OVERHEAD VALVE A.J.S. AVAILABLE.

New 349 c.c. Model based on Famous T.T. Winning Type.

MORE than once criticisms have been heard owing to the fact that the makers of the A.J.S have repeatedly won the Tourist Trophy Race with an overhead valve model which was not available on the open market.

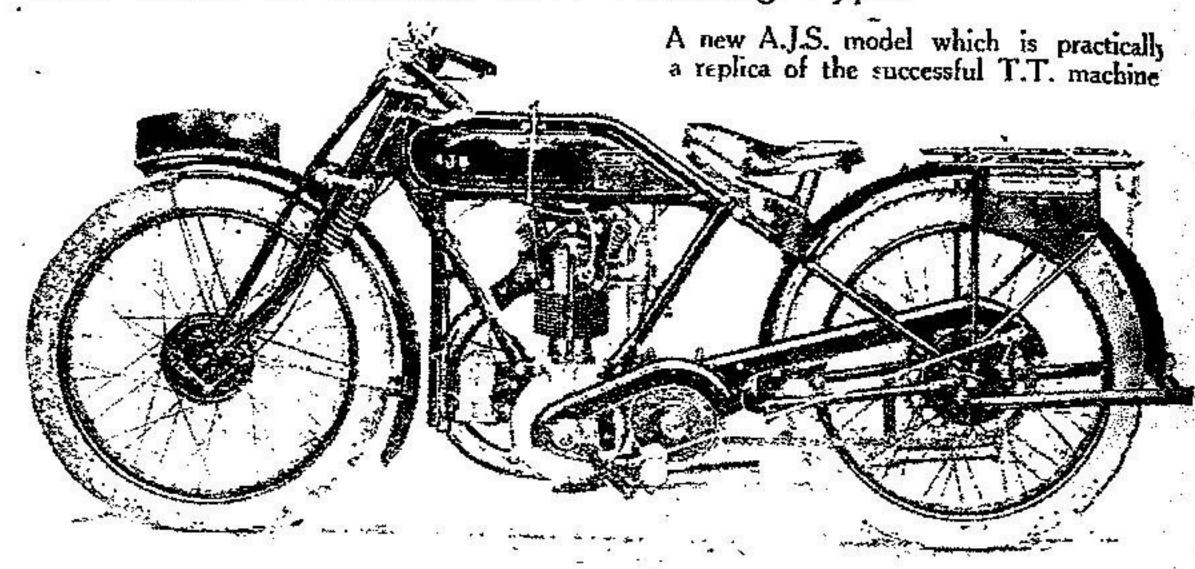
Nevertheless the manufacturers acted wisely, for they felt that until the experimental machines had been reduced to a form in which they were safe in the hands of the public it was better not to sell them broadcast. Now, however, the latest developments render the o.h.v. model as available as the popular side valve type.

At the forthcoming Olympia Show there will be staged a super sports model with an engine based on the T.T. A.J.S. machine. The overhead valve mechanism will be almost exactly similar, except for the fact that somewhat longer valve guides are employed so as to reduce wear at this vital point. These valves give a clear port opening equivalent to 12 in. and a lift of 5 in. They are operated through hollow push rods with an independent return spring for the rocker gear. Recent modifications include an increased . head cooling area with vertical fins arranged to lie in the same direction as the main air current. The detachable head is held down by a round section steel strap semi-circular in form. As might be expected, the head and cylinder joint are formed on the patented A.J.S. lines

Four-ringed aluminium piston,

Another innovation since the Tourist Trophy races takes the form of an aluminium piston, though the four very narrow rings above the gudgeon pin are retained. A hollow gudgeon pin is fixed in the piston bosses by means of a split pin, a bronze bush being fitted to the small end of the connecting rod; the connecting rod itself is a nickel chrome forging, heat treated and machined all over. The section of the road is extraordinarily light, being no more than in. thick in the web; in spite of this, no trouble has ever been experienced with it. Two rows of 15 in. rollers are employed for the big end, an outer race heing pressed into the rod. The bore and stroke remain as before, 74 x 81 mm. (349 c.c.).

Plain splash lubrication is relied upon for the bronze main bearings. On the driving side of the crankshaft a standard spring loaded cam type of shock absorber is fitted, transmission following standard A.J.S. lines through a close ratio gear box, the ratios supplied being 5 to 1, 6.1 to 1, and 9.4 to 1.

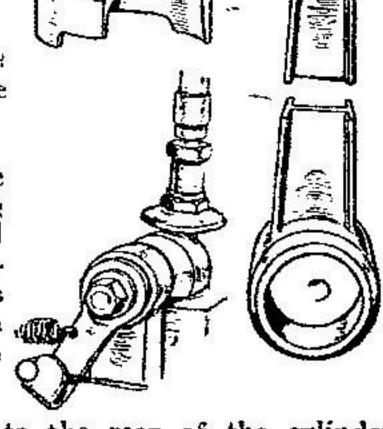


For the benefit of sporting riders who desire to enter speed events and hill-climbs, the rear mudguard and carrier have been made in a quickly detachable form. There is also a stay from the

Top: Aluminium piston in the o.h.v. engine.

Left': Near external valve lifter cam.

Right: The roller bearing in the big end of the light connecting rod is carried in a pressed in bush.



saddle tube to the rear of the cylinder head.

This overhead valve model does not replace the standard side-by-side valve machine, which will be listed as before, but with 650×65 mm, tyres, modified handle-bars and a much improved front mudguard which, in addition to being splayed at the rear, is formed with mudtrapping channels round the edge of the valances, and a shield at the front to prevent the ingress of air, which usually blows back mud spray on to the rider.

An aluminium piston is also fitted to this model.

Such features as the adjustable footrests, neat knee grips fixed direct to the tank, the spring loaded hand oil pump, are of course retained, and the machine is finished as well as ever. Modifications to the 799 c.c. A.J.S. passenger outfit consist of aluminium pistons, a similar but enlarged type of mudguard to that employed on the standard 349 c.c. model, the fitting of Lucas Magdyno and lamps as standard, and the arrangement of the change speed lever and switchbox further forward on the tank, so that they clear the rider's knee with comfort.

1,234 c.c. INDIAN NEXT YEAR.

So many British motor cycle manufacturers are introducing new lightweight models that this may be said to be one of the chief tendencies for 1923. Not so in America, however, where no new lightweights are being considered, but instead even larger machines than the big twins so familiar on our roads.

For 1923 the Indian range will be increased by the introduction in this country of a new model of 1,234 c.c., which will be known as the "Super-Chief." While new to the British market, this model has been very pepular in the U.S.A. and overseas Dominions for the past year, and is intended for heavy duty and family sidecar work.

With a double seated sidecar of the Princess type, the price is £167, but if any big twin soloist desires an engine over 1,200 c.c., it will be available without the attachment at £137, with, like the sidecar outfit, full electrical equipment and speedometer.

Other Indian models retained for next year are: 998 c.c. Indian Chief, electrically equipped, £132; 998 c.c. Standard, spring frame, £107; electrically equipped, £123; 596 c.c. Scout, £96 10s.; electrically equipped, £113.

NEXT THURSDAY!

MOTOR (TCLE

FIRST SPECIAL SHOW NUMBER.

LIGHTWEIGHTS AND ACCESSORIES.

In addition to the well-known regular features which have made "The Motor Cycle" so popular with its 120,000 readers, many special articles are in course of preparation which will interest every motor cyclist and possess a strong appeal to all contemplating the purchase of a solo machine.



RENOVATING AN OLD ENGINE.

How an Amateur Mechanic Rebushed and Rebalanced a 1916 A.J.S. twin.

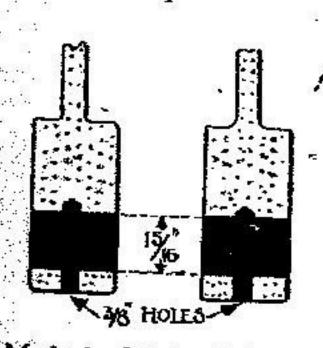
HE rebushing and general overhaul of a motor cycle engine is by no means such a difficult affair as is often supposed, and, while ordinary care is, of course, essential, there is little in these operations beyond the power of the average amateur, provided he has access to a lathe. The writer at any rate does not claim to be an expert mechanic, and was, nevertheless, very successful in the renovation of his 1916 A.J.S. twin.

Work Scarcely Necessary.

Engines of the type mentioned had plain bearings throughout; and although the writer's specimen was running at the top of its form, it was expected, as it had over 12,000 miles to its credit, that, some at least of the bushes would be showing signs of wear. The engine was therefore taken out of the frame and entirely dismantled. The only difficulty here was the unscrewing of the nuts which hold the crank pin in the flywheels, but after gentle persuasion with hammer and punch they came loose and the flywheels were taken apart. An examination of the various bearings showed that, as was to be expected, the big-end bushes had developed most play. Even they, were not very bad, for, although there was a great deal of side shake, up and down movement was barely perceptible. The main bearings and small end bushes were very free, but could hardly be described as badly worn. It was decided, however, to renew them all. The crank pin, being slightly oval, was sent away to be reground, but the main shafts were not touched.

Making and Fitting Bushes.

The old bushes were first driven out—this requires care, particularly in the case of the crank case—and new ones turned to a good fit on their respective housings. For the big-ends a specially hard piece of phosphor bronze was used; Muntz metal was employed for the main shaft bushes, and the small-end bushes were purchased from the local A. J. S. agent. Though the big-end bushes were an easy enough fit on the crank pin before they were forced into the ends of



Method of fixing balance weights in the flywheel.

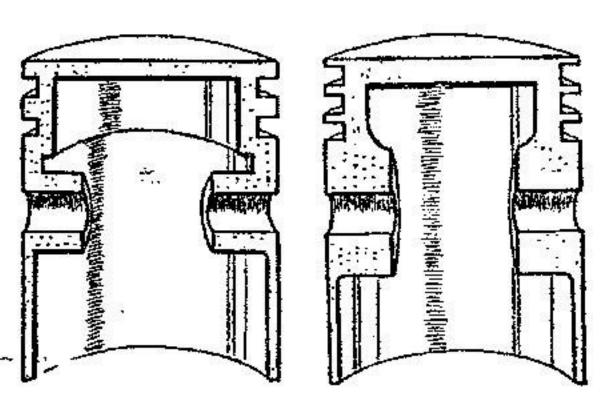
the connecting rods, after this had been done they refused to go on at all, owing to the pressure of the surrounding metal reducing the diameter of the bush. This necessitated careful lapping in with metal polish before a good working fit was obtained. The main shaft bearings were similarly affected, though to a smaller degree.

The next operation was the assembling of the flywheels. The truing up was done between centres in a lathe, and proved much easier than was anticipated. After the crank pin nuts had been screwed home, the flywheels were again put between centres to make sure that nothing had shifted.

The cylinders were next taken in hand. At the outset it had been realised that the truing up of these

and fitting with new pistons was a specialist's job, and accordingly they were entrusted to a local firm which was instructed to fit the new pistons with three rings, as it was suspected that the rather excessive oil consumption of the engine might be due to

oil getting past the two rings with which the 1916 type of piston was The fitted. cylinder bore was ground out from 74 mm. to 74.5 mm. Un fortunately; A.J.S. castings were not obtained- for the pistons, 'a n d



Neglecting to procure a proper casting resulted in the new piston (right) being too heavy.

these turned out much too heavy—7½ oz. each to be exact. Although this difference of nearly 1 lb. in the reciprocating weight was bound to affect the balance, it was decided to try the engine on the road before anything was done; and it was therefore assembled.

Here a slight hitch occurred. The writer, in his anxiety to have everything a good working fit, had left the bushes a trifle on the tight side, and the effect of this in conjunction with the new pistons was that only by jumping vigorously on the kick-starter could the engine be persuaded to move at all. Starting by this means was evidently out of the question. After much cogitation the services of a sporting friend were requisitioned, and the whole outfit (with the writer in the saddle) was shoved vigorously down a slight hill and the engine after being started was run gently for some time with copious lubrication.

Adjusting the Balance.

There was no very noticeable vibration when on the road, but a slight harshness showed in the running. The pistons therefore were lightened by removing metal internally and drilling the skirts, but they were still 4 ozs. each overweight. Back numbers of The Motor Cycle were then consulted, and an article on "The Balance of Motor Cycle Engines" was found in the issue of February 3rd, 1921. Working on the lines therein laid down a test was made, and it was found that additional weight opposite the crank pin was required, to the amount of 12.5 oz. at a distance from the centre of 43.5 mm. This suggests that possibly the engine was originally slightly underbalanced. It was decided to add the weight at a distance of 79 mm. from the centre, and two $\frac{15}{16}$ in. holes were bored right through both flywheels, with gin. holes at right angles to-keep the weights from shifting. By filling these with lead the weight was increased by about 7% oz.

On reassembling and running on the road, a big improvement was evident, particularly in steadiness and smoothness of running.

I. C.



Twenty-three Important Records Go.

The 23 h.p. A.J.S. exceeds 80 m.p.h. on Brooklands. Norton secures Further Long Distance Records.

SERIES of wonderful records were A put up in the early part of last week, H. R. Davies, riding a single cylinder 23 h.p. A.J.S. (74 mm. x 81 mm., 349 c.c.), gaining several class B and class F records at extraordinary speeds. His time for the flying five miles, with sidecar, was 5m. 113s., a speed of 57.77 m.p.h., beating S. L. Bailey's 1914 long standing class F record. He also succeeded in beating the class F ten mile standing start record, time 10m. 524s. / 55.18 m.p.h., the previous best again being Bailey's Douglas times in 1914. Davies's flying kilo and mile records follow in tabular form, making a total of fourteen records.

CLASS B .- Solo Motor Cycles (350 c.c.).

	Time.		. Speed.
lying kilom	27.87 sec.	0.0	80.47 m.p.h.
Tying mile	47.4 Sca.		75.95 m.p.h.
Warmen Dans		172	sing kilom t

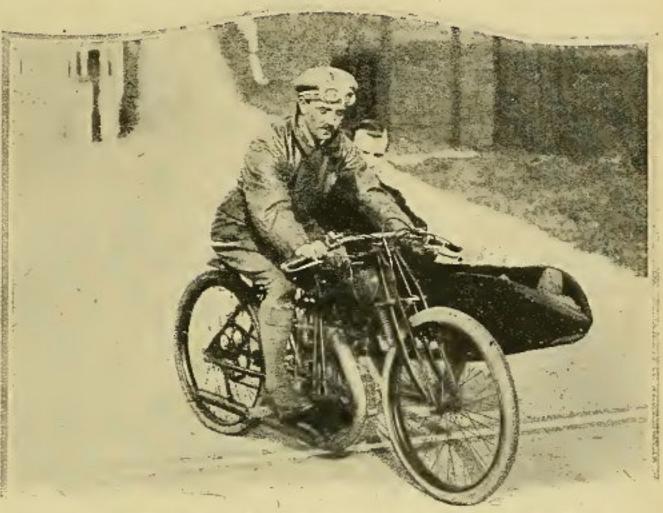
previous Best Performances.—Flying kilom.: i, Dance (Sunbeam), 29.8 sec. (75.07 m.p.h.; flying nile: S, L. Bailey (Douglas), 51.4 sec. (70.04 m.p.h.).

AVERAGE MEAN SPEED RECORD.

Tying kilom. 29.9 sec. .. 77.40 m.p.h. Tying mile 49.1 sec. .. 73.32 m.p.h

LASSES F. G. AND H .- WITH SIDECAR (350 C.C., 500 C.C., AND 750 C.C.).

PREVIOUS BEST PERFORMANCES.— Class F.: Flying lom., S. L. Bailey (Douglas), 42.2 sec. (53.01 m.p.h.) ad flying mile, 1 min. 8.2 sec. (52.70 m.p.h.). Classes and H.: Flying kilom., D. R. O'Donovan (Norton).



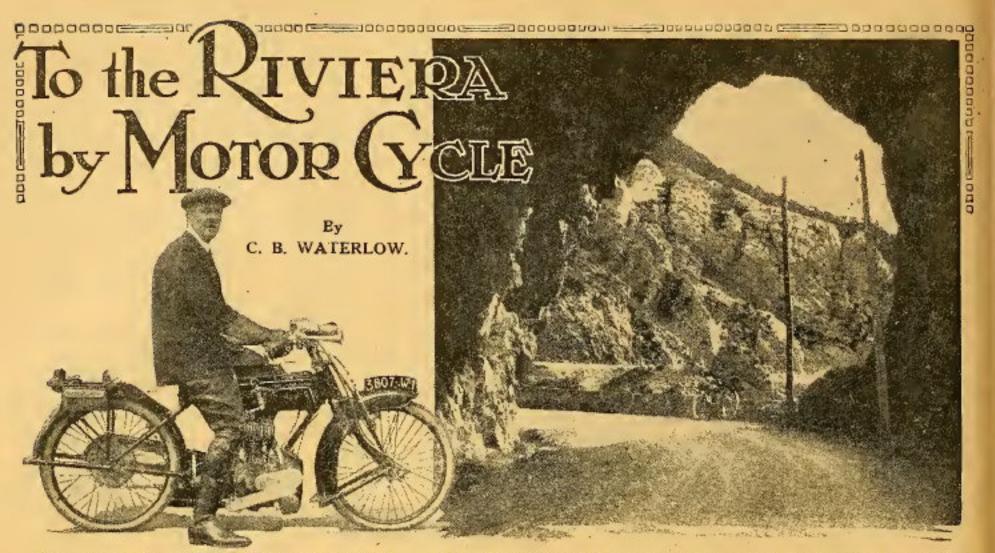
H. R. Davies, who, on a 22 h.p. overhead valve A.J.S., broke records last week.



At the start of the Junior T.T. race—"No. 1" has got the word go. (Insets, from left to right) H. R. Davies (2³/₄ A.J.S.), Eric Williams (2³/₄ A.J.S.), and D. Prentice (2¹/₄ New Imperial), the winners of the Senior, Junior, and 250 c.c. classes respectively.



E. M. Chudley, on a 4 h.p. Indian, and E. V Cox with his 5-6 h.p. A.J.S. sidecar, near Charmouth



The writer and the A.J.S., on which he accomplished
his ride to the South of France.

Just before reaching Castellane a minor Alpine pass has to be ascended. It present some of the grandest and most rugged scenery of the whole route.

A Motor Cyclist's Trip to the South of France.

O thread the streets of Paris on a solo machine requires skill, enterprise, confidence, and a

accomplished this journey on a motor cycle. A 24 h.p. A.J.S., however, the first of its kind to find a per-

NEW YEAR TRIAL IN SCOTLAND.

Point to Point Run to Perth of the Western M.C.C. (Glasgow).

BRIGHT weather and good roads made the Glasgow Western M.C.C. New Year "point to point" run to Perth a most enjoyable outing.

The run was the same as previous years—to Perth and back, with checks

at Stirling both ways.

Amongst the competing machines there were several new models, some of which had not been seen in competition on the northern side of the Border before.

R. Watson was riding a 1922 Martinsyde sidecar outfit, and G. Templeton was riding a 3½ h.p. of the same make. The Royal Scot, ridden by J. Donaldson, did credit to itself on this its first appearance in competition work.

Youthful Enthusiasts.

J. Bell (7 A.J.S. sc.), who is only fourteen, and his passenger who is rather less, had difficulty in holding their youthful spirits in check. They confided to our representative on the return journey that they thought these trials tame affairs.

Of the thirty-five starters twenty-two finished. The large number of first-class awards is a striking contrast to last year's results, when, with a larger entry, only seven competitors finished. This is accounted for by the exceptionally fine weather. Results:

FIRST-CLASS AWARDS.—F. J. Manuing 16 A.J.S. sc.), J. McFadyen (8 Sunbeam sc.), G. T. Templeton (6 Martinsyde), J. Parker (3½ Rudge), J. Lloyd (3½ Norton), G. Gordon (2½ New

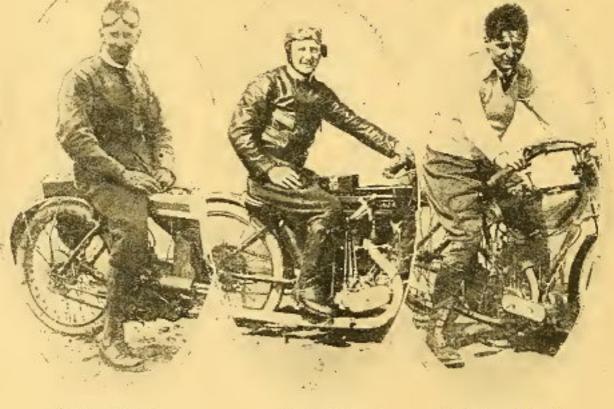


Geo. Kelly (24 A.J.S. sidecar) checking in at Perth during the point to point run of the Glasgow Western M.C.C.

Imperial), J. Bell (7 A.J.S. sc.), G. Mann (6 A.J.S. sc.), A. Neilson (7 A.J.S. sc.), R. Watson (6 Martinsyde sc.), D. Skeoch (7-9 Harley sc.), W. Kennedy (2½ Clyno), T. McCreadie (3½ Suubsam), J. Donaldson (2½ Royal Scott sc.), G. Hope Wilson (2½ Barr and Stroud sc.), G. Kelly (2½ A.J.S. sc.), R. D. Robertson (8 Matchless sc.),

F. M. Batxer (G.N.), A. Hunter (6 Ariel sc.), H. G. Deas (2% Royal Ruby sc.), A. Robertson (8 Enfield sc.), and B. Gold (8 Blackburne sc.), PRIVATE OWNERS' SPECIAL PRIZE, for

PRIVATE OWNERS' SPECIAL PRIZE, for smallest power sidecar outfit (five gallon drum of oil, presented by British oil and Turpentine Co., Ltd.).—H. Gordon Deas (2% Royal Ruby sc.).



Medium Weights: J. R. Alexander (3! Douglas), Lightweights: A. L. Downie (2[§] A. J. S.).

"Featherweights": R. W. Wilson, (2½ Hobart).



NTHUSIASTIC CLUB MEMBERS.—A group of lady motor cyclists (members of the Manchester M.C.C.) who are not one whit less keen on competing in club trials than their brothers. Reading from left to right, Miss Storer (Levis), Miss M. Cowley (Dot), Miss E. Cowley (A.J.S.), Miss C. Cowley (Sunbeam), and Miss D. Cowley on her scooter.

and kick-starter are incorporated. Leg shields have long been standard on this machine, and it may be taken for granted that the makers have so designed them that they

do not interfere with the cooling. The mudguarding, too, is well carried out.

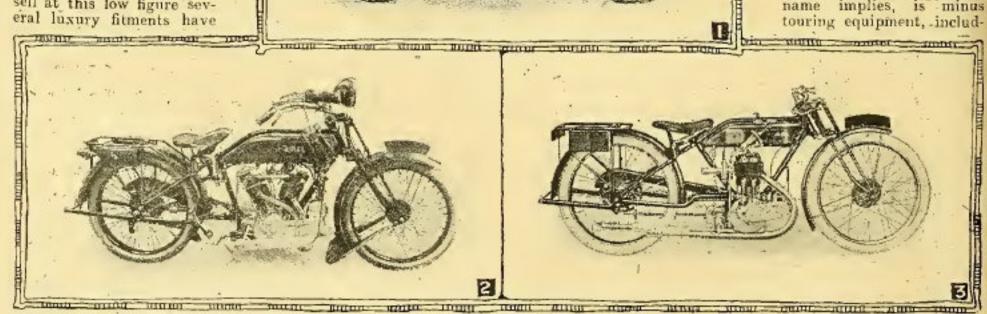
ARIEL. Stand 107.

Perhaps the most important new type of Arielis. the £87 10s. sports model, which is fitted with a 498 c.c. engine and a countershaft three-speed gear box, final drive being by belt. In order to allow a thoroughly reliable and well-finished machine to sell at this low figure sev-

A.J.S. Stand 208.

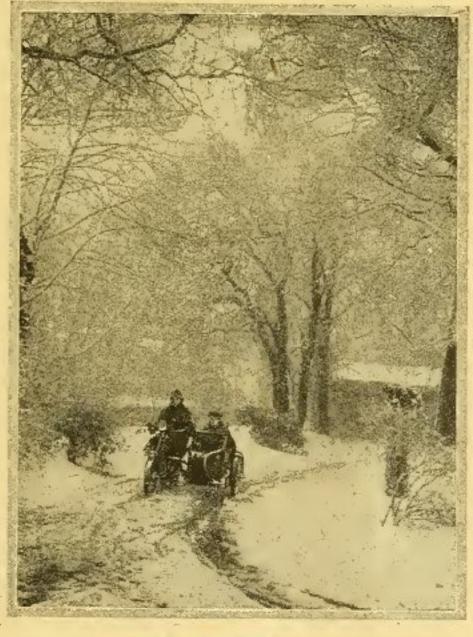
In addition to its successes in international events—
both T.T. races, etc.—the 23 b.p. A.J.S. has distin-

guished itself in Northern competitions, and there is no doubt that the three production solo models and the lightweight sidecar outfit will command much attention. These most attractive £85 models differ mainly in detail : the touring model has full mudguarding and footboards, the standard sporting has footrests, and the stripped sports machine, as the name implies, is minus touring equipment, includ-



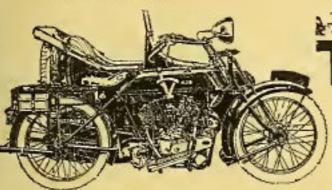
(1) 23 h.p. two-stroke Allon. (2) 8 h.p. Ariel with M.A.G. engine. (3) 23 h.p. stripped sports Model A.J.S.

b 16



A STUDY IN GREY AND WHITE. An A.J.S. owner who rightly appreciates the motor cycle in winter as well as in the summer.

