

TIMES TO LIGHT LAMPS.

Aug. 14	...	8.21 p.m.
" 16	...	8.18 p.m.
" 18	...	8.15 p.m.
" 20	...	8.13 p.m.

Keeping Open Lines of Communication.

We have heard from Hugh Gibson, the well-known competition rider, that he is organising a small motor cyclist corps for home defence purposes at Ainsdale, Lancs., and that he is in communication with the Cumberland M.C.C. and Edinburgh and District M.C. to secure co-operation. The idea is to enable rapid communication to be kept up between Liverpool and Edinburgh by motor cycle riders in the event of the telegraph or railways breaking down.

Motor Cyclist Volunteers.

Hundreds of names of motor cyclists willing to act as despatch riders have been received by *The Motor Cycle* in reply to our appeal on behalf of the War Office last Thursday. These names have all been classified according to the districts in which the applicants reside, and particulars of the machines have been noted. In some cases applicants have offered the services of their machines when they themselves are incapable of riding. In others riders have offered their services who have no machine at their disposal. The list of names is being compiled in conjunction with the Auto Cycle Union, which body is directly in touch with the War Office, and at a moment's notice can give the officials there the names of the motor cyclists available in any district in the United Kingdom.

A.A. and M.U. Notes.

THE PETROL POSITION.—In the interests of motorists the A.A. and M.U. have made exhaustive enquiries into the present position relating to petrol, from which it would appear that there is no shortage in the supply so far as bulk storage is concerned. At the present time, however, owing to the commandeering by the Government of motor lorries and to the congestion on the railways, great difficulties exist in getting supplies to the retailers. In addition, there is a shortage of tins, apparently due to motorists increasing their reserves, and deliveries would be considerably facilitated if empty tins are returned to garages at the earliest possible moment. The increase in price is not recognised by the producers, but in the case of motorists calling at garages other than where they usually do business higher prices are undoubtedly asked. For this reason the A.A. recommends members to order their petrol from the

agent with whom they usually do business. There can be no doubt that the present position will be considerably relieved if members will temporarily exercise the most rigid economy, and do everything possible to prevent tins being withdrawn from circulation.

OUR ADVICE TO CLUBS.

At a time when every motor cyclist is anxious to serve his King and Country, and when all army vacancies are for the present filled, the advice of "THE MOTOR CYCLE" to Club Committees is to encourage members to cultivate assiduously an intimate knowledge of their own particular localities and to become well versed in the art of map reading, so that, if their services may be required eventually, they will be as useful as possible.

Ordinary competitions having been cancelled, Clubs might well arrange map reading contests and reconnaissance tests in districts not occupied by troops.



STUDYING THE MAP.

An incident of the operations in Suffolk.
The machine is a twin A.J.S.

SPECIAL FEATURES.

MOTOR CYCLISTS AND THE WAR.
HOW TO CUT DOWN RUNNING COSTS.
A NEW BRITISH MAGNETO.

Work upon the Roads.

The disorganisation of business consequent upon the European War will undoubtedly throw many labourers out of work. As the Road Board has a considerable sum of money to provide work at such times it is desirable that the authorities should know in what places this labour could be most usefully employed. Secretaries of motor cycle clubs are, therefore, asked to request their members to make notes respecting improvements which seem to be most necessary, preference being given to schemes for widening, strengthening, and resurfacing of trunk roads where the minimum of land is required, or where it can be obtained without much difficulty, and to send these notes to the Roads Improvement Association, 15, Dartmouth Street, Westminster, S.W. If possible, the notes should be summarised by the secretaries and copies of the summaries sent to the Association.

Imports and Exports of Motor Cycles.

The value of the imports of motor cycles and parts thereof are as follow:

	1912.	1913.	1914.
	£	£	£
Motor cycles ...	4,857	2,640	6,675
Parts ...	13,444	16,204	13,159
Totals ...	18,301	18,844	19,834

For seven months ended July 31st—

	1912.	1913.	1914.
	£	£	£
Motor cycles ...	29,685	42,124	73,651
Parts ...	70,736	123,522	78,503
Totals ...	100,421	165,646	152,154

The value of the exports is, as usual, much in excess of the imports, and is given below:

For month ended July 31st—

	1912.	1913.	1914.
	£	£	£
Motor cycles ...	43,148	71,287	89,805
Parts ...	13,051	23,737	36,055
Totals ...	56,199	95,024	125,860

For seven months ended July 31st—

	1912.	1913.	1914.
	£	£	£
Motor cycles ...	238,459	440,942	557,440
Parts ...	87,238	142,768	216,626
Totals ...	325,697	583,710	774,066

A New Twin A.J.S. of 4 h.p.

550 c.c. Engine; Sloping Top Tube; New Design Forks; Enclosed Chain Drive.

QUITE a departure from the standard A.J.S. is the new 4 h.p. twin-cylinder mount, which has many interesting features to recommend it. The engine and transmission are on exactly the same lines as those of last year's twin, but are, of course, somewhat smaller. The bore and stroke of the new engine are 65 x 83 mm. respectively, giving a cubic capacity of 550 c.c. The valves are of large size, situated side by side, and are operated in the usual A.J.S. manner, and the silencer, though placed as before, is of somewhat different design, having a single tail pipe extending rearwards from the back of the aluminium casting.

The excellence of A.J.S. chain guarding is already too well-known to need further description, and as the firm have always paid particular attention to making a cleanly machine, it is hardly surprising to notice that an unusual type of front mudguard is being tried. To the usual type of guard are attached wide, flat side wings with a wide, rearwardly projecting flange at the bottom. This attachment can easily be removed for speed purposes, but is so effective that the magneto and leg guard, which have been a feature of 1914 A.J.S. models, can, it is said, be dispensed with altogether.

The Lubrication System.

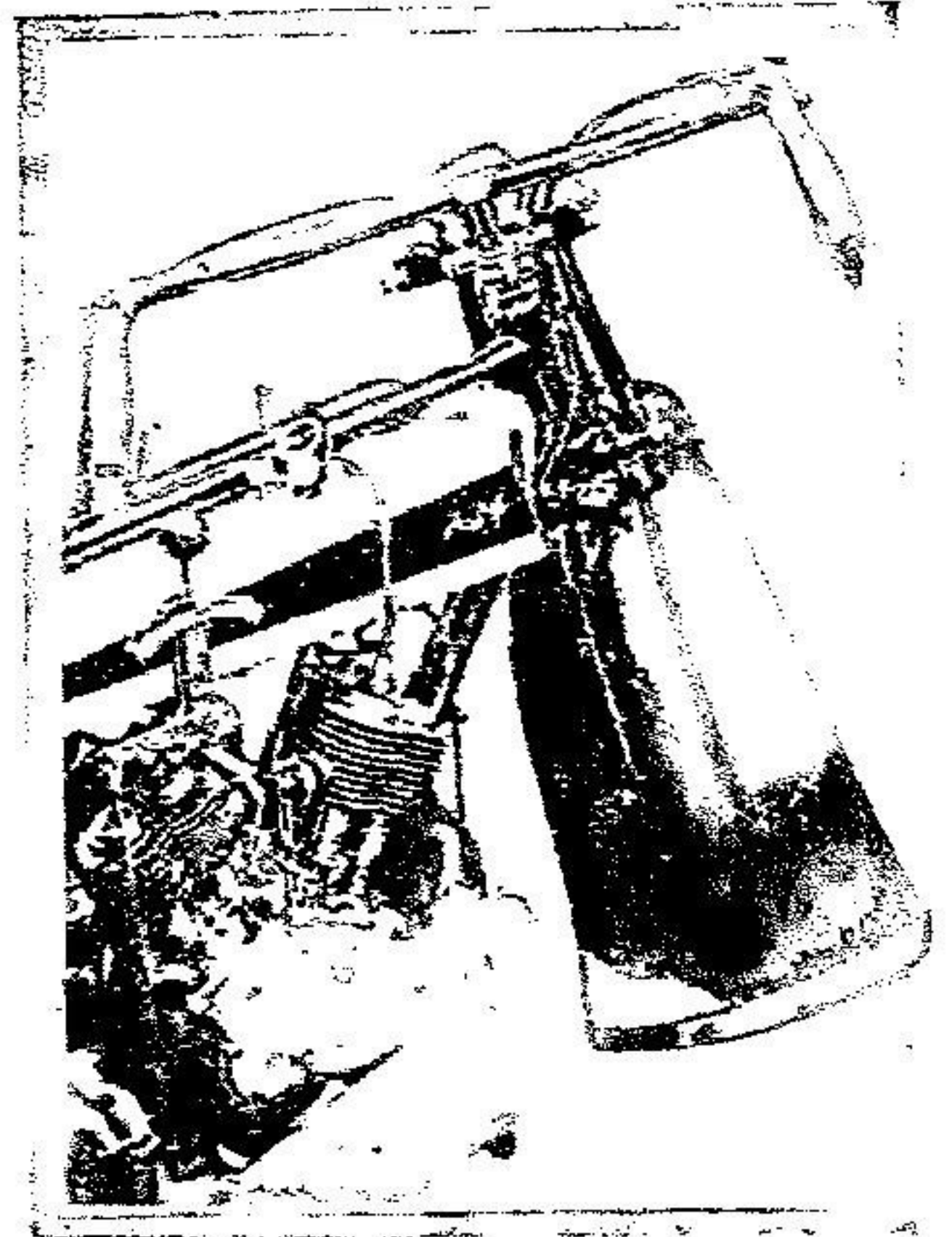
The lubrication system is as before, a drip feed supplying oil to the inside of the crankshaft, whence it is circulated to all the main plain bearings, but the oiler has been changed for the latest type of Best and Lloyd semi-automatic drip, which has a circular sight gauge arranged at a convenient angle, so that it is particularly easy for the driver to see the flow.

Perhaps the most startling innovation lies in the sloping top tube of the frame, an item which is becoming increasingly popular and which is a decidedly practical proposition, allowing a low riding position without the necessity for a bend in the frame, though it can hardly be said that it lends additional grace. The

latest type of Brampton fork with two sets of top springs is fitted, and pannier tool-bags have been adopted. A.J.S. detachable wheels, shod with heavy tyres, help to complete a thoroughly well fitted out machine, which should admirably fulfil the purpose for which it has been designed, that is, a handy and fast solo mount, which is, at the same time, sufficiently powerful to take a sidecar through almost any country, especially as the lowest gear ratio provided in the three-speed gear is 17-1.

OPENING FOR BRITISH MACHINES IN RUSSIA.

The military authorities in Russia having requisitioned for the war a large number of motor cycles, the members of the Moscow Motor Cyclists' Club, over a hundred in number, have almost to a man been left without machines. Winter riding in Russia is almost impossible, but in the early spring there will be a great demand for English machines. A number of influential members are at present formulating a scheme for the purchase by the club of a large number of English machines on co-operative principles, for the benefit of the members, and those manufacturers who are interested in export business would do well to send to the secretary, whose address is The Moscow Motor Cyclists' Club, Khodinka, Tzarsky Pavilion, Moscow, Russia, catalogues, with prices and full descriptions of their productions, stating the best terms they would be prepared to allow the Club, remembering that for Russia exceptionally strong machines are necessary, and reinforced frames, thicker tyres, stronger front forks, and thicker spokes and rims are a *sine qua non* to the Russian rider, owing to the rugged roads in that part of the world. Springing fore and aft is also very desirable. The Russian rider does not mind weight, so long as he gets strength and reliability. Large petrol and oil tanks are indispensable.



Showing the new design of front mudguard, valve side of engine, change-speed lever, and sight feed lubricator on top of tank.

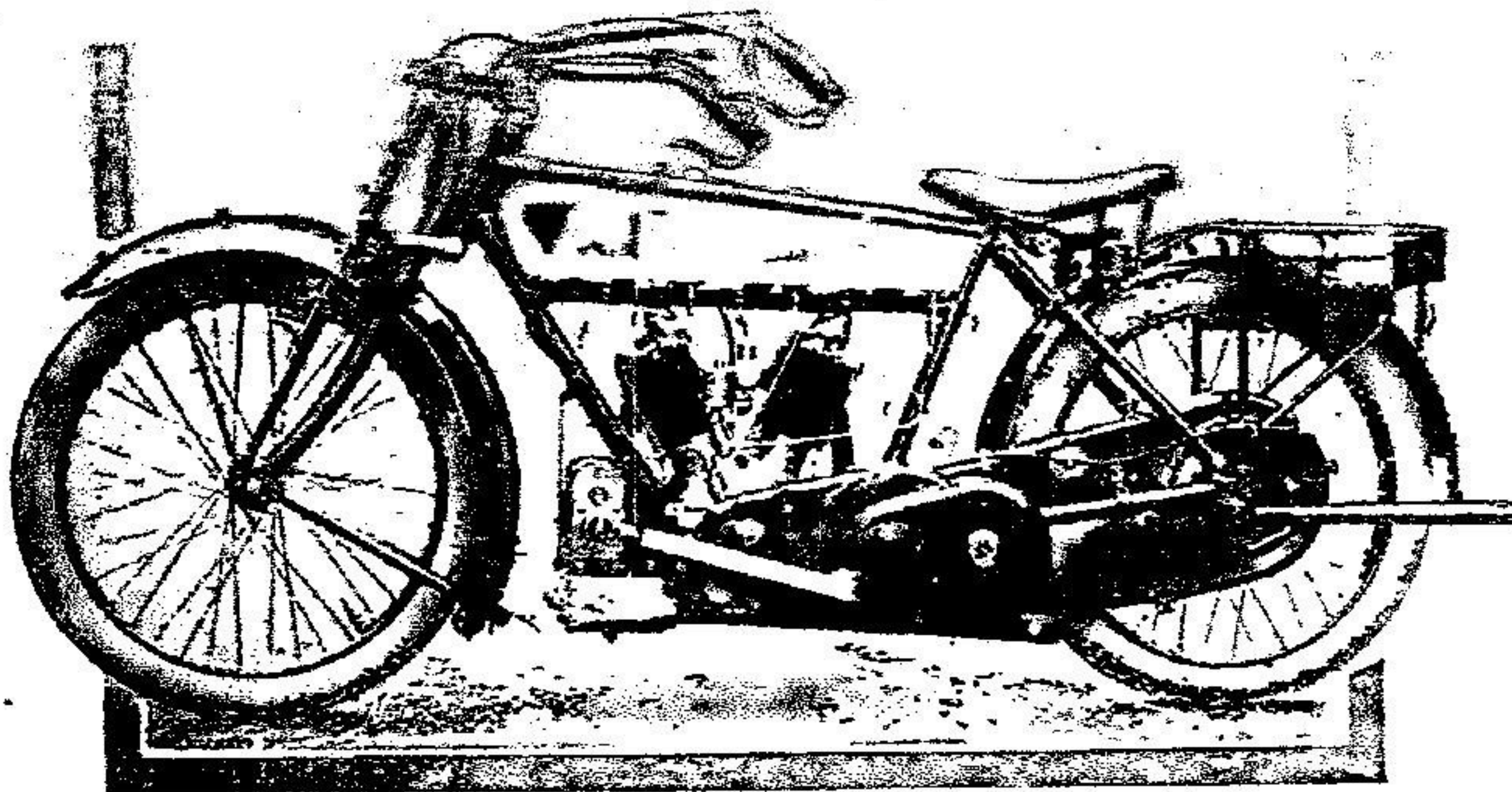
Hitherto, the Germans have had the lion's share of the Russian market, but, as a result of the war, there is a very strong agitation now going on all over Russia in favour of a complete boycott of all German productions, so that the present is an excellent opportunity for the British manufacturer to obtain a firm footing on the Russian market.

Despatch Riders for the Armoured Car Scheme.

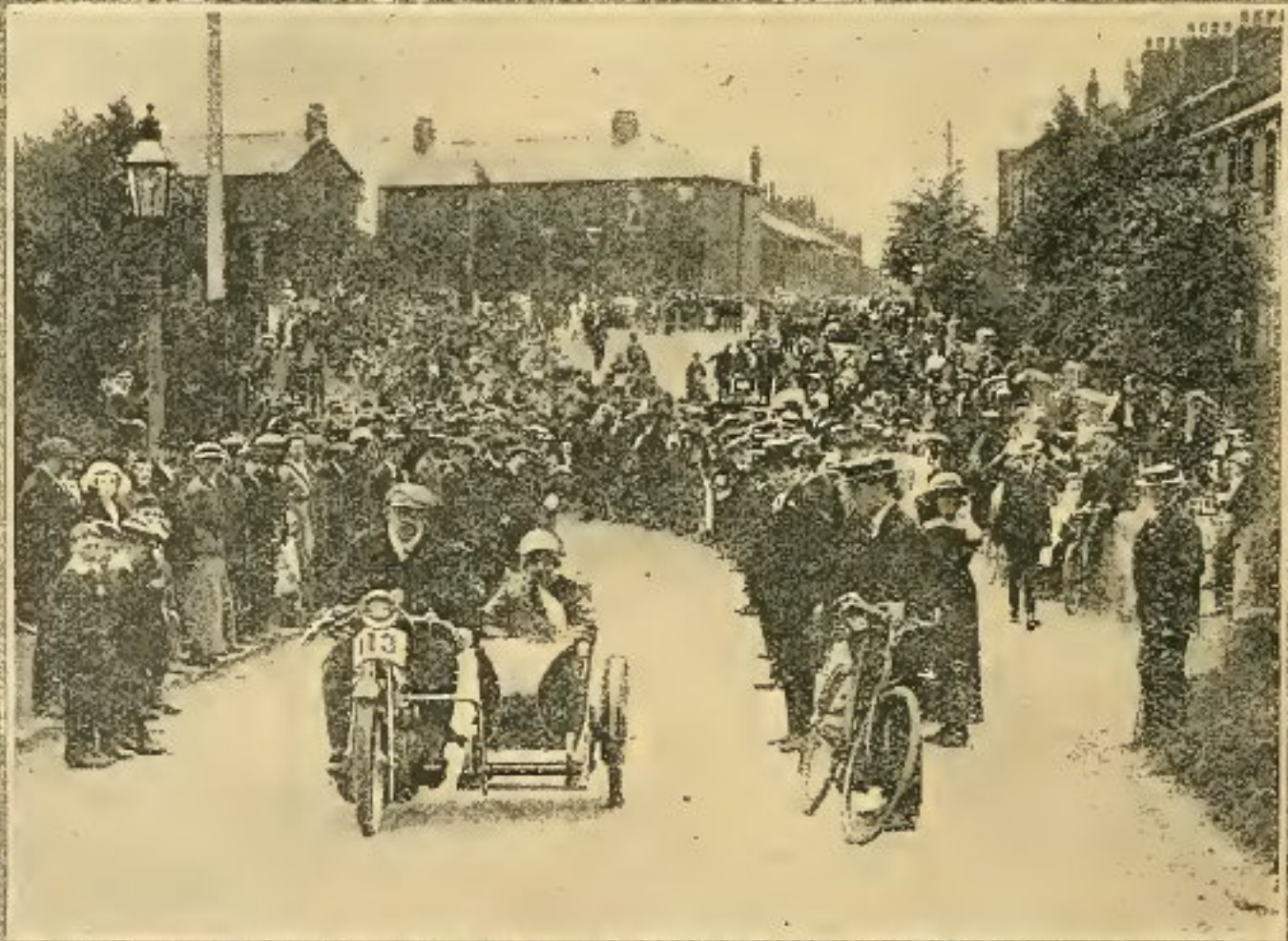
Although a great number of motor cyclists have already been enrolled as despatch riders for service in connection with the armoured car scheme of the newly-formed Naval Brigade, we understand that the authorities have decided largely to increase the despatch riding force, and that, consequently, there is an opening for a still further number of motor cyclists, who, in addition to being expert riders, have some knowledge of the French language. Full particulars as to pay, rating, kit, provision of machines, etc., can be had on application between the hours of 10.30 and 11.30 a.m. to Sub-Lieutenant Stocks (well-known in connection with the De Dion Bouton Co.), Naval Air Recruiting Station, Wormwood Scrubbs, W.

