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# EDITORIAL

why but this year, somehow, the discussions are not so frequent, neither are there as many of them. The Press, THIS STAGE OF THE YEAR we are looking forward more than ever to the T.T. This year more than normally rife with their own outlooks, are quiet. Perhaps the recent happenings at the Spanish and West German any other year because the answers are not clear-cut. We all enjoy the discussions on who will win and has quietened their enthusiasm and dulled their pens.

there is always something which can be done safer. Racers themselves are always trying to do something better and safer. Cars are petrol bombs — why not start from here and design a method of containing the fuel instead There will be few of us who were not saddened by the tragic death of Lorenzo Bandini, almost on the stephold of a world championship title. Always when something such as this happens, the inquest commences and the blame starts. This is as tragic as the accident itself. There is always something which can be done better, of fighting to control it when it is too late. This too, is a good argument against glass fibre tanks on 'bikes.

Chairman: L. S. Cheeseright, M.C. B.Sc. Vice-Presidents : G. Brown G. E. Duke, O.B.E., J. Surtees, M.B.E.,

### **Conclusion of Easter Trophy Results:**

13	120	G. Lund. Norton. 15.18.4-74.36
14	125	B. Bartlett. Triton. 15.18.8-74.33
15	112	C. F. Coates. Velocette. 15.28.2-73.59
16	118	G. A. Owers. Triumph. 15.28.4-73.57
17	133	R. D. Bull. Triumph. 15.46.2-72.18
18	127	J. Currie, B.S.A. 13.50.2-6 Laps
19	122	J. E. Hammond, B.S.A. 14,10,2-6 Laps
20	108	D. Bevan. Norton. 14.15.4-6 Laps
21	107	R. Browne. Norton. 14.20.4-6 Laps
22	126	C. R. Chester-Jones. C.R.CJ. 14.23.6-6 Laps
23	117	D. D. Manners. Norton. 14.26.6-6 Laps
24	110	K. B. Scuffil. Norton. 14.33.0-6 Laps
25	142	J. Dunton. Triumph Matchless.
26	123	D. J. Dunbar. Norton.
27	116	M. Chandler. Triton.
28	128	A. P. Kendrick. Norton.

Event 11. 250 and 350 c.c.

Event 10

1	24	E. G. Knight. Aermacchi. 14.19.6–79.45
2	16	J. R. Strijbis. Ducati. 14.43.8-77.27
3	2	B. P. Moore. Suzuki. 14.48.0-76.91
4	26	T. A. Irvine. Aermacchi. 15.32.6-73.16
5	4	G. Bacon. Bultaco. 15.43.4-72.39
6	27	C. G. Bell. A.J.S. 15.45.8-72.21
7	22	S. Blake. Honda. 15.58.6-71.24
8	7	P. P. Playle. Greeves. 16.05.0-70.77
9	9	P. Collins. Cotton. 16.06.4-70.67
10	15	M. J. Bridger. Norton. 16.08.4-70.52
11	8	C. W. Curtis. Ducati. 16.20.4-69.37
12	32	C. L. Patrick. B.S.A. 14.27.2-6 Laps
13	29	D. Littler. Yamaha. 14.33.4-6 Laps
14	30	E. Tinkler. Suzuki. 14.34.6-6 Laps
15	11	M. J. Edland. Ducati. 14.56.0-6 Laps

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# A Circuit of Our Own

### **Jim Swift**

A new inquiry, instituted by the Board of Directors, will shortly start to give the greatest possible consideration to the feasability of the purchase and running of the Club's own race circuit. Its members will be E. "Cabby" Cooper, Frank Gillings and the Board's Chairman, Lionel Cheeseright.

It's not a new move, but it is the first time a working committee has been given the task of reviewing the situation in an age when circuits are getting fewer and fewer and the possibilities of getting one less and less.

Can we therefore review their task. What they have to find is a suitable venue, the money, and then the money with which to run it. What they have to consider are the benefits, the cost, the problems. It sounds simple but will take years.