Also Sole London and District Distributors for Excelsion and Dunelt Motor Cyles.



BRIEF SPECIFICATIONS.

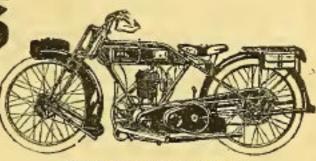
7 H.P. twin 799 c.c. 3-speed, clutch and kick-starter.
Windscreen, Storm Apron and Luggage Grid.
Price complete and carriage paid. £175
Extra for 2-seater Sidecar with 2 Screens and
Aprons £10
Dynamo Lighting £20
Spare Wheel and Tyre £8
Acetylene Lighting £6:4

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All Models to be seen at our KENSINGTON SHOWROOMS Have you received a Taylor Lighting-up Time Tablet? They are neatly printed on Ivorine and are FREE for the asking.



BRIEF SPECIFICATIONS.

23 H.P. 347 c.c. 3-speed, clutch and kick-starter, knee grips. Marketed in three models, all of which are very speedy and intended for fast road work.

Model B-Touring. Model Br-Sporting.
Model B2-Stripped Sporting.

All models supplied at the uniform price of £85, carriage paid,

The demand for A.J.S. machines of all Models has exceeded all expectations. It is, therefore, advisable for prospective purchasers to place their orders well in advance of their requirements in order to avoid delay in delivery. There is no time like the present, so act NOW, and be sure of getting your favourite mount in good time for Easter. We are the biggest A.J.S. Agents in the country, and offer A.J.S. Service to all riders of these machines. Large stocks of spares always available.

For those who desire to purchase out of income we offer exceptional facilities. Write for order form and special insurance tariff.

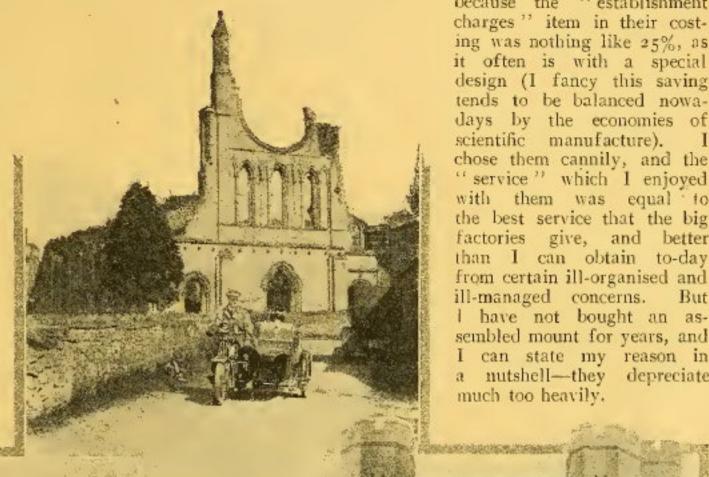
H. TAYLOR & Co., Ltd.

SHOWROOMS

'Phones Telegrams 52-53, Sussex Place, South Kensington, S.W. 21a, Tottenham Court Road, London, W.

Kensington 7260, Museum 1240. "Dynametro, Westcent, London."

which have so far impressed me most. The high spot of the machine is its great comfort. It hammers one more nail-a big one-in the coffin of narrow tyres. The second item which amazed me is the transmission. The indirect gears are as near silent as can be, and the all-chain drive tugs considerably less than a tight belt would do when the engine is pulling slowly. Under circumstances where docility is required, such as starting up, or dodging through heavy traffic, she is as meek as a tame rabbit; but open the throttle, and she feels just like a Waterloo Cup winner looks.



HAUNTS ANTIQUARIANS.

(Top.) Ruins of the west front of Byland Abbey, a few miles from Thirsk.

(Left.) The remains of Egglesstone Abbey, near Barnard Castle, Durham.

(Right.) Old gateway at Worcester, known as he Edgar Gate.

An A.J.S. outfit and a Triumph figure in the illustrations.



occause the establishment

ing was nothing like 25%, as

design (I fancy this saving

tends to be balanced nowa-

days by the economies of

"service" which I enjoyed

with them was equal to

the best service that the big

factories give, and better

than I can obtain to-day

from certain ill-organised and

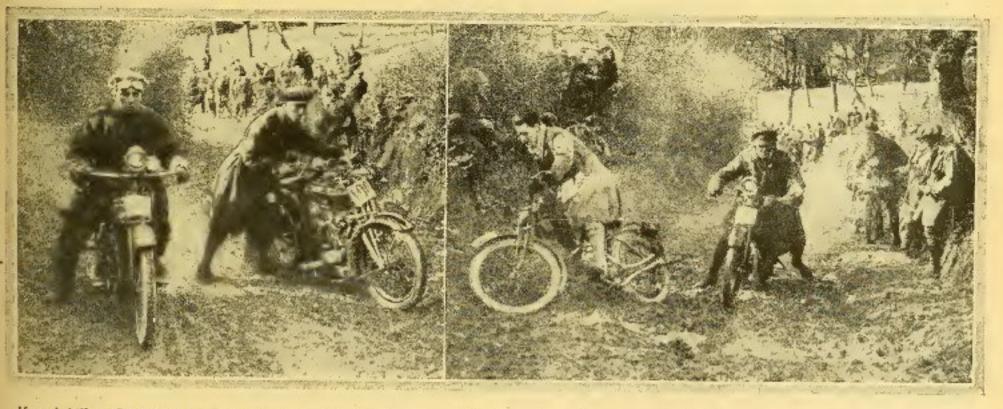
ill-managed concerns. But

I have not bought an as-

sembled mount for years, and

I can state my reason in

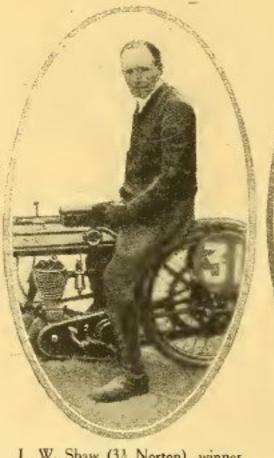
scientific manufacture).



If such hills as Bushcombe continue to be included in important trials, the only good purpose served will be the development of machines with caterpillar tracks. It is to be hoped that no club has the temerity to include it in any future serious trial. (Left)—J. Bacon (4½ B.S.A.) and N. M. Bligh (6 A.J.S.). (Right)—J. H. Mathers (3½ Rudge) and Scally (4½ Humber) struggling to the top after the manner, more or less, of every other solo rider.

C 2I





J. W. Shaw (3½ Norton), winner of the 50 mile road race held on the Ballynahinch course. His average speed was 52.49 m.p.h.



Herbert Chambers (2³ A.J.S.), who made a great fight for the premier position in the same race, but came in third

Pauli and laced representation



M'ARCH 16TH, 1922.



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Order now if you wish to motor at Easter. Delay is dangerous.



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SHOWROOM SOILED. 1921 8 h.p. Zenith comb., clutch £145 1921 8 h.p. Royal Enfield comb. . . £125 1921 5-6 h.p. Raleigh comb. £145 £125 1921 31 h.p. P. & M. comb.

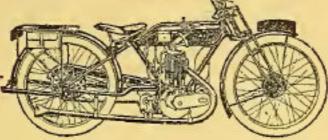
1921 27 h.p. Wooler (Brooklands

Model) solo

£120

093





£85 A. J. S., 23 h.p. Solo ... £175

A. J. S., 7 h.p. Comb. . . A. J. S., 7 h.p. 2-seater Comb. £185

We charge only 4% extra for Extended Payments, unless makers stipulate otherwise.

CAREFULLY USED MOUNTS.

1921 4 h.p. Douglas and sidecar complete, acetylene lamps and horn £100 1916 4 h.p. Douglas and sidecar, acetylene lamps and horn C82 1920* 4 h.p. Blackburne and Mill-ford sidecar, acetylene lamps and

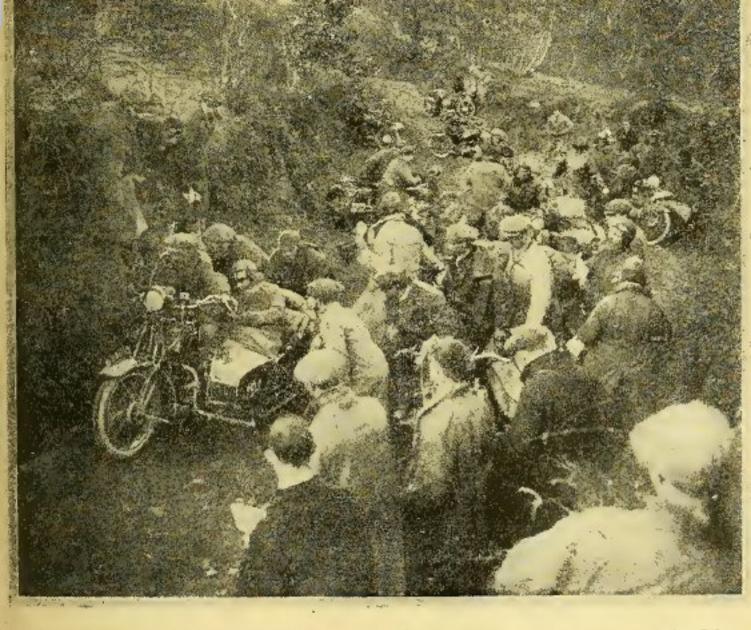
horn 1920 3 h.p. P. & M. solo, 2-speed, fully equipped

£95

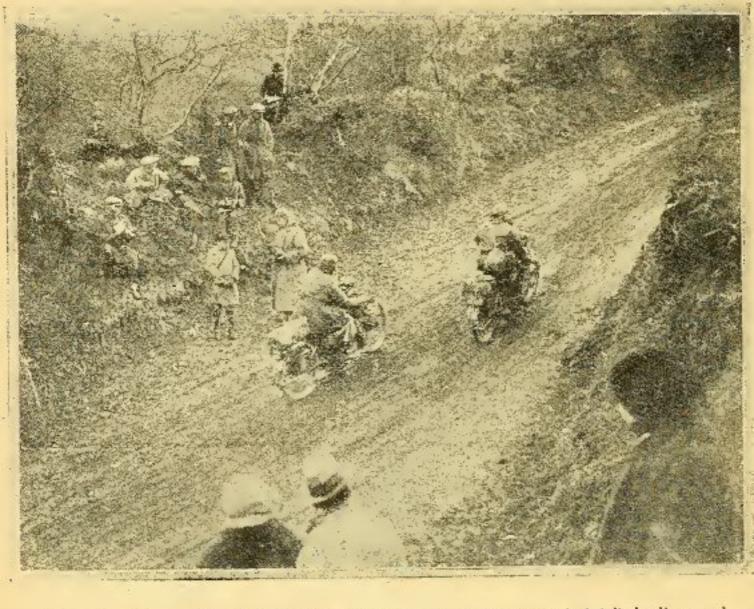
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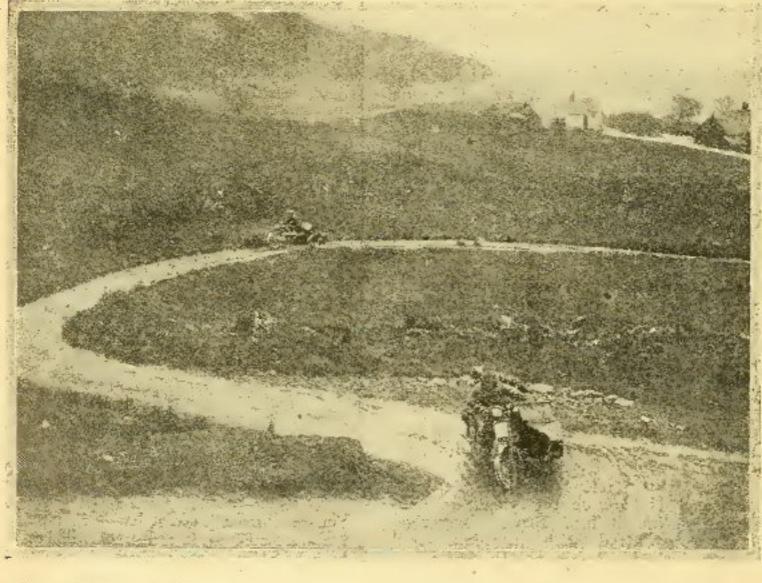
At one time the track was alive with competitors, but very little racing took place. Here are shown F. W. Giles (7 A.J.S. sidecar) P. Pike (21 Levis), Eric Williams (21 A.J.S. sidecar), H. Holmes (8 Morgan), and C. F. Knott (21 Raleigh).



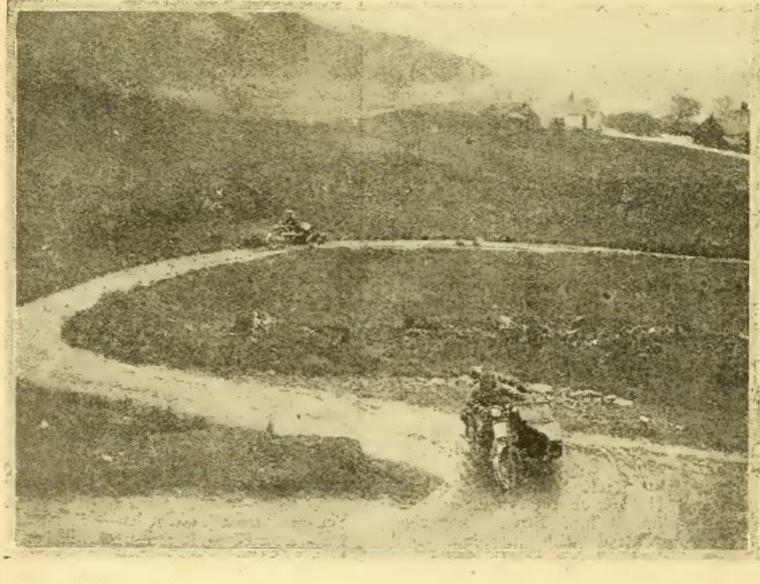
At one period something approaching chaos reigned on Beggar's Roost. F. W. Giles (800 A. J. S. sidecar), in the left foreground, is making a brilliant get-away after a bad baulk.



Two solo riders making light of Beggar's Roost-H. A. Davies (498 Ariel), leading, and C. H. Mocatta (349 A.J.S.)



James Beil (7 A.J.S. sidecar) rounding an awkward right-hand hairpin included in Saturday's route.



James Beil (7 A.J.S. sidecar) rounding an awkward right-hand hairpin included in Saturday's route.



A TRIAL FOR PRIVATE OWNERS.

Surbiton Motor Club's Third Annual Team Contest.



Five of the winning team in the Surbiton Club's inter-team trial. From left to right they are A. Shillito (8 Matchless sidecar)
R. C. Staunton (4 Triumph), R. A. Green (Norton), E. R. Showell (6 Martinsyde sidecar), R. Charlesworth (3½ Zenith-Bradshaw); the other
member of the team was W. Henry Wells (7 A.J.S. sidecar). They represented the organising club.

DESPITE the very unpleasant weather conditions, there was no lack of enthusiasm on the part of the private owners who competed in the team trial organised by the Surbiton Club, which

and rather loose, it is quite a "stiffish" climb when dry, so it was not surprising that a few failures resulted. R. W. Greaves (Enfield sc.), B. E. Belfield (James sc.), and F. V. Edwards (4

but none to absolute lack of power. Easy going through Ockham back to Ripley completed the circuit of 33.3 miles. Only four of the teams were intact for the next circuit, Woolwich leading on the first round, followed by

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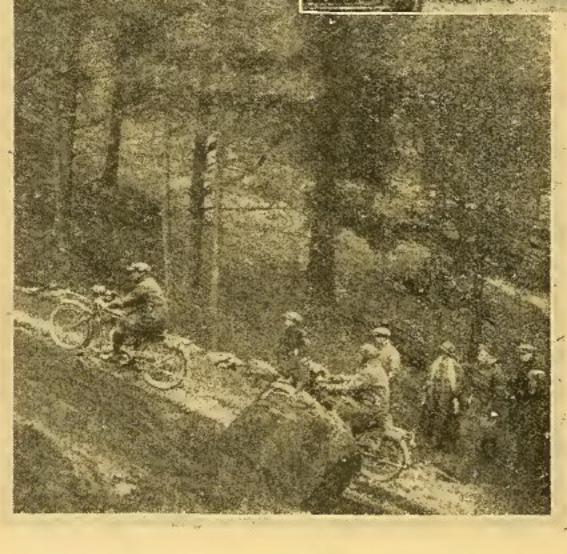
DESPITE the very unpleasant weather conditions, there was no lack of enthusiasm on the part of the private owners who competed in the team trial organised by the Surbiton Club, which

and rather loose, it is quite a "stiffish" climb when dry, so it was not surprising that a few failures resulted. R. W. Greaves (Enfield sc.), B. E. Belfield (James sc.), and F. V. Edwards (4

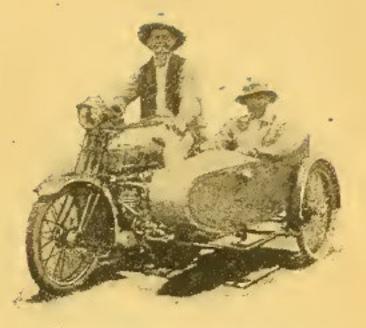
but none to absolute lack of power. Easy going through Ockham back to Ripley completed the circuit of 33.3 miles. Only four of the teams were intact for the next circuit, Woolwich leading on the first round followed by



D. H. Williams (23 A.J.S.) making light of White Downs Hill.



On Tilberthwaite Hill, part of the proposed course of the forthcoming Northern Centre (A.C.U.) Open Reliability Trial. The riders, who are officials of the promoting club, are R. L. Williamson, on a Norton, and W. B. Anderson, on a 23 h.p. A.J.S.



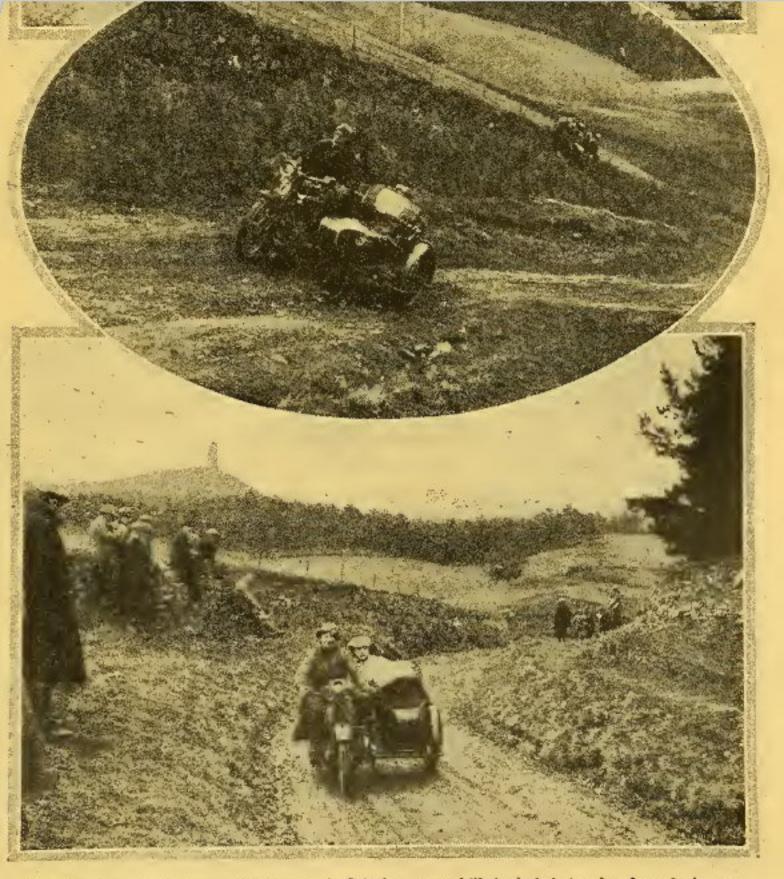
A. F. Healey and his 6 h.p. A.J.S. outfit, the mudguarding of which he specially commends for pioneer work.



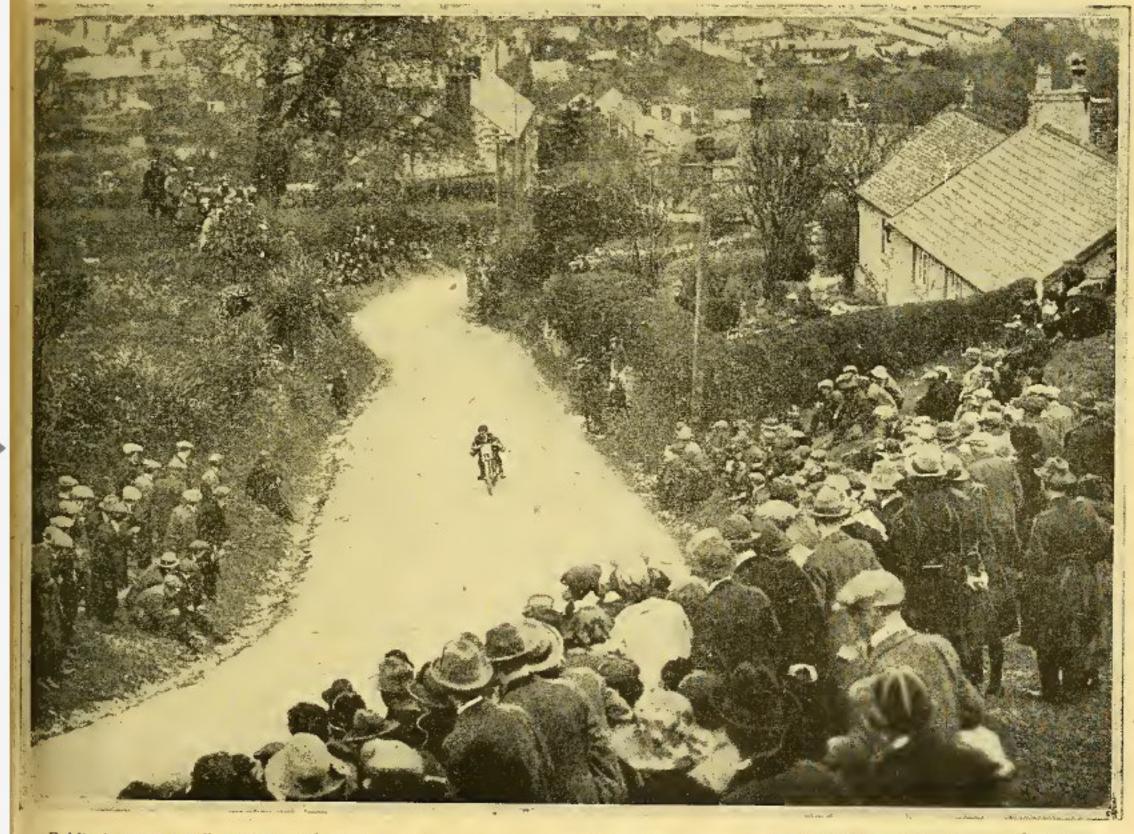
LADY COMPETITORS IN THE SCOTTISH SIX DAYS' TRIALS, Mrs. Hardee (998 Matchless sidecar), Mrs. Knowles (349 A.J.S.), Mrs. Jansen (211 Ner-a-car).



A FAMOUS TEST HILL IN THE SCOTTISH TRIALS. A fine panorama from Amulree, showing Armstrong Graham on his 269 c.c. Harper Runabout. This little machine, which created great interest, made a good climb. D. Bell (800 c.c. A.J.S.) who is seen following, made light work of this once-dreaded gradient.



On Sheriffmuir, between Stirling and Crieff, a new hill included in the first day's run. (Top.) H. Greaves (348 Beardmore B. & S.) and A. G. Cocks (598 Beardmore Precision sidecar). (Centre.) D. S. Alexander (992 Matchless sidecar) on a bad stretch. (Bottom). A. F. Downie (800 A.J.S. sidecar) on one of the lower bends.

