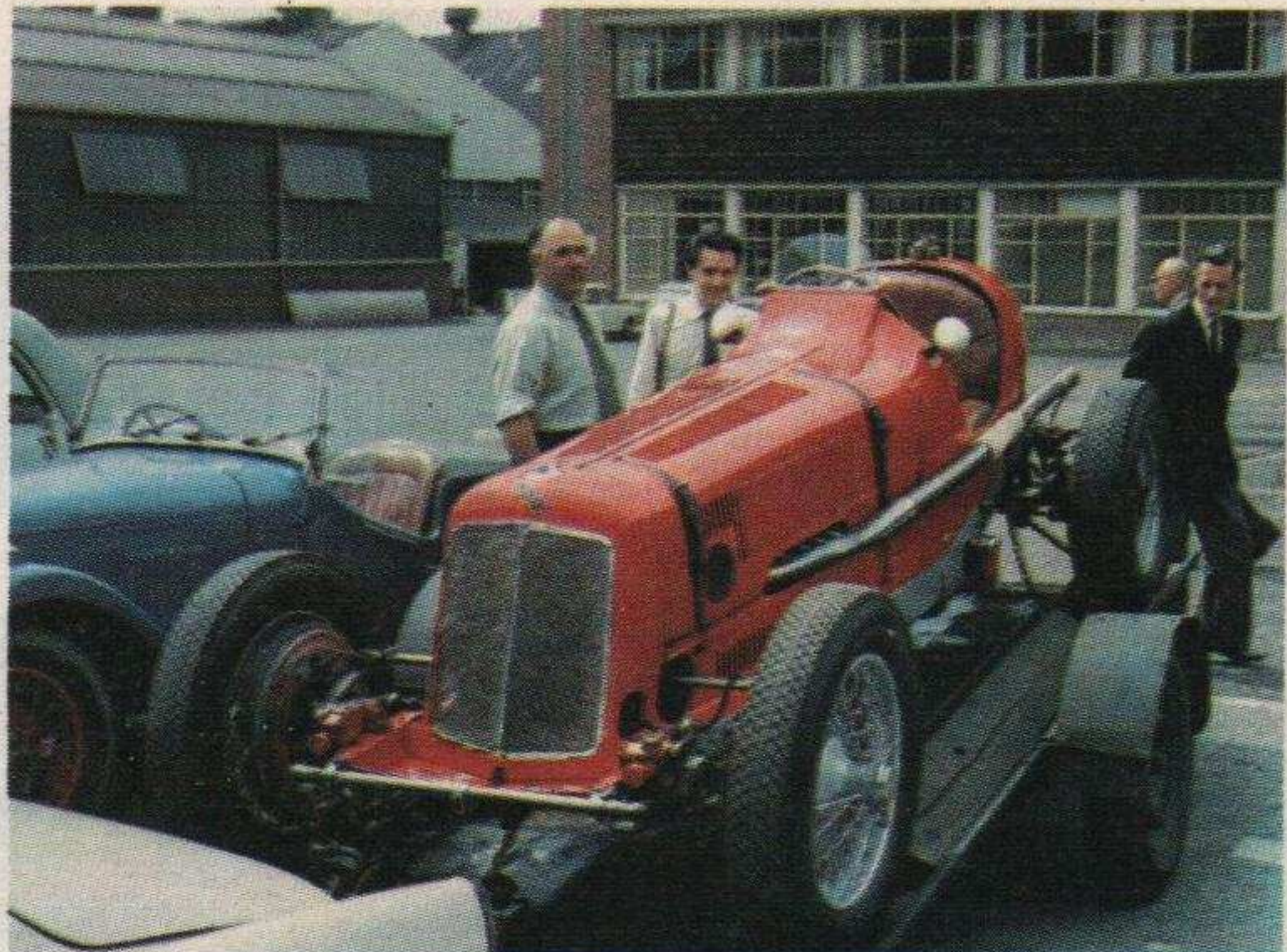
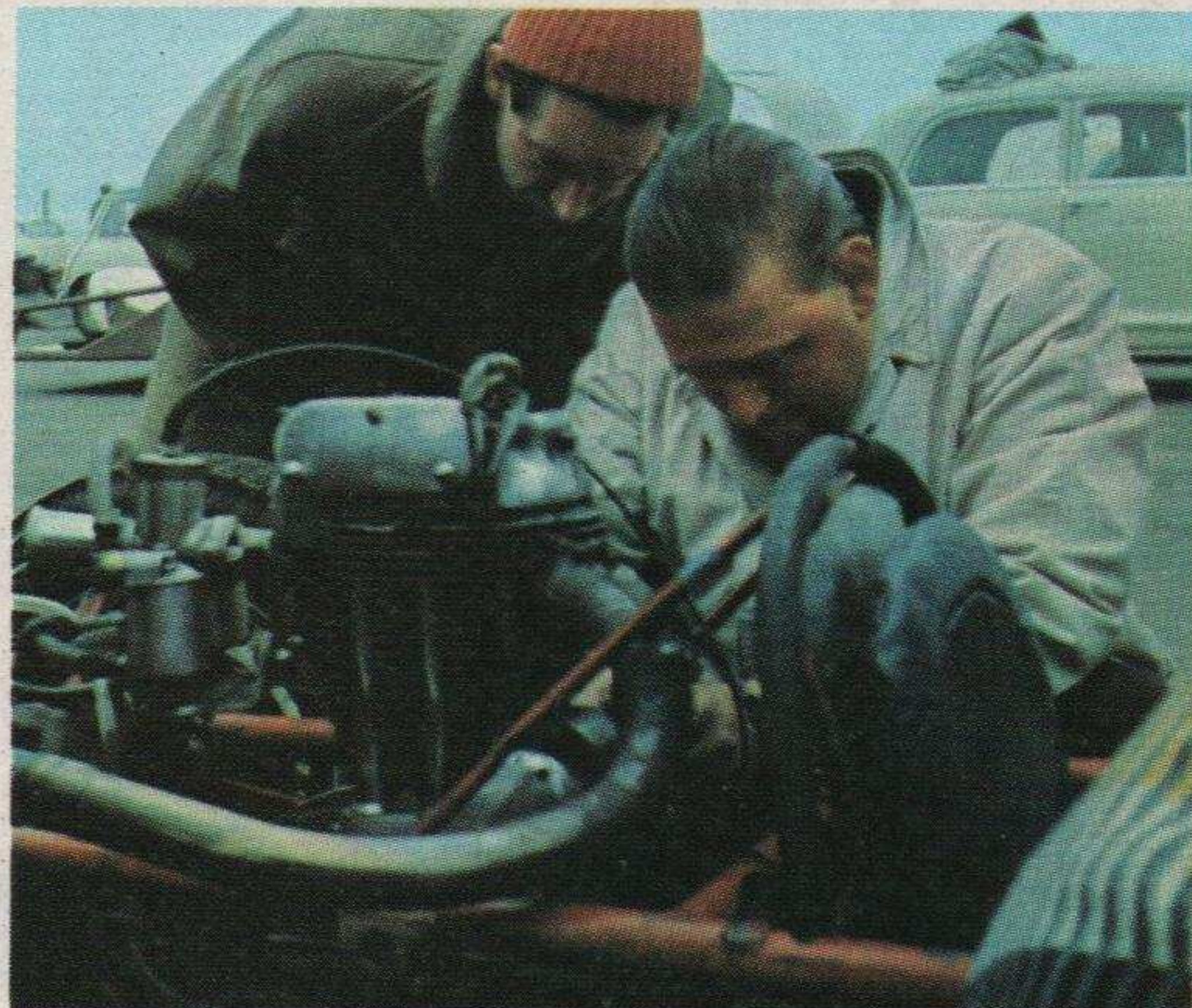