The net profit which Grovewood Securities claim from their racing circuits last year was well over £100,000, very little return from their capital outlay as a percentage. The purchase of Donnington Park was to be made possible, it was rumoured, by the backing of the vast Eagle Star Insurance Co. who would, as a result, increase their shareholding to 24% of Grovewood shares. It is estimated that it would have taken almost £1 million to complete the transaction into a going concern. It was arrested because of the highway which would have cut through the circuit and the fact that the tenure was only offered on a short period lease. If these facts don't make you shudder, let me give you a few more.

Out of all the circuits in the country we know that the noise factor plays an important part in their success or failure. We know that Oulton Park, Mallory Park, Brands Hatch, Silverstone, Crystal Palace, Castle Combe, Croft, and Aintree have to watch their step or risk the closure of their circuits. Goodwood, by far the most regal of the circuits, restrict their activities to such a degree that many believe they have no intention of starting motor racing again. This is further from the truth than could be possible but the prevalent noise factor makes them respect the machinery of personal rights and, although they don't at present suffer from a court restriction, they certainly have no intention of being made to do so. The court restriction on Crystal Palace ends this year and the Greater London Council have every hope that it will not be renewed. If my memory serves me correctly, about eight years ago there was a moved to run a road race on the backwood Derbyshire roads. It was stopped by one farmer even before it really got underway.

Snetterton is the one circuit in the country where you can virtually do what you like, when you like, how you like and if you like. But what good is it if it's so far removed from habitation as to make it an inferior attraction, and so near to the Broads as to make it secondary to summer viewing. Here one must take one's hat off to the hierarchy of Grovewood. You've all seen the vast factories going up around Thetford. You've seen the housing developments pouring into the community. You've read of the plans for East Anglia. You therefore know the answer. If all else fails what little of the land belongs, the proprietors must realise the initial capital in development potential. Land is worth money.

What would be the advantages of a race circuit to the Club? Firstly it would provide a long needed 'home' from which we would be masters of our own destiny. As it is at present the sword of Damacles is forever poised in the Nimbus. It would provide an unlimited opportunity for members to have their own clubhouses and the facilities to which they are normally accustomed. They would no longer have to fight for entries but be assured of good racing throughout the year. And what's more they could even have workshops built on the sight for their use, a test track for their convenience, and nobody to tell them to get to hell out of it.

Am I painting too glowing a picture? Perhaps not. At least I don't think I am. I say 'think' because, at this stage, that's all it is. I've seen this sort of thing in America but is has been achieved only by the sheer determination of the inhabitants to provide something better than anywhere else. The facilities are so vast—petrol stations with 140 octane petrol, tremendous workshops with long benches equipped with electric drills, sanders, polishers, lathes (all paid for from a communal fund), restaurants which would make you shudder at the inadequacy of the British counterpart. All this from one race circuit. But they had to provide the attraction for the spectator to achieve it all.

Any racing circuit, if it is to survive, must be progressive and it must be run by people with a sufficiently open outlook as to consider



anything without any form of bias. If the pocket was as unlimited as those of the Americans (and it is only this attitude which has filled it) then we too could be as great. The Japanese have the right outlook, backed by this sense of financial confidence. Suzuka was owned by Honda, so the others built one outside Tokyo to compete. Just upped and built one—just like that! All because they didn't approve of the domination of the Honda concern! We're so convinced it can't be done that we admit defeat before we even think about it. Of course there are the realists amongst us who know it can't be done, at least not on that sort of scale. Not, as it were, backed by limited resources.

It is spectator attraction that has produced the world's finest sportsdromes. Let us go back to the United States and take a look at Indianapolis or even Daytona, Sebring and Riverside. You cannot say that motor racing hasn't a following there. The existence of the Daytona Speedway brought with it the Daytona Speedweeks (which is what the name implies) which, in turn, brought the money to finance the U.S. motor cycle grand prix, a purely mediocre affair which would not have done justice to a ordinary Club meeting this side of the Atlantic. But if you changed the grand prix to an A.M.A. meeting with its attendant machine differences, you have another car crowd, enviably seating 200,000 people. The reason is obvious. Motor and motor cycle racing is made colourful, it is widely advertised and the trade is very much alive to the challenge set by everyone else.

So, all right, I am going off the track a little, but only to highlight what can be done even in this day and age. To compare it with the British outlook is to compare a choice eating apple with a crab apple. Whereas with the one you are biting sweetly into the core of achievement, with the other you are merely scraping at the : urface of something which is shere waste.