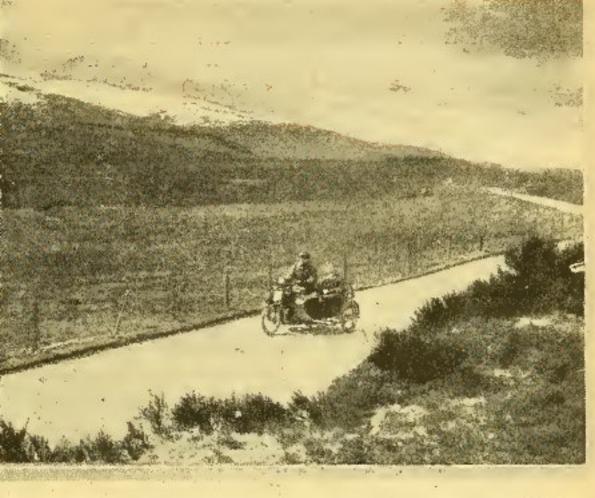


Public interest in hill climbing contests is getting more pronounced, for whenever a meeting is held in fairly close touch with a populated district bigger crowds than ever gather. H. H. Jones (349 c.c. A.J.S.) making a good climb in the Liverpool M.C.'s recent hill climb at Pen-y-Ball, Holywell.

--



E. W. Choldcroft (349 c c. A.J.S.) and Mrs. Knowles riding a similar machine on Tynron Hill.



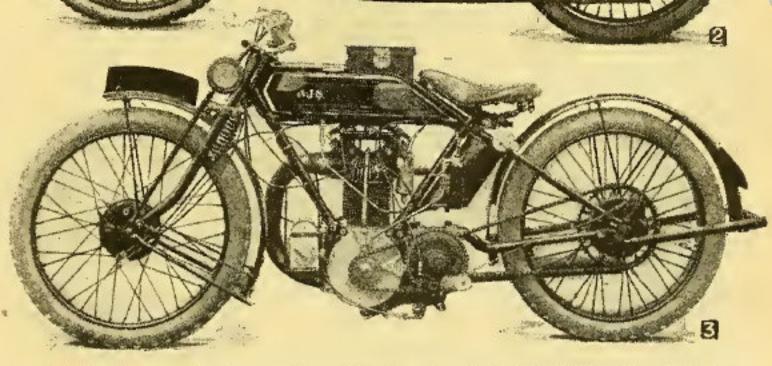
Returning on the fourth day by a circuitous route to avoid the snow-blocked Cabrach: D. S. Ball (800 c.c. A.J.S. sidecar).



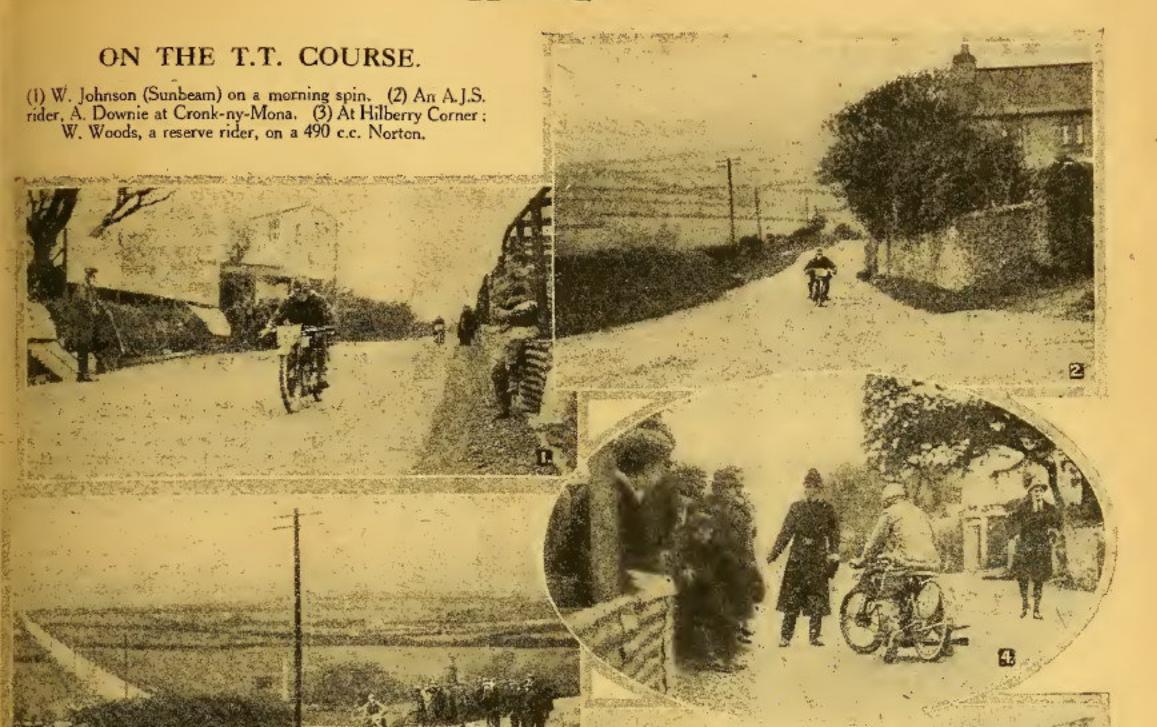
Tam-o-Shanters were very popular, many of the competitors preferring them to more orthodox headgear. C. Guthrie (348 c.c. Raleigh), D. S. Ball (800 c.c. A.J.S. sidecar), and R. Evans (348 c.c. Raleigh) at the lunch stop in Perth.

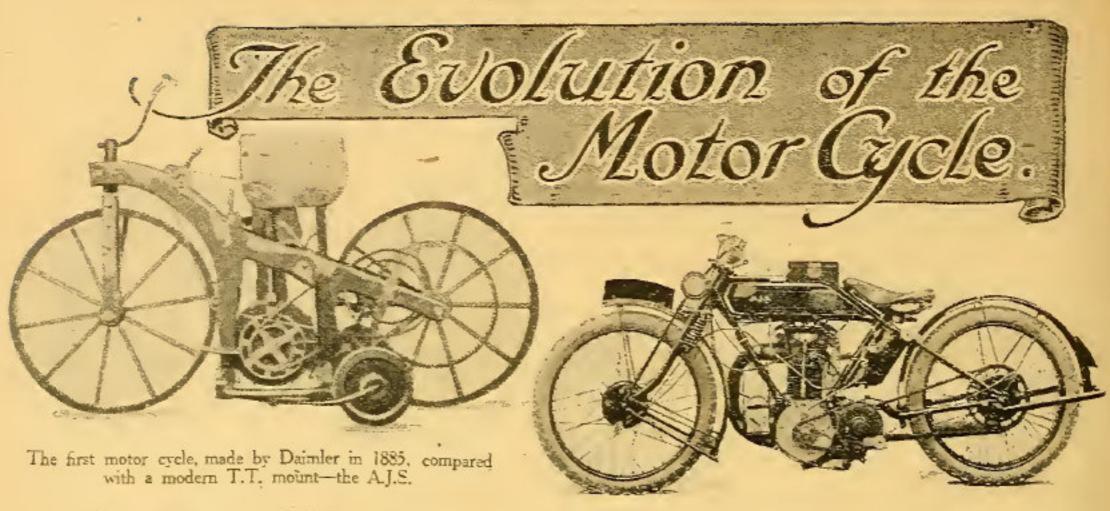


Great enthusiasm and excellent organisation prevailed at the Mont Theux hill climb—as witness the roped course—when G. S. Boston (349 c.c. A.J.S.) succeeded in winning both the sidecar and solo trophies. Boston sweeping up in the passenger class.



1. With the exception of an auxiliary oil tank and mechanical lubrication, the standard long stroke Sunbeam remains aunchanged for the T.T. race. 2. A long stroke engine (68 × 80 mm.) and a primary drive "outside" the flywheel are features of the T.T. two-stroke New Hudson. 3. Interconnected front and rear brakes are used in the latest A.J.S.



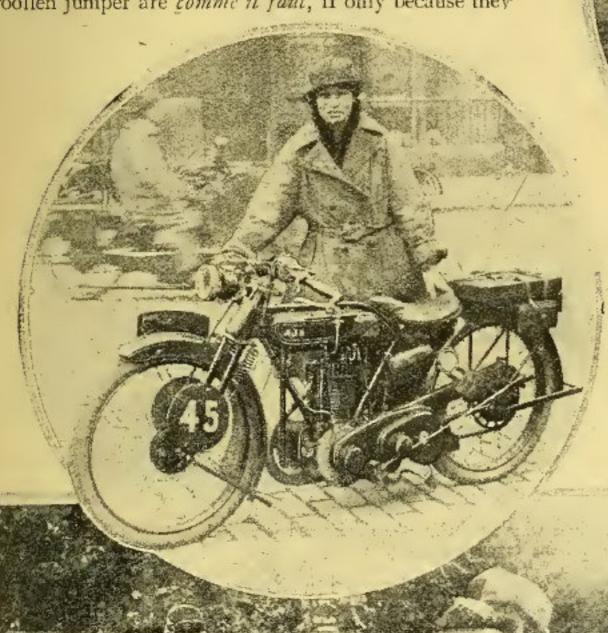


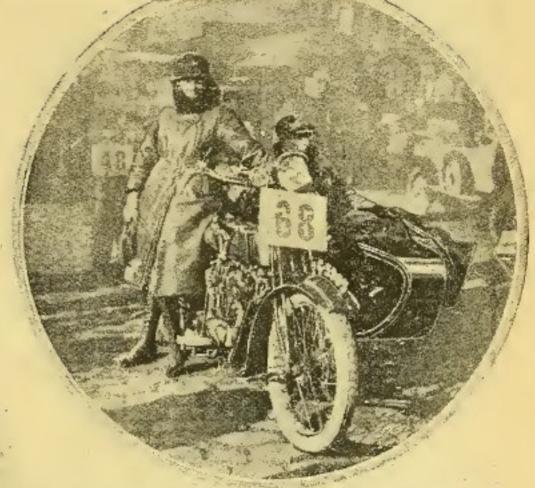
Progress since 1885. An Historical Review. What will the Future bring?

on the footrests instead of steadying yourself by footslogging. Undue foot-slogging is not only very untidy, but actually tends to cause skidding.

Clothing.

I should add a few words about clothing. There is certainly no necessity to wear anything more than a divided skirt for ordinary touring and pleasure runs; but this is quite unsuitable for sporting work, and is a big handicap. Well-cut riding breeches and a woollen jumper are comme il faut, if only because they





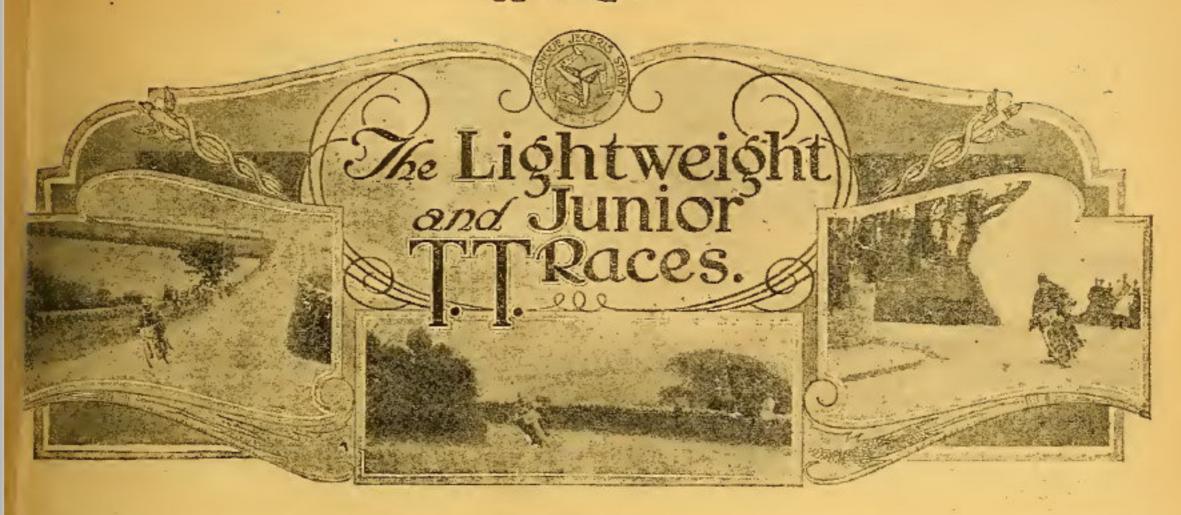
Mrs. Bell's many successes on her A.J.S. outfit are none the less meritorious because they were accomplished in Scotland.

are the most appropriate garments for sporting occasions. The same garments, with the addition of a waterproof coat, are also the best for reliability trials, where freedom of movement is absolutely necessary.

Finally, if you are to succeed as a sporting motor cyclist, you must put in many hours of

> hard work, and not be discouraged by failures. You must understand your own machine, and the final adjustments should never be left to anyone else.

> The effort is well worth while, for after your first win you will know indeed the joy of living.
>
> MARY C. JENNISON.



M. Sheard, on an A.J.S., wins the Junior Tourist Trophy at 54.75 m.p.h.; G. Grinton A.J.S.), second; C. G. Pullin (Douglas), third. A Levis, ridden by G. S. Davison, gains the Lightweight Trophy, with D. Young (Rex-Acme), and S. J. Jones (Velocette), second and third respectively.

TOTAL DISTANCE AND SENIOR LAP RECORDS BROKEN.

TOTAL DISTANCE AND SENIOR LAP RECORDS BROKEN.

THE chief features of Tuesday's Junior T.T. Race were the fourth successive victory of the invincible J.S. and the first victory of a Manxan, T. M. Sheard, who was followed ome by G. Grinton on a sister machine,

. G. Pullin (Douglas) being third. The race occupied some ten minutes ss than in 1921, Sheard winning at an verage speed of 54.75 m.p.h. The first x places in the Lightweight Race fell the machines of six different makers. . S. Davison (Levis) finished over thireen minutes ahead of the fastest fourroke in the shape of a very dark horse 1 Dan Young, who rode the only Rexcme-Blackburne in the race. Another wo-stroke rider, Jones (Velocette) ran hird, little over a minute behind Young.

Lightweights 25 mins. Faster than 1921:

The Lightweight winner covered the ourse in notably faster time than his

THE 1922 LIGHTWEIGHT RACE IN A NUTSHELL.

Winner:

G. S. Davison (Levis). Average speed, 49.89 m.p.h.

Second:

D. Young (Rex-Acme).

Third:

S. J. Jones (Velocette).

1921 predecessor, for a reduction of over twenty-five minutes raised the winning 'speed to 49.89 m.p.n.

As the stands filled up on Tuesday morning the sun was quite oppressively hot; Snaefell was sharply silhouetted against a glowing sky, and the roads were dusty. Crowds were hardly so large as usual either at the start or along the course, but the summer attire of the ladies added bright notes of colour to a gay panorama.

As the National Anthem announced the arrival of the Lieutenant-Governor, a silent phalanx of riders in yellow and green and red racing colours appeared wheeling their machines to the starting line from the official storage tent; Prentice, last year's Lightweight winner, moved up to the timekeeper's box, and as he received the word "Go" at 10 a.m. maroons signalled to the whole Island



T. M. Sheard (348) A.J.S.), the winner of Tuesday's Junior T.T. Race in record time.

that another T.T. had begun. Numbers 1 to 32 (250 c.c. machines), with green number plates, were sent off first, the 350 c.c. class, 33 to 70, with blue numbers, following at half-minute intervals. Therefore No. 70 had to stand in the road thirty-five minutes wondering whether his engine would start obediently after standing twenty-four hours. Many of the men had applied paraffin injections as a precaution before storing their mounts on Monday, and the engines

usually fired in a vard or two.

There were some alterations to the programme previously published in The Motor Cycle. L. Horton rode a New Imperial and Stohart replaced Mundey on a New Hudson. In the Junior entry Victor Horsman's arm was still too stiff for racing, and Albert Milner pluckily decided to ride the Raleigh, although he had not ridden one prior to the race; Ivor Thomas took the place of Strange (Sheffield-Henderson); Schofield (New Comet) did not start.

Careful acceleration was the order of the day. Cold oil in their crank cases troubled Jones (Velocette) and Simister (Diamond). Dr. Hopwood sucked a cigarette nonchalantly; Marchant and Edwards found their engines rather irresponsive; and Woods dropped a spare plug and actually came back for it!

Special ovations were awarded to J. Whalley for his plucky ride in 1921, to

THE 1922 JUNIOR RACE IN A NUTSHELL.

Winner:

T. M. Sheard (A.J.S.). Average speed, 54.75 m.p.h.

Second:

G. Grinton (A.J.S.).

Third:

C. G. Pullin (Douglas).

MOTOR (YCLE

T. M. Sheard, the first native

of the Isle of Man to win a

T.T. His time was 3 hr.

26 m. 48 s., and his mount

an A.J.S.

Inset, G. Grinton, who was

second on a sister machine.

T.T. Notes and News .-

the veteran, "Pa" Applebee, who paused at the top of Bray Hill, to Sheard as a Manxman, to Howard Davies for his last year's performance, and to Harris as the popular tip for first in the 1922 Junior.

The rather "finicky" little progress clocks on the scoreboard already indicated changes in order, Handley's O.K. obviously beginning to race through the Lightweight field. Just as the last man left, the megaphone announced Searle's collision with Ballacraine Hotel, which had done him no harm. Thirteen minutes after the last man had gone a yellow plaque indicating No. 2 had passed Governor's Bridge suggested that Joynson (Invicta) had smashed the 1921 lap record even with the handicap of a standing start, but Davison (Levis), close on his heels, had actually cut the lap record by nearly five minutes; and when Handley arrived he was eleven seconds faster than the Levis.

Presently the first 350 c.c. machine, Davies, came in just three seconds outside the Senior record for a flying lap (56 m.p.h.). To everybody's dismay he paid a hasty visit to his depot without stopping his engine. Then Le Vack knocked four seconds off the Senior record, and Harris lapped one second faster than Davies.

Excitement increases.

Excitement ran high, but as nearly all starters completed their first lap some time clapsed before the scoring board revealed how both races stood.

Marchant (Sheffield - Henderson) hit Sulby Bridge and damaged his oil tank; Dale (New Scale) crashed more heavily at the same point, requiring medical attention which lost him thirty-five minutes.

Kelly (A.J.S.) came off in Sulby Village, bending his forks so badly that he had to retire.

First lap times (250 c.c.). Handley (O.K.) Davison (Levis) Kershaw (New Imperial) ... 46m. 26s. Pike (Levis) ... J. C. Whalley (Massey-Arran) 46m. 42s. Loughton (Francis-Barnett)... 46m. 52s.

(350 c.c.)

pick up petrol. After two laps Woods left his engine running while he replenished his tank with petrol, and it caught fire, which spread to his depot.

Woods staggered across the road with flames rising from his clothing, and men rushed to his assistance. Pyrene came to the rescue in the nick of time, and thirty

seconds later be continued. Most ridors kent their engines ronning







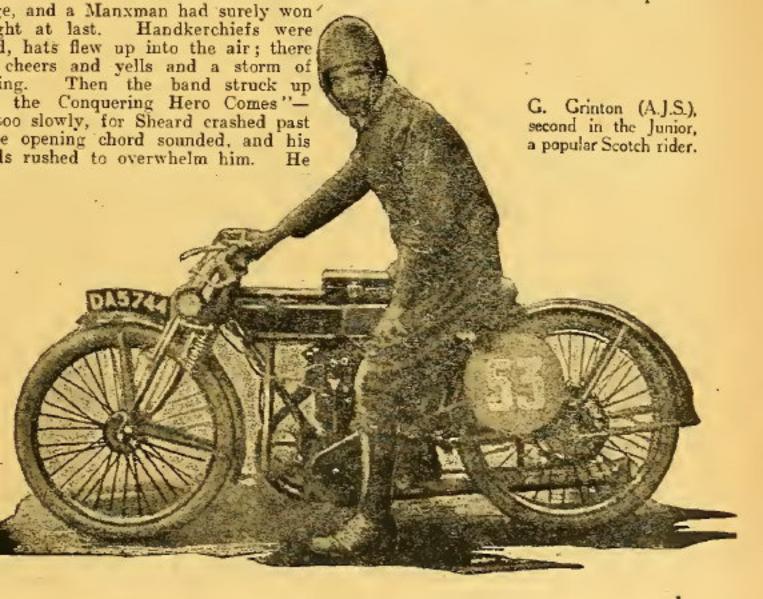


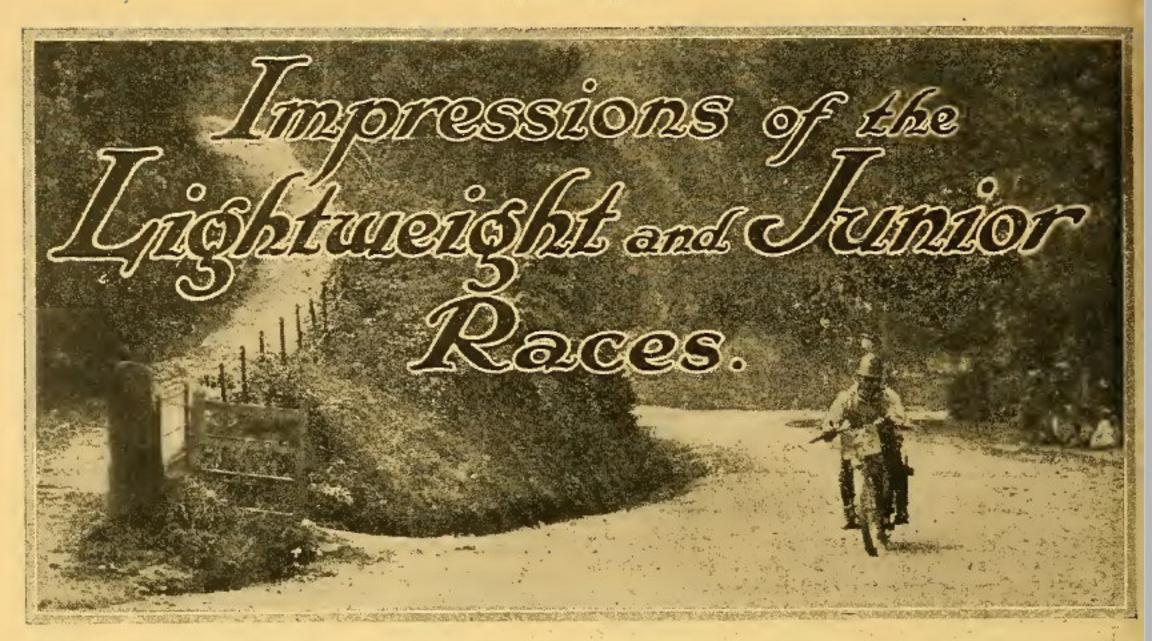
first three laps. Junior Race. in the first and second event. at the end of the fitrst Junior laps.



C. G. Pullin (346 H. Le Vack (346 New H. F. Harris (348 H. R. Davies (348 F. A. Longman (348 W. L. Handley (249 Douglas, third in the Imperial) leader in the A.J.S.), second in laps A.J.S.), last year's A.J.S.), third at half O.K. Junior), leader fourth Junior lap. Junior Race for the one and two of the Senior winner, second distance in the Junior of the Lightweights



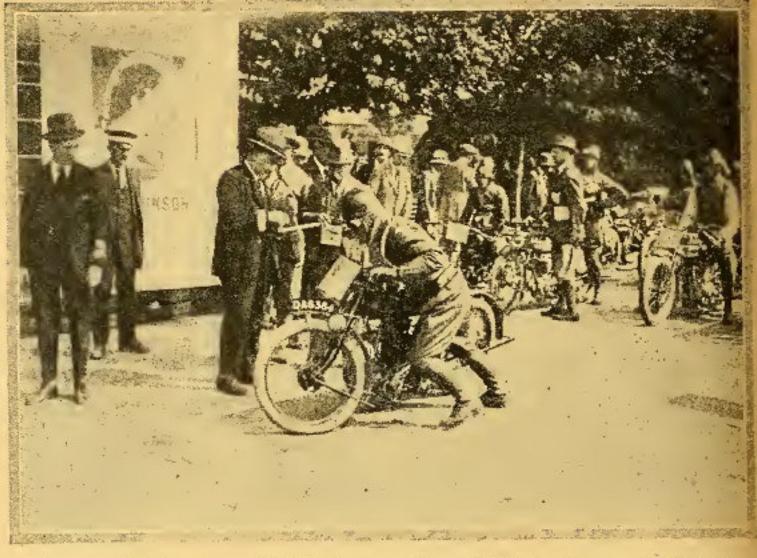




The Return of the Two-stroke; the Invincible A.J.S.; and two ill-starred "Dark Horses."