Another 200 Douglas machines have been ordered by the War Office.

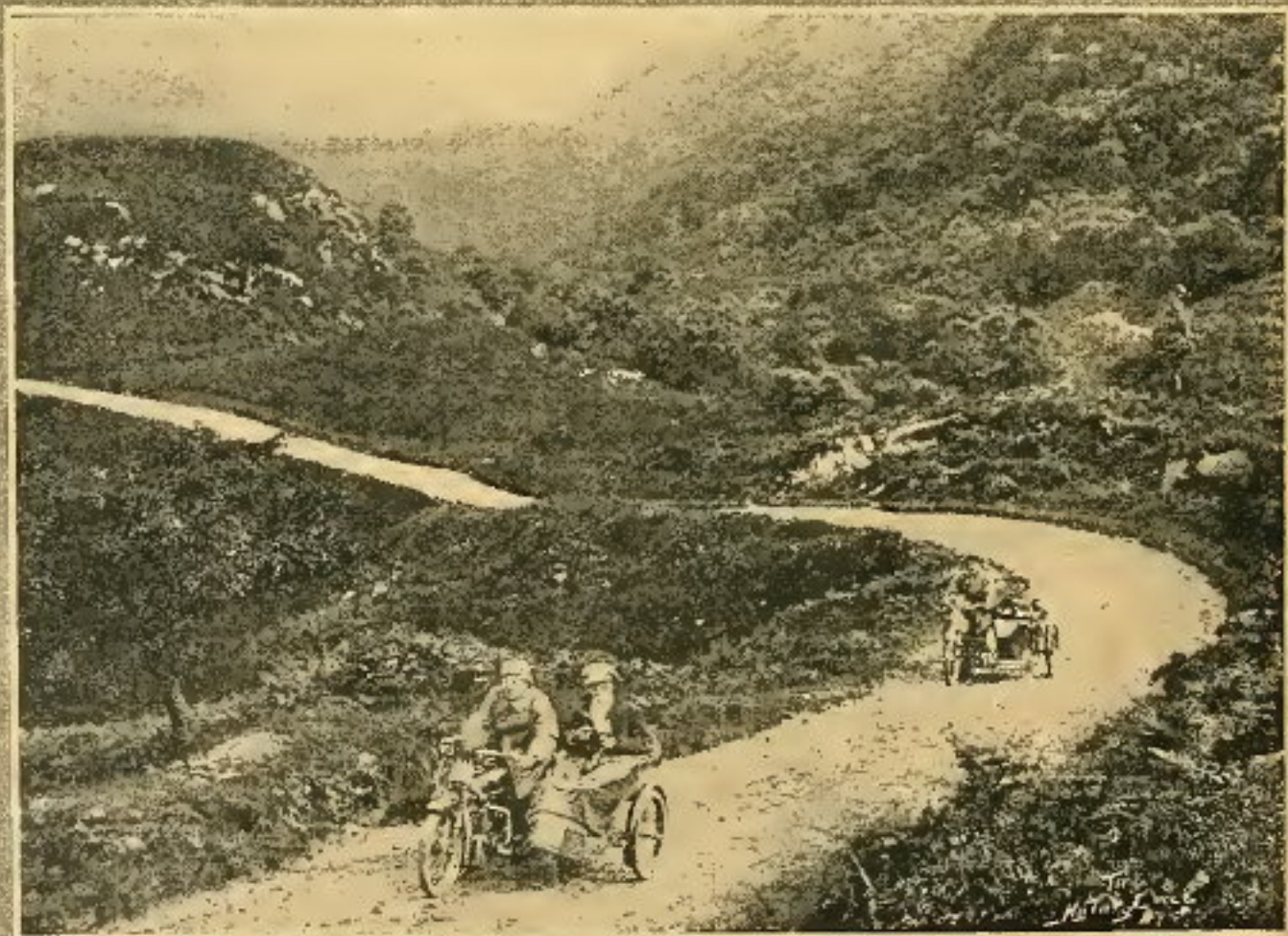
There are seventeen motor cyclist despatch riders attached to the 7th (Cyclists) Battalion Devonshire Regiment, which includes Sergeant P. Pike, late rider of a T.T. Levis, and John Gibson, who has competed in previous 17 Races and other important events. The battalion is at present stationed on the East Coast.



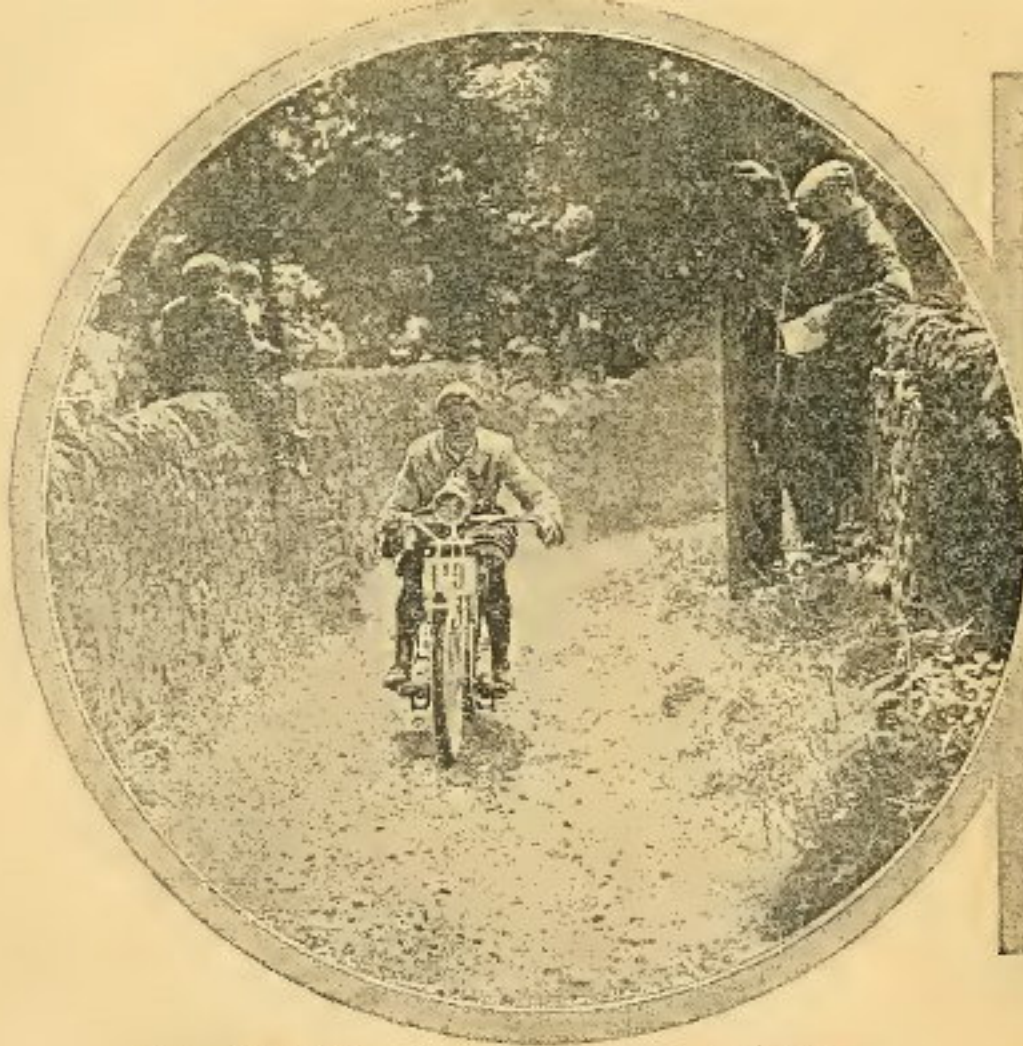
The new 4 h.p. twin-cylinder A.J.S. for 1915, which has a sloping top tube



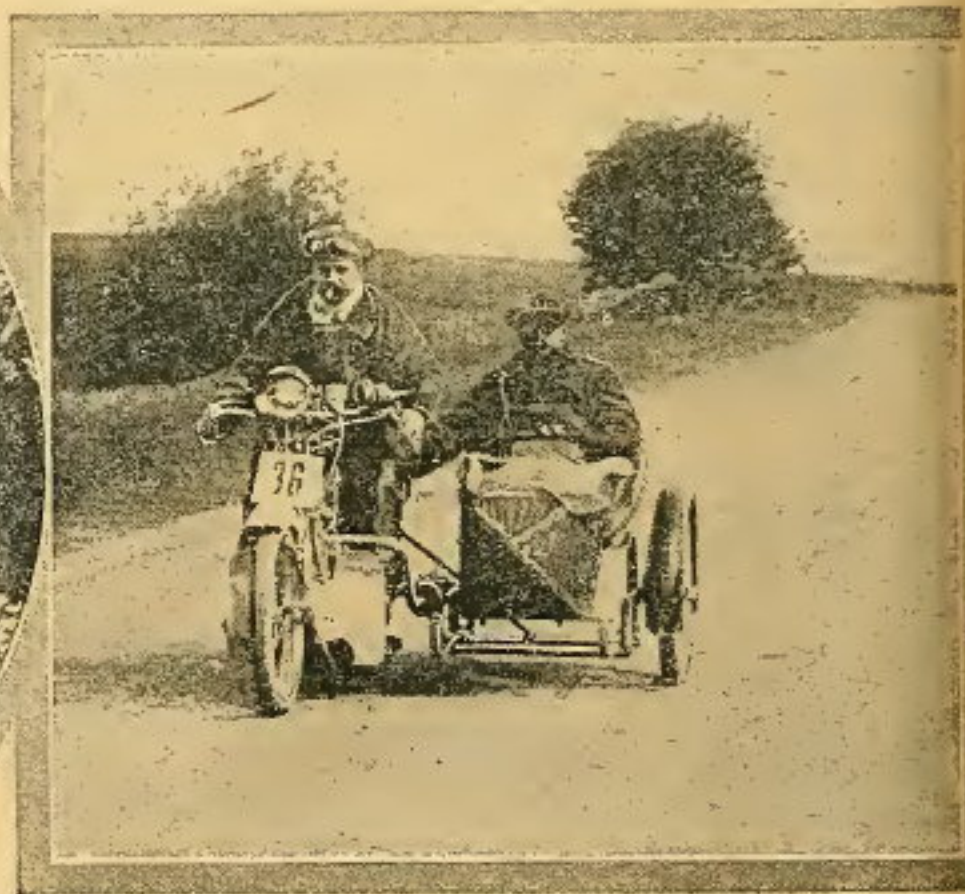
An A.J.S. sidecar driver starting from Preston in the N.W.A.A. team trial. Observe the long line of competitors.



W. Bryson (6 h.p. A.J.S. sidecar), followed by another competitor in one of the many glens.



V. Underhill (3½ h.p. Oversens) ascending Jacob's Ladder.



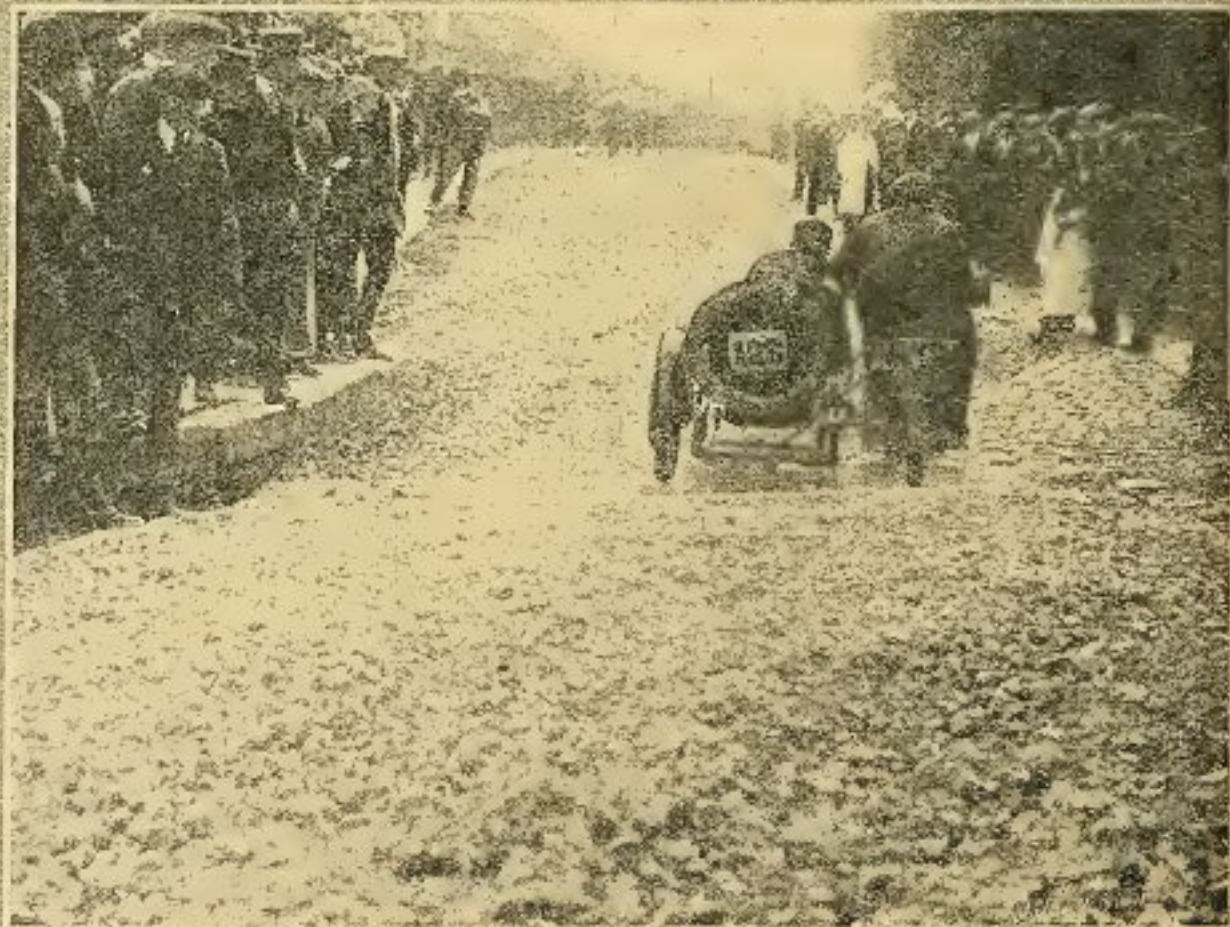
Where good roads were encountered. A. J. Stevens (6 h.p. A. J. S. sidecar) crossing the moors near Bakewell.

LOOKING UP AND DOWN TROOPER'S LANE.

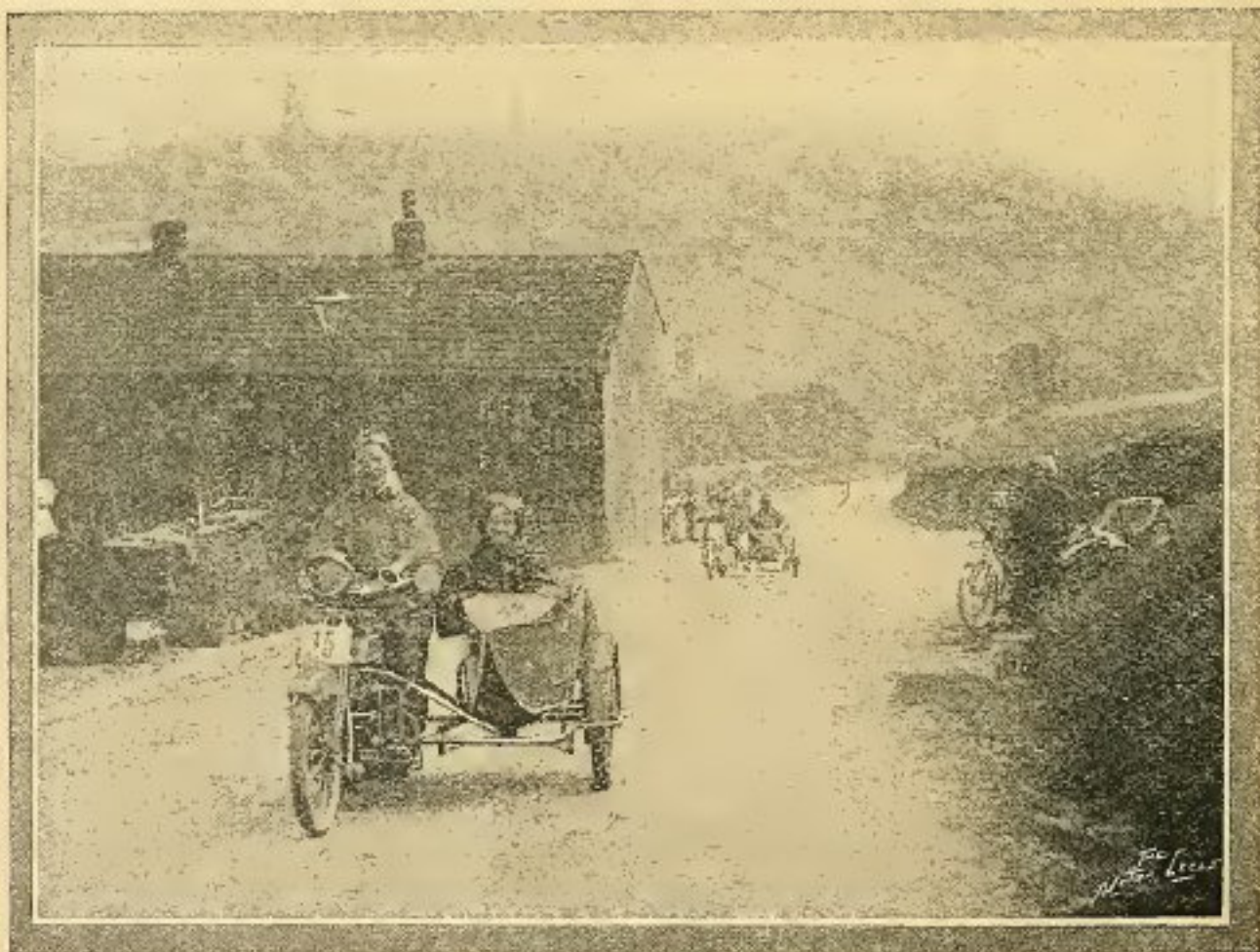


(Left) A. Pilkington (8 h.p. Rex-Jap sidecar).