Bemsee is therefore setting out to see what can be done to provide another racing circuit. To start off with it could be in a variety of forms; it could conceivably be a plot of waste ground, disused airfield, or even a going concern. It may end up in the form of Blandford, Castle Combe or Oulton Park. We would all like to see it end up like Francorchamps or Suzuka with all that the Americans could add to it. But realism is a funny thing. Whilst dreaming we all know that it will have a modest beginning and have an equally modest future.

Without thinking big, we'll never make big-even a modest big!

# SENIOR T.T. Join the "Bemsee" Charter Flight to the Senior on JUNE 16th

SEATS AVAILABLE AT 10 GNS. (inclusive of surface transport

# A Tribute to Dan Stevens

During the late afternoon on April 22nd at Oulton Park, Dan Stevens crashed at the Avenue and died shortly afterwards in hospital. He was 26.

Perhaps you would never have given him a second glance in the paddock, but to all those who knew him more intimately he was quiet and shy; if anything a bit of a recluse. He was in his fourth season of racing, the first two seasons being completed on a 500 c.c. Norton Domminator/Triumph. To me that machine of his handled like the proverbial camel and the brakes were useless after a couple of laps. But to him it handled like a dream. It was because of the atrocious brakes that he attributed his unusual quick turn of speed. He admitted that, in those days, he was wild and hairy round the corners but with such brakes "it was either that or go straight on," he used to say.

His best performance on that machine was a third place in a 500 c.c. event at Brands Hatch a couple of Easters ago. He was a regular placeman on that machine many times afterwards beating many Manx G.50 and 650 c.c. machines. For last season he sold his "standard" machine and bought Ginger Randall's 500 c.c. Manx Triumph. He bought a 650 c.c. Triumph motor as well so that he could endeavour to sort out the pukka racing machines at Snetterton. This time it did handle like a dream, confirmed by the owner. But the front brake wasn't a dream so it was back to scratching round the bends again. Both engines were disappointingly slow and unreliable. At one meeting at Lydden, the 650 c.c. engine was going so well that he was in the lead by some fifty yards when he fell off. Like many of us, he felt such a fool in front of the crowd.

His best effort last season was at Snetterton, the last "Bemsee" meeting of the season. It was very wet! He rode around the outside of the Manx mounted leader, (the late John Denty who was tragically killed at Mettet), at Coram Curve on the first lap and received a startled look for his efforts. The Manx steamed past on the straight and must have gained yards on the Norwich straight every lap. But come back to Coram Curve and there was Dan again pressing hard to eventually achieve a well deserved second place.

This winter his motors were tuned by a chap who knew quite a lot about the Triumph motor. Both were beginning to go well when Dan fell off at Brands during practice for the Easter meeting whilst 'having a go' with a fast production fellow. He eased off, lost concentration and missed a gear. That cost him two weeks off work, a badly skinned right hand and the loss of three meetings.

At Oulton Park on the tragic day in April, riding on his favourite circuit, he was endeavouring to get back his recently lost form for the following week's meeting at Brands Hatch. He, and some of the other lads, through carefully calculated maneouvres reached the final of the 1,000 c.c. event ('B'). It was in this race that the fatal crash occurred.

In my humble opinion the lack of better machinery prevented him from becoming recognised as a first rate rider. But he lacked neither courage nor ability and the oft quoted luck was never entirely with him.

# More on the T.T.

One of the "big guns" of Fleet Street—the "News of the World" —will join in the Diamond Jubilee opening ceremony on 10 June with two mass release pigeon races.

The first will be at 10 a.m. when it is anticipated that over 2,000 pigeons from lofts all over the United Kingdom will be released from behind the Grandstand.

During the actual opening ceremony another race of some 500 pigeons will be started to lofts in Lancashire and Cumberland. The two races are made necessary because birds homing on lofts further away than Lancashire and Cumberland would not reach their destinations that day, but would stop overnight for a sleep!

At 6.30 p.m., when the opening ceremony is completed, the first contest of the Diamond Jubilee year will begin with the Production Motor Cycle Races.