A N entrée can never be as satisfying as a joint, but it is often more savoury. Pursuing the

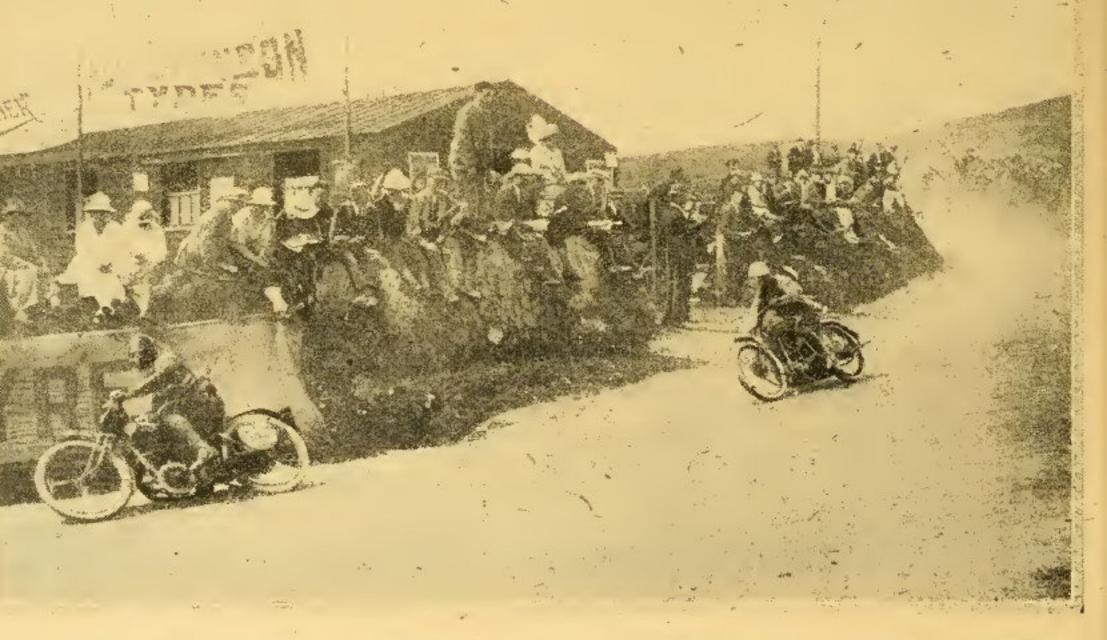
O.K. was leading the fastest Levis by 11s., and Pike's Levis stood fourth, sandwiching a J.A.P. engire with



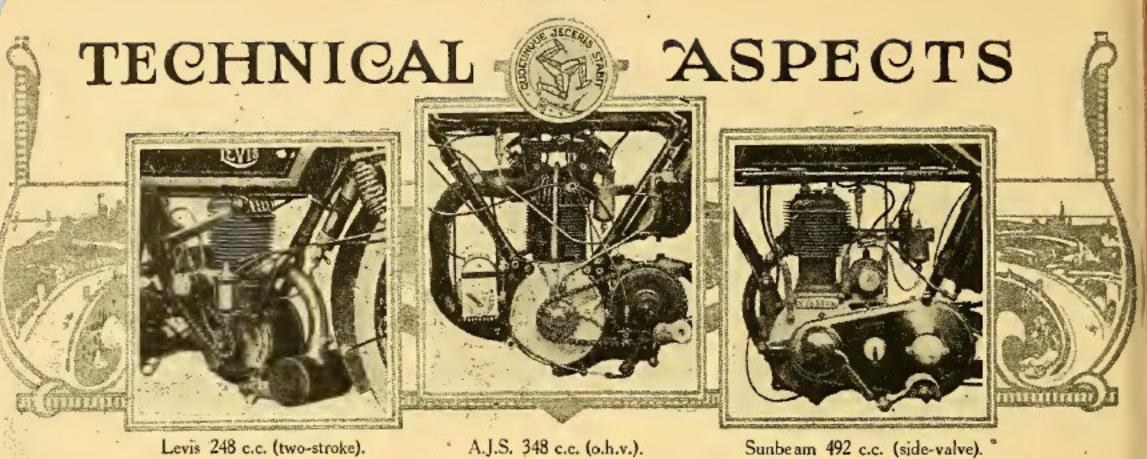
Last year's Senior winner, H. R. Davies, on a 349 c.c. A.J.S., starting away in the 1922 Senior Race on a similar mount.



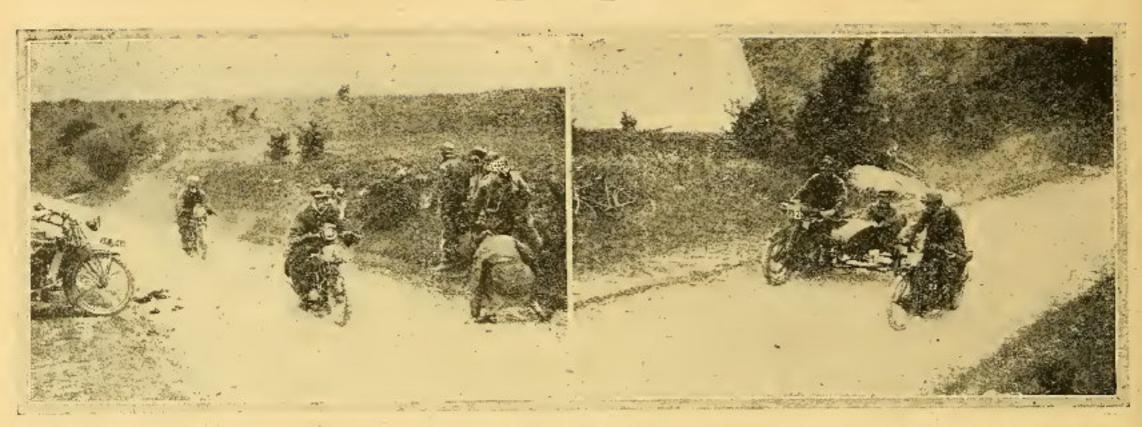
Hurtling through the town of Ramsey. F. A. Longman (A.J.S.), who gained a place for one lap in the Junior race.



A fine speed impression at Craig-na-baa; T. M. Sheard (348 c.c. A.J.S.) winner of the Junior T.T. Race on the heels of L. Nicholson, (248 c.c. Coulson).



Contemporary Motor Cycle Design Reviewed and Criticised in the Light of the T.T. Races, the Most Searching Test of the Year.



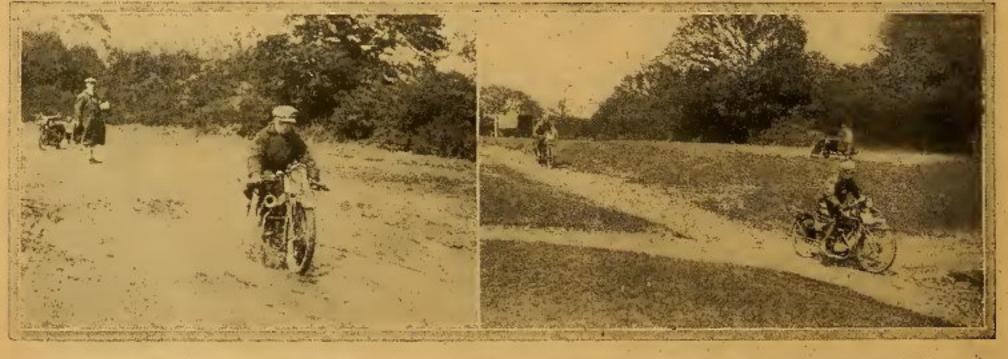
ON KOP HILL.

W. Backhouse (499 c.c. Triumph) and H. S. Moorhouse H. W. Glendinning (976 c.c. Zenith sidecar) and H. B. Browning (499 c.c. Triumph).



Two riders well known in Scottish trials circles: R. Wilson (349 c.c. A.J.S.) and R. Watson (496 c.c. Martinsyde) in Baytswood Square, at the start of the Glasgow Western M.C.C. twelve hours reliability trial.

A TR



Lieut. H. B. Baker (398 c.c. A.B.C.) in rough going at the top of Newlands Corner.

Sub.-Lieut. J. I. Robertson (349 c.c. A.J.S.) and Lieut. F. H. Kennedy (998 c.c. Indian) at Newlands Corner.

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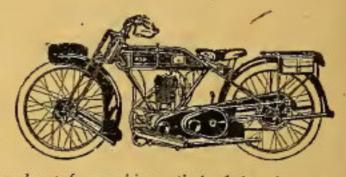
7 h.p. Comb. -£175 (With detachable and inter-

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Telephones-Kensington 7260 and Museum 1240.



Mrs. G. M. Janson (249 c.c. Trump-Jap, and Mrs. O. M. Knowles (349 c.c. A.J.S.) at the start of the 350 c.c. Ealing Handicap.

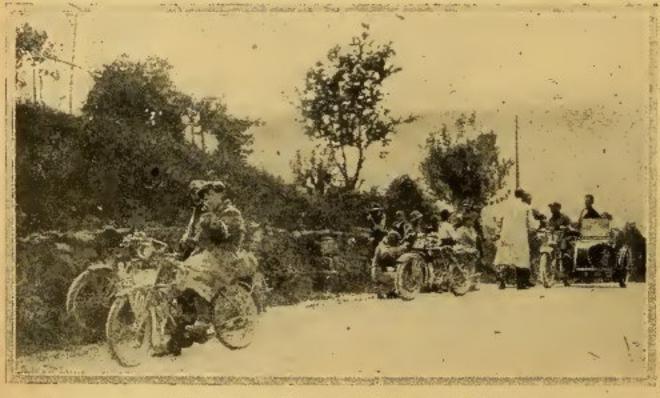
CIL



Cornering at Pendine. C. Sgonina on the o.h.v. A.J.S. converted by himself.



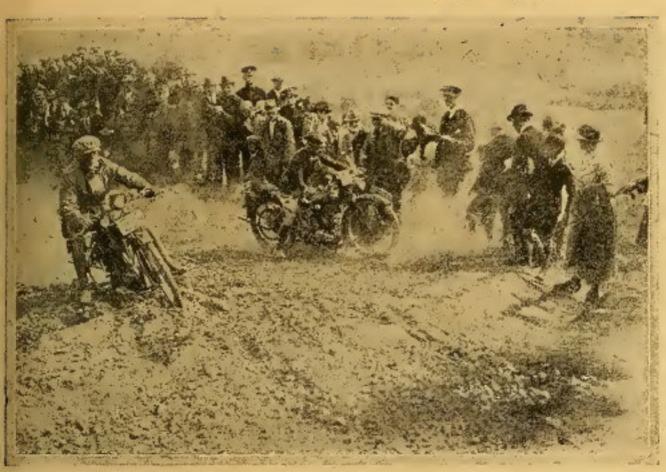
F. W. Giles (800 c.c. A.J.S. sidecar)—The passenger member of the British team—on the long ascent of the Klausen Pass.



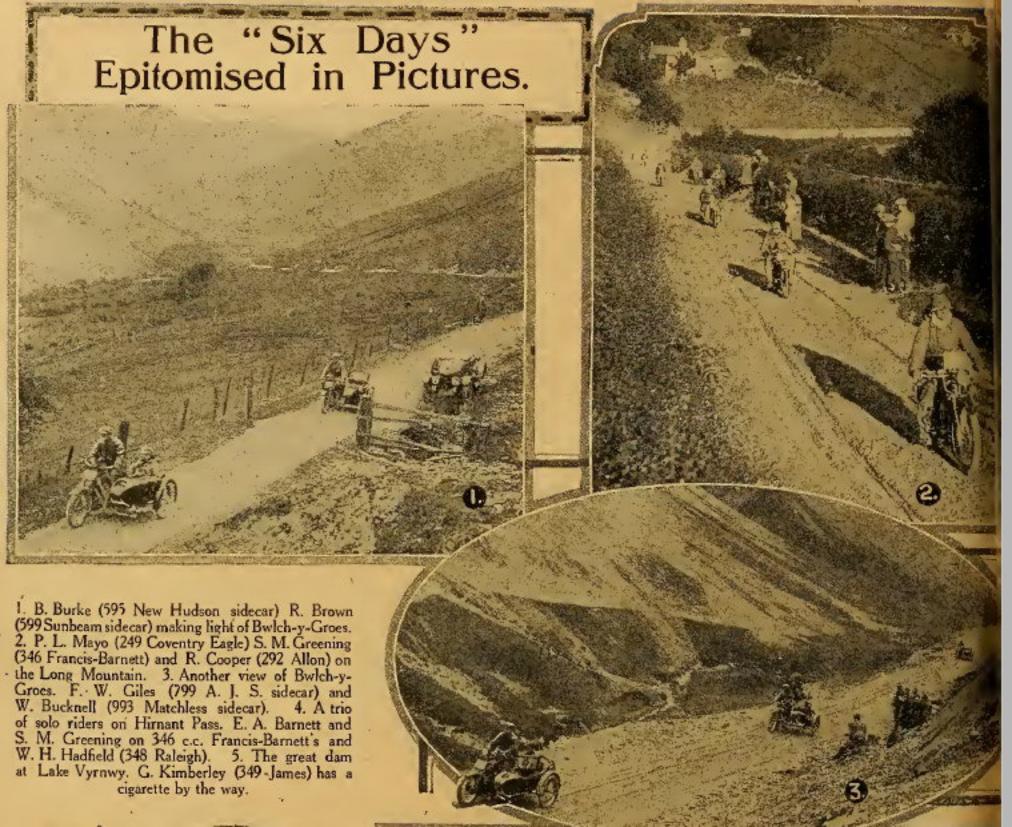
A halt by the way. G. S. Davison (247 Levis), B. Malmberg (494 Husqvarna), L. Pelissier (994 Motosacoche), and F. W. Giles (800 A.J.S. sc.) near Lugano during the International Six Days Trial in Switzerland.

b r6

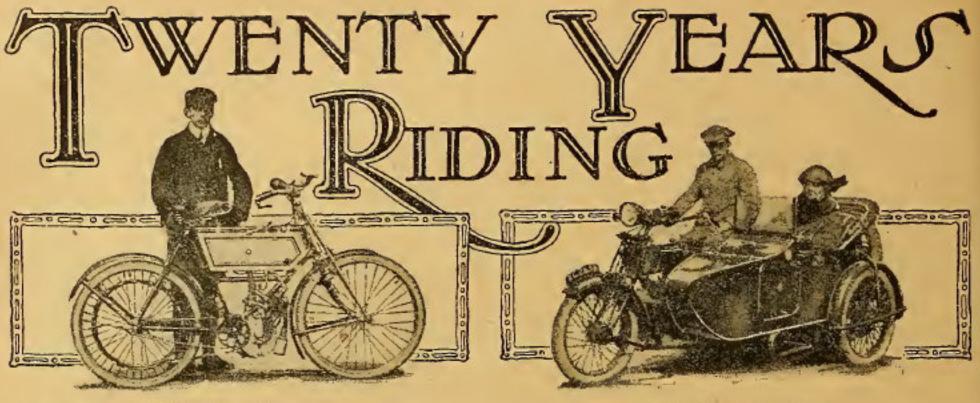




Two 350 c.c. soloists in the "rough" on Rosedale Abbey Bank, H. F. Harris (A.J.S.) and Mrs. Janson (Coventry Eagle).







1902-13 h.p. Minerva.

1922-7 h.p. A.J.S. sidecar.

A Motor Cyclist Discusses many Mounts he has used since the days of the Werner.

A S an enthusiastic motor cyclist I find it interesting to look back upon machines I have owned and to notice the evolution which has taken

but the frames of both these Minervas were as high as a corresponding pedal cycle, and very unpleasant when cornering.



Rough portions on the route of the second day. Competitors on cart tracks near Ipstone.

E. W. Choldcroft (349 A.J.S.) and H. F. Harris on a similar mount.

Competitors on cart tracks near Ipstone.

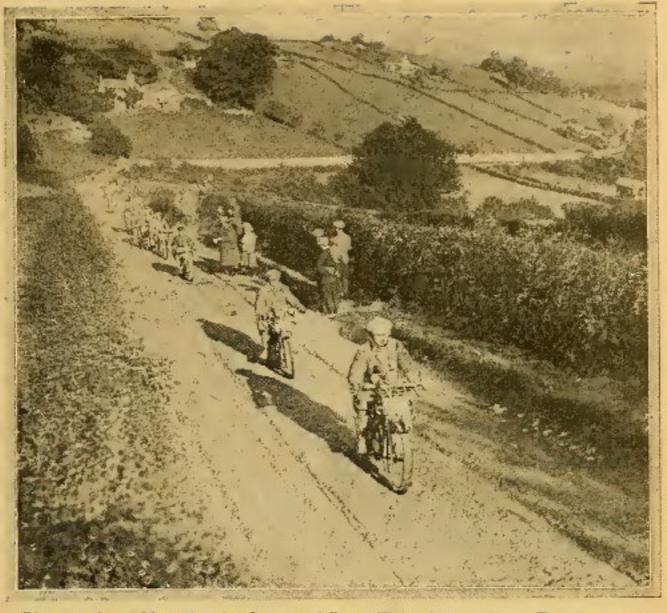
E. A. Barnett (346 Francis-Barnett) followed by S. M. Greening, also on a Francis-Barnett.

b 12

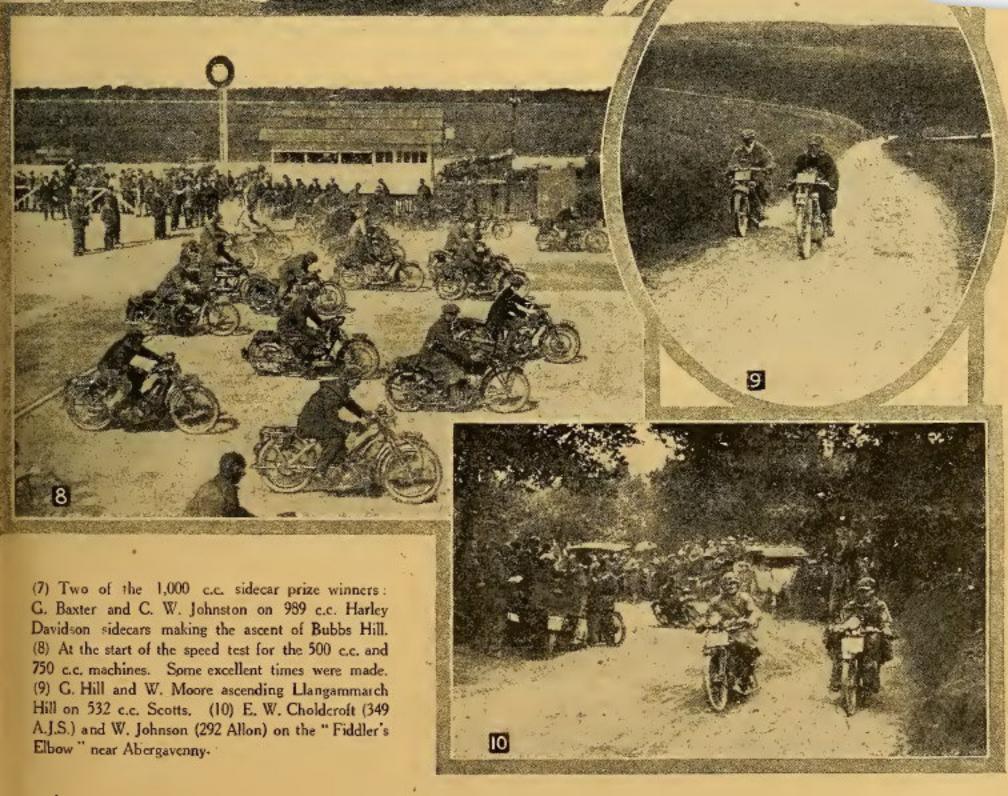
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A panorama on the Hirnant Pass on Wednesday afternoon. F. W. Applebee (247 Levis) and Mrs. O. M. Knowles (349 A.J.S.) followed by a non-competitor on a Scott.

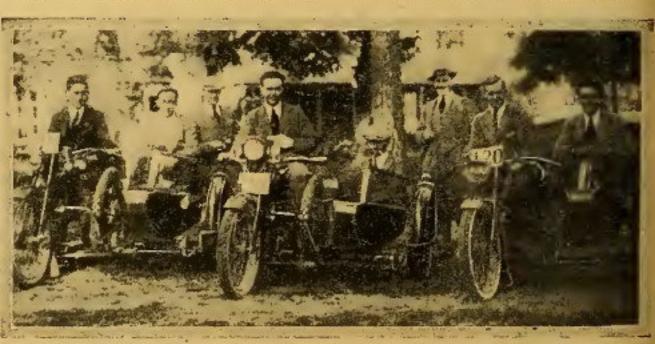


Filing up Long Mountain, the first test hill on Wednesday morning. The leaders are E. A. Barnett (346 Francis Barnett), C. W. Hough (349 A.J.S.), F. W. Applebee (247 Levis).

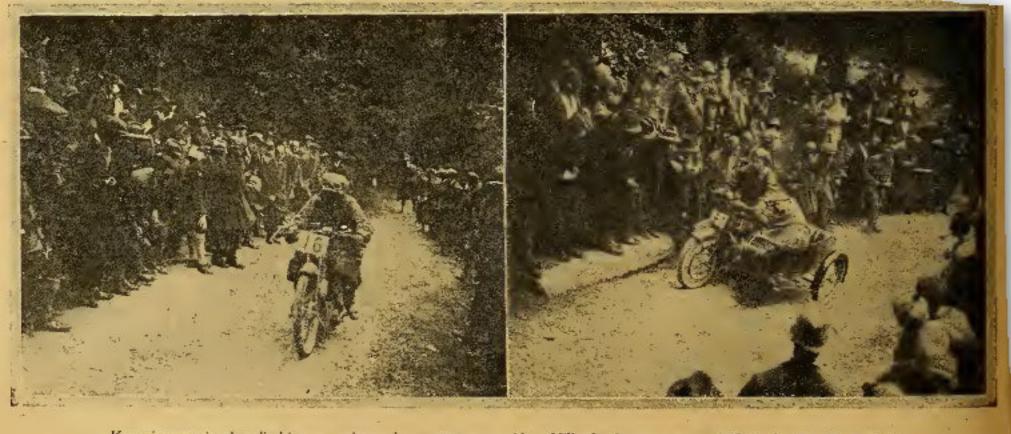




Besides tieing with the Harley-Davidson team in class G, one member of the A.J.S. team F. W Giles (on left) won the Centre Premiership. In the centre H Poole, on the right O. Wade.



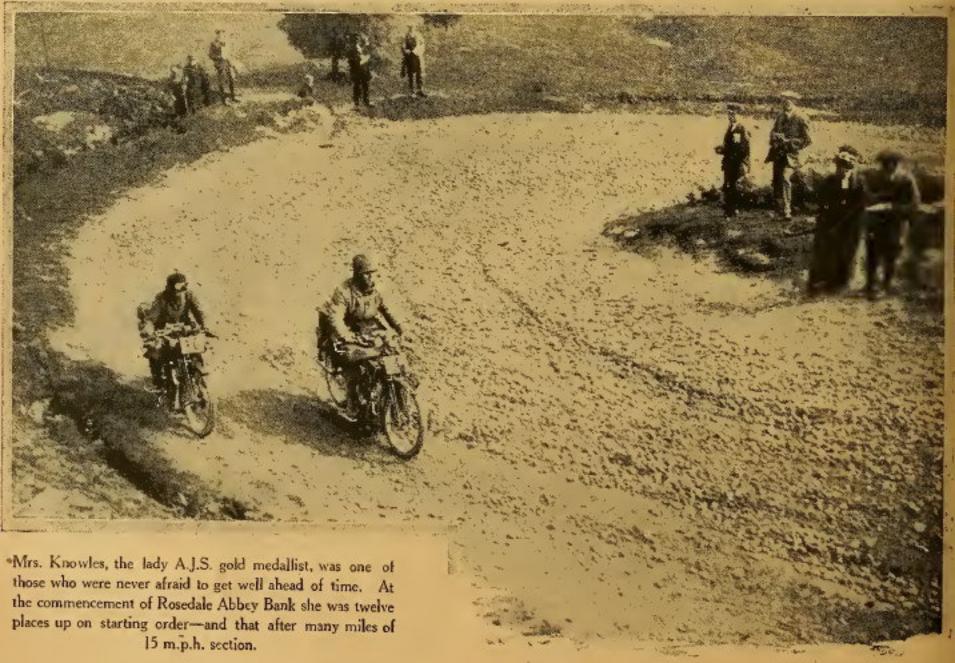
Equalling the A.J.S. aggregate, the Harley-Davidson riders share the honour of winning Class G. From left to right: T. R. Allchin, G. Baxter and C. W. Johnson.



Keen interest in the climbing was shown by spectators on Alms Hill, the last severe test hill in the Six Days Trials.

11: O. M. Knowles (349 A.J.S.) whose riding was applauded
On many hills. She was awarded a gold medal.