(Right) G. D. Hardee (7 h.p. Matchless sidecar), followed by
L. Newey (3½ h.p. Ariel) and K. H. Clark (3½ h.p. James).



Eric Williams (6 h.p. A.J.S. *ridecar*) on Lee Lane, Shilden Dale, Thursday's *piece de resistance*



C10 G. Nott (5-6 h.p. Clyno sidecar) and A. J. Stevens (6 h.p. A.J.S. sidecar) on Meal Hill,
Slaithwaite.

¹⁹¹⁴
JULY 16th, 1914.

¹⁹¹⁴
MOTOR CYCLE




STUDYING THE MAP.

An incident of the operations in Suffolk.
The machine is a twin A.J.S.



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OUR ADVICE TO CLUBS.

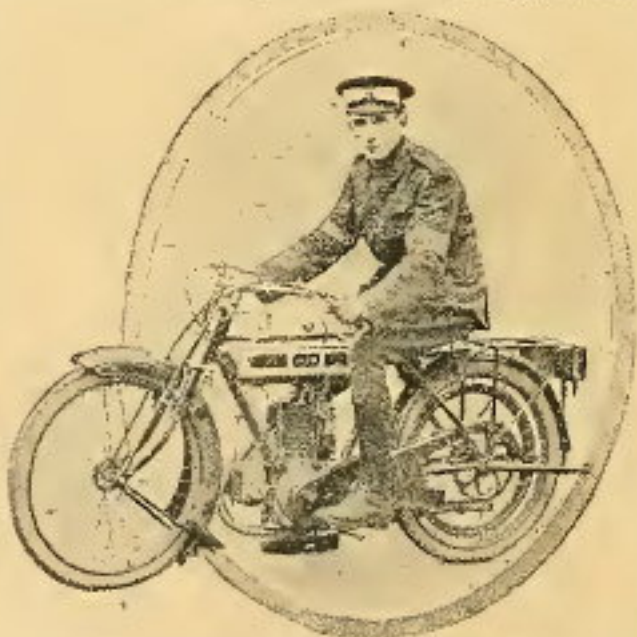
At a time when every motor cyclist is anxious to serve his King and Country, and when all army vacancies are for the present filled, the advice of "THE MOTOR CYCLE" to Club Committees is to encourage members to cultivate assiduously an intimate knowledge of their own particular localities and to become well versed in the art of map reading, so that, if their services may be required eventually, they will be as useful as possible.

Ordinary competitions having been cancelled, Clubs might well arrange map reading contests and reconnaissance tests in districts not occupied by troops.





Two Triumphs, a Rudge, Zenith, and an A.J.S. used by despatch riders attached to the 1st
Royal Sussex Regiment at present guarding the Norfolk Coast.



Eric Williams (A.J.S.), winner of this year's Junior Tourist Trophy Race, who left for the Front last week.



W. E. Grange (6 h.p. Bradbury sidecar) and H. E. Ellis (2½ h.p. A.J.S.)
ready to start from Egton Bridge, the lunch stop.

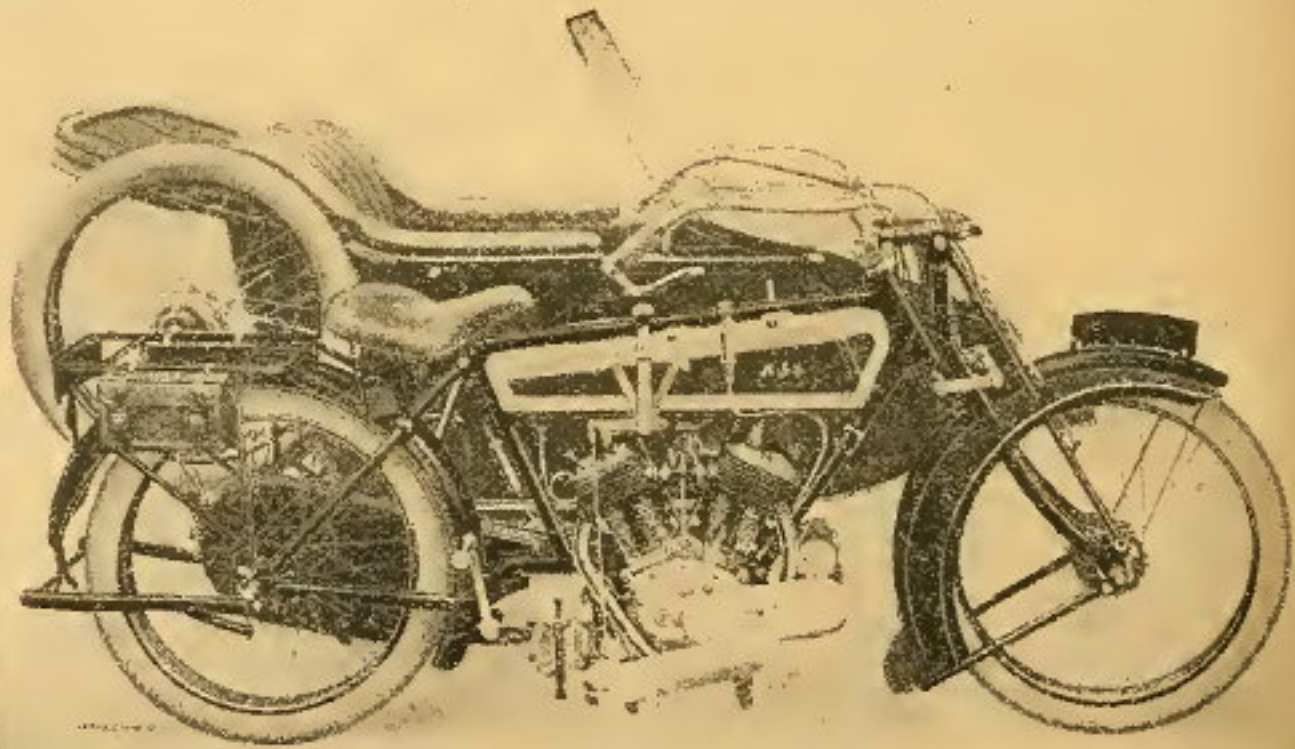


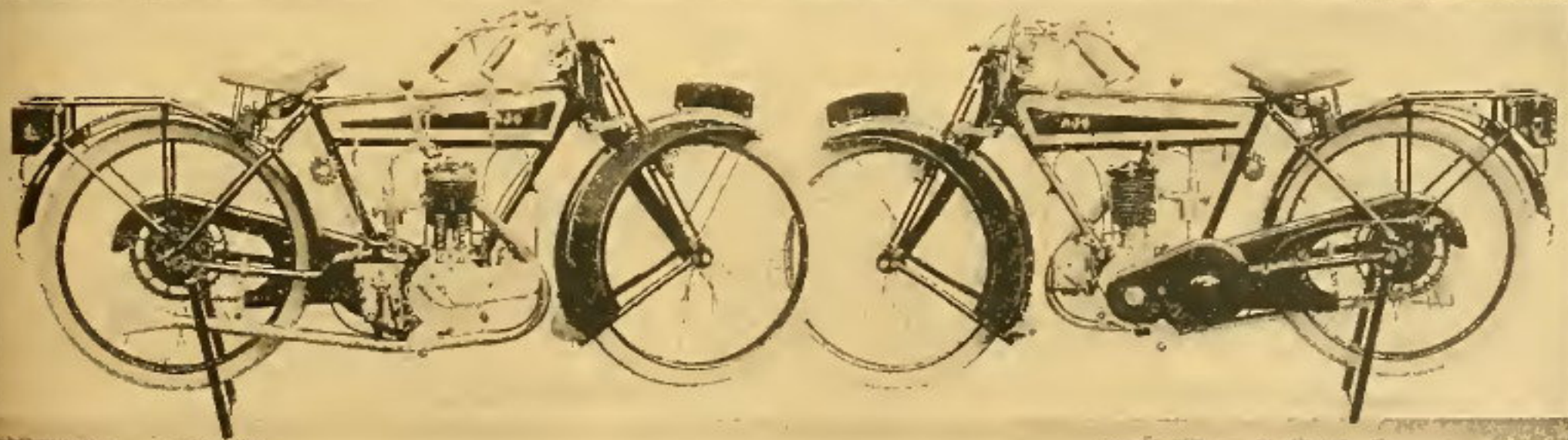
P. Thompson ($3\frac{1}{2}$ h.p. twin James), who tied with Dr. Raw, of Whitby (riding a $2\frac{1}{2}$ h.p. A.J.S.), for first place at the Autumn Trial of the Loftus and District M.C.C., described on this page.



WEST COUNTRY MOTOR CYCLIST DESPATCH RIDERS.

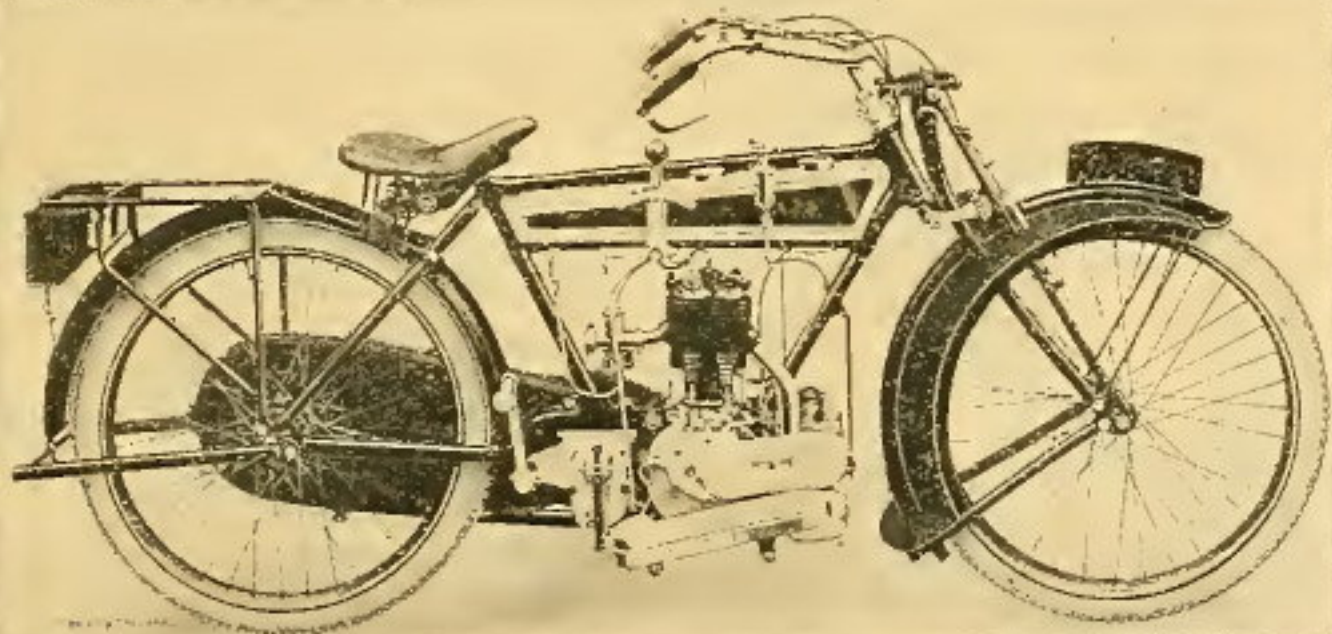
On the left is Corporal J. H. Winter, of the North Somerset Yeomanry, on a 3 h.p. Royal Enfield, and on the right Corporal N. L. Winston, Royal Wilts Yeomanry, on a 6 h.p. A.J.S.





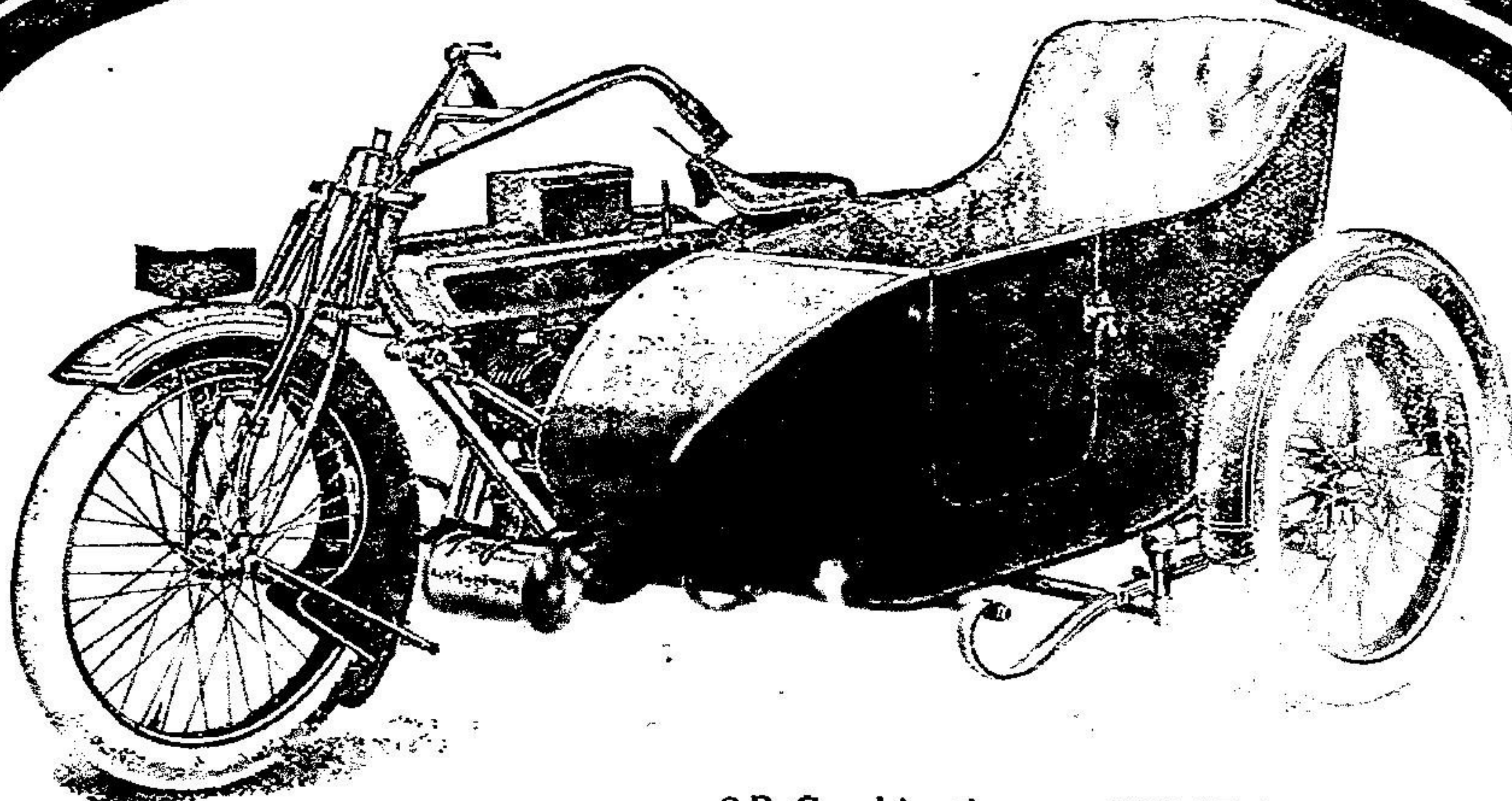
The new 2½ h.p. A.J.S. sporting model It is fitted with detachable wheels.

C 51



2 $\frac{1}{2}$ h.p. touring model A.J.S. for 1915 showing sloping top tube—a feature of all the new A.J.S. models. Drive is by chain throughout, and purchasers have the option of a two or three-speed gear.

MATCHLESS



8B Combination - £92 17 0

Always Successful Everywhere.

Following up successes in every open Competition during this season, The following cable has just arrived from Toronto, Canada, to Matchless, Woolwich.

Hamilton Hill Climb, Open Sidecar Class, Matchless FIRST. Open Solo, SECOND.