### **Jubilee** Medals

To provide a special memory for winners of the Jubilee T.T. Races, newly designed gold, silver and bronze medals are being cast and will be awarded to the 1st, 2nd and 3rd in each of the international events. **New Lap Record Award** 

Mr. George Ridgway, of G. & R. Ridgway, Strand Street, Douglas, (in conjunction with the Rolex Watch Company) is donating a prize for the Diamond Jubilee events of a £120 9ct. gold perpetual watch for the rider in any of the six international events who breaks a lap record by the greatest m.p.h. increase. The advantage of an award of this nature is that it will keep the interest alive throughout the week, as the winner will not be known until the last race in the series.

### **Church Service**

For the first time in the history of the T.T. Races a motor cycle church service will be held at Kirk Braddan when, it is anticipated, thousands of riders and passengers will be present. The service will be conducted by the Reverend R. H. Reid, M.A. (President of the Manx Motor Cycle Club) and he will be assisted by the Reverend F. G. Hullet, B.A., of the 59 Club.

### Jubilee Week Programme

### Monday, 12 June

Morning: Sidecar Race.

Afternoon: 250 c.c.

Evening: Presentations in the Palace Ballroom.

Tuesday, 13 June

9.30 a.m.: Jubilee Parade along the Douglas promenade with vintage motor cycle, modern machines and club representatives.

Ramsey will stage a Vintage Motor Cycle Day, and at Castletown there will be an International Assembly of about 400 B.M.W. representatives.

7 p.m.:

A Grand National Motor Cycle Scramble will be staged at Douglas Head.

### Wednesday, 14 June

Morning: 125 c.c. race.

Afternoon: 350 c.c. race.

Evening: Presentations in the Palace Ballroom.

### Thursday, 15 June

Afternoon:

Morning: Vintage Motor Cycle Rally at Peel.

Rally around the short course from St. Johns, Ballacraine, Kirk Michael, Peel and back to St. Johns—the old 1907/10 course.

At Ramsey there will be Motor Cycle Sprint races along the promenade.

At Douglas there will be Bathing Beauty Competitions in the Villa Marina.

Evening: Motor Cycle Gymkhana at Onchan. Scramble at Ramsey.

### Friday, 16 June

Morning: 50 c.c. race.

Afternoon: 500 c.c. race.

Evening: Presentations in the Palace Ballroom.

### Jubilee Queen

More details are now available on the Miss Diamond Jubilee contest. It is open to entrants over 18 years, and each should have been a member of a motor cycle club for over 12 months. A full length photograph must be submitted along with the name and address of the entrant's club; the entrant must be on holiday in the Isle of Man from Saturday, 10 June, and for the remainder of Race Week. Closing date for entries is Saturday, 13 May.

The winner will have a weeks holiday during 1968 T.T. Week in the Isle of Man. She will receive a Miss Diamond Jubilee Trophy, and have Grandstand seats for all race days this year. There are five consolation prizes for the runners-up.

Details and entry forms from Mr. J. Cretney (Miss Diamond Jubilee Competition), 68 Nursery Avenue, Onchan, Isle of Man.

# Postbag

Dear Sir,—It strikes me that the majority of people, journalists and the A.C-U. included, have got the wrong end of the stick regarding Production Racing.

The Production Machine Race has evolved from a need to race to a tight formula, in order to give each contestant an equal chance of winning regardless of the amount of money spent on the racing machine.

There are two good examples of how well the formula works. In the 1966 Hutchinson 100 P. R., Mick Andrew challenged the works machines of B.S.A. and Triumph on a second hand machine and provided in my opinion the most exciting race of the day. In the 500 Mile race this year second place in the 250 c.c. class went to Clive Thomsett and partner R. Baylie. Clive is the owner of this machine which is also second hand.

## A SKETCH ON DIESEL ENGINES — Part 3 by JOHN DENNY, A.I.Mar.E.

As was found during the previous years of experience, with reciprocating steam machinery, cast iron in its various forms has exceedingly good wearing properties. It was therefore a very obvious choice for the construction of engine liners. The quality and ability of those early builders may be seen on occasion today, witness a single acting two cycle engine built in 1904 which is still running today.