P. Pehrson (499 Dunelt sidecar) making a clean ascent of the hill. He also gained a gold medal.





Bridge of Avon was hardly worthy of observation, nobody having any real difficulty with the climb. A. L. Downie (349 A. J. S.) on the upper and less steep portion,



COMPETITORS AT THE DISABLED DRIVERS' RALLY at Blindley Heath, in the slow race. This event was won by C. Annett (749 A.J.S. sidecar), who had perfect control of his outfit although handicapped by the loss of a lcg.

C 5



"BOGEY PERFORMANCES."

New System of Marking Introduced in Yorkshire Centre A.C.U. Reliability Trial.

ORGANISED by the likley M.C. and L.C.C. the trial held last Saturday received very indifferent support from the clubs forming the Centre, only 16 competitors starting, seven of whom rode Scott machines.

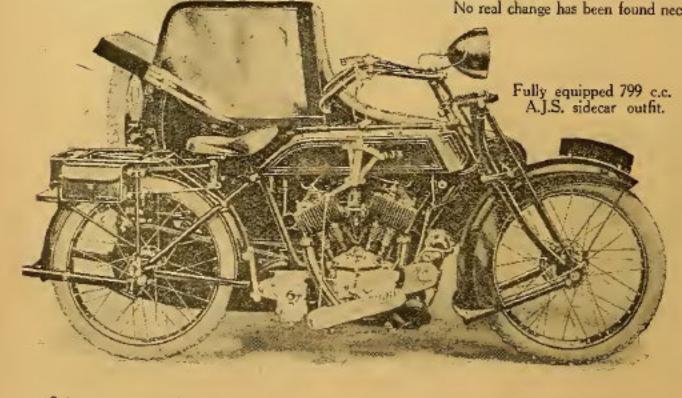
Why this trial did not appeal to the ordinary rider is a problem difficult to solve. Quite a goodly array of trophies (five in all), along with the usual medals, were offered for competition. The route was only 120 odd miles in length and did not include any freak hills.

It may be that the new system of finding a winner by the inclusion of "bogey times" in place of the usual observer and his marks acted as a veritable bogey. If so it was very unfortunate, for this new system appears to work very well. The idea is really a system of handicapping, different classes of machines having to cover short difficult sections of the course in times which are known and which





E. Eggers (right), winner of the Ilkley Trophy and prize for the best performance of the day, crossing Mogington watersplash on his 349 c.c. A.J.S. in company with a Sunbeam rider.



C 4

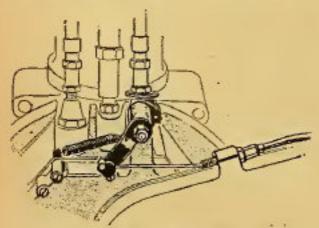


A.J.S. (67.)

Overhead Valve T.T. Model.

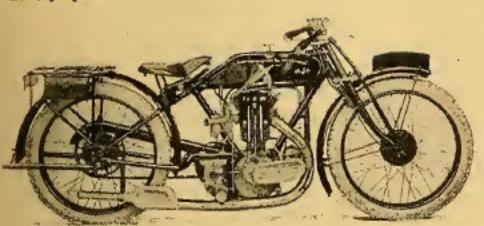
25. H.P. Model.—74×81 mm, (349 c.c.); single cyl. four-stroke; overhead valves; drip feed lubrication; Amac carb.; chain-driven mag.; 3-speed gear; clutch, no kick-starter; chain drive; 650×65 mm. tyres. Price £87.

A. J. Stevens and Co., (1919), Ltd., Wolverhampton.—By reason of its performances in the T.T. Races, great interest will be shown in the 349 c.c. overhead valve Tourist Trophy type A.J.S., which is a direct development from the famous racing machines, and is attractive because few makes have attained such consistent success with their speed models. The T.T. machine is in the centre of the stand, and, of course, is show finished, but the bright nickel and special enamelling do not

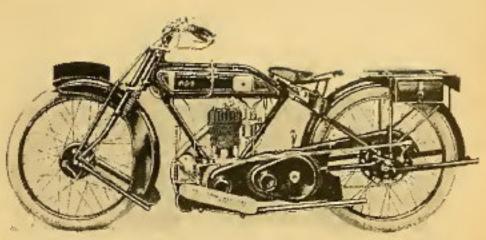


An external cam raises the exhaust valve on the A.J.S.

The Olympia Show.



An attraction of the A.J.S. range-the 349 c.c. o.h.v. model.



Conventional and thoroughly tried—the 349 c.c. side valve touring model A.J.S.

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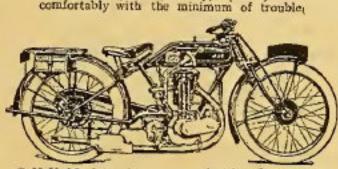
HERE you can inspect the finest collection of famous mounts ever seen in the Provinces.

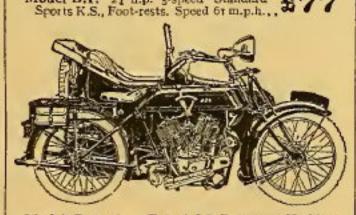
Especially asb to see the-



winner of the JUNIOR T.T. 1914-20-21, also the SENIOR T.T. 1921 and JUNIOR T.T. 1922.

The outstanding superiority of the A.J.S., its absolute efficiency and reliability, is never questioned—it can be depended upon to take the rider anywhere, easily, specify and comfortably with the minimum of trouble.





Model D. 7 h.p. Twin A.J.S. Passenger Machine, 3-speed Countershaft Gear and Clutch, K.-Starter, Detachable and Inter. Wheels, Horn, Lucas Magdyno Lighting Set, Windscreen and Sidescreen.

Complete --- £152.10

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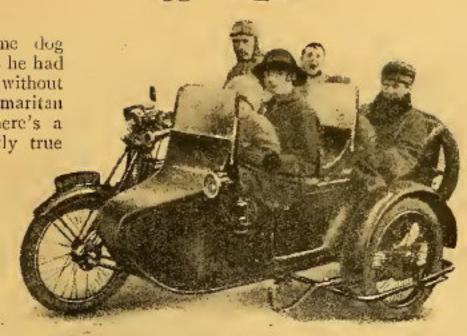
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P.J.Evans

MOTOR GCLE



Mr. J. E. Sykes, of Scarboro', and his loaded A.J.S. outfit. In spite of the weight carried the machine does its work admirably.

FRAME IMPROVEMENTS IN 1923 BRADBURYS.

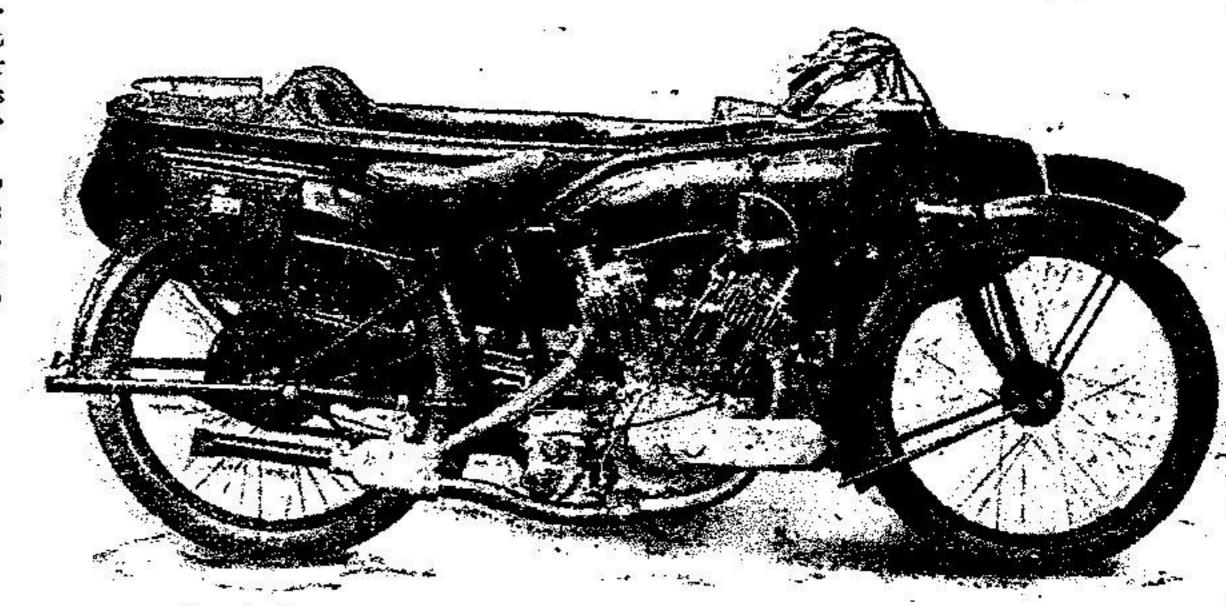
Old-established North Country Make Thoroughly Modernised for Next Year.

FTER many years' hononrable existence as a stordy and reliable but not particularly handsome motor cycle, the Bradbury, in all its forms, has undergone a veritable transformation for next year.

It now compares favourably in the matter of appearance with anything else on the market, and recent records at Brooklands prove that sheer slogging capabilities are not its only commendable attribute.

Three Main Models.

Three main models are offered—all sidevalve four-strokes; a 350 c.c. single; a 554 c.c. single; and a 749 c.c. twin. In each case the engine is of Bradbury design and manufacture; in fact, except the gear box of the 350 c.c. model (a Moss three-speed), the whole machines are produced in the one factory.

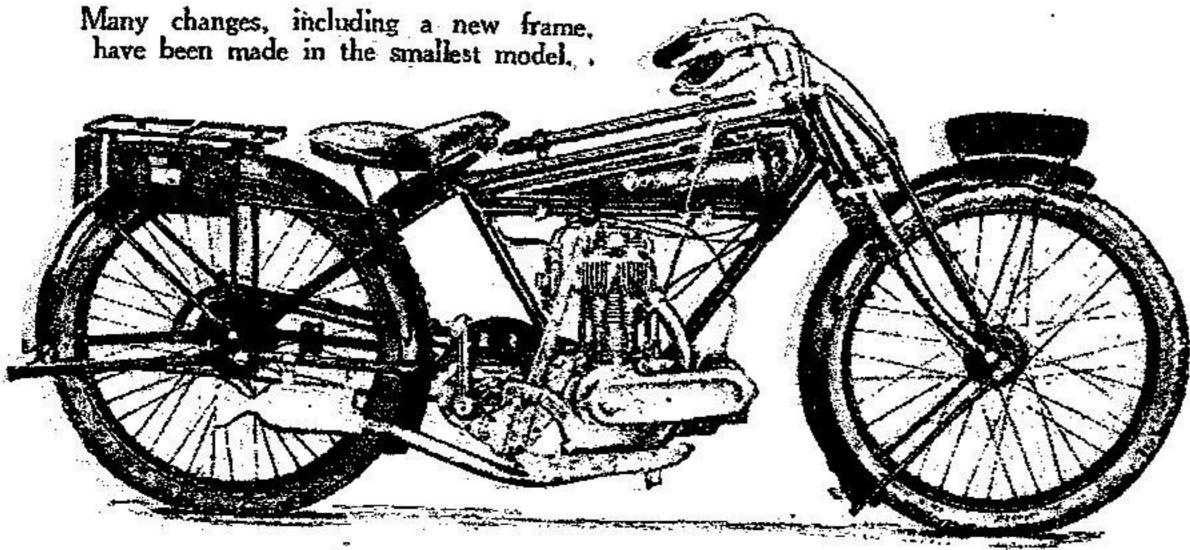


Speedy lines are attained in the 749 c.c. Bradbury sporting sidecar outfit.

Chain transmission is employed through-

out, light guards only being fitted in every case.

Each model is available as a sidecar outfit, but the big twin machine becomes a particularly attractive solo mount when turned out to a sports specification. A new frame of graceful design, wellcurved exhaust pipes terminating in an aluminium silencer at the rear, and footrests instead of footboards, combine to make this model attractive to the most fastidions speed man.



Internal Expanding Brakes.

Internal expanding brakes on both wheels is a commendable feature of all the Bradburys for next year.

The makers are Bradbury & Co., Ltd., Wellington Works, Oldham.

350 c.c. MATCHLESS MODEL.

Range of Big Sidecars extended by Solo Medium-weight. A New Sports Twin,

OST of the big sidecar specialists are turning towards the light solo machine as an addition to their range for the 1923 market.

In this class the Matchless concern must now be included, after long absence from the smaller solo field. The new model is engined by a 349 c.c. Blackburne side valve unit.

A Stormey-Archer three-speed gear box, including clutch and kick starter, is fitted, and a drawbolt for the purpose of front chain adjustment is provided. And in this connection it must be pointed ont that engine, gear box and magneto are assembled in a special cradle, which can be handled as complete unit.

Above the gear box is the M.L magneto mounted on a sliding platform and provided with a suitable adjuster for the purpose of taking up any slack in the magneto chain.

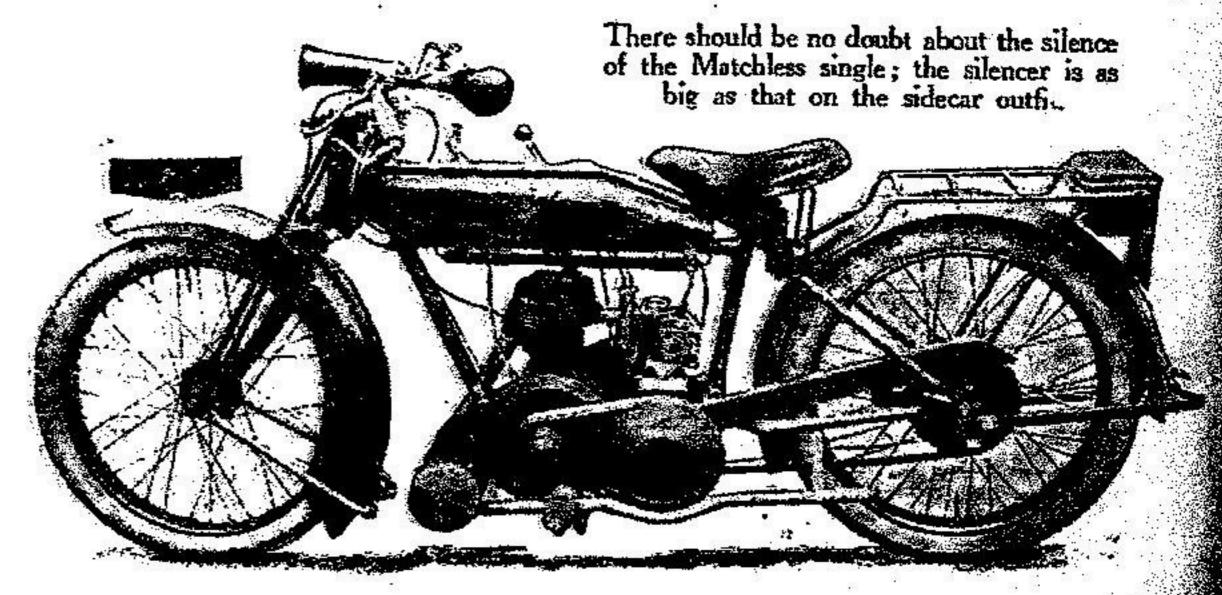
Points of convenience have been carefully studied, kneegrips being fitted as a standard, and an excellent all-metal tool box situated on the rear of the carrier and fitting practically flush with the top

thereof. A Webb brake is fitted to the front wheel and an internal expanding brake to the rear wheel, while the Binks two-jet semi-automatic carburetter forms part of the standard equipment.

If desired, a Lucas Magdyno can be pro-

vided at an extra cost. Both wheels have voiturette rims carrying 650×65 mm. tyres, and the weight is 220 lb., price £72 10s.

One new twin cylinder model will be introduced, to be known as the super-





WHITELEYS Special Show

Whiteleys draw attention to the newest success of this wonderful guaranteed machine in the great

LONDON-LAND'S END EASTER TRIAL

91 Sidecar starters in this strenuous trial, only 17 obtained gold medals.

20 MATCHLESS Machines

gained:

THE CAPTAIN'S CUP 10 GOLD MEDALS 9 SILVER MEDALS

Let Whiteleys demonstrate the 'Gold Medal' machine —you cannot buy better!

FOR PRICES SEE PAGE FACING.







H. Le Vack.

H. Hall.

N the 12th inst. H. Le Vack, riding a 346 c.c. New Imperial-Jap, succeeded in putting up some wonderful speeds in his short distunce record attempts, covering the flying kilometre (with the wind) in 23.85 sec., a speed of 93.79 m.p.h., his mean time for the same distance covered both ways being 26.97 sec. (83.56 m.p.h.). He also covered the flying mile in

SHORT DISTANCE RECORDS BROKEN.

New Imperial-Jap and Trump-Jap Successes. Mrs. Janson gains another Record.

39.18 sec. (speed, 91.88 m.p.h.); mean, 43.97 sec. (81.86 m.p.h.).

Colonel Stewart, Mrs. Janson, and H. Hall also attacked the new standing mile and kilometre records in Classes A. and D. on the same day, and so fierce was Colonel Stewart's "get-away" on his little Trump-Jap that his front wheel leapt nearly two feet in the air, completely jumping the electrical strip.

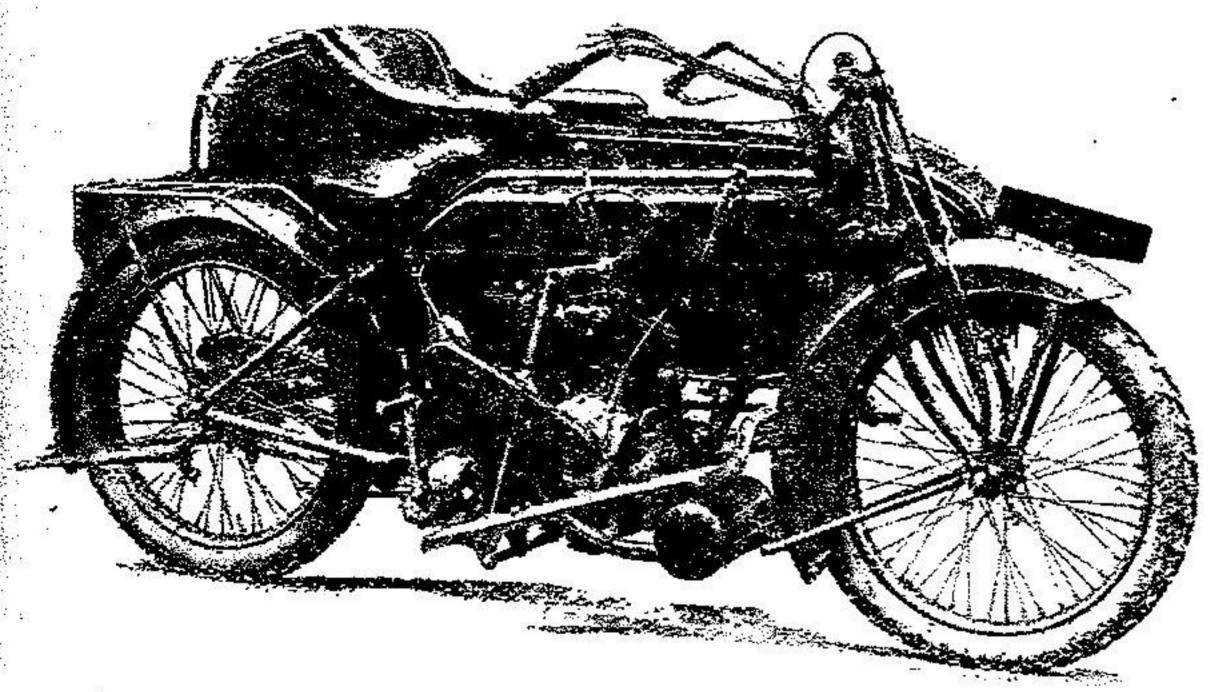


Mrs. Janson.

Colonel Stewart.

44.45 m.p.h.

Their records were as follows:-CLASS D. Colonel Stewart (750 Trump-Jap). Kilom. ... 39.92s. 60.59 m.p.h. Mean ... 38.04s. 58.80 m.p.h. H. Hall (750 Trump-Jap). Mile 65.86 m.p.h. ... 54.66s. Mean ... 57.175. 62.96 m.p.h. CLASS A. Colonel Stewart (250 Trump-Jap). Kilom. 48.91 m.p.h. ... 48.07s. 46.50 m.p.h. Mrs. Janson (250 Trump-Jap). Mile



A utility Matchless outfit marketed, without the spring frame and one or two other luxury items, at £130.

NEXT YEAR'S MATCHLESS POLICY.

N EXT year there will be a three-speed, 350 c.c., single-cylinder, all-chain drive Matchless, fitted with 26in. x 2tin. tyres, to be sold at about £75. The engine will be of the high efficiency type.

Another attractive proposition of the 1923 Matchless programme will be a £130 sidecar outfit, fitted with either a 976 c.c. J.A.P. or 993 c.c. M.A.G. engine. This model, of course, is already available to the public. It has a rigid frame, clutch, and kick-starter, detachable wheels, and a comfortable sidecar. Extras are spare wheel, hood, screen, lamps, etc.

The sports model Matchless sidecar outfit will be considerably improved not only in detail, but in appearance as well. It will possess rakish lines and will be fitted with a "super-sports" M.A.G. or J.A.P. engine. The spring frame model will be unaltered.

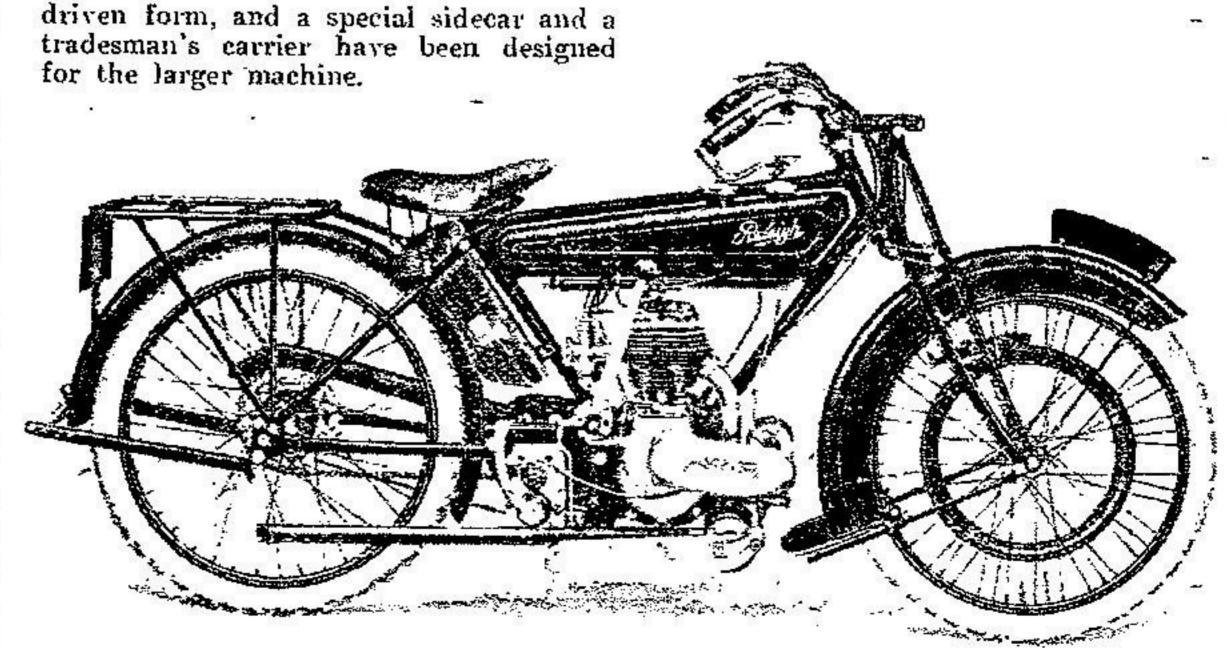
CHAIN-DRIVEN RALEIGH LIGHTWEIGHTS.

CHAIN-DRIVEN version of the A Raleigh lightweight made its first public appearance in the Six Days Trials, where it acquitted itself most creditably. Generally speaking, the new model has been little altered as compared with the belt-driven type.

In the engine the big end is now provided with a dipper or scoop to pick up oil from the crank case, and an adjustment is made possible for the exhaust lifter cable.