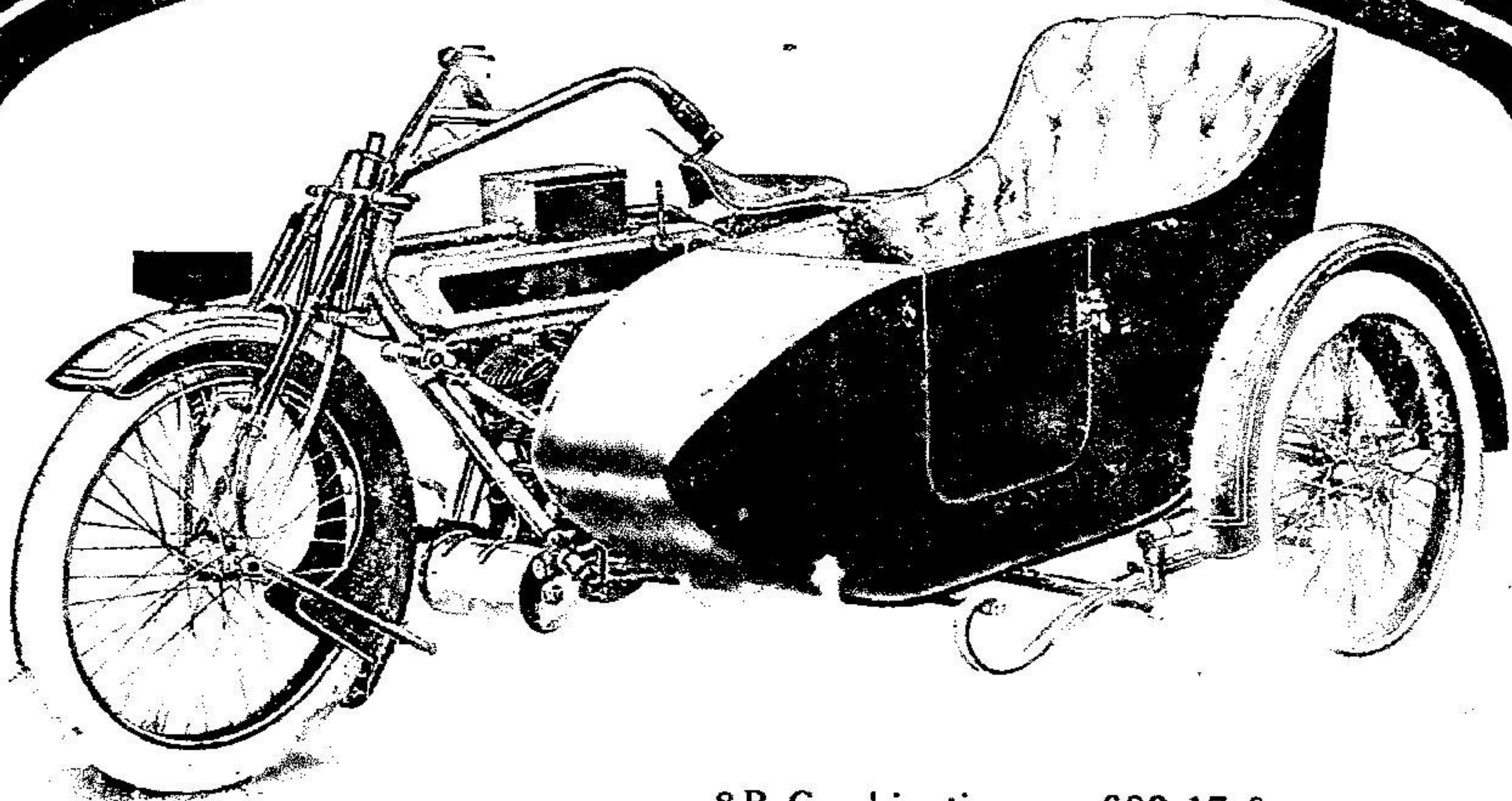
Toronto Motor Races, June 20th, 5-mile Sidecar Handicap, Matchless FIRST & THIRD. Canadian Record.

W. Porter, Agent, Gt. Brunswick St., Toronto.

See Press Reports for Home successes.

H. COLLIER & SONS, LTD. PLUMSTEAD, S.E. CAN.

MATCHLESS



8B Combination - £92 17 0

THE MOST SUCCESSFUL SIDECAR COMBINATION OF THE SEASON.

*The Combination illustrated above, represents the highest class
Sidecar outfit at present on the market.*

BRIEF SPECIFICATION:

7 h.p. Twin Engine; Semi-automatic Carburetter; Waterproof Magneto; Large Tank; Three-speed Countershaft Gear, with indestructible metal free engine clutch and gate change; Silent Chain Drive entirely enclosed; Automatic lubrication from engine to clutch and chains; Car Tyres all round; Folding Luggage Grid; Spring Petrol Can Carrier, etc.

THE MOST SILENT MACHINE ON THE ROAD.
ASK YOUR AGENT FOR FURTHER PARTICULARS

CH. COLLIER & SONS, LTD. PLUMSTEAD, S.E.

SPEED TRIALS IN THE MIDLANDS.

Successful Open Meeting under Pleasant Conditions at Castle Bromwich.

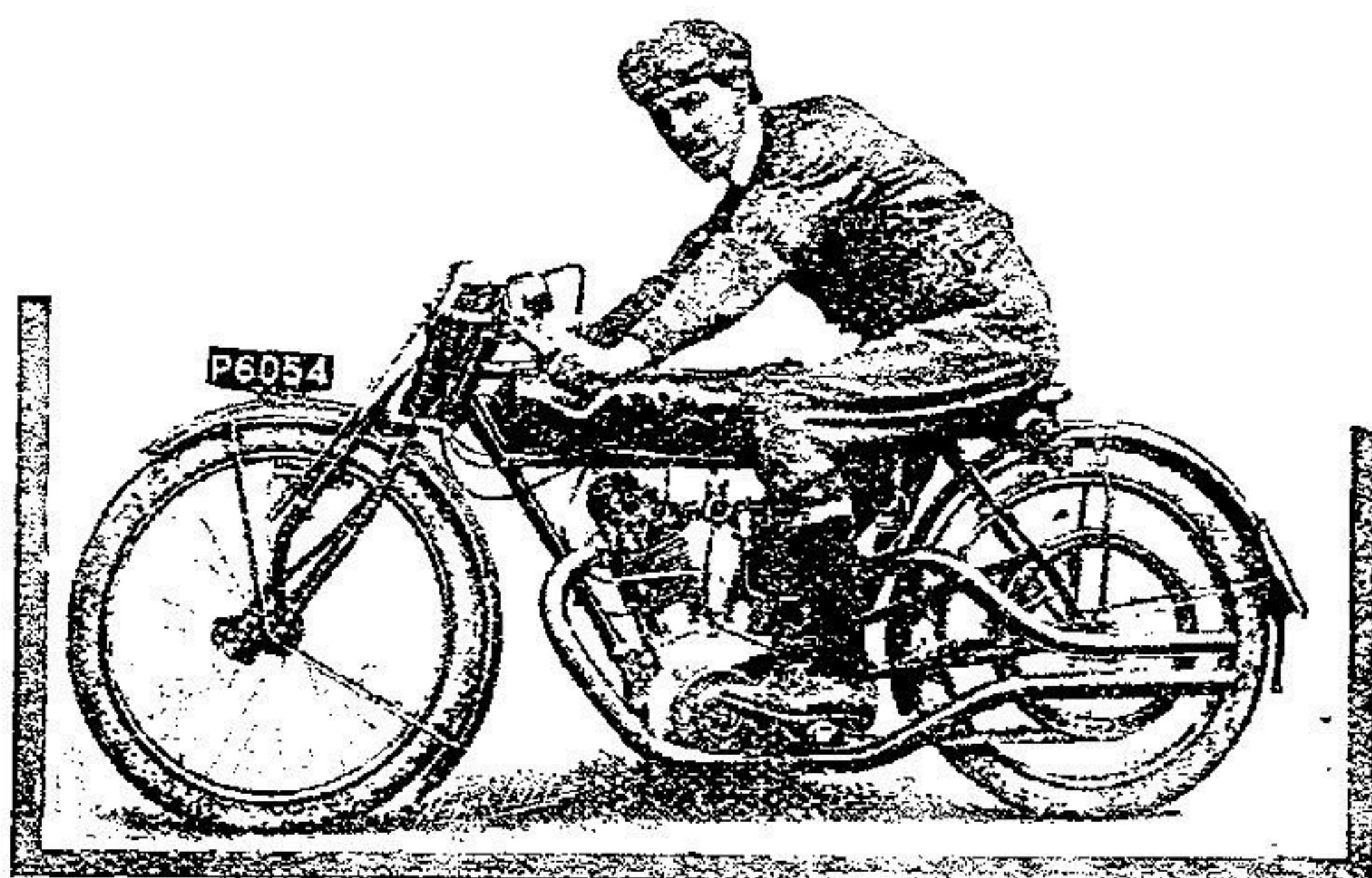
THE Birmingham M.C.C. have every reason to be satisfied with their speed trials on Saturday last. Perfectly ideal weather favoured the event, the sun's rays being tempered with a fresh breeze, which served the double purpose of slightly assisting the riders and blowing the dust away from the spectators in the enclosures. These were well arranged, and a word of praise is due to the excellent catering arrangements, tea being served in a reserved enclosure at small tables—a much pleasanter arrangement than the usual get-what-you-can-how-you-can sort of scramble so often met with. A band was also in attendance, and the large number of spectators followed the racing very keenly, as was evidenced by the applause which greeted any particularly good run.

The track selected was not in good condition, being rather rough, and towards the end of the afternoon it got very loose. It had the merit, however, of being perfectly flat and straight, but the pull up was none too long, and the fastest machines required careful handling to bring them to a rest, as a curve had to be negotiated. However, no one had any real difficulty, and not a single accident of any sort occurred during the afternoon.

The Birmingham Playing Fields at Castle Bromwich would make a perfectly ideal place for motor cycle racing, and we could not help feeling that if only the ground could be prepared it would be possible to run half a dozen machines abreast with perfect safety on such a vast space. Such a spectacle would certainly draw large crowds, and would be preferable in every way to the recently proposed Midland "saucer" track.

A New Eight Valve Racing Engine.

To turn to the speed trials, quite the most interesting machine present was C. R. Collier's 7 h.p. M.A.G.-engined Matchless. This engine, of 995 c.c., is fitted with four valves per cylinder, arranged on the overhead principle. The rocker arms are superimposed, and the whole engine bears the imprint of most careful design. The valve springs are unusually strong, and the general finish superb. It has the most beautiful "note," and Charlie Collier will probably attack short distance records with it shortly at



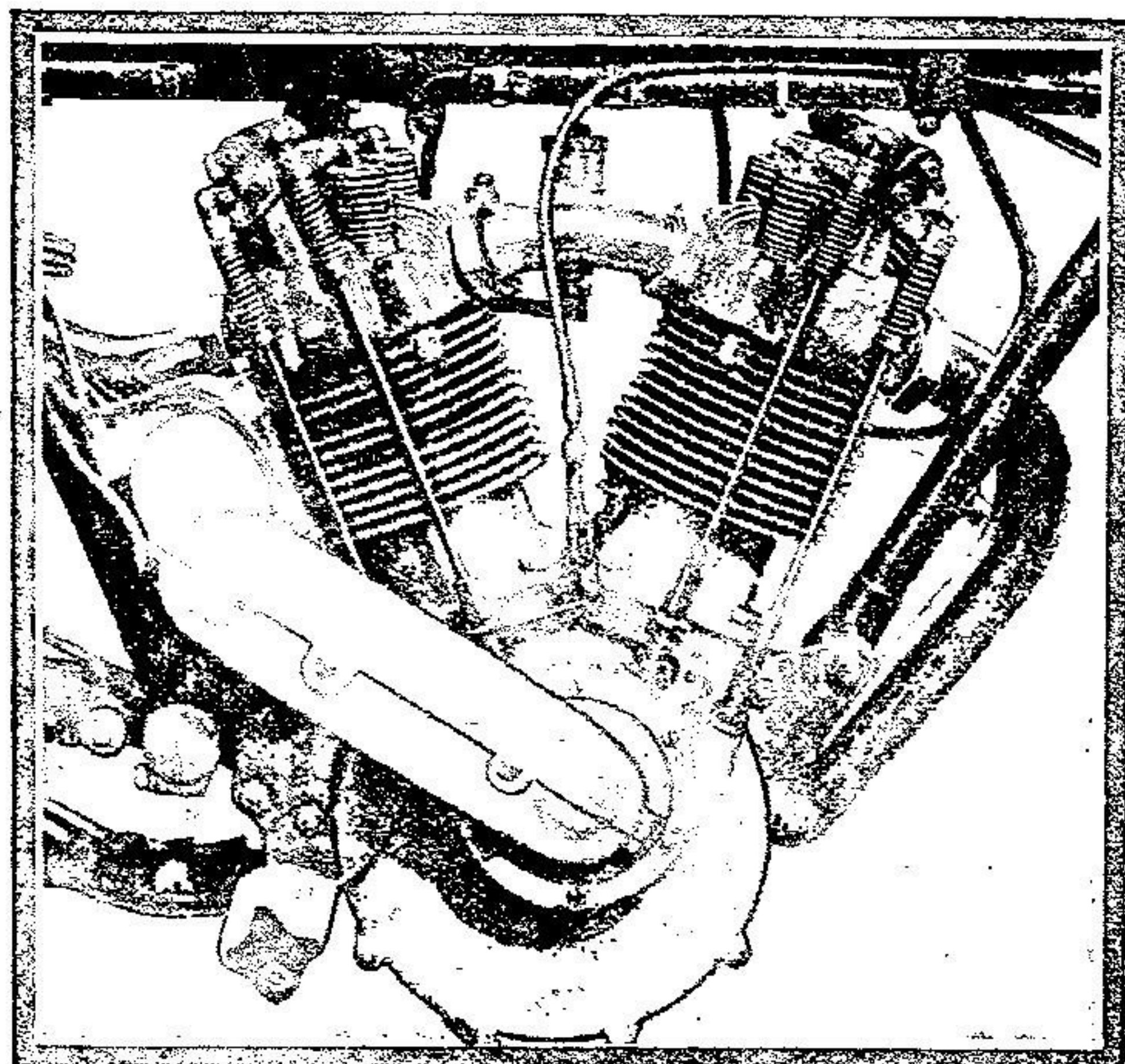
C. R. Collier and his latest racing machine—a twin-cylinder Matchless, which is fitted with an eight valve (overhead) engine, rated at 7 h.p. He will shortly attempt records on this machine.

Brooklands. How fast this machine really is we had no means of judging on Saturday, because the course of five hundred yards with only thirty-five yards for a flying start is not sufficient for a single-gear machine to get going all out, and, in addition, Collier obviously was taking no risks with the pull-up, and always cut out some time before crossing the finishing line. Therefore his best speed of 16½ s., equal to 63.2 m.p.h., must be looked upon as remarkable. It was equalled by A. J. Brewin on a big Zenith of the same capacity as Collier's machine, but the Gradua gear proved invaluable for a quick start, and as a pure speed machine Collier's Matchless must be awarded the palm.

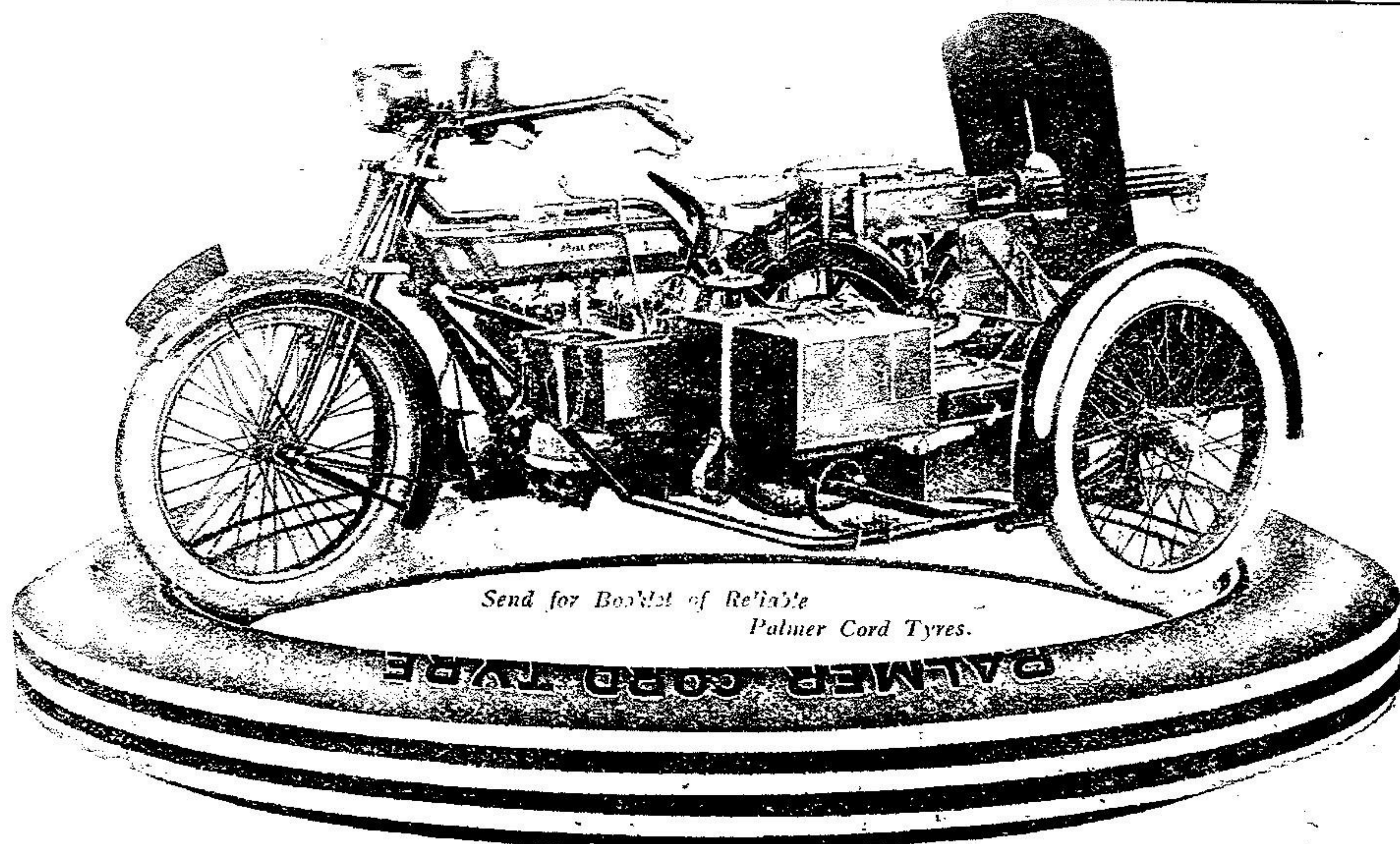
C. R. Collier and H. V. Colver were also highly successful in the 500 c.c. classes with the T.T. Matchless machines they rode in the Isle of Man.

Wonderful Speed by a Single Cylinder.

Quite one of the finest performances of the afternoon was achieved by J. W. Draper riding a 3½ Triumph with a 1909 engine, when riding in Class 9 for racing machines up to 500 c.c. He first of all tied with C. R. Collier (3½ Matchless-M.A.G.) and H. Riddell (3½ Precision), all three doing 18½ secs., but in the run off, whereas Draper could only equal his previous speed, Collier knocked off a fifth. But Draper got a reward in Class 16 for any solo machine, when he was first on formula. It was in this class that Collier and Brewin deadheaded on their big machines, but Collier won the run off by ⅔ sec. in 16½ secs. From an old engine Draper got amazing results. He was using a very clever pulley of his own invention. He set it at a certain point for starting, but directly he got going he braked the outer flange with his foot, when the gear immediately went up to the highest point. This proved invaluable for getting a quick start, and the acceleration of this old Triumph was remarkable. It was also in beautiful "tune" and "revved" in the most amazing manner. The remainder of the racing was interesting, and during an interval Albert Milner gave a clever exhibition of trick riding on a Baby Levis. Some of the tumblers he underwent would have done credit to any star variety performer, and great amusement was caused by a certain photographer imploring Milner to come a cropper to oblige for a good snapshot, which he instantly did! The events were run off with great promptitude, and there were no irritating delays, with the result that the meeting was concluded soon after six-thirty. Events terminated with an "old crocks" race, open to machines built previous to the end of 1907. This was won by J. H. Priddey on a 3 h.p. Rex



The valve mechanism of the new twin-cylinder engine fitted to C. R. Collier's racing Matchless.



THE Tyres for the Expeditionary Force.