This quality of wear unfortunately does not coincide with the tensile strength of a reasonably light structure able to cope with high intermittent loading. The result, of course, was considerable weight, especially as the water jacketing was part of and not separate to the construction. As with all oil engines, the transfer of heat from the explosion to the piston (as pressure) was also transferred to the walls, and if we are to give the piston a chance to do its work properly it must be lubricated.

It was very soon discovered that to splash oil from the sump or squirt it from underneath on to a very hot, thick, cylinder wall was totally inadequate. It merely bounced or boiled off or even carboned up in the ring grooves. A great decision was made, probably by Burmeister and Wain (or Baumgarten as it was then known) to fit a separate liner which had only to take thermal and radial pressure loading, all other forces being taken by a jacket on to which was fitted a cylinder cover. This was indeed a great advance because it introduced comparative simplicity to the manufacture of engines and made possible the use of the two stroke cycle without tremendous complications. The same basic principles of these ideas hold good today except, of course, that the materials have vastly improved and that two-stroke longitudinal scavenging no longer takes place from top to bottom but the other way round. 1904 also saw four valves per head in common use on four stroke engines.

The heat generated before the introduction of very high pressure turbo charging was not of great concern and therefore the ordinary liner was an uncomplicated, smooth, casting. With the rather gradual increase in temperature on ignition, there was little need to add to the casting except to improve the quality and heat dissipation properties—until 1949 when high air charging rates were to increase the b.h.p. per cylinder from 950 to over 1200 with the use of boiler oil. The present critical attention to cooling was not always so; early cylinder covers were simple and functional, merely sufficient to permit air or gas to pass, have provision for diesel injection and enough water space to effect good heat transfer thus preventing heat steam failure.

The progressive release of greater quantities of heat, first from diesel oil and then from boiler oil, required drastic changes to prevent the breakdown of seals and the cracking of cylinder covers around the porting. These are serious failures because it must be remembered that the vessel is at sea for many days at a time and you cannot just nip off down the road for a new one. Work on engines in port is limited, in



some it is not permitted at all until discharge has been completed. Boiler oil, when used in oil engines, tends to form very hard and high bonding deposits unless perfect combustion is achieved so a new type of cylinder head was designed by Burmeister and Wain and Gotaverken for uniflow scavenging. Very special tensile studs and nuts were employed to withstand the very high pressure generated, turning out some 2,500 b.h.p. per cylinder on full load.

### Pistons

The piston is somewhat of an enigma. An explosion occurs on one side and heat energy is transferred to pressure energy to push the piston down a tube; this, in itself, is not of very much use. Our system of energy transfer requires that we now have to turn something, this is accomplished through a system of levers and linkages which, through the medium of friction transfers part of our pressure back into heat energy. A complete wastage. Our piston has arrived at the end of the tube, the pressure having expended itself, the piston now lies idle and if we wish to repeat the process it must be moved up the tube to start again. There are two alternatives readily available for this purpose. Firstly another injection of fuel and air and a subsequent explosion underneath the piston, or to recover part of the energy transmitted to the rotating crankshaft to change the direction of action of the piston. Thus our original explosion generating heat energy to pressure energy to velocity energy and then recovering part of this to repeat the process with incidental losses on the way is shown to be a wasteful process. The second of the alternatives has gained more adherents because of the very problem of sealing the piston rod where it passes through what would now be the bottom cylinder head.

So we must make the best of the situation and provide such conditions under which this most highly stressed component can give reliable and efficient service. At this time there is little other than cast iron available for manufacturing and, as heat transfer is a most critical problem, we are faced with a very great difficulty. Either the crown of the piston which takes all the thermal and pressure loading can be thick. strong and heavy, or it can be thin supported by ribs, and lighter. Even in those early days, ignition pressure of 500 p.s.i. and mean effective pressures were extracted by the better engine builders. With this heat release it was very soon evident that to rely upon oil thrown up by the crankshaft in trunk piston (no crosshead) engines and haphazardly squirted from the piston rod on others was quite inadequate. Therefore there had to be a more positive method of cooling. Cracking of piston crowns continued to occur, oil cooling was not proving effective. The piston was not being filled adequately and the heat was not transferring in sufficient quantity.