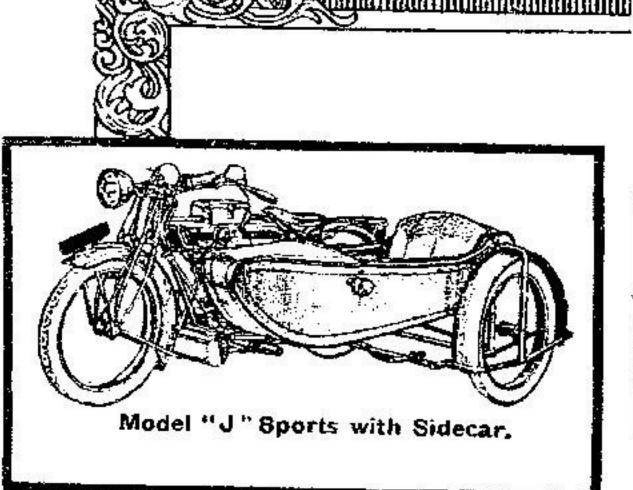
The rear brake is now of the internal expanding type of notably large diameter, and a quick adjustment is embodied. Small sprockets have been avoided in the transmission, 21 and 20 teeth being used at the engine and gear box respectively. For sidecar purposes a 19t. sprocket is supplied.

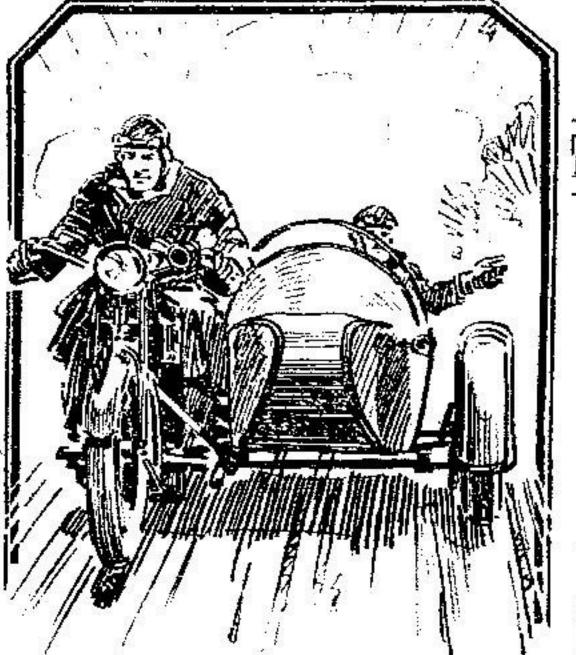
Either the 348 c.c. or the 398 c.c. engine is now available in the chain-

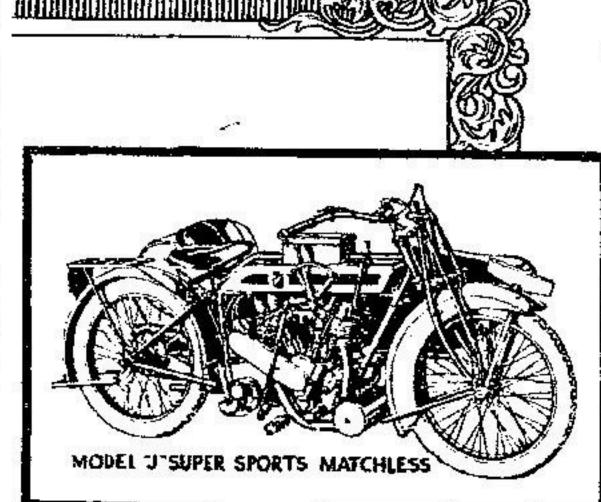


348 c.c. and 398 c.c. chain-driven lightweights have been added to the Raleigh programme.









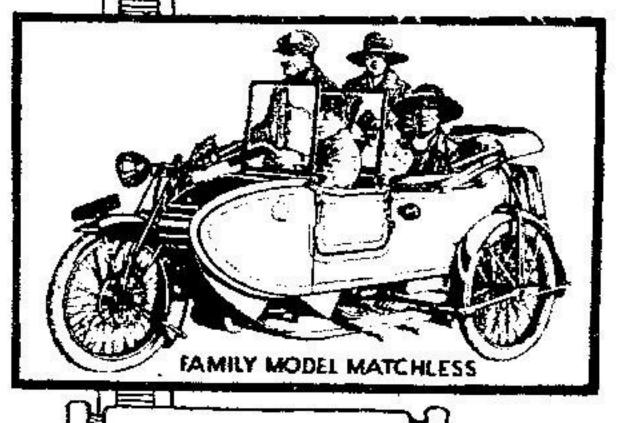
PRICE £160 or Easy Payments.

PRICE £165 or Easy Payments.

We ride the "Matchless" because we know there is no better machine on the market and we can recommend it from actual experience.

Our showrooms have a full range of "Matchless" machines and our arrangements with the manufacturers enable us to offer Immediate Delivery.

We are the official "Matchless" Service Agents for our district and can fully meet all your requirements.



PRICE £175 10

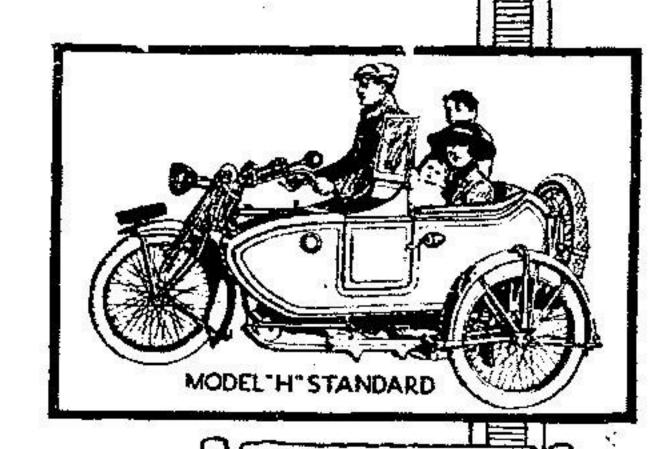
or Easy Payments.

We shall be glad to arrange Easy Payments over a period of

18 MONTHS

if you so desire.

Our system of Easy and Extended Payments is most satisfactory and helpful. Remember—Easy Payments are only 4% extra, and Extended Payments mean only down and the balance paid over a period of 12 18 months.



PRICE £170 or Easy Payments.

Allen-Bennett

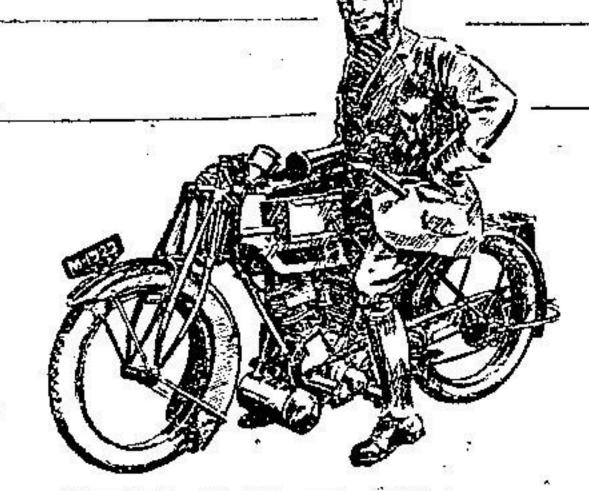
Motor Company Limited.

'Grams ; "Track, Croydon." 9, 10, 11, Royal Parade, WEST CROYDON.

'Phones : Croydon 2450, 2451. SPECIAL SHOW OF



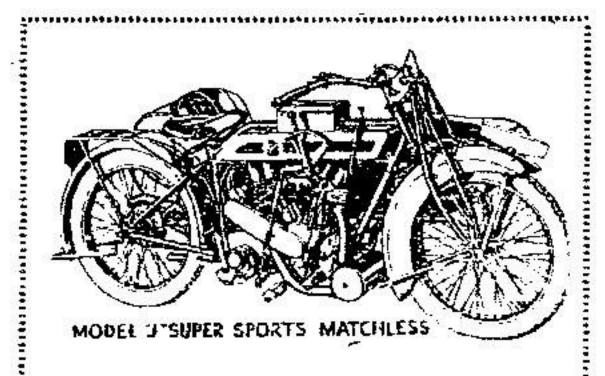
Every model on show at

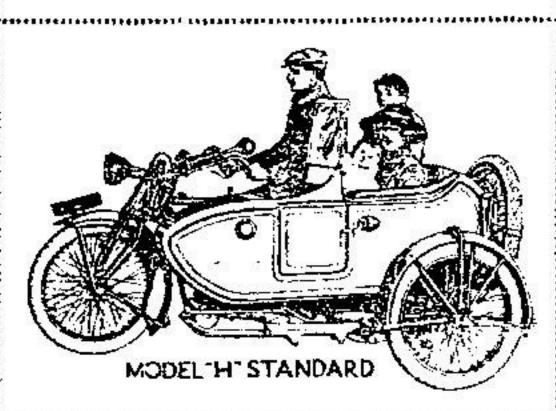


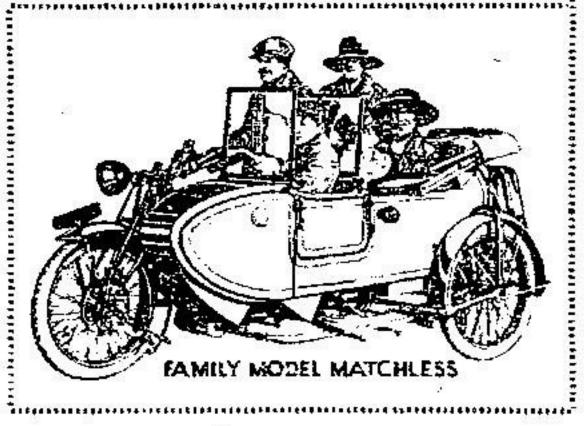
WHITELS

Originated in the earliest days of motor cycling, the Matchless has kept ahead of every development and its excellence to-day is testified by the results of recent trials, as instance—LONDON to EXETER: 24 Matchless entrants gained 20 gold and 2 silver medals

Whiteley's Showrooms have a full range of Matchless Models







(Stripped and variously equipped) and, in addition, a considerable stock is carried in reserve so that we offer the great advantage of INSTANT DELIVERY. Even if you are urable to visit this show in person, you may order by correspondence during this special week, for Whiteleys own experts are here to advise and will see that your machine is in perfect tune before despatch.

Prices—either cash or deferred payments include free delivery anywhere in Britain

MODEL "J" SOLO SPORTS MODEL
(or £26: 4:0 deposit and 12 monthly payments of £3:1:8) CASH £ 130

MODEL "J" SPORTS SIDE-CAR COMBINATION (or £32 deposit and 12 monthly payments of £11:4:0) £160

MODEL "H" STANDARD COMBINATION (or £34 deposit and 12 monthly payments of £1:18:0) £170

MODEL "H" STANDARD COMBINATION. Complete with dynamo lighting, hood, luggage carrier, spare wheel and tyre, side-car step, leg guards, horn, and wind screen

(or £41:1:6 deposit and 12 monthly payments £204:17:6

FAMILY MODEL COMBINATION (or £35:10:0 deposit and 12 monthly payments of £12:5:0)

E 175:10:0

FAMILY MODEL COMBINATION. Complete with dynamo lighting set, hood, two wind-screens, spare wheel and tyre, horn, leg-shield, and side-car step

(or £42:7:6 deposit and 12 monthly payments £211:17:6

MATCHLESS "H," with Commercial Carrier Side-car (or £34 deposit and 12 monthly payments of £11:18:0) £170

Whiteley's Deferred Terms are only 4 per cent. on the cash price, as quoted above.

WM. WHÍTELEY LTD., QUEENS ROAD, LONDON, W.2

other is a shoc, pulled on to the inner periphery by the hand lever. From experience on the road it has been found to be a particularly stable little vehicle, efficiently sprung, economical, and very suitable for the type of driver who is likely to handle it. The accommodation, too, is good, the carrying capacity being from 1½ to 2 cwt.

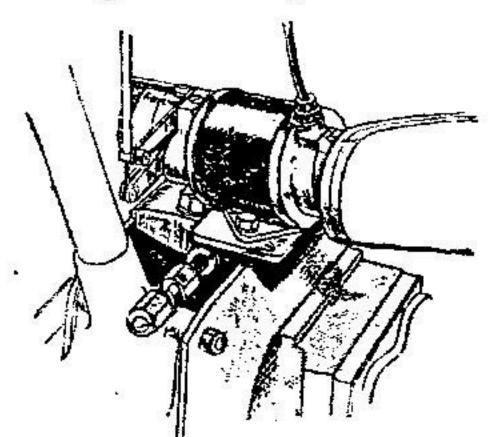
MATCHLESS. (71.)

Solo Models Introduced.

8 H.P. Model.—85.5×85 mm. (976 c.c.); twin cyl. lour-stroke; side valves; drip feed lubrication; B. and B. carb.; chain-driven mag.; 3-sp. gear; clutch and kick-starter; chain drive; 26×3in. tyres. Price: Solo, £115.

H. Collier and Sons, Ltd., Plumstead, London, S.E.18.—To solo riders one of the most interesting machines in the Show is the 976 c.c. J.A.P.-engined solo Matchless.

The engine, despite its size, looks extremely neat, the tank concealing a twin top tube—an arrangement which adds considerably to the appearance of the machine—while the knee grips are secured by concealed screws to the side of the tank. Very heavy mudguarding is employed, with ample clearance between the tyre and the guard. The chain is partially protected, and the wheel hub carries a gear for the speedometer drive.



Magneto mounting on the 348 c.c. Matchless.

No less than eight variations of the sidecar outfit occupy the stand. They vary from a sports model with a particularly neat form of carrier to the rear of and above the sidecar, to the latest and most comfortable type of touring vehicle, which has a windscreen with a side panel, a cape hood, and every known accessory which could assist or make more comfortable the occupants; it is listed at £175.

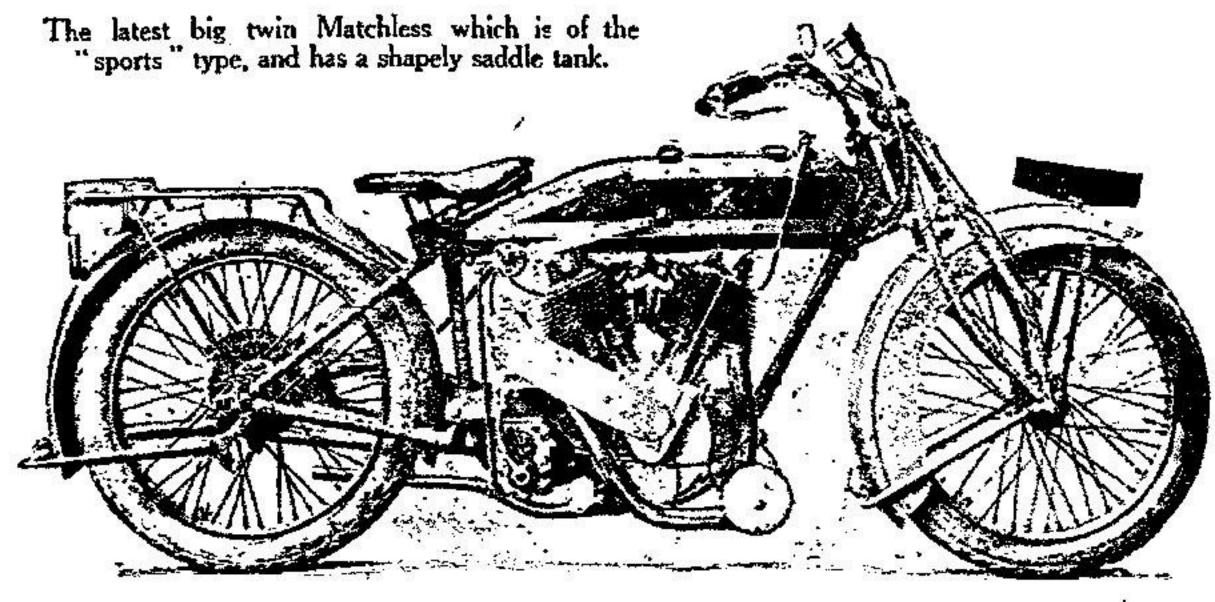
Finally, there are two examples of the new 348 c.c. solo Matchless, which uses proprietary components—Blackburne engine and Sturmey gear box—in a distinctive manner. On one the electric equipment is the new Lucas Magdynette.

'RUDGE. (97.)

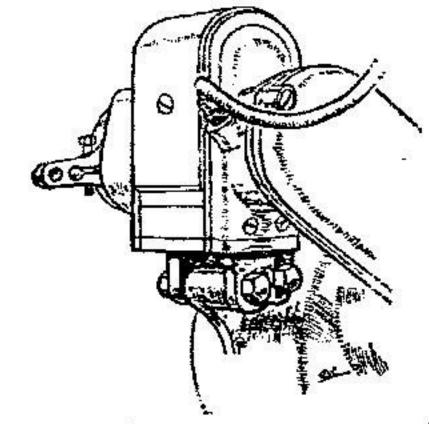
New Four-speed Models.

3½ H.P. Model.—85×88 mm. (499 c.c.); single cyl. four-stroke; o.h. inlet valve; foot pump lubrication; Senspray carb.; gear-driven mag.; 4-sp. gear; clutch and kick-starter; chain drive; 650×65 mm. tyres. Price: Solo, £85; with Sidecar, £100.

RUDGE-WHITWORTH, LTD., Coventry.— Chief interest on the Rudge stand centres round the models, both single and twin cylinder, fitted with the new four-speed



gear box and all chain drive. This gear box, the double helical pinions of which are constantly in mesh, was described in our last issue and can be studied in detail on the stand. Opportunity is also afforded of scrutinising the technical details of the engine which, both in the case of the single and twin cylinder types, contains many special features. A sectional model on the stand lays bare the piston, which is aluminium and has special grooving designed to facilitate lubrication.



A simple but effective magneto chain adjustment—a Powell feature.

The 298 c.c. twin-cylinder outfit forms an imposing display, and the fitting and general arrangement of the new fourspeed gear have been carried out in a most practical manner. The bracket supporting the gear lever quadrant, for instance, is brazed instead of being clipped to the frame.

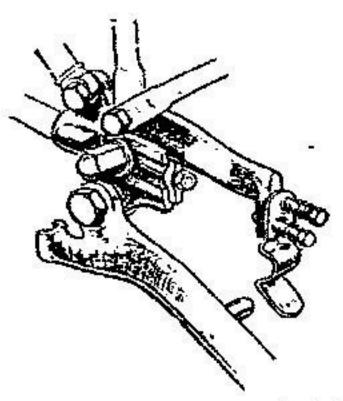
The general specification of single and twin-cylinder all-chain models is similar, and the Rudge-Multi belt-driven machines at £65 are also well represented.

QUADRANT. (161.)

Moderate Priced Big Single Outfit.

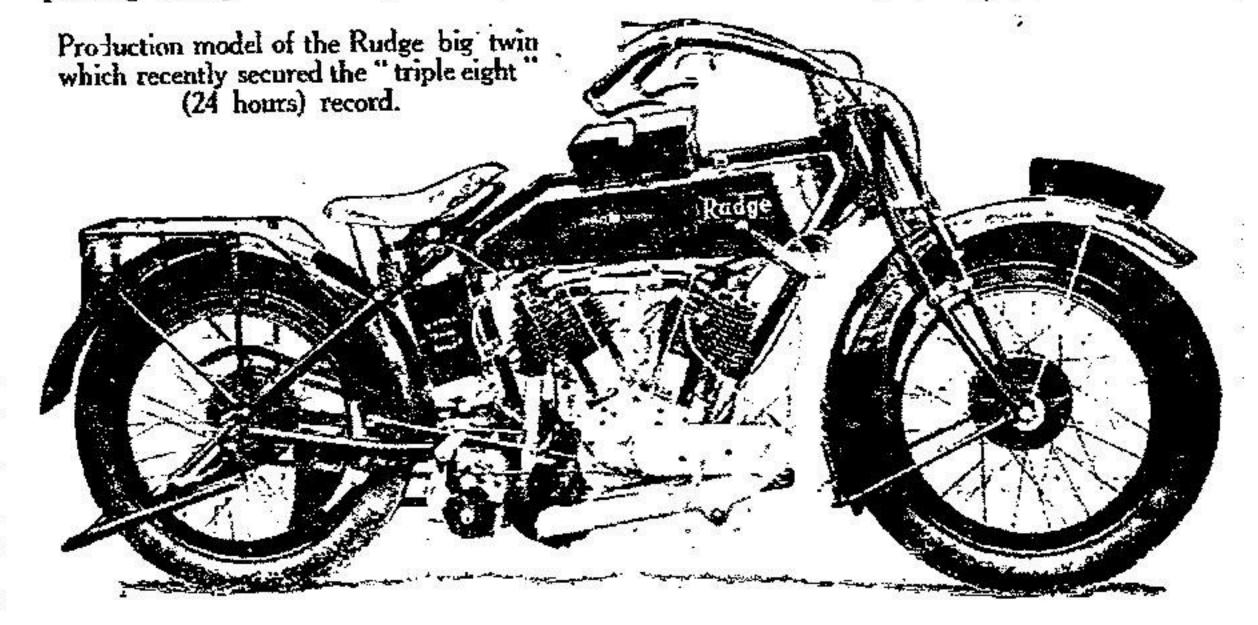
415 H.P. Moder.—87×110 mm. (654 c.c.); single cyl. four-stroke; side valves; hand pump lubrication; Binks carb.; gear-driven mag.; 3-sp. gear; clutch and kick-starter; chain drive; 700×80 mm. tyres. Price: Solo, £75; with Sidecar, £95.

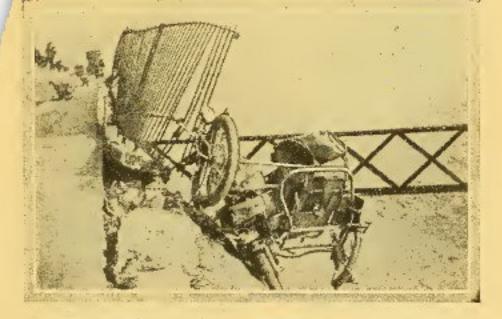
March, Newark, and Co., Ltd., 45-53, Lawley Street, Birmingham.—Always one of the most moderately priced big singles, the 654 c.c. chain-driven Quad-



Stand clip on the fork end of the Quadrant.

rant still retains a position in this respect that requires some surpassing. It has a sturdy, straightforward engine





When rectifying a defect in his lighting set, the Dublin owner of what remains of this Matchless sidecar outfit had the machine literally swept out of his hands by a runaway charabanc. Moral: keep out of the way of chars-a-bancs when attending to your lamps.

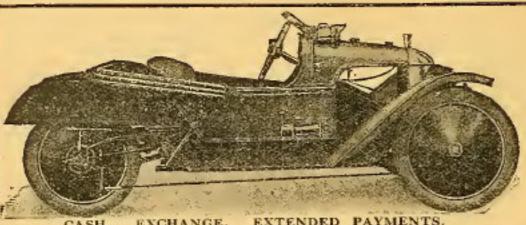
CI7



doneste barbene menchain drive. the makers have not been content to let matters rest INDIAN. Stand 180. with marketing one model, Right from the earliest and this year they have indays Indians have had a troduced a really fast sports very successful career in mount exclusively for solo Scottish competitions, and it use. The basis of the design is only fitting that four reis the same as the touring presentative models should machine, but so well have be on view. These are: "tuning" modifications, such The most appropriately as lighter reciprocating parts. named Scout, with and withetc., been carried out that out sidecar, the 7-9 h.p. speeds up to eighty miles per spring frame standard type hour have been obtained. ("Powerplus"), and the new Riding position, controll-Chief model, with a Princess ability, and equipment are 2

(1) 11 h.p. 75 lb. McKenzie lightweight. (2) 7-9 h.p. sporting Matchless outlit. (3) 31 h.p. sports model Martinsyde. (4) 31 h.p. standard countershaft Norton. (5) 8 h.p. electrically equipped New Imperial sidecar.

(25.28



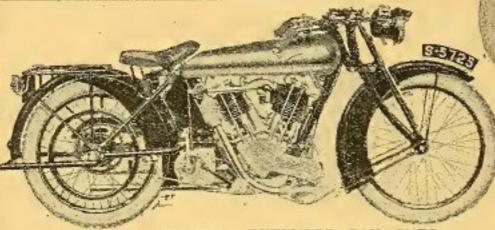
EXTENDED PAYMENTS. EXCHANGE. CASH.

MATCHLESS

ALL MODELS IN STOCK.

Sports Comb., £160. Model H, £170. Sports, £130. Model H, Family, £175.

Shop Soiled 1921 Sports Combination, £145.



EXTENDED PAYMENTS. EXCHANGE. CASH.

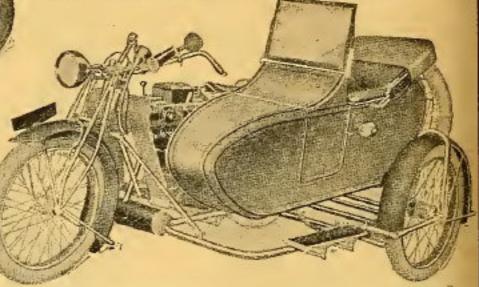
MORGAN.