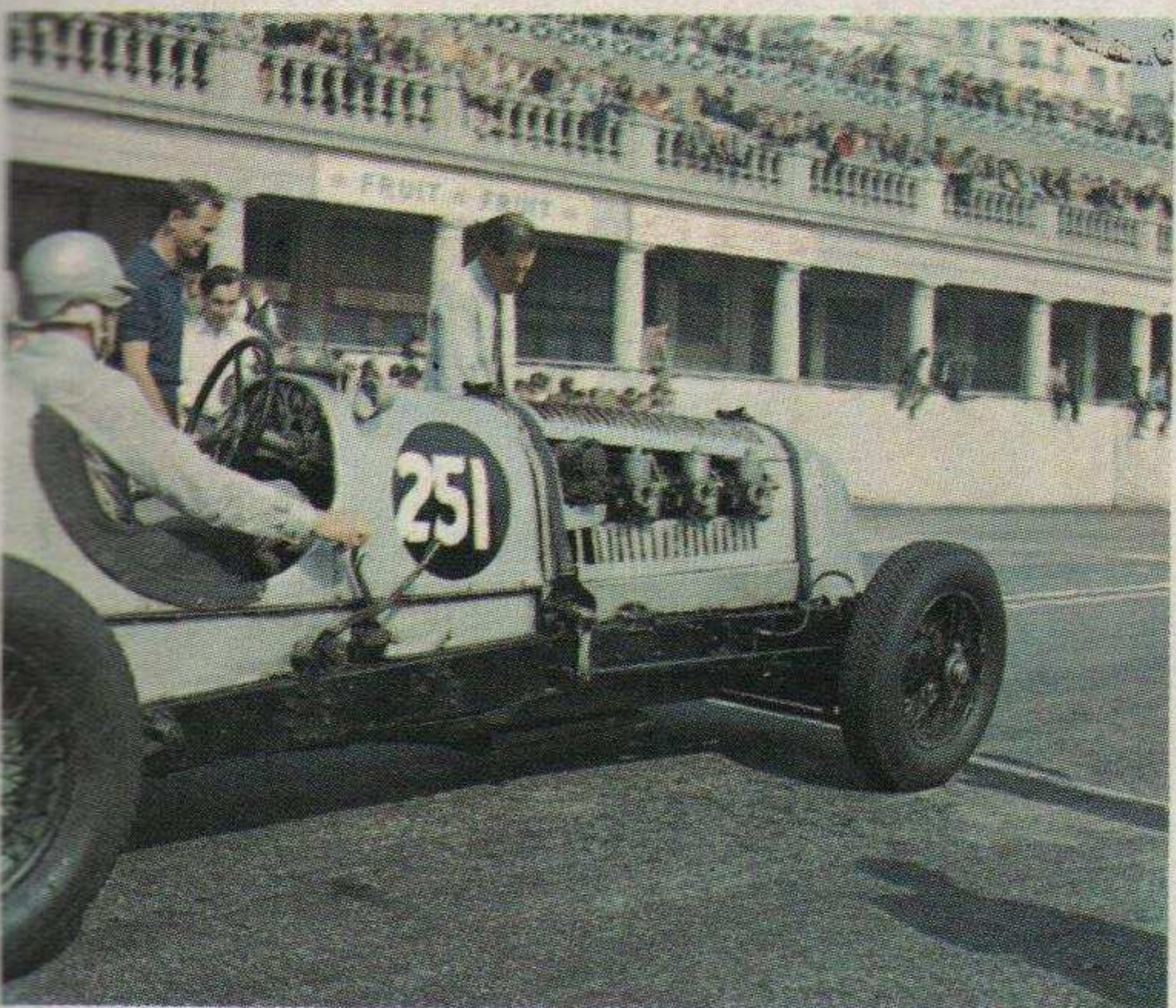
THE UNSUNG HEROES