Under the intense ignition temperatures, the piston wishes to expand freely without cooling, but the resulting conditions of movement would be unacceptable. There would, however, be little problem of cracking. The heat transfer through a cast iron piston is not very good but, even so, temperatures of about 250°C on the underside are reached and, as oil carbonises at 210°C it will be seen that a continuous flow is required to prevent carbon deposit building up with the resultant high thermal stress. Water was tried on some engines but there was always the liklj**hood of crankcase contamination** and the water had to be pure other wise it would look like the inside of a bottle. From this a very obvious method was adopted; a separate piston crown of alloyed steel and a piston skirt of cast iron. Thus the benefits of good wear and high heat stress resistance coupled with good heat transfer properties was reaped. On two cycle engines the skirt still tended to be rather long to ensure the lower parts were covered when the piston was at the top of its stroke. There is still rather a lack of design with regard to cooling but this is not yet of so much importance as in later engines.

The subsequent demand for vastly increased power after the war lead constructors to raise the ratings of their engine. This, and the introduction of boiler oil instead of diesel oil as a fuel, caused havoc with cylinder liners and pistons, more especially in the now favoured two cycle engines. Firing every stroke, instead of with a cooling stroke as in four cycle engines, the two cycle engine was very badly affected. To counter this, more intense design of piston cooling systems and the specialised manufacture of high chrome mc ydenum content piston crowns of improved heat transfer and greater resistance to thermal stress.

Opinion began to harden on the method of complete filling of the piston with either oil or water, instead of allowing it to be shaken around, introducing air bubbles and intermittent contact with the underside. This system was combined with a rather thinner crown with ribbed support, although if it is too thin, there will be insufficient heat to assist with ignition.

Only two cooling mediums are in use today:-

- 1. Crankcase oil: with this there is no fear of contamination from leaks and no corrosion of pipework and piston. There is a tendancy to carbon up and, relatively, does not absorb heat as much as water.
- Water: good heat absorbtion properties, no carbon laydown on the underside of the piston. But requires to be pure and treated; liklihood of contamination and internal corrosion. Each system merits its own.

### ENTRIES

Our stock circular on the Brands Hatch races will, I hope, be self explanatory. I should add here that it is being sent to those who are unlucky enought to be refused an entry. It is a great pity that we have to turn down quite so many but the restriction on numbers and the times between which we can use the circuit are such that any other schedule is impossible or unwise. In this connection we are turning down all riders who do not send the labels complete with stamps and addressed. This label system is a great advancement in helping to deal with entries and makes the job much quicker. On the permanent office staff we only have at present yours truly, JHS, and Peter Lewis, my assistant whose job it is to deal with the entries. He virtually does nothing else, neither has he time to deal with anything else. All queries relating to entries should be directed to him by telephone if possible. Correspondence takes time to deal with. Changes of machine and rider should be made in writing and confirmed on the day of the meeting. We cannot possibly acknowledge the letters. The schedule we are now working too also means that, although you may cancel your entry, there is still the chance that you will receive your final instructions due to the cancellation arriving too late. This may equally apply to a change of machine, whereas on your final instructions you will find the original one listed.

Please read your regulations. You would not credit the number of riders who sent in their entries for July 23rd despite virtually having to write over the overprint on the entry form! The set of regulations contained with this magazine will be those for August 5th. Entries open forthwith and provides us with the opportunity to clear all three Brands Hatch meetings before embarking on the Snetterton event, entries for which open on the 19th of this month. If they had been sent out, out of date order, you would have thought that you had missed one set.

SEND YOUR AUGUST 5th REGS. BACK NOW BUT HANG ON TO JULY 23rd REGS. UNTIL THE 19th OF THIS MONTH

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1965 DUCATI MACH I in Vic Camp racing trim. Fast and reliable, with some spares and sprockets. £200 o.n.o. Please write to:— J. R. Bent, 3 Orchard Close, Letchworth, Herts.