PRICES INCLUDE FULL EQUIPMENT.

Popular, £150. *De Luxe, £175. *De Luxe, W.C., £186. *Grand Prix, £180. Family, W.C., £191.

* In Stock.

DYNAMO LIGHTING £13 10s. extra. Earliest Delivery any other model.



BROUGH-SUPERIOR.

ALL MODELS IN STOCK.

The Sportsman's Mount.

SOLE LONDON AGENTS.

Mark I. O.H.V. £160.

Mark I. Side Valve Combination, £180.

Mark II. 6.5 H.P., £125.

Mark II. 6.5 H.P. Combination, £150.

ALLEN-BENNETT MOTOR CO. LTD., 9, 10, 11, Royal Parade, WEST CROYDON.

'Phone: Croydon 2450

A SPORTING TRIAL IN THE SNOW.

Surbiton Club's Successful Event for the Mellano Cup.

To obtain an entry of 55 for a purely club one-day event argues well for the enthusiasm and sporting spirit of the Surbiton Motor Club members. True, the prize at stake was the Mellano Cup, a trophy well worth the winning; nevertheless, the large entry is indicative that club trials are exceedingly popular

In fine but very cold weather the first man was started from the Talbot Hotel, Ripley, to Guildford; here Bright Street Hill, a favourite test hill with Surrey

clubs, was climbed

A few miles of main road work brought the competitors to a five miles colonial section, very rough, muddy, and made more severe by an overnight fatt of snow. Consequently to the first men the course marked by blue dye was somewhat difficult to find. This occasioned several deviations from the route.

On most colonial sections a hard riding track can usually be found somewhere, but with snow totally obscuring the road surface one can imagine it was somewhat of a lottery as to where one would land.

The gyrations of some of the competitors were distinctly amusing, and falls were numerous, thereby depriving the unfortunates of any chance of lifting the cup. For good driving on this section particular mention should be made of F. M. Gwyne on a 13 h.p. Young Attachment; to the ordinary machine it was mostly middle gear work, however Gwyne, with much lasty him



In front of B. S. Allen's 8 h.p. Matchless sidecar will be seen the skid-marks left by the luckless solo men.

normal conditions it would present no

difficulty.

Excellent climbs were made by W. C. Hemy (23 A.J.S.), F. E. Salter (23 Zenith), B. S. Allen (8 Matchless sc.), and A. E. Bridgman (7 Indian sc.). The unfortunates were W. R. Preston (Sunbeam), A. E. Leeding (James), C. E. Taylor (3 Vasco), A. S. Richardson (6 Trump), V. H. C. Gayford (3½ Zenith-Bradshaw), and C. H. O. Allwork (6 Martinsyde sc.).

From Glenlea the route lay through Has!emere, Milford, Godalming, Shalford, Guildford, all main road work, and back

to Ripley for lunch.

Numbers were considerably depleted for the afternoon run, as most of those verse gear. However, the strong winds of the morning had practically dried the chalky surface, and as wheel slip and not gradient was its chief terror, all difficulty was removed, everybody sailing up with plenty of power in hand.

In all 30 competitors checked in at the finish, a goodly number, considering the severity of the morning section. The committee are to be commended for working out the results that evening; it adds to the enjoyment of an event for competitors to know their award before leaving.

RESULTS.

Mellano Cup and Gold Medal, A. E. Bridgman (7 Indian sc.); 2nd Gold Medal, F. E. Salter (2¾ Zenith); 3rd Gold Medal, L. B. Clark (3½ Zenith-Bradshaw). Silver Medals; A. A. Symes (6 Martinsyde), B. S. Allen (8 Matchless sc.), H. E. K. Sawtell (10 Morgan). Bronze Medals;



SPRING! April snow storms and biting east winds stopped many a hardy motor cyclist but not enthusiastic lady competition riders. Mrs. Hardee (8 Matchless sidecar) followed by W. Julian (2½ Levis sidecar) in the "Colonial Section" (2 Labrador brand) of the Surbiton Club's recent event.

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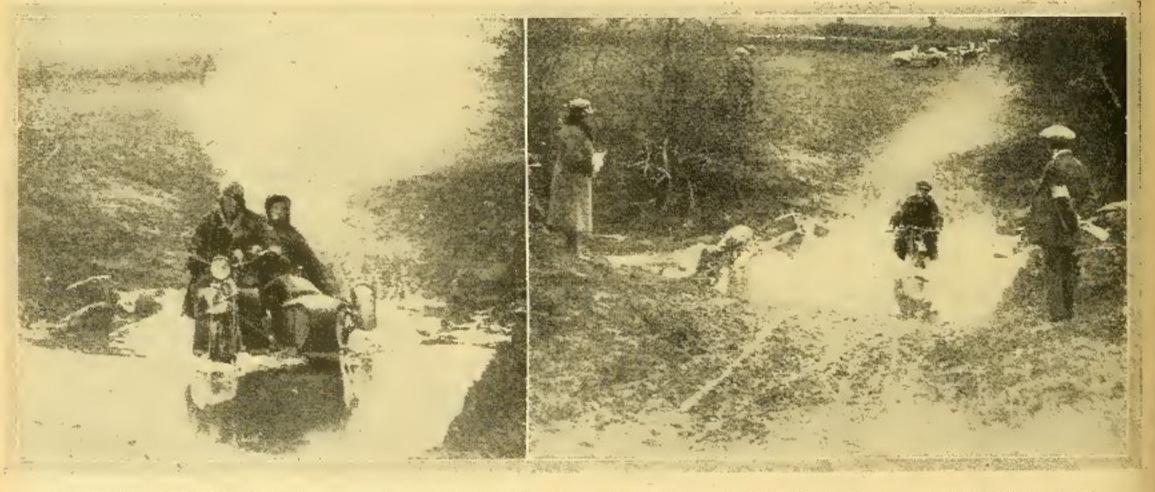




ON BEGGAR'S ROOST IN THE LONDON-LAND'S END TRIAL. Spectators gathered on the hill in the early hours of the morning of the 15th, expecting to see some fun. They were not disappointed, for many of the sidecarists were unhappy on the loose surface, although most of the solo riders made fine ascents. T. J. Ross (996 Matchless sidecar) and S. T. Glanfield (269 Cotton Villiers) are shown on a steep portion of the hill.

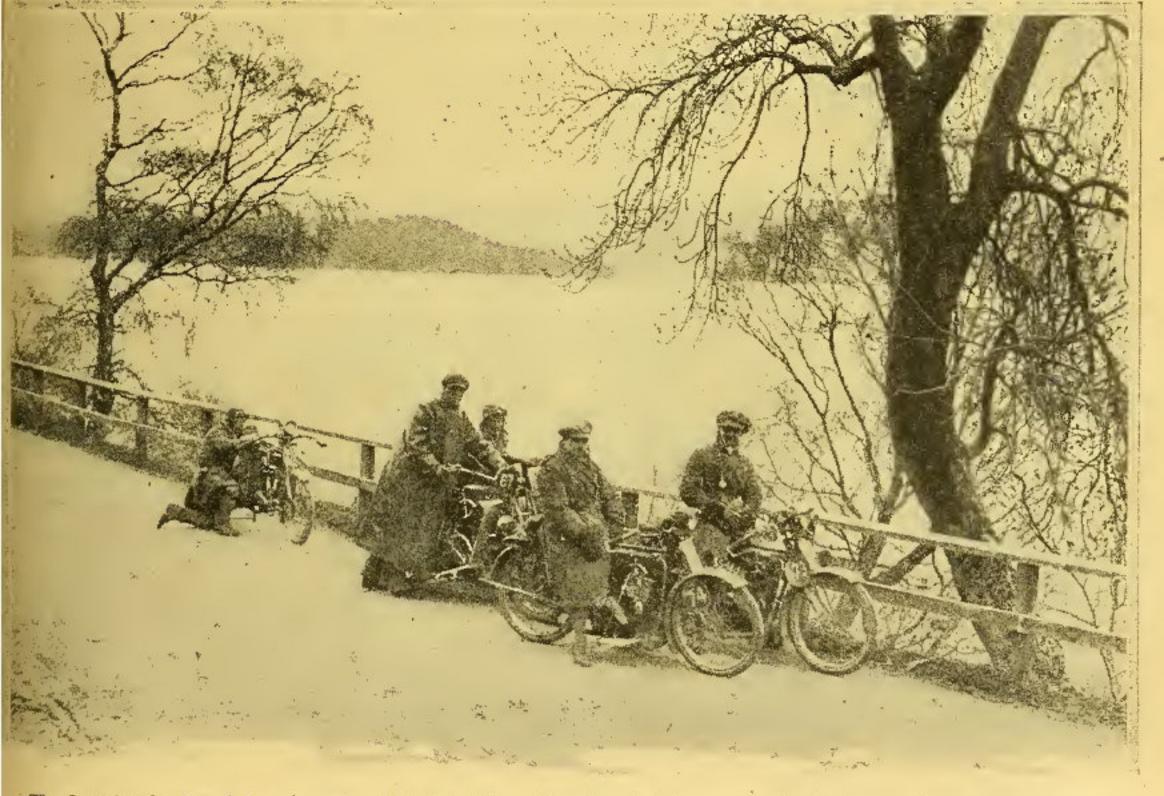


Geo. Nott (992 Matchless sidecar) and W. Woodcock (992 Ariel sidecar) on the worst bit of Kenmore. A fine view of Loch Tay is obtained from this point.

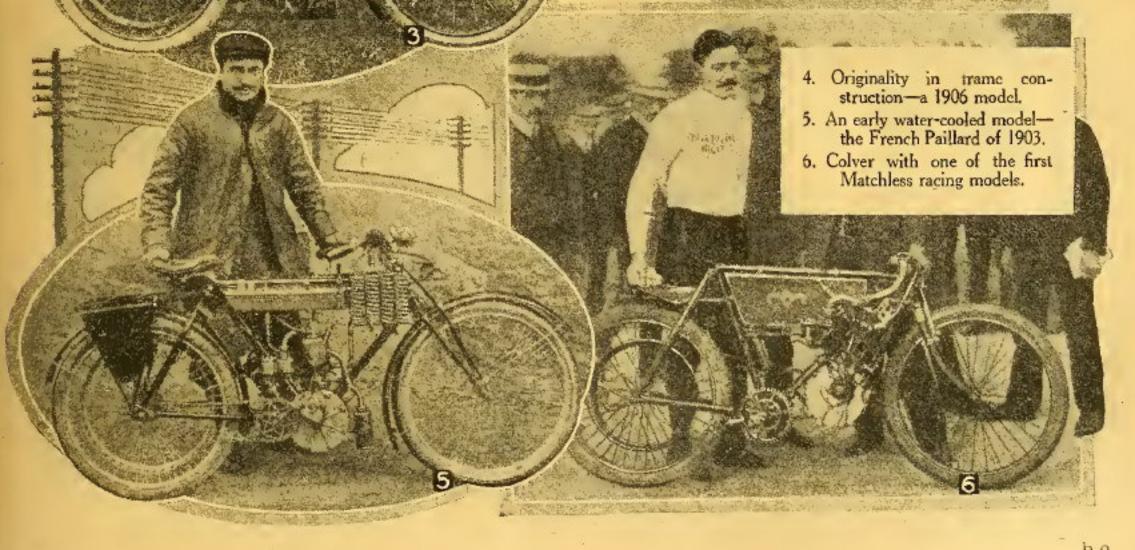


AN ARDUOUS CLUB EVENT.—Competitors in Noah's Ark Watersplash, which was included in the Ipswich and District M.C.C. trial.

E. T. Elliott (976 c.c. Matchless sidecar) and A. G. Mann (492 c.c. Sunbeam).



The Scottish "Six Days" does not consist of all hard riding. Competitors had time to appreciate the beauties of the country at certain points. Here are D. B. Calder (248 c.c. New Imperial), G. K. Hubbard (248 c.c. New Imperial), D. Parsons (992 c.c. Matchless sidecar) and J. D. Porter (269 c.c. New Gerrard) on the banks of Loch Ness.





MILESTONES IN THE TOURIST TROPHY RACES.

The Origin and History of this Classic Event.

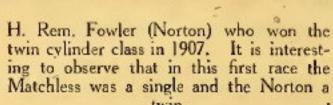


C. R. Collier with his Matchless after winning the first T.T. race ever held the single cylinder class in 1907. He also won the Senior event in 1910, averaging 50 m.p.h.

No motor cycle event throughout the whole world creates greater interest than the T.T.; its progress and results are followed with enthusiasm in every country.

with entitusiasin in every country.

The property of the true of true of true of the true of t



and efficient hands of its prosperous offspring. Prompted by the success of the original Tourist Trophy and the important effect it had on motor car design, the late and ever-respected Mr. H. W. Staner, manager-editor of *The Motor*

PAST WINNERS OF T.T. RACES.





H. Reed

(Dot)



H. A. Collier

(Matchless)



P. J. Evans

(Humber)



O. C. Godfrey

(!ndian)



W. H. Bashall

(Douglas)



F. A. Applebee

(Scott)



Hugh Mason

Junior, 1913.

(N.U.T.)



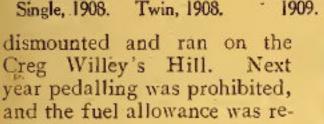
H. O. Wood

(Scott)

Senior, 1913.

J. Marshall (Triumph) Single, 1908.

duced:



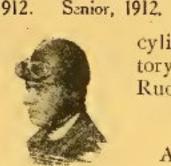


(Rudge)

Senior, 1914.







cylinder won its first great victory from the twin, Pullin's Rudge averaging 49.4 m.p.h

250 c.c. Races.

A third important milestone marked the races in 1920, the first T.T. events held after the war. This journal again used its influence towards the

development of design, and

First Scoring Board.

In 1908 a scoring board was erected. The next year, 1909, marked a milestone on the road of progress subject cana





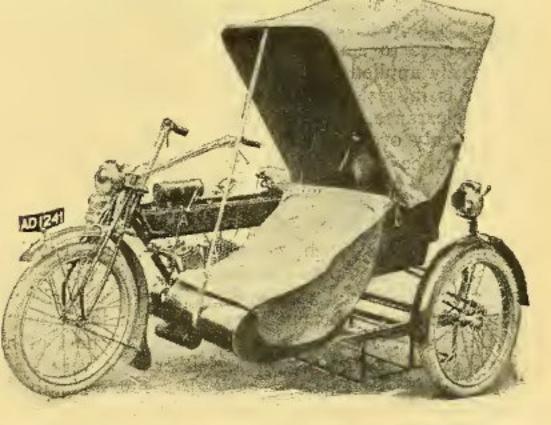
Cyril Williams (A.J S.) Junior, 1920.

T. C. De la Hay (Sunbeam) Senior, 1920.

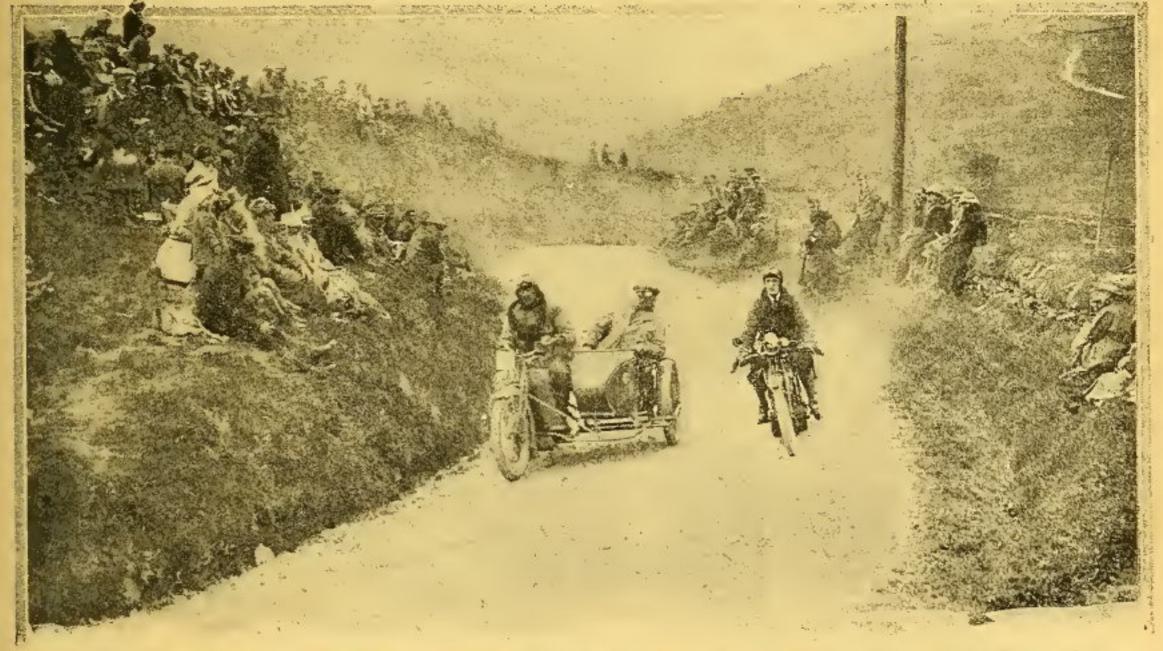
R. O. Clark (Levis) L'w ght, 1920.



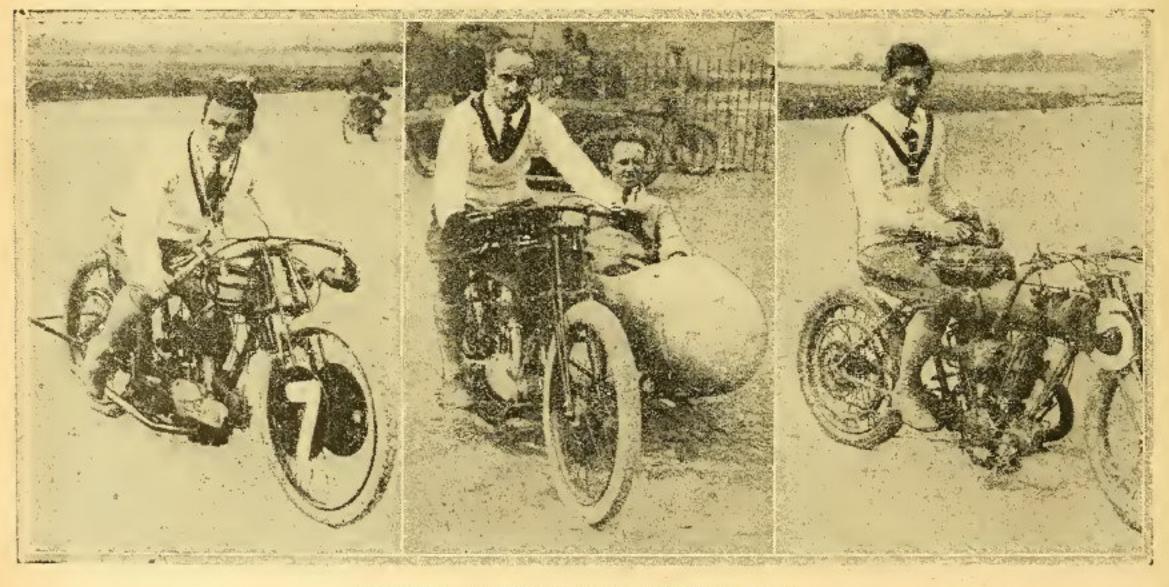
One of the most consistently successful lady competitors—Mrs. Hardee, who now uses a Matchless outfit, and proves that she can drive as well as any of the stronger sex.



A "wind scoop" on a 1909 Matchless. Messrs. Collier & Sons: were alive to the comforts of the passenger thirteen years ago, as will be gathered from the illustration showing an extremely "roomy" hood.



On the worst portion of Kirkstone Pass, as will be gathered from the crowd. W. H. Hardman (993 c.c. Matchless sidecar) and a non-competitor.



WINNERS AT BROOKLANDS LAST SATURDAY.

Lt. R. T. Grogan, R.N. (490 c.c. Norton) solo handicap for machines between 350 c.c. and 500 c.c.; speed 67:52 m.p.h. S. M. Greening (346 c.c. Francis-Barnett sidecar)—two-lap handicap for sidecars and cycle cars; speed 54'05 m.p.h.

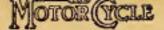
O. M. Baldwin (994 c.c. Matchless)—twolap solo handicap for machines between 500 c.c. and 1,000 c.c.; speed 85 07 m.p.h.



At the crest of Kop Hill where a good number of spectators gathered. F. James (1,098 c.c. Morgan) and J. A. Stacey (976 c.c. Matchless sidecar), both members of the Sheffield and Hallamshire M.C. and L.C.C.



This year's winners of "The Motor Cycle" Challenge Cup in the M.C.C. Team Trial—The Woolwich, Plumstead, and District Motor Club. From the left E. Atkins (498 c.c. Ariel), F. J. Ellis (976 c.c. Matchless sidecar), C. Clease (499 c.c. Triumph), T. T. J. Ross (976 c.c. Matchless sidecar), B. J. Sims (499 c.c. Triumph), F. MacDonald (976 c.c. Matchless sidecar). They won by a margin of 32 seconds.



SPEED TRIALS ON WESTCLIFF "PROM."

Eastern Centre A.C.U. Open Event Abandoned half-way through owing to rain.



Two-stroke v. four-stroke. R. O. Clark (486 c.c. Scott) and E. A. Marshall (496 c.c. Matchless) in the class for solo machines not exceeding 750 c.c.

If requires very little to amuse the British public on holiday, which is perhaps why such a huge crowd of spectators was attracted on Wednesday of last week to the Eastern Centre A.C.U. open speed trials on Westcliff Promenade.

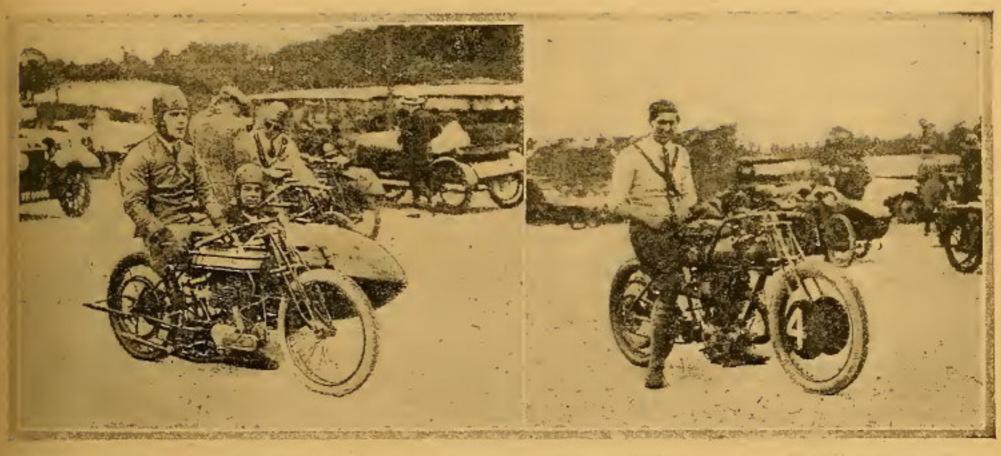
As a spectacle the meeting was nothing above the average event of its kind—which is not saying much—and even to the motoring enthusiast it suffered from the prevalent malady of the Essex clubs—multiplicity of classes.

Granted that, until a leaden sky fulfilled its ominous promise at about four o'clock, results, that "members" made better performances than those in the open category of the same class. Amongst others to shine in this respect were E. Baldwin (499 Sunbeam), H. Baldwin (499 Sunbeam), W. H. Norris (698 Raleigh), L. F. McCardie (998 Harley-Davidson), L. F. Peaty (349 Hawker), T. B. Hensman (490 Norton), F. R. Cotgrove (349 Sheffield Henderson), P. F. Calcut (494 Douglas).

In the three-wheeler classes E. B. Ware (Morgan) enjoyed a series of walk-overs, a "Reindeer" entered by H. J. Fisher failing to materialise.

Fastest motor cycle time up to the abandonment of the meeting was made by G. A. Vandervell (490 Norton), his figure of 37 1-5secs equalling a speed of 60½ m.p.h. Unless the course measured more than the supposed kilometre, this seems slow, but the flying start was very short.

In one of the 500 c.c. divisions there were a number of riders, mainly amateurs, mounted on various popular



A. G. Smith, winner of the private owners' handicap on a 490 c.c. Norton and sidecar.

A three lap handicap for sidecar machines not exceeding 600 c.c. formed the fourth event of the afternoon, and in this McWatters again pulled off a first place with his 497 c.c. Norton and sidecar. There were ten competitors. It was an interesting race, A. G. Smith, the onelegged rider, leading for the first lap on a 490 c.c. Norton. 'He was followed by G. McWatters (497 Norton sc.), and E. Searle (499 Sheffield - Henderson sc.).