Some of their cars cost thousands, some of them only a few hundreds, but they are all prepared to have a go. They are Britain's Clubmen, the amateur racers and rally crews who go motoring for sport on almost every weekend of the year. Their reasons vary. Always there is a tantalising element of chance.

Amateurs they may be, but their approach is often highly professional. The tuning firm that races its own hardware can point to achievements in competition as a convincing kind of sales talk; the youngster who carefully builds up his experience and skill may have his eye on a future with one of the big-time racing teams. But the chaps—and the girls—who do it all merely for love of the sport are just as truly the stuff of which motor sport is made. Few indeed are those who could expect to get to the top of the tree, but there is always room at the top for a good 'un, and practically every top-notch driver you can think of has graduated from the ranks of the clubmen.

Sometimes it works the other way—there are one or two men in big-league racing who return to club events for the pleasure of driving their beautifully made and carefully nurtured old vehicles in historic-racing-car events. Many of their rivals are cars of even older vintage, scrupulously maintained and, like the hybridised club-racing Q-cars of today, very much faster than they were originally... and much more dependent on lubrication.

Perhaps the most exotic and single-minded of all are the sprinters—the hill-climbers and drag exponents who remain faithful to their particular branches of the sport, knowing full well that neither will bring the fame and fortune to which the rally or racing driver can aspire. Their events are ephemeral things that are over in seconds, but those seconds are packed full of the most concentrated endeavour to be experienced on wheels. Just a few seconds, after a trip of maybe 200 miles or more to compete—that's the sort of keenness that makes Britain the busiest motor-sport scene in the world.





CASTROL-a very winning oil