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Motorcycle — Scooter — Sidecar — 3-Wheeler. Main Agent for all the Leading Makes. TOURING \* TRIALS \* RACING SATISFACTION and an unrivalled AFTER SALES SERVICE assured. Part Exchanges and Hire Purchase Welcomed ARTHUR WHEELER LTD. 45, 47, 51, Waterloo Road, Epsom Tel. 24505/6 Continuing the history of the Phobof marque, we have seen how the Pharce was equipped with Osbert Throbnostles great innovation the Auto Lard lubrication system. A bicycle pump was later fitted to provide the famous Posi-Lard feed system on the Pharce. This was known as the 'Posi-Pharce' and is now employed by a famous Japanese

firm. Ephraim Phobof spared no pains over the ultra light racing frame for the Pharce, and indeed he even employed the country's most skilled carpenters in its construction. He also went abroad to have the engine castings made (to Hong Kong it was rumoured). The power unit was a six-stroke twin cylinder model of 938.6 c.c. The fifth and sixth strokes were used for the drawing in and blowing out of a patent decarbonising fluid, used to prevent the engine from seizing solid during long races. For short circuit work the more conventional four-stroke was used.

At the first meeting in which the Phobofs were entered, the Gallstone Trophy, the Pharce was up against the Phobof factory's two arch rivals. These were the notorious Japanese firm of Nippon Kwic and the Birmingham marque of Bashon-Regardless. The Pharce however, proved its superiority by covering the first quarter mile from a standing start in 8.3 secs.; the other competitors retired in the ensuing hail of nuts and bolts trailing in the wake of the Pharce. Osbert Throbnostle triumphantly crossed the line after eight laps, to the well wishing of the fans who gaily tossed tomatoes, eggs and assorted oddments to him.

Five years later, after the firm had produced the well known models



-the 500 c.c. Phlopp, the 1,200 c.c. Phlying Phreak, and the 250 c.c. Phlat Phour, Ephraim became interested in the sport of sprinting. Thus, in 1904, the world renowned Phantastik came upon the scene. This was a single cylinder supercharged two-stroke of 3.5 litres capacity. It had a 1.75 x 16" front wheel, 8.50 x 36" rear wheel and a ten foot wheelbase. A single gear with a ratio of .03.1 was employed. At this stage in the factory's history the loveable Osbert Throbnostle passed on to the halls of fame. The Phantastik, on its first test run on the Utah pepper flats shot off the line with a noise like a thousand steamrollers. The machine, unfortunately, encountered a two degree rise in the track and took off. Osbert was never to be seen again. With the money obtained from Osbert's insurance policy, Ephraim Phobof promptly bought out the Bashon-Regardless factory and began devoting all his efforts to the manufacture of a first class production racer. From 1905 to 1910 a season never passed without a Phobof being well placed in the Championship tables. During the season of 1906, Ephraim made an important contribution to technical knowledge. His Phobof Phlash, which was competing in a twelve hour enduro, was lubricated by pure re-distilled olive oil. After running out of oil, Ephraim swiftly raided a first aid kit and used a bottle of Castor Oil. After a truly wonderful performance of 27 m.p.h. average speed, Ephraim was being asked by a journalist what had made the Phlash run so well. He replied, "you'd run well on castor oil-arrharr!" This was misrepresented by the Press as "you'd

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45-47 Hampton Road - Twickenham - Middx. Phone Twickenham 5040 run well on Castrol R " and, a well known firm, seeing the possibilities in this slogan, immediately began the production of the lubricant we all know so well.

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The fact that the manufacturers secure advertising and knowledge to improve their machines is to the credit of the Production Races but Production Racing is not solely for the benefit of the manufacturer.

It is only if the contestants adhere rigidly to this formula and if the organising body enforce the rules that this system can work. The majority of clubs that hold Production Races do stick to the National Regulations or to a form of specification very closely allied to these regulations. If one rider is a member of several clubs he does not have to chop and change his machine to conform to regulations that would make his machine non standard in order to make it competitive.

The national specification exists as it is because of the club members demanding sensible regulations for Production Machines. The clubs themselves have been very quick to conform to these specifications. But what are the clubs and the public to think when the A.C-U. allow a blatant contradiction to the specification. "Don't do as I do, do as I say."

I don't believe anybody would mind if Paul Dunstall entered in the T.T. a Norton tuned as far as the specification allows. I would only be too pleased if he did. The axe I am grinding is the fact that a Dunstall Dominator is outside the specification published by the A.C-U. The A.C-U. by accepting this machine has thrown the regulations out of the window!

The opinions I have expressed here are, I am certain, quite common to the majority of Production Racing enthusiasts.

Yours, etc., P. ROGERS, Hounslow, Middx.



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