THIS week we illustrate another Armoured Motor Cycle fitted with Palmer Cord Tyres.

This is one of a number of 6-8 h.p. machines supplied to the War Office, which are fitted with 26 x 3 in. Palmer Cord Tyres on the Back wheels, and 700 x 80 Palmer Cord Tyres on the Front and Sidecar wheels.

This is a war of petrol and rubber, and it is a distinct compliment to Palmers that they should have been selected above all other tyres for this strenuous work. If their performance under exacting competition tests, and their splendid behaviour at the Front are any criterion, Palmers should prove a valuable factor in bringing this war to a successful end.

PALMER

(ORIGINATORS OF THE THREE-RIB TREAD)

CORD TYRES

THE PALMER TYRE, LTD., 119, 121, 123, Shaftesbury Avenue, LONDON, W.C.

Motor Cycle Tyre and Repair Department—103, ST. JOHN STREET, CLERKENWELL, E.C.

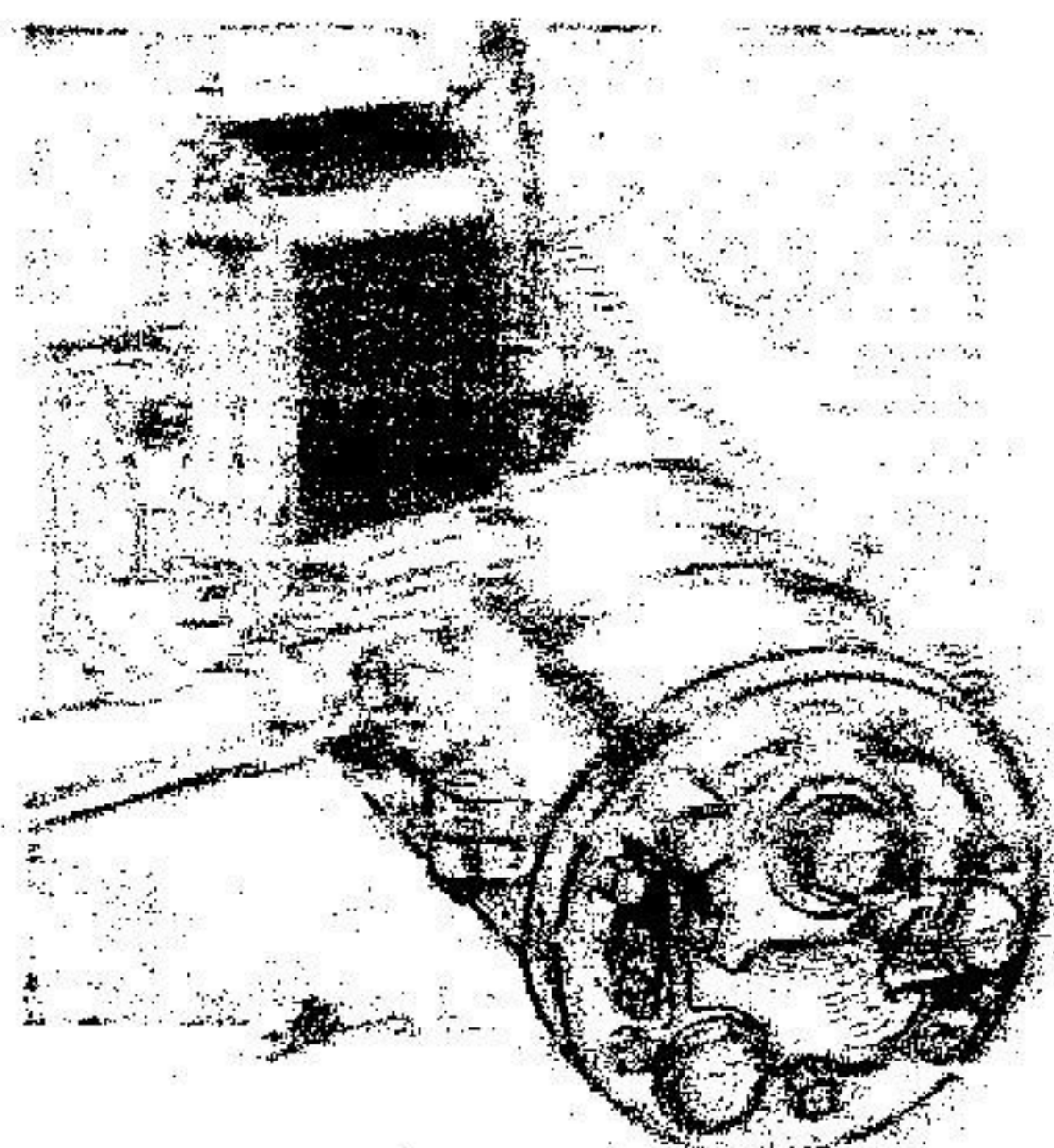
Phone: City 1485 and 1486 (2 lines).

Telegrams: "Inwheeling, Smith, London."

The 1915 Matchless Racing Model.

M.A.G. Engine—Three-speed Counter-shaft Gear—Chain Drive Throughout.

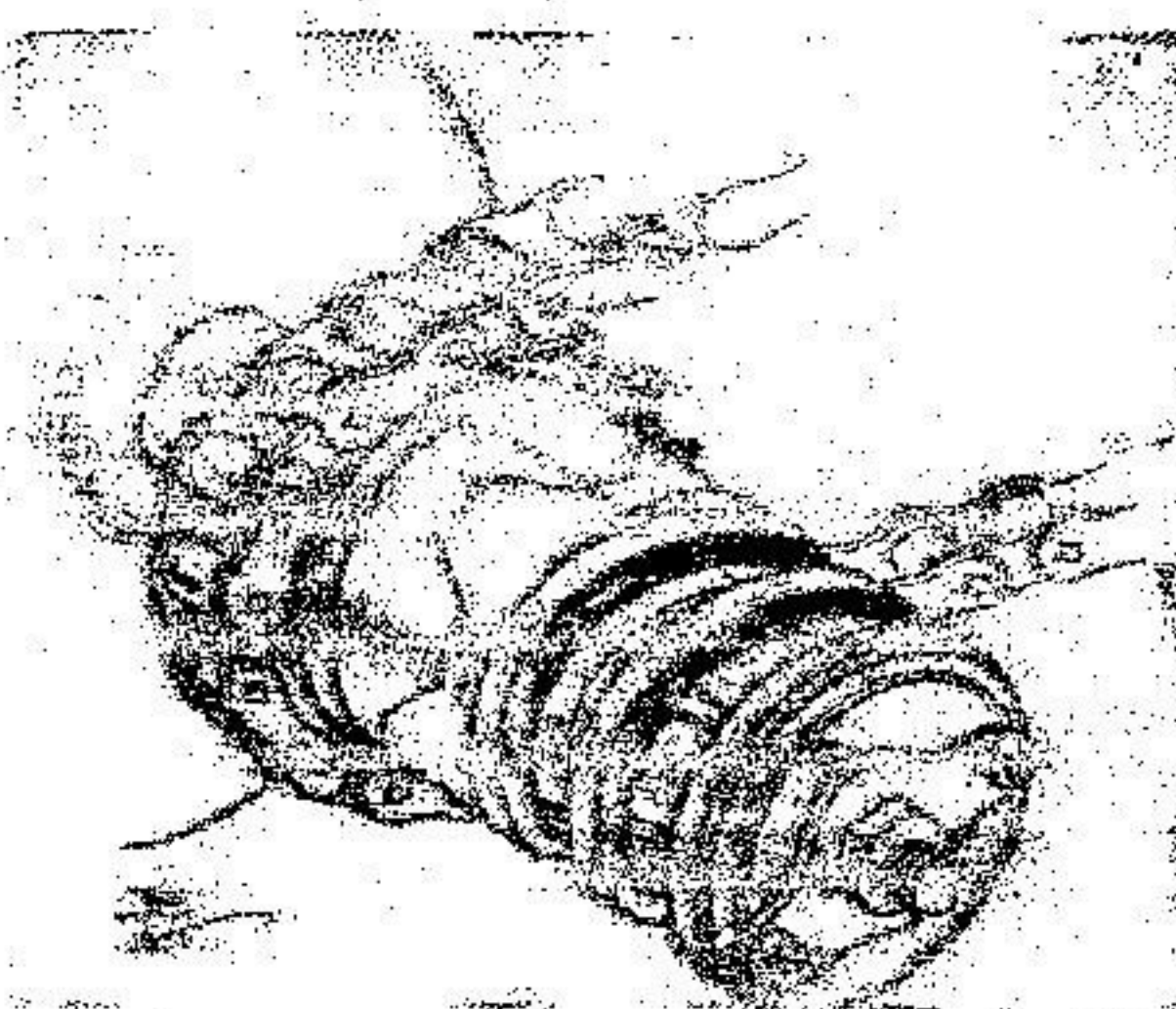
THERE are no men in the motor cycle business who have had greater experience in the use and construction of racing motor cycles than Messrs. H. J. and F. J. Cullum. Therefore, when they began the construction of a racing motor cycle, they were well equipped with interest, the varied experience of these men, and a racing motor cycle, which was really based for 40 m.p.h., but even in these early days they used easily to exceed the limit of speed and carefully built and well tuned 24 h.p.



Magneto detached, showing part of the gear box, showing slotted holes.

running machine. It is not surprising, therefore, to note that the 1915 24 h.p. Matchless motor is a beautiful piece of design, capable of obtaining the highest possible speeds, and of standing up under the most strenuous tests. The machine was also about a quarter of a century built for the 1915 Tourist Trophy.

The 24 h.p. engine, 25 c.c., 54 mm. x 77 mm., remains practically unaltered; it is an exquisite piece of work and beautifully finished. The most important improvements on the machine are the introduction of chain transmission and the fitting of a three-speed counter-shaft gear



Three-speed counter-shaft gear.

and, which carries gears of the sliding type.

The magneto bracket forms part of the gear box casing, and the magnet is held in position on the bracket by means of a sliding bolt, so that in the event of it being necessary to take down the engine the magnet can be slid back, the bracket dropped out, and the engine removed without further disturbing the magnet. The magnet itself is in an ideal position, and is well out of the way of mud and wet.

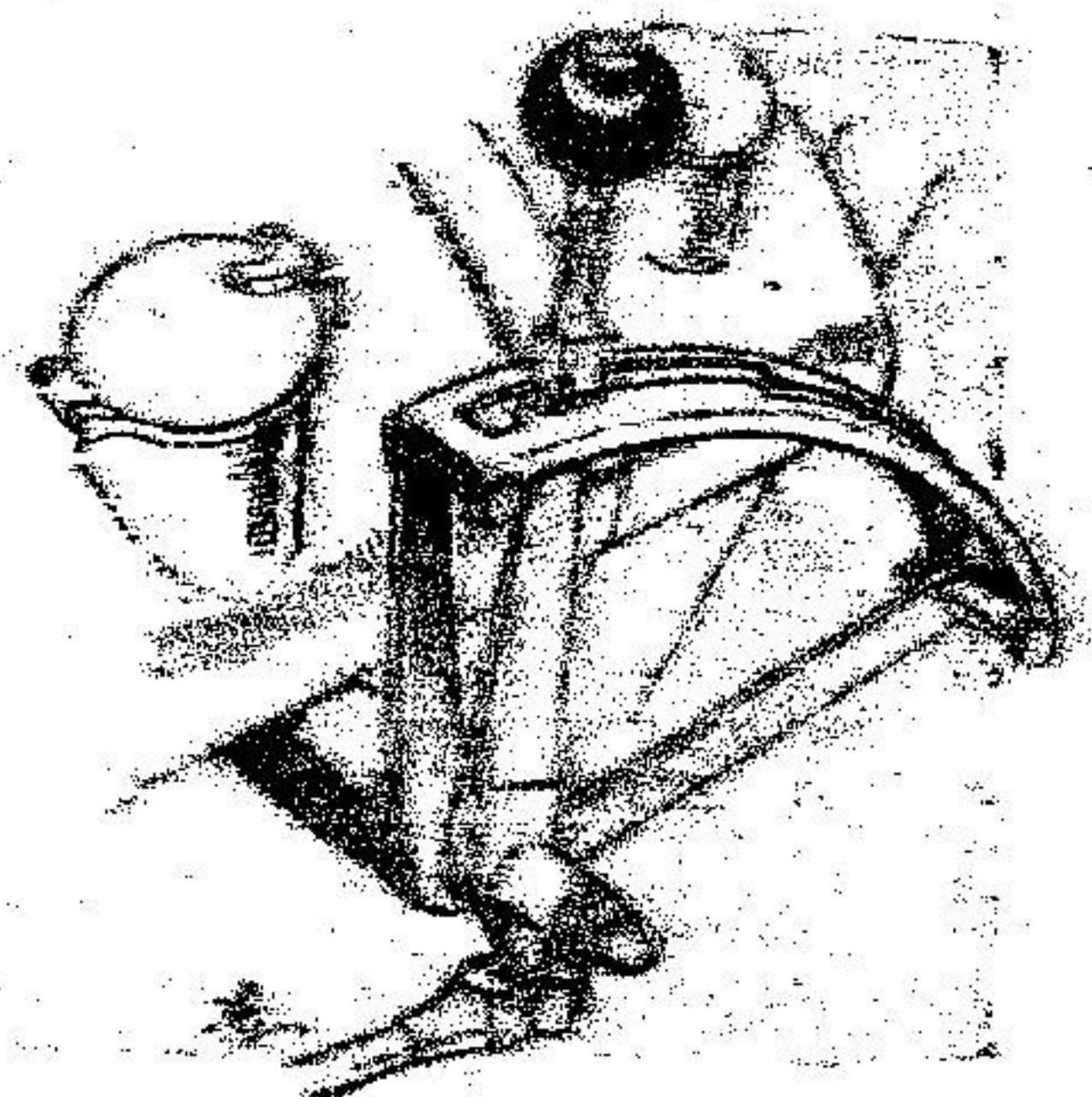
The Transmission.

Referring to the gear box, it is interesting to note that if the oil plate be removed the gear cases may be changed by removing the bracket and lower plates and replacing them, and arrangements have been made to supply three separate sets of gear ratios, which are as follows: 34, 42, and 52 to 1, and two sets in which the first and second speeds remain the same, but in which the low speeds are 64 and 74 to 1 respectively.

As regards the chain transmission, an ingenious and effective form of shock absorber is fitted to the engine-shaft. The nature of this may be clearly seen from the accompanying sketch. It will be obvious that the sprocket is engaged

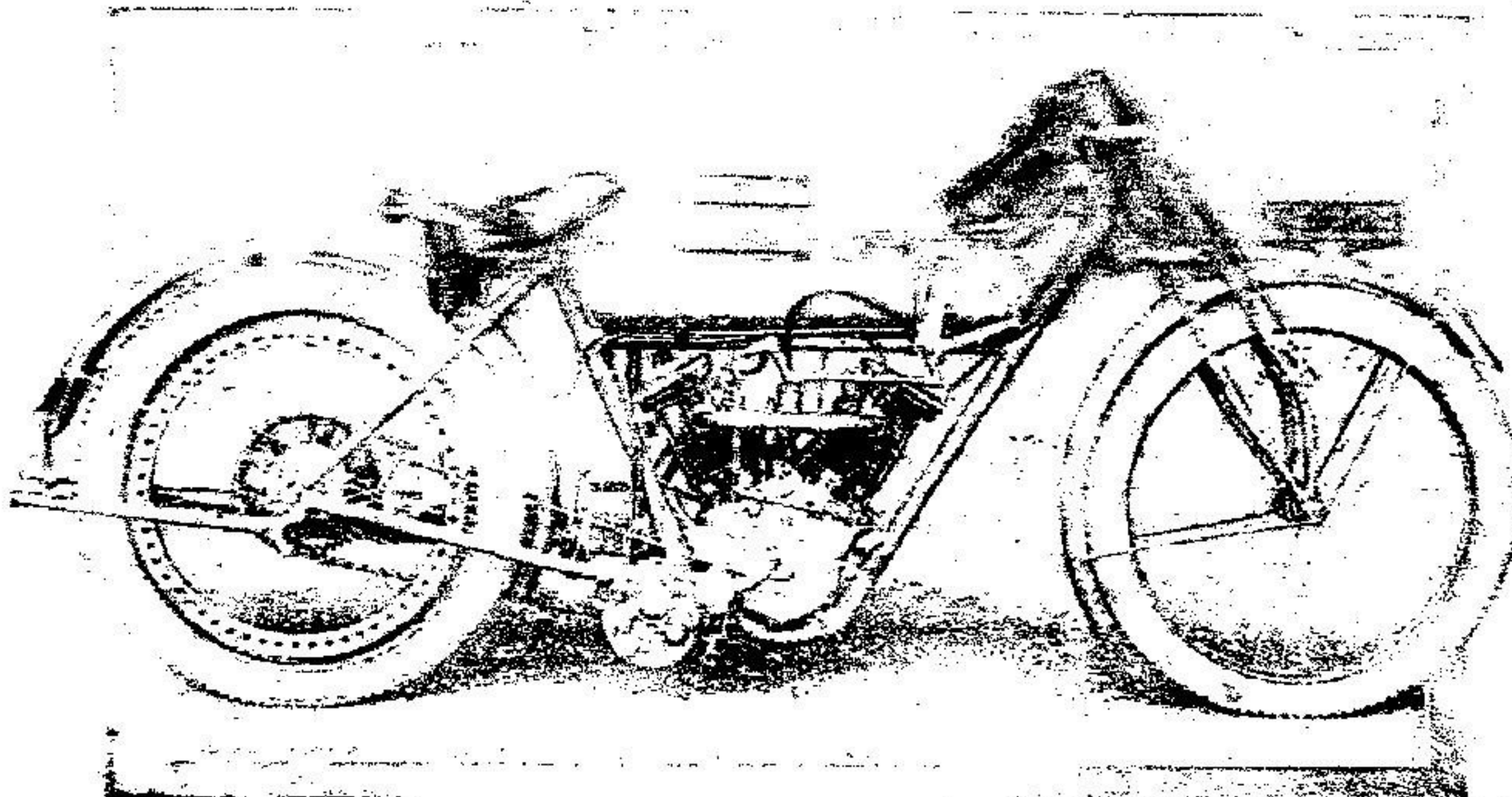
with the extension of the engine-shaft by means of a sliding plate which slides on a feather solidly attached to the shaft. These plates are held in engagement by means of a strong spring, but on the engine rotating there is a tendency for the sprocket to force the sleeve on which the sliding plates are cut back-wards and so give just the right amount of slip to absorb all sudden stresses on the chain. The bolt at the end of the mechanism acts as a grease cup, and if grease be injected it lubricates the chain adequately for a season's running. A leather stock absorber is fitted to the back sprocket which takes the form of a rubber cushioned drive, with the result that the transmission in the racing Matchless should be as smooth as a ball race.