The results of the event were :-

G. McWatters (490 Norton sc.).
 E. Scarle (499 Sheffield-Henderson sc.).
 A. G. Smith (490 Norton sc.).
 Winner's speed = 61.45 m.p.h.

Big twin sidecar and three-wheelers competed in the next race. E. B. Ware (1,086 Morgan J.A.P.) was at scratch, which lost him exactly one lap to the first

O. M. Baldwin, winner of 500 c.c.-1000 c.c. 3-lap solo handicap on a 994 c.c. Matchless.

man round, whilst H. Martin (1,074 Morgan Anzani) only got 27 seconds haudicap. 997 c.c. Indian sidecars were ridden by D. H. Davidson, E. A. Bridgman, and W. H. A. Turner, whilst another formidable trio, H. Le Vack, S. E. Longman, and R. Charlesworth, were on big Zenith-Two 976 c.c. Brough-Superior outfits, ridden by J. D. Marvin and J. N. P. Rowlandson, were favourably handicapped, and from the first lap it was



Tremendous Reduction in price of Mode "J'

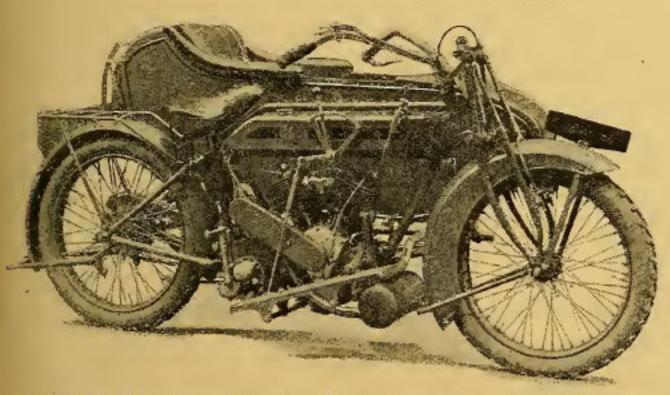


Touring Combination.

NEW £130

H. JULIAN, St., BROAD ST., READING.

'Phone roza.



A utility Matchless outfit marketed, without the spring frame and one or two other luxury items, at £130.

NEXT YEAR'S MATCHLESS POLICY.

N EXT year there will be a three-speed, 350 c.c., single-cylinder, all-chain drive Matchless, fitted with 26in. × 2½in. tyres, to be sold at about £75. The engine will be of the high efficiency

type.

Another attractive proposition of the 1923 Matchless programme will be a £130 sidecar outfit, fitted with either a 976 c.c. J.A.P. or 993 c.c. M.A.G. engine. This model, of course, is already available to the public. It has a rigid frame, clutch, and kick-starter, detachable wheels, and a comfortable sidecar. Extras are spare wheel, hood, screen, lamps, etc.

The sports model Matchless sidecar ontfit will be considerably improved not only in detail, but in appearance as well. It will possess rakish lines and will be fitted with a "super-sports" M.A.G. or J.A.P. engine. The spring frame model will be

unaltered.

350 c.c. MATCHLESS MODEL.

Range of Big Sidecars extended by Solo Medium-weight. A New Sports Twin.

M OST of the big sidecar specialists are turning towards the light solo machine as an addition to their range for the 1923 market.

In this class the Matchless concern must now be included, after long absence from the smaller solo field. The new model is engined by a 349 c.c. Blackburne side valve unit.

A Stormey-Archer three-speed gear box, including clutch and kick starter, is fitted, and a drawbolt for the purpose of front chain adjustment is provided. And in this connection it must be pointed out that engine, gear box and magneto are assembled in a special cradle, which can be handled as complete unit.

Above the gear box is the M-L magneto mounted on a sliding platform and provided with a suitable adjuster for the purpose of taking up any slack in the magneto chain.

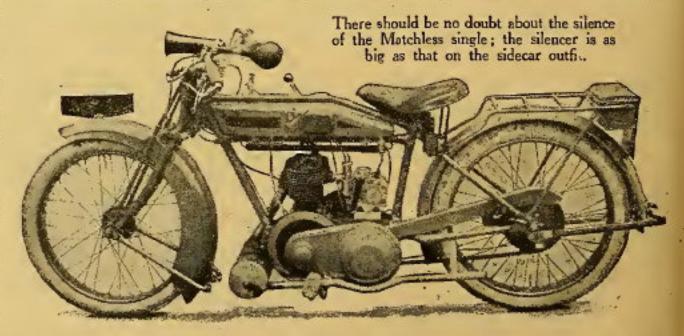
Points of convenience have been carefully studied, kneegrips being fitted as a standard, and an excellent all-metal tool box situated on the rear of the carrier and fitting practically finsh with the top

thereof. A Webb brake is fitted to the front wheel and an internal expanding brake to the rear wheel, while the Binks two-jet semi-automatic carburetter forms part of the standard equipment.

If desired, a Lucas Magdyno can be pro-

vided at an extra cost. Both wheels have voiturette rims carrying 650×65 mm, tyres, and the weight is 220 lb., price £72 10s.

One new twin cylinder model will be introduced, to be known as the super-



one of the latest sporting Woolers, hurtled through on his second circuit so unexpectedly soon that the track had not been cleared of stray "pushers-off." The pace was too hot, however, and it was left to F. A. Longman on an o.h.v. A.J.S. to win a very fine race, to the great delight of the spectators who follow favourites. Prestwich, who was second, nearly lost his place by riding under a wrong number.



O. M. Baldwin (992 Matchless-M.A.G.), winner of the fastest race, at nearly 90 m.p.h.

J. V. Prestwich (248 New Imp. Jap) 1m. 54s.
 V. G. Tucker (490 Norton) ... 1m. 21s.
 Winner's speed = 74.68.

As a fitting wind-np to motor cycle racing for 1922, the final event both was full of thrills and provided an extremely popular winner. Rumours that he had been lapping at nearly 80 m.p.h. made R. E. Dicker (499 Rudge) a hot favourite, but it was very quickly realised that R. O. Lowe (490 Norton), who started



E. Bridgman (998 Indian sidecar), winner of the sidecar handicap.

struggled neck-and-neck, rapidly pulling to the front, but right on the final circuit O. M. Baldwin showed what his old Matchless was really capable of by overtaking the two singles and winning at nearly 90 m.p.h.

WEYBRIDGE 90 M.P.H. SOLO HANDICAP.
Handicap.

- 1. O. M. Baldwin (992 Matchless) ... 6s. 2. R. E. Dicker (499 Rudge) ... 1m. 15s. 3. R. O. Lowe (490 Norton) ... 1m. 15s.
- R. O. Lowe (490 Norton) ... 1m. 15s.
 Winner's speed = 89.1 m.p.h.



F. A. Longman, who won a race on the latest o.h.v. A.J.S. at 74'7 m.p.h.

C 17



UNICYCLES OF TO-DAY AND LONG AGO.

Italian Designer Revives
Interest in the Single
Wheel Motor Cycle. Is
it Practicable?

HY should motor cycles have

two wheels? " asks an

Italian inventor; and, presumably without waiting for a reply,"

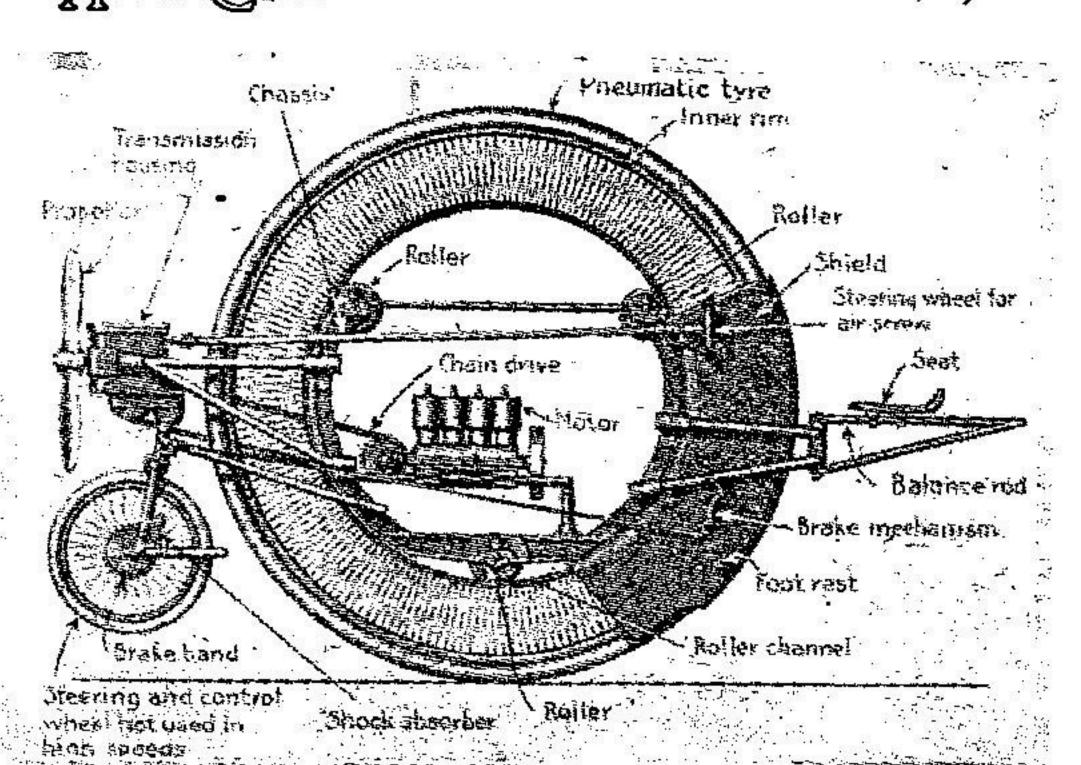
he designs the weird "unicycle" illustrated below.

As far as can be gathered, the rider and engine unit are suspended in an inner circle, as it were, making contact with the outer rim by rollers. One of these rollers is driven by the engine, the transmission being of the friction pattern.

How steering is effected is not clear, but obviously the steering wheel is mere camouflage. Mudguarding will also present a difficult problem; and one does not care to visualise the effect of a jamb between the driving



The latest Italian one-wheel motor cycle.



Great things were anticipated from this design,

and driven transmission members when the vehicle is speeding hard down-hill!

The idea, however, is by no means new. A motor unicycle, hailing from America, was described in *The Motor Cycle* of April 4th, 1918. It consisted primarily of an enormous wheel, nine or ten feet in diameter, propelled by an air-screw, the motive power for which was supplied by a four-cylinder engine.

Another and more practicable invention of a similar nature was described in *The Motor Cycle* at the same time; here the rider was seated in a chair surmounting a wheel three or four feet in diameter. The whole was maintained in an upright position by an electrically-

driven gyroscope, while a smaller gyroscope operated the steering through bell-crank levers. Imagine the driver's plight in the event of a sudden failure of the current!

On July 4th, 1919, there was described in The Motor Cycle yet another example of the single - wheeled motor cycle, invented by a Mr. E. J. Christie, and patented in the United States. A working model was constructed, which

Spark control

Steering gyroscope

A Case

Chrich (quilibrium peda)

Shack absorbes

Brive chain

Gyroscopically balanced American model.

bore out the inventor's claims and theories in a satisfactory manner. A large wheel, flanked on either side by a smaller one, contained an electrically-driven gyroscope. When stationary the machine rested on one of its side wheels, but righted itself when the gyroscope commenced to revolve. A speed of 540 m.p.h. was anticipated.

Just as we go to press details come to hand from a reader (Mr. G. S. Knox) of the absolute father of them all. His sketch, from an American paper of years ago, shows a venerable gentleman sitting in a handle-propelled wheel constructed of wood.

. RACING & HILL CLIMBING.

ANOTHER RECORD MADE!

Mr. JUDD on his O.H.V. NORTON uses the Mousetrap Carburettor for the Flying Kilo 89.92 m.p.h. mean speed Flying Kilo 88.38 m.p.h.

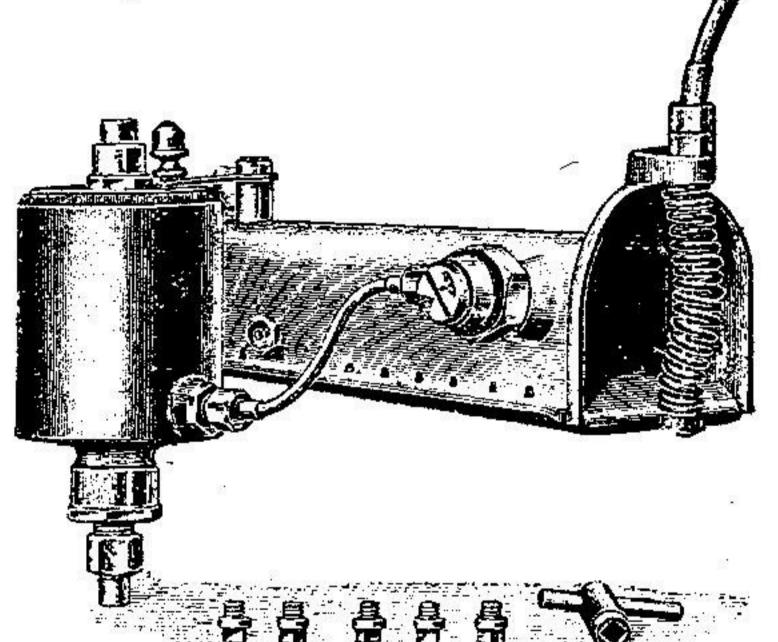
This Carburettor must be of interest to Professional and Amateur sportsmen, because it WINS.

To compete against a man who has a Mousetrap Carburettor is courting defeat unless you have one yourself.

As there is no throttle the construction gives a clear way through, and by natural forces the gas cannot help cramming itself into the cylinder through the scientifically shaped venturi tube in a way no other Carburettor permits.

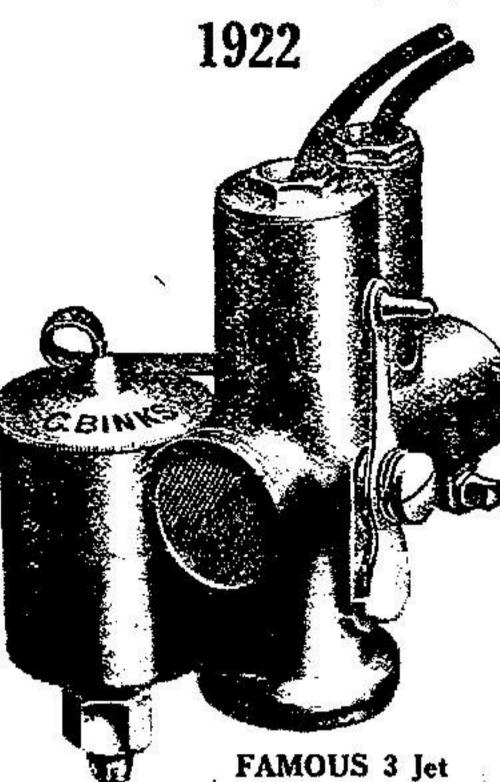
The control wire seen on the illustration governs the strength of the mixture by varying the area around the diffuser jet. This you control from the handlebar.

PRICE £5 5s. ex stock for single and twins. Will you order one for competitions?



THE MOUSETRAP RACER.

NEW CARBURETTORS



FAMOUS 3 Jet Carburettor for Touring.

This is an illustration of a TRANSPARENT SIDE SCREEN on a Motor Car, which shields the passenger from wind which eddies round the front screen.

This comfort can be imparted to your Sidecar if it has a flat screen, and your passenger can ride, shielded from wind, rain and mud which is splashed up by passing cars.

Possibly it may be your particular delight to make your passenger as cosy as possible, and this is one way in which you can belp to do so.

Delivery in 3 days certain, PRICE 30/- pair.

TOURING & TOWN DRIVING.

This Carborettor is the finest instrument made, and you can buy it on approval for one month. PRICE £3 15s.

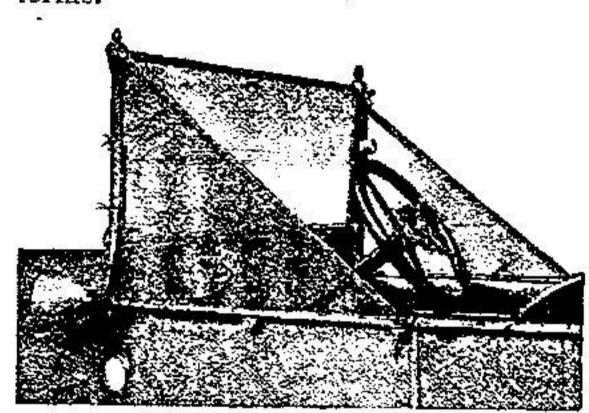
ECONOMY is really extraordinary, and is obtained not by a fluke or special driving, but by reason of its construction. The main jet is only brought into operation when power is wanted, otherwise it is sealed by a damper and waste prevented.

AUTOMATIC. The three jets give a perfect range and can be tuned to suit individual engines. Once set you cannot get a bad mixture,

EXTRA AIR LEVER (independent) is incorporated so that you can coast down hill without oiling your plugs, and use your engine as a brake.

DRIVING is easy, as the flexibility is smooth and certain. You can tick along on top gear, and by moving a single lever make the engine do just as you please, and avoid all tearing and racing.

Guaranteed saving, 20 per cent. to 75 per cent. in petrol. Please write for lists and Book on Carburation, and approval terms.



How to order a pair of Screens. They are fastened by a hook at the top and turn buttons on the coachwork. Cut out a template in brown paper to fit down the front edge of the screen and hang over in. below the upholstery, cutting out a hole where the screen hinge handle comes through, and send this to us.

Mr CHARLES L. BINKS.

AN OPEN LETTER TO MOTOR CYCLISTS.

Gentlemen,

April, 1922.

You will no doubt have heard of our great loss by the death of Mr. Charles Binks, our governing Director, to whose credit and honour stands our firm and its valuable productions.

The Board of Directors intend to carry on the business on the same lines as adopted by Mr. Binks, and will endeavour to serve you courteously and quickly and place their experience of Carburation and Motor Cycles entirely at your service should you ack their advice.

The business has lost a personality yet it will not lose the personal element. Mr. C. Binks' two sons, who have been trained in the firm for 12 years, will continue to take an active part in the management and personally supervise the designing, developments and relations with customers.

If you will call at the works we shall be glad to see you, Yours sincerely,

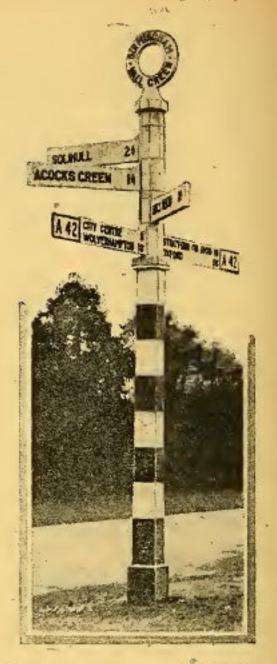
is sincerely, Harold Binks.

Mr. HAROLD BINKS.



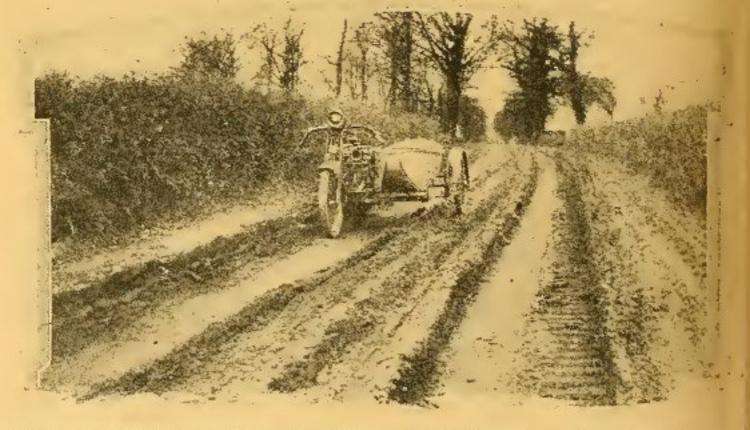
C. BINKS (1920) Ltd., ECCLES, nr. MANCHESTER.

MARCH 23rd, 1922.



Forming a great contrast to the old fashioned sign posting, this guide post, erected by the Ministry of Transport, is situated on the main Birmingham and Stratford-on-Avon Road at Robin Hood. The main arms depict the class and number of the road.

Police Activity



NOT 1822 BUT 1922. This disgraceful stretch of highway is on the main Taunton-Minehead road, and should be avoided if possible, especially by solo riders at night time. Readers journeying from Taunton to Minehead this Easter are advised to take the road round Bridgwater.

PERFECTLY SIMPLE.

B&B

SIMPLY PERFECT.

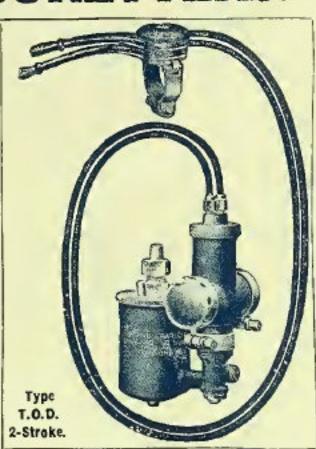
CARBURETTERS.

For Heavyweights, Lightweights, Two-strokes.

THEY GET THE BEST RESULTS FROM YOUR ENGINE.

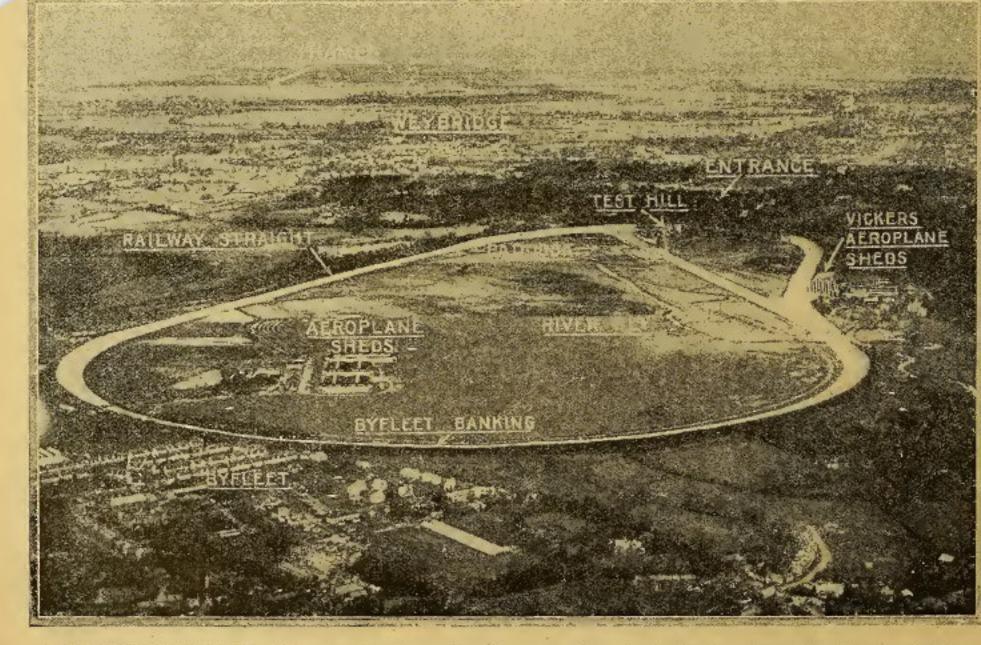
SEND FOR DESCRIPTIVE BOOKLETS (Post Free)

Telephone—East 301.
Telegrams—"Carburet,
Birmingham."



BROWN & BARLOW, LTD.,

Carburet Works, Witton, Birmingham.



BROOKLANDS FROM THE AIR. A striking photograph of the great racing track, showing the various points of interest, familiar, by name, anyhow, to all followers of the motor cycle movement.

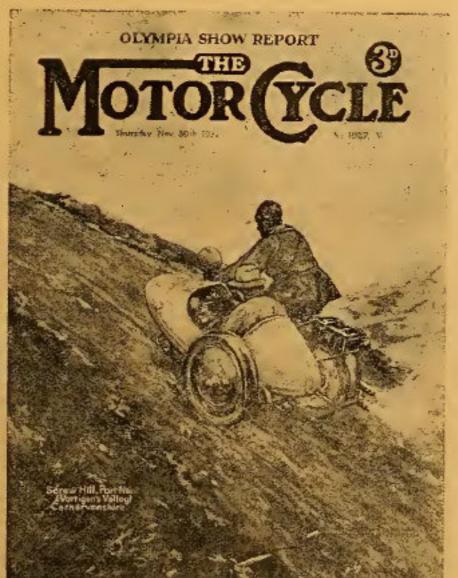
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NEXT WEEK. Reproduction of the striking coloured cover of next week's (Show Forecast) issue of "The Motor Cycle."



THE SHOW REPORT. The coloured cover on next week's issue will depict a scene on the Screw Hill, North Wales.