The general view of the machine shows the well designed silencer and the easy sweep of the exhaust pipe, which tends



Change-speed gear on the racing Matchless.

to conduct away the gases with the minimum amount of back pressure. The whole machine is finished in khaki, a serviceable and businesslike colour, even to the back hub. The gear box, we may mention, is practically the same as that fitted to the sidcar combination, with the exception that no kick starter is provided. When the time comes to put the racing Matchless on the test we do not hesitate to say that we think it will give an excellent account of itself.



The 1915 racing Matchless, which has a three-speed counter-shaft gear.

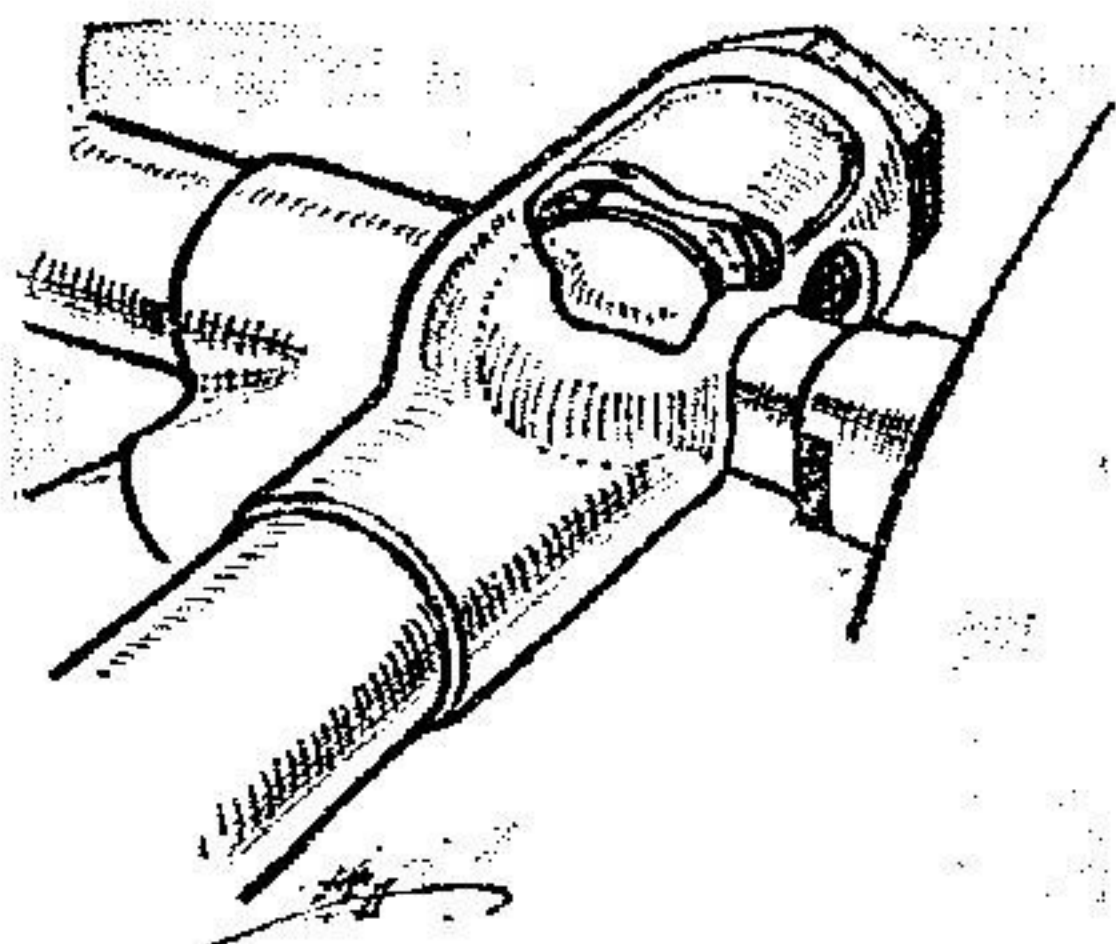
TO COMPLY WITH THE NEW REGULATIONS.

One advantage of the new Low generator, to which attention has not been previously called, is that it will allow the flame at the burner to be turned down. This is a most important point, now that the lighting of even motor cycles has to be reduced before they are allowed to enter the Metropolis. As the gas is quite pure, there is no fear of carbonisation with a reduced flame. Last week we heard of cases in which the police actually whitewashed the lamp glasses of motor cycle head lights before their owners were allowed to proceed into town.

THE 7 h.p. MATCHLESS SIDECAR.

Improved Design Sidecar Chassis, embodying a Spring Wheel.

THROUGHOUT the year 1914 Messrs. Collier and Sons have been very successful with their Matchless sidecar combination. The 7 h.p. sidecar machine is a thoroughly well-designed and practical vehicle, which has stood a year's testing with the greatest success, and has undergone even further improvement for next year.



Matchless sidecar ball joint attachment to back fork.

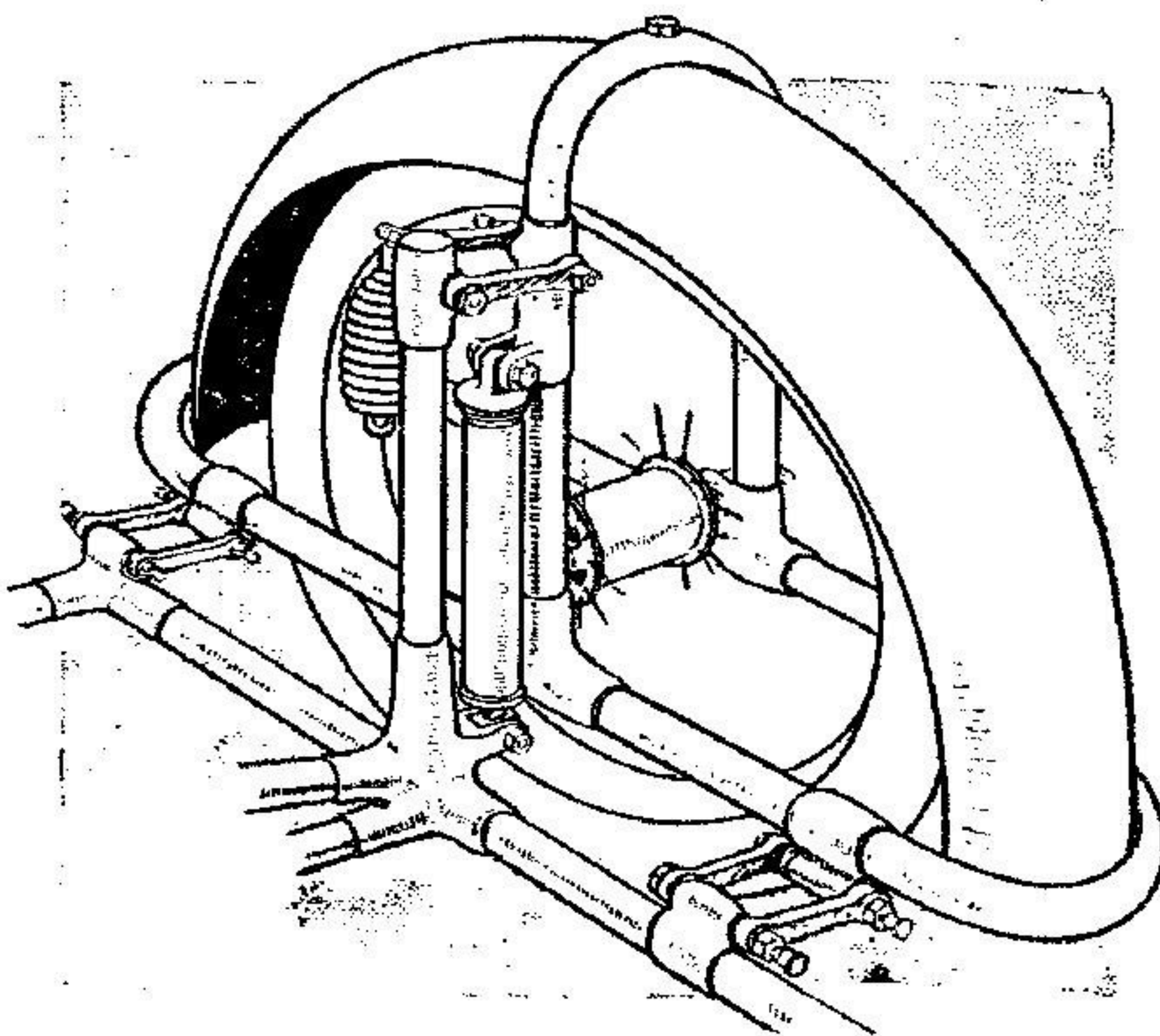
In the machine itself little has been done, as practically no alterations were necessary. Its chief points are the silent chain drive from engine to countershaft and the practical three-speed (sliding type) gear box. The chief alteration, however, on the new model has been the introduction of detachable wheels, brought about by using a hollow spindle and the provision of dogs for coupling the wheel to the driving mechanism. All three wheels of the combination are therefore detachable and interchangeable. The spare wheel is arranged to be carried in the back of the sidecar body.

It is in the sidecar chassis, however, that the most striking alterations have been made. A glance at the accompanying photographs shows the strongly designed chassis, while it will be noticed

that an ingenious form of spring wheel has been introduced, the working of which is shown in detail in the line drawing. The wheel is self-contained in its own forks, and is attached to the rest of the chassis by means of three long links. Its movement, however, is restricted by means of an enclosed coil spring, which may be clearly seen in the illustration. The combination has been photographed without the body, so as to show the method of springing and also the neat coil springs upon which the body is supported.

An interesting feature is the ball joint coupling the chassis to the back forks of the motor bicycle, the object of which is to ensure perfect alignment and the minimum amount of strain between motor cycle and sidecar. Another interesting point is the provision of a framework for carrying a spare petrol can. This outfit may be fitted with the excellent Lucas lighting installation, which we described in detail in our issue of October 22nd.

Another new model for 1915 will be the 4 h.p. three-speed solo touring machine, which, however, at the time of writing is not actually on the market.



Sidecar spring wheel showing complete adjustment and links to frame. Note the grease cups to all the shackle spindles.

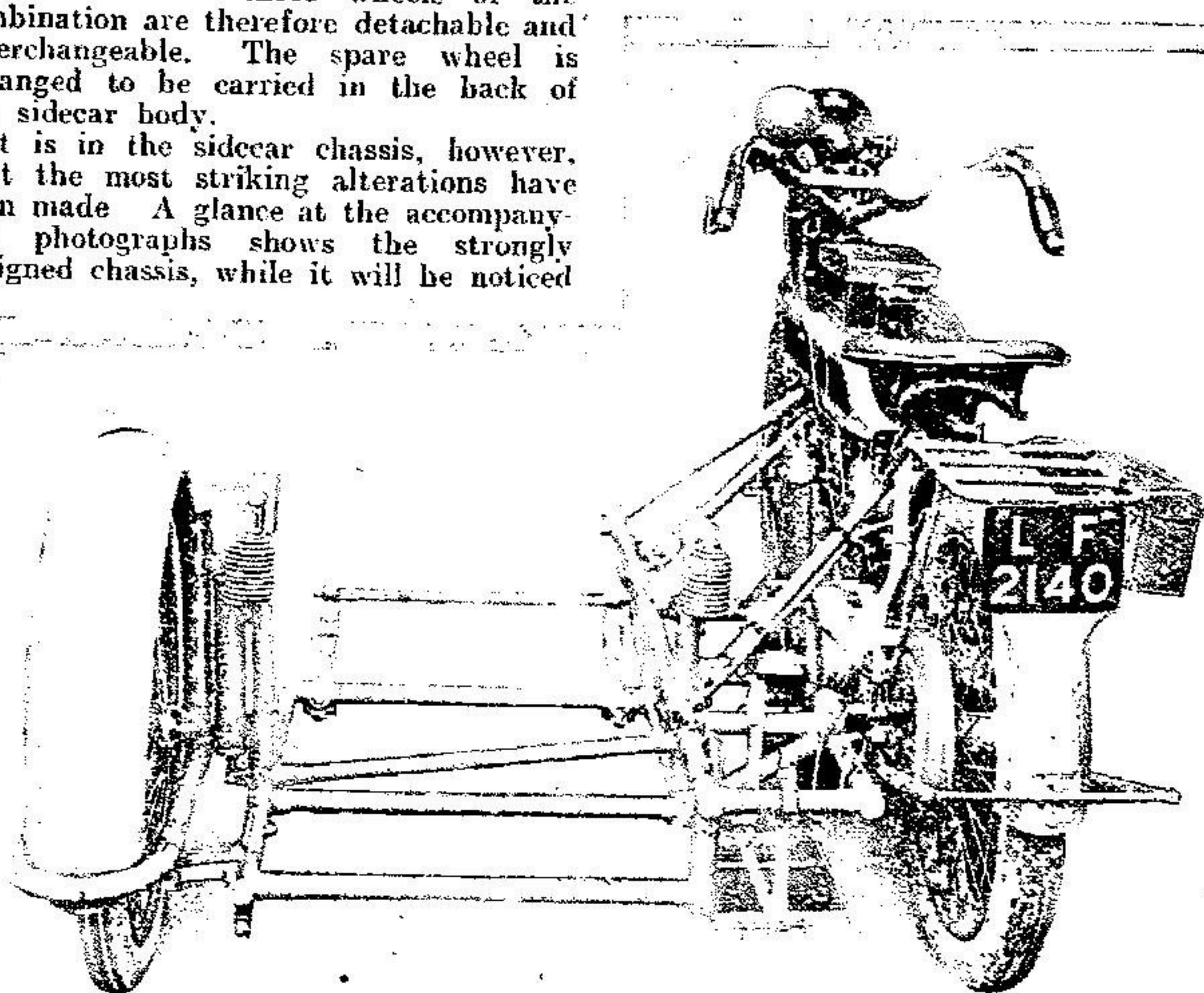
A TRIUMPH ANNOUNCEMENT.

WHEN Mr. M. J. Schulte, speaking at the annual general meeting of the Triumph Cycle Company, Limited, stated that the company was not resting on its laurels, but was pursuing a vigorous policy in improving the machines, chiefly the motor cycles, he gave the first public intimation that an entirely re-designed Triumph motor bicycle would appear for 1915. It has been common knowledge in inside circles that the Triumph Co. had designed a new engine, and that, moreover, after tests extending over a period of many years, had produced a three-speed countershaft gear which satisfied the firm's ideals, and embodying chain and belt drive.

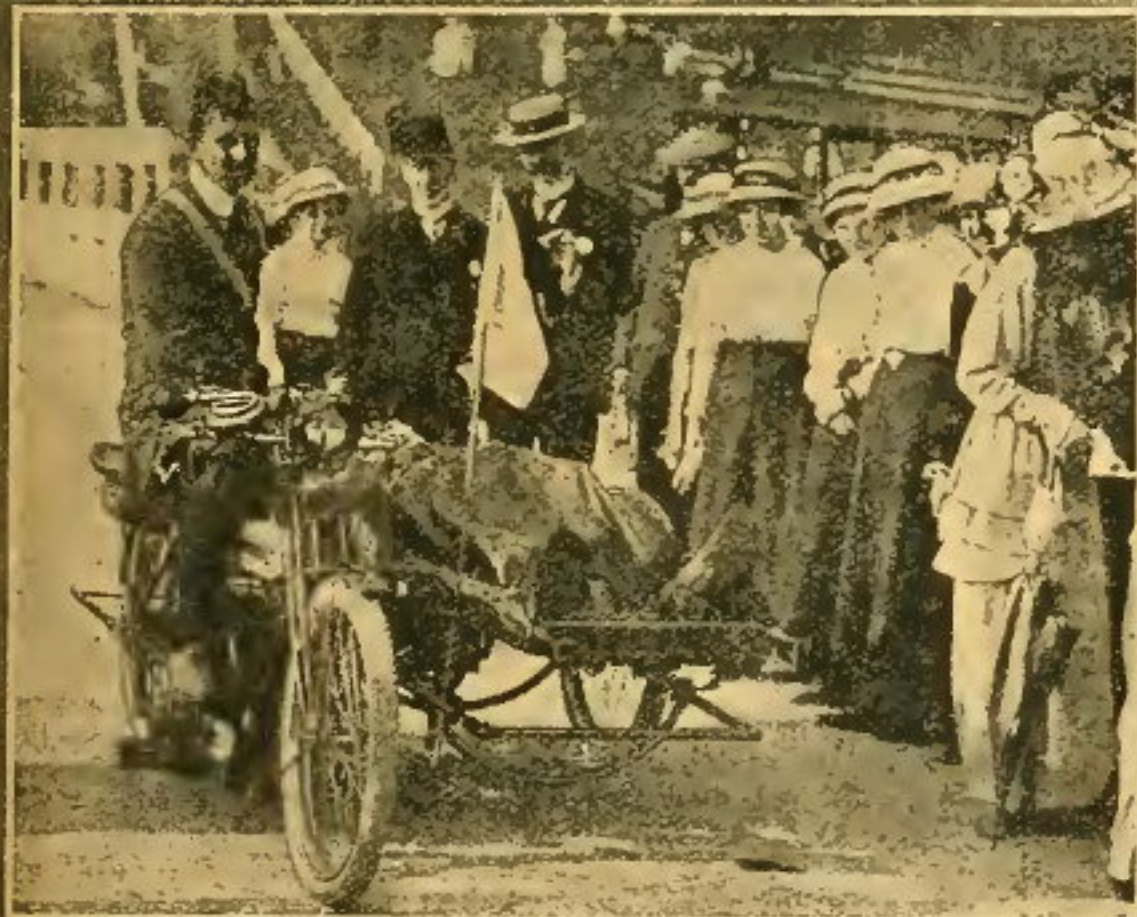
The specification of the 1915 Triumph is given in our Buyers' Guide this week, from which it will be noted that the 4 h.p. engine is retained with a bore and stroke of 85x97 mm. The motor has a new design crank case, a new cylinder casting, re-designed timing gear with external cams and a new carburetter. More details cannot be divulged at present, as the final design will be ready shortly.

ADDITIONAL O.K. MODELS.

Messrs. Humphries and Dawes, Ltd., of Birmingham, the makers of the O.K. machines, announce that during next year the O.K. Junior—which has had such a run of successes this year—will be continued, though it has been improved in detail parts. There will also be a lady's model, and a second O.K. model of 2½ h.p. with side by side valves. The firm have recently erected large and well equipped new works, and in future O.K. machines will be British-built throughout.

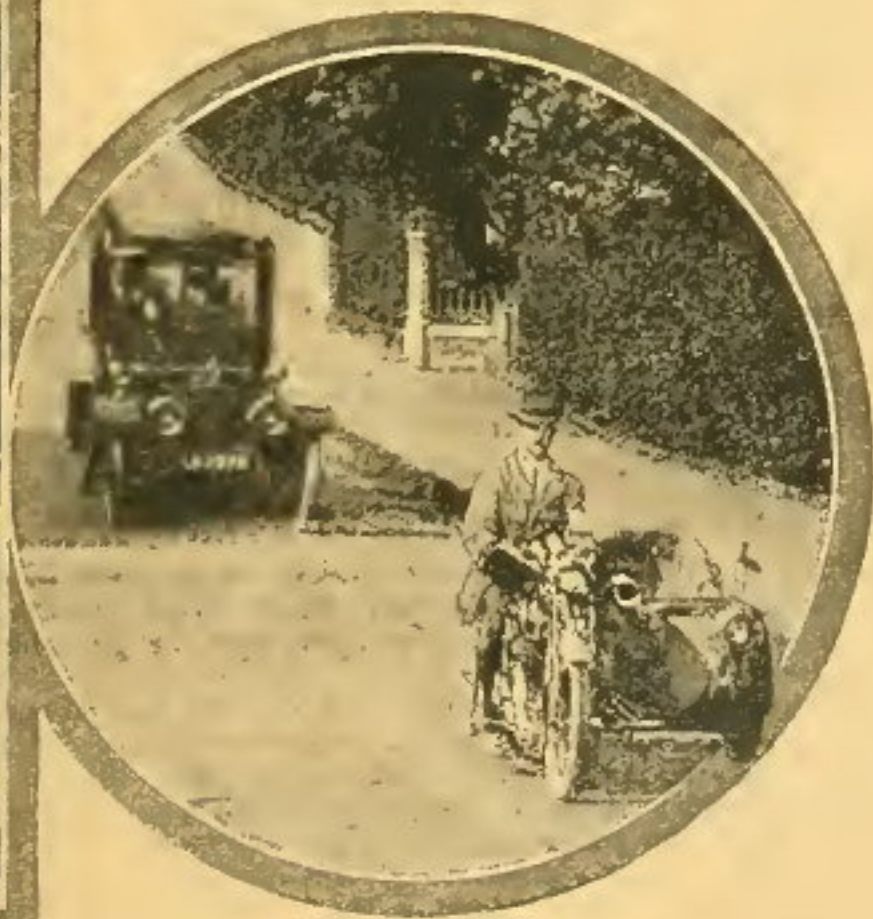


The new spring wheel Matchless sidecar chassis; the spiral springs support the body



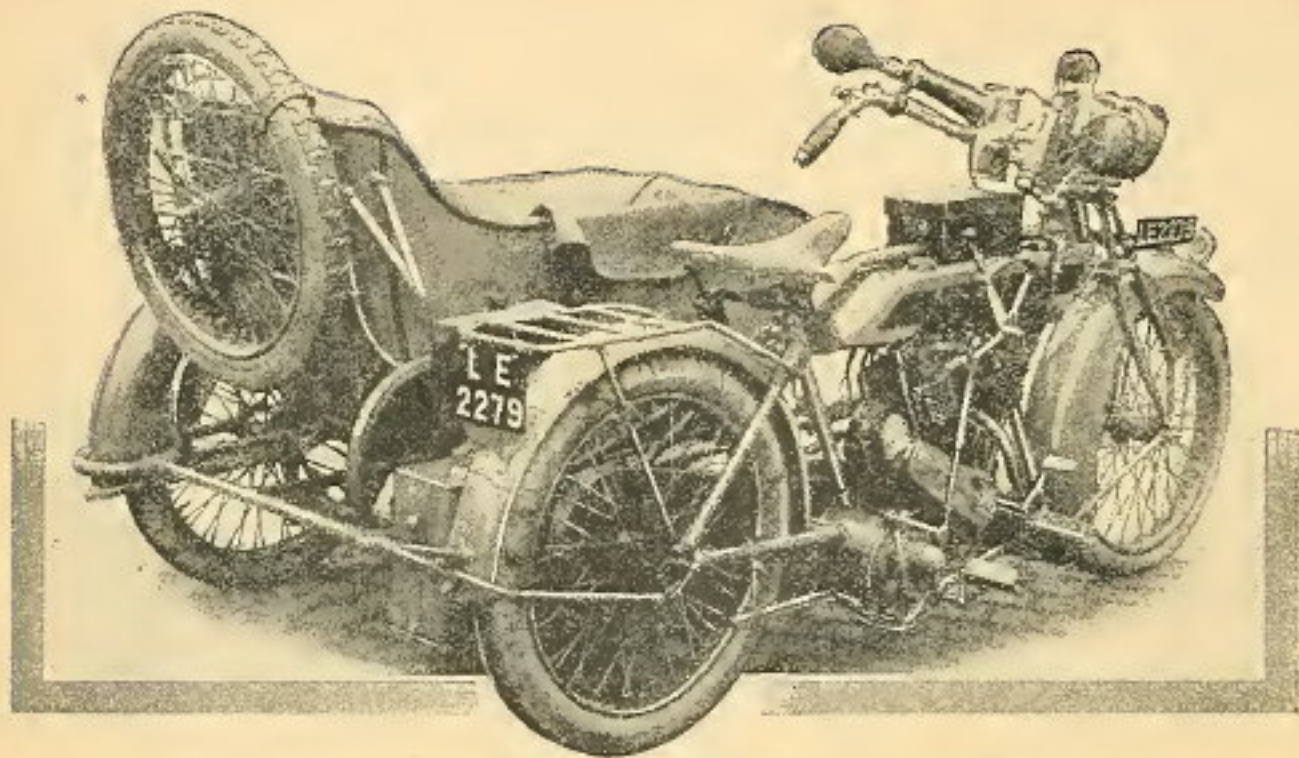
THE RED CROSS FIELD-DAY AT BROOKLANDS

The only motor cycle ambulance—a 3½ h.p. Triumph and Gloria sidecar.



T. W. Loughborough (7 h.p. Matchless sidecar), who escorted T.M. Queen Alexandra and Empress Marie of Russia to Brooklands.

A29



The Matchless sidecar, which is fitted with detachable and interchangeable wheels.

LOOKING UP AND DOWN TROOPER'S LANE.

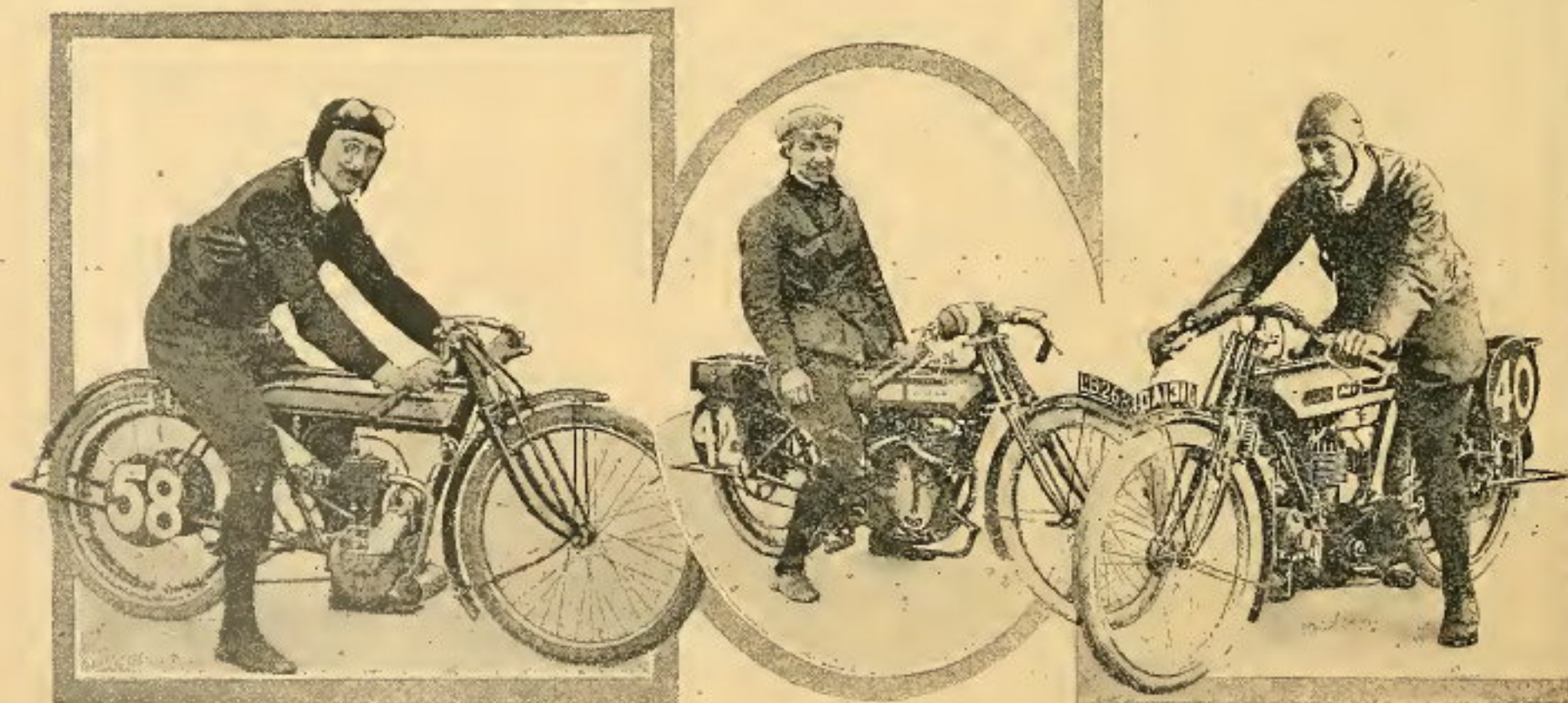


(Left) A. Pilkington (8 h.p. Rex-Jap sidecar).

(Right) G. D. Hardee (7 h.p. Matchless sidecar), followed by
L. Newey (3½ h.p. Ariel) and K. H. Clark (3½ h.p. James).



A.C.U. SIX DAYS TRIALS R. E. Guest (7 h.p. Matchless sidecar) in one of the gullies on Lee Hill, Shibden Dale, where many stopped. This ascent was covered with large loose stones.



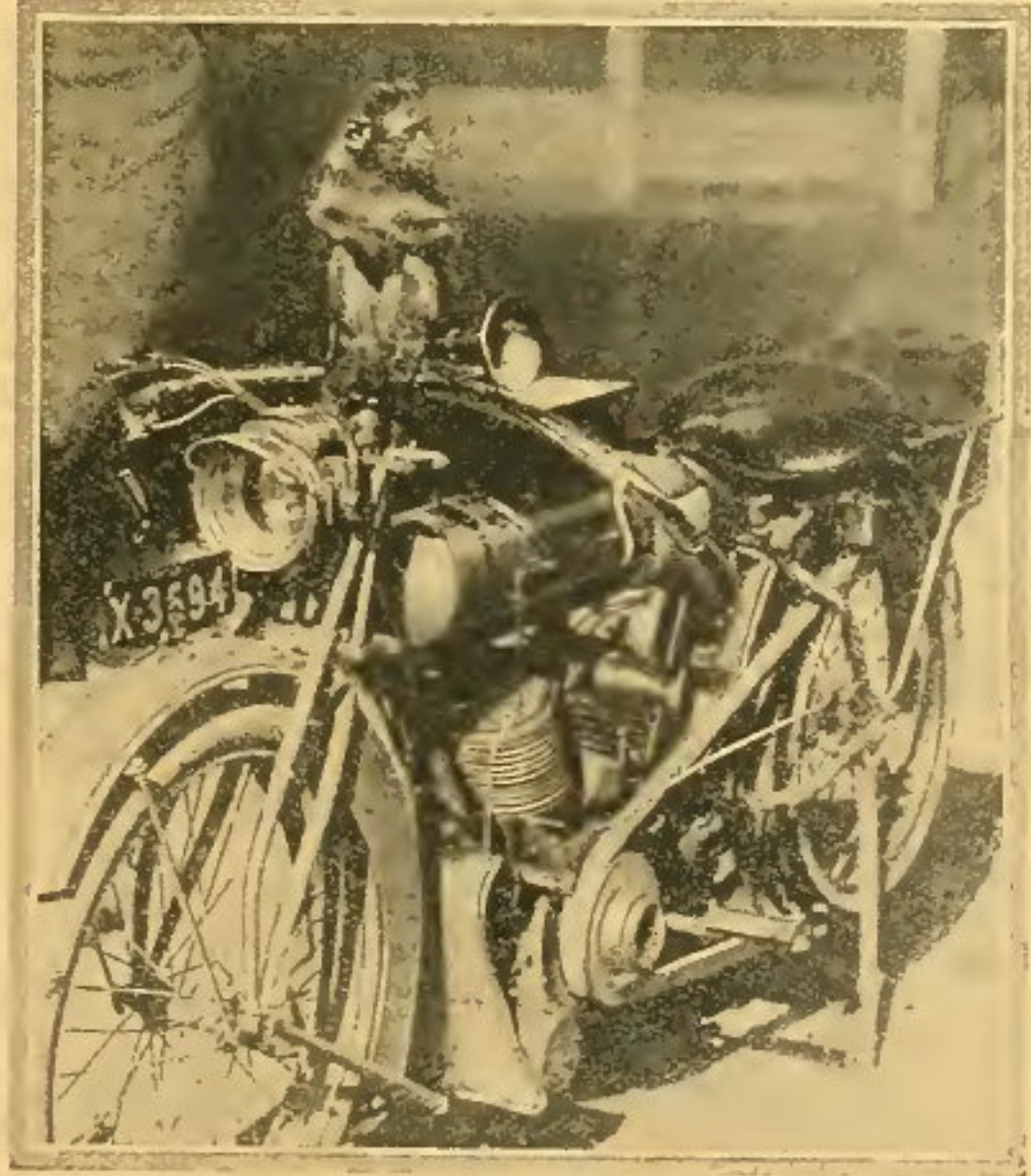
SOME OF THE CLASS WINNERS AT BROOKLANDS ON SATURDAY.

(1) W. A. Jacobs ($2\frac{1}{2}$ h.p. Singer), winner of the 350 c.c. class.

(2) H. le Vack (Motosacoche), who won the second race for motor cycles between 350 c.c. and 560 c.c.

(3) B. Haddock ($2\frac{1}{2}$ h.p. A.J.S.), winner of the fourth race.

D 6



A NOVEL MASCOT.

A live monkey perched on the front of the 6 h.p. Matchless owned by W. Willis, of Newcastle. The monkey thoroughly enjoys a good spin in this position, and when the owner leaves the machine it is with the confidence that it will be quite safe in the monkey's care.



All motorists, except those with local numbers, are stopped at the Birmingham city boundary for identification purposes. In the photograph, a constable is seen examining the licence of a Matchless sidecar owner.

MATCHLESS

**BUSINESS
AS USUAL**

The Matchless Commercial Sidecar Combination

is stronger, more powerful, and easier to control
than anything of a similar nature on the market.

EARLY DELIVERIES GUARANTEED.

Price £90.

ASK FOR FULL PARTICULARS.

FREE TRIALS ARRANGED.

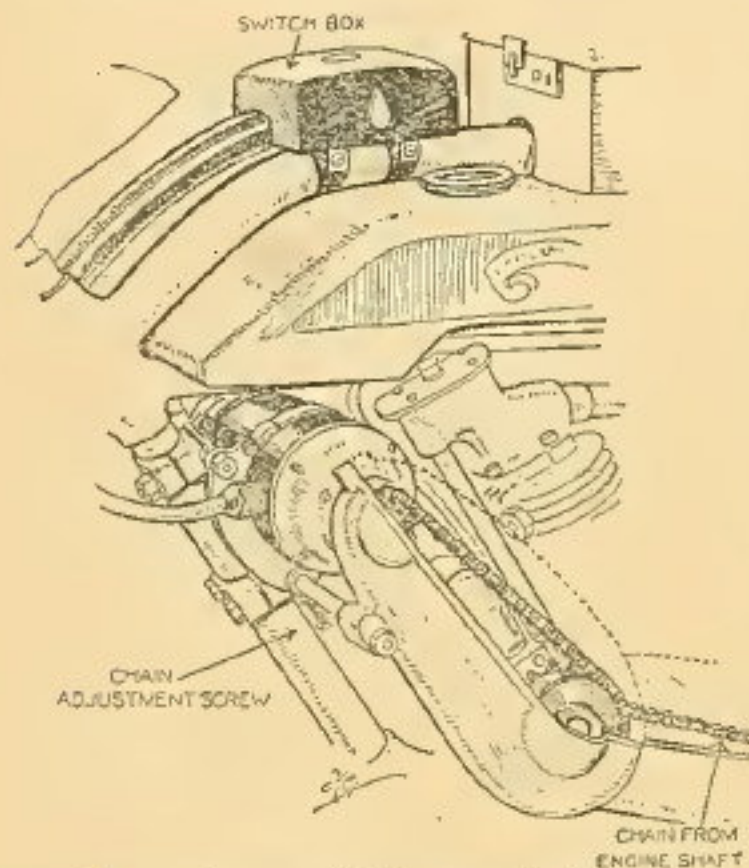
H. COLLIER & SONS, LTD, PLUMSTEAD · S.E.

An Electrically Lighted Matchless.

A Last Touch of Refinement to a Luxurious Sidecar Outfit.

MESSRS. H. Collier and Sons, Ltd., of Plumstead, have added one more luxury to their already famous Matchless sidecar combination in the form of a Lucas electric lighting outfit. The

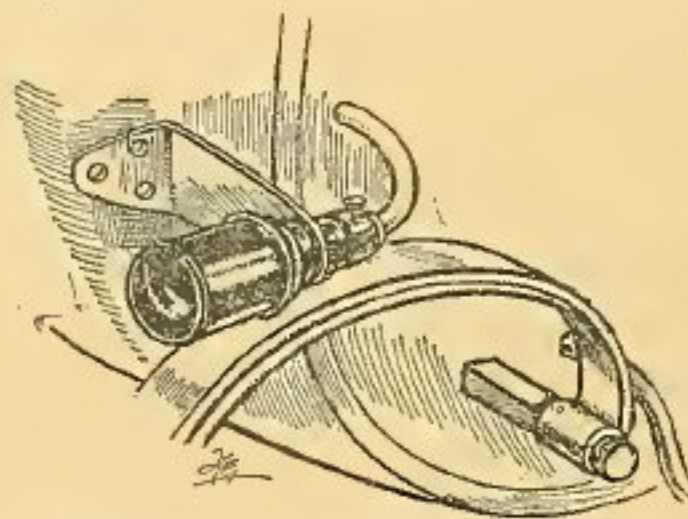
generator is mounted in a very accessible position above the magneto, and is held by means of a specially designed bracket to the rear down tube. This bracket is so constructed that it can be fitted without any alteration whatever to any existing 1914 machine. The drive is by means of a



Lucas dynamo lighting outfit fitted to a 7 h.p. Matchless.

chain operated by a sprocket on an extension of the magneto-shaft, and a casing is provided which totally encloses both the dynamo and magneto chains. An adjusting screw is provided at the bottom of the bracket by means of which the chain can be

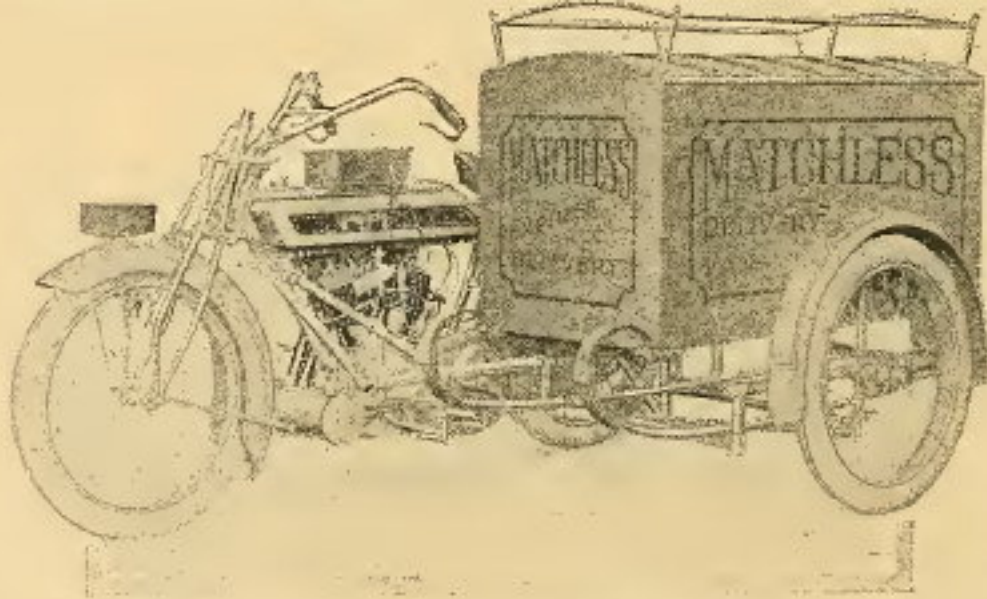
adjusted to the correct tension. This is also quite well placed, and can be got at quite easily with an ordinary spanner. The end cover of the generator can also be removed without any obstructions, so that it is quite an easy matter to remove the brushes for cleaning or other purposes. Placed on the top of the tank and attached to the top tube is the Lucas switch, which is an extremely ingenious mechanism and very effective in action. The wires from the dynamo are taken through a hole in the side of the sidecar body to the accumulators, which, in their turn, are housed underneath the seat. Other wires are also taken from the battery to a lamp neatly positioned at the rear, and a small sidecar lamp stationed on the near side of the body, but at the front.



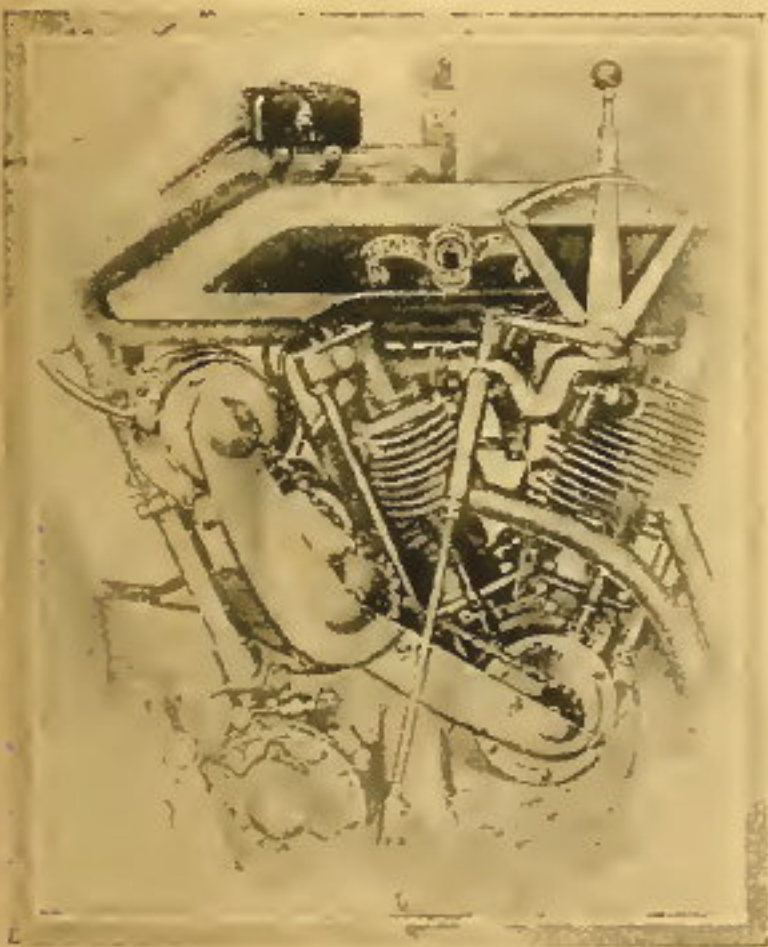
Method of fitting rear lights in connection with the Lucas dynamo lighting outfit.

cut in at about twelve miles per hour—an advantage when much traffic riding is performed.

The whole job has been carried out with great care, and both the fitting and type of lamps provided are highly commendable. The gearing allows the generator to



The Matchless sidecar which is propelled by a twin-cylinder engine. This sidecar is the latest addition to the list introduced for tradesmen's use.



As fitted to a Matchless.

MATCHLESS

POINTS OF SUPERIORITY.

No. 5. RELIABILITY.

Convincing evidence of the superior reliability of the 8 B Matchless lies in the fact that one of these famous machines was chosen in 1913 to represent Great Britain in the International six days' test of endurance, and was also again chosen in 1914. A dual honour that has been justified by unparalleled success in every form of competition where Merit Tells.

Remember that this choice was made by experts with intimate knowledge of all other motor cycles. *Verb. sap.*

H. COLLIER & SONS, LTD. PLUMSTEAD S.E. GAM.

WRITE FOR OUR CATALOGUE

No. 2554. Gre-solvent. 5-oz. tin, 3d

No. 4589. Dunhill's Metal Polish. The best polish obtainable for cleaning the plated parts of the machine ... 3d. No. 4589a larger ... 7d.

No. 2279. Mobiloil. Per gallon ... 4/6

No. 2797. Chemico Tyre Stopping. 1/-

No. 3361. Coverole. 1/-

No. 3631. Club Black Enamel for restoring the enamel parts of machine. Per bottle 6d.

No. 8513. Brass Oil, neat and useful. Pressure feed. Latest pattern ... 3/9

No. 3970. Patchquick Wallet ... 6/-

No. 3053. Tinol Soldering Outfit in case ... 7/6

No. 3320. M. C. Watch. 10/-

No. 3740. Case for Battery, 3/- & 6/-

No. 3705. Tyre Liner, 1/3.

No. 3360. "Antarnish" 9d.

No. 5528. Dunhill's Belting, from 2/- per foot.

No. 3765a. Flash Battery, 6/6

No. 5395. Magneto Spanner, 4d

No. 3770. Set of 3 Spanners, in case. 2/-

No. 1084. Petrol Injector, 1/-

No. 5498. Spiral Vaporizer ... 3d.

No. 1524. Oil Can, 1/-

No. 5406. Oil and Petrol Can Clip, 2/6 including cans

No. 2187. Syren Whistle, to fasten on wrist ... 3/3

No. 1084. "Service" Pump, 7/6

No. 5368. D'ALL Trousers Guard for Engine. Protects the clothes from grease and heat. ... 1/3

No. 3022. Kennard Valise, 22/8

No. 2710. Belt and Tube Case ... 9/6

No. 2516. Mirror to fix on handle-bar, 4/11

No. 3416. "Portland" Drill ... 1/6

No. 5212. "Aero" Mascot 5/6

No. 2738. Tube Case, 5/-

No. 3416. "Portland" Drill ... 1/6

No. 2734. One-way Switch ... 3/-

No. 4064. Flash Battery Case ... 6/6

No. 2284. Wrench ... 1/3

No. 3483. A. K. Knee grip, per pair. 6/6

No. 3641. "Mixa" Fan, 1/6

No. 4890. "Teddy Bear" Mascot ... 2/-

No. 2171. Valve Lifter, 2/6

No. 4995. Folding Spanner ... 1/-

No. 3096. Collapsible Funnel ... 9d.

No. 4892. "Boy Scout" Mascot 2/-

No. 5334. Wasdell Back Rest and Belt, 6/6

No. 3943. Leather Waist-belt ... 2/6

No. 2807. Carbide Carrier ... 1/8

No. 2532. Pocket Petrol Filler ... 7/6

No. 4439. Stanley Link, 1/-

No. 2727. Magneto Cut-out ... 1/6

No. 2713. Lodge Plug, 4/-

Tail Lamp, Acetylene 3/6

No. 3559. "Bright Eye" Electric Side-car Lamp, 12/6

The "Pharos" Head-light, of exceptional power ... 20/-

Tail Lamp, Acetylene, 6/6

Tail Lamp, Electric ... 6/6

A VISIT
TO OUR
SHOWROOMS
WILL REPAY
YOU.

Our Illustrated M.C. Catalogue is free on request.

Dunhills

359-361, EUSTON ROAD, LONDON, N.W.
City Branch: 42-43, Lombard Street, E.C.

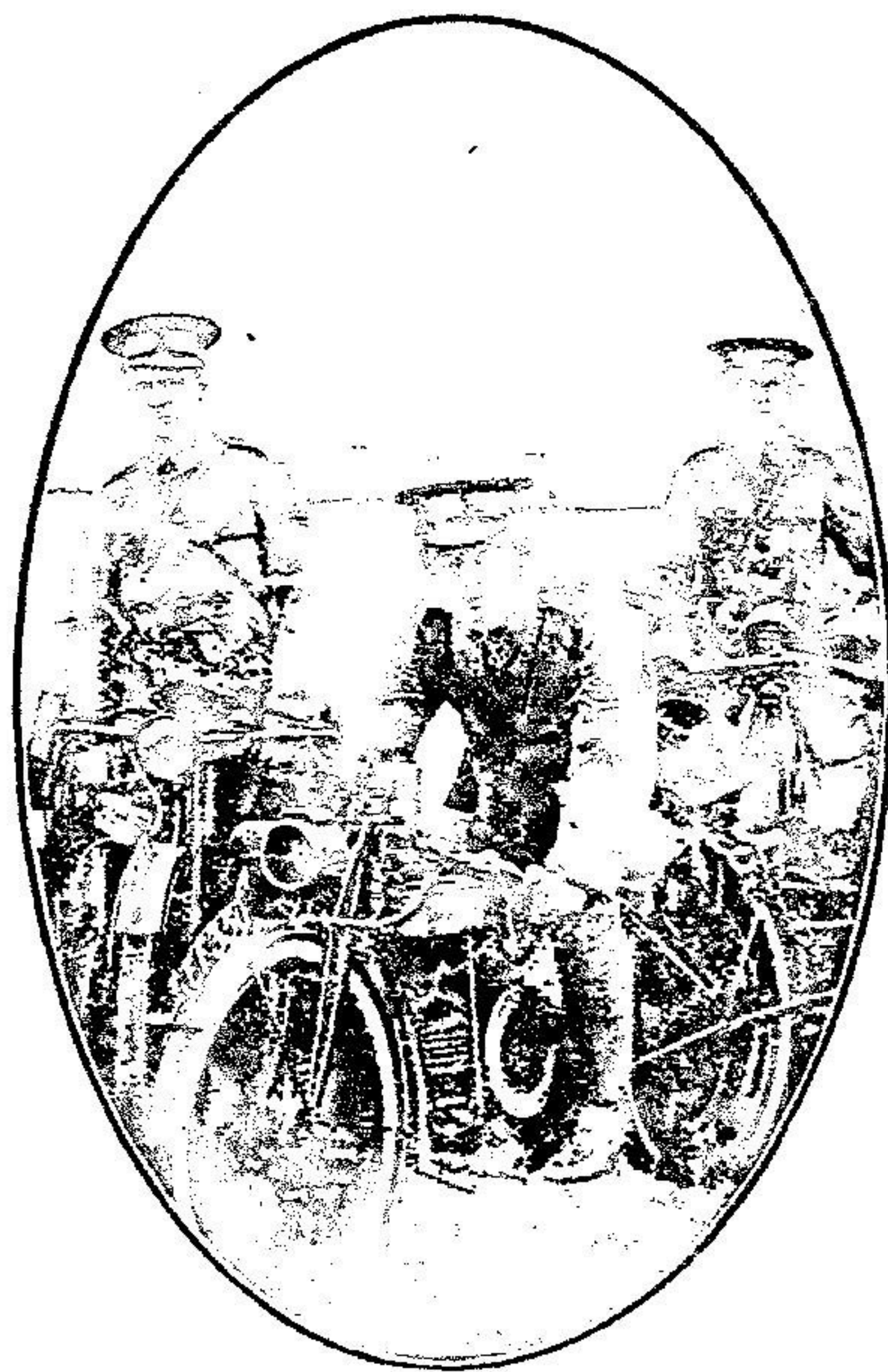
MANCHESTER: 88, Cross Street.

GLASGOW: 72, St. Vincent Street.

In answering this advertisement it is desirable to mention "The Motor Cycle"

WD

The War Office are purchasing both for actual service and for purposes of home defence, in the case of twin motor cycles, only those machines which have horizontally opposed cylinders, such as the Douglas. Ponder what this means when SPEED, RELIABILITY, ENDURANCE, SILENCE, and FLEXIBILITY ARE MATTERS OF LIFE AND DEATH, not only to the actual rider but may be to large bodies of troops, as in warfare, especially in the case of a surprise attack; success depends almost entirely upon the prompt and certain delivery of dispatches. This decision of the War Office experts confirms the countless successes achieved on



Douglas

MOTOR CYCLES

in every conceivable test, a few of the principal of which are given below. The Douglas was the pioneer of horizontally opposed twin-cylindere engines, therefore, let your mount be a Douglas, and so reap the advantages accruing to the greater experience.

ENGLAND IRELAND SCOTLAND

Six Days Trial.

Team Prize.

Haslam Cup.

3 Gold Medals.

1 Silver Medal.

End to End Trial.

Palmer Trophy

(best performance).

Lightweight Prize.

3 Gold Medals.

Six Days Trial.

3 Gold Medals

1 Silver Medal.

only 4 Douglasses
entered.

Please Note.—In the English Six Days Trial only 4 Gold Medals were awarded in the 350 c.c. class, 3 of which were secured by Douglas riders.

DOUGLAS BROS., Kingswood, BRISTOL.

Telegrams: "Douglas, Kingswood, Glos."

LONDON: 39, Newman Street.
PARIS: 190, Boulevard Pereire.
Telephone: 4687, Bristol.

In answering this advertisement it is desirable to mention "The Motor Cycle."

NEW-HUDSON

MILITARY MOTOR CYCLES

as supplied to His Majesty's Forces
& H.M. Postmaster General,

also to

The Russian Imperial Government,
The French War Department.

Exclusive in Design
Perfect in Construction
Highest Quality Equipment.

3½-4 h.p., 499 c.c., countershaft 3-speed gear of car type, heavy wheels with Dunlop heavy studded tyres, comfortable footboards, efficient mudguarding, extra large tank and complete service kit of high-grade tools, service grey finish, no bright parts.

Accessibility is exemplified by a new and important feature—the removable power unit. This power unit includes the engine, magneto, carburetter, 3-speed countershaft gear, free engine clutch, and kick starter, all assembled as one unit to fit into frame *en bloc*.

Price £57 10s.

Complete, net.

Write for Catalogue.

New-Hudson Cycle Co., Ltd.,
Parade Mills, Birmingham.

London 43 & 45, Gray's Inn Road.

BIRMINGHAM - 40, Paradise Street.

MANCHESTER - 245, Deansgate.

LEEDS - 16 and 17, Briggate.

GLASGOW - 44, Sauchiehall Street.

BRIGHTON - 6, Western Road, Hove.

EDINBURGH - 32, Shandwick Place.

BELFAST - 108, Ann Street.

DUBLIN - 29, Bachelor's Walk.

AGENTS EVERYWHERE.



**BEWARE.**

MOTOR CYCLISTS beware of
purchasing **GERMAN TYRES**
made in the same factory as the fabric of
Zeppelin Airships.

BE PATRIOTIC—insist on North British

CLINCHER TYRES

SUPPORT BRITISH WORKPEOPLE.
REMEMBER, CLINCHERS ARE
BRITISH & BEST.

THE NORTH BRITISH RUBBER CO., Ltd., 169, Great Portland St., London, W.

Factories:
Castle Mills, Edinburgh.

In answering this advertisement it is desirable to mention "The Motor Cycle."

A Pilot Jet B. and B. Carburetter.

An Easy Starting and Slow Running Device Standardised for 1915.

CONTROLLABILITY at all speeds combined with efficiency is the chief aim of the carburetter designer. There was never any question of the power given off by a B. and B. variable jet carburetter, though starting in temperatures approaching freezing point may have been affected. A new device for 1915 should, however, entirely overcome starting troubles even in temperatures below freezing point. To show the thorough way in which Messrs. Brown and Barlow, Ltd., have prepared for their 1915 design, each type of carburetter has been tested at a refrigerator company's premises for easy starting and general running at all variations of temperature to zero.

The new types of carburetter vary but little in main essentials, but a new design with a pilot, or easy starting jet, forms a novelty that will attract some attention. In all models the float arrangements have undergone considerable alteration, and in future a top feed will be used with the float acting direct on the needle, thus doing away with balance or toggle gear. Besides this an ingenious but simple arrangement allows the jet to be flooded without alteration to the level in the float chamber, with its consequent uncertain mixture. The device is as follows: The usual air vents to the float chamber have been removed and a single hole in the centre of the float tickler takes their place. Consequently, when the finger is placed on this plunger with the purpose of agitating the float, the



The latest B. & B. pilot jet carburetter fitted to a Matchless-M.A.G.

needle valve is dropped from its seating, but an air lock is formed in the chamber, and, consequently, the level cannot rise, though petrol can flow straight through the jet in a stream.

Except for the addition of a vaporising cap, which is pierced with holes in the top and sides, the single jet model is almost unaltered, and with this type, once the correct position for the air lever has been found, the driving is done almost entirely from the throttle.

Practically the same carburetter can be supplied in the form of the universal carburetter with alternative jet sizes controlled by a small lever at the base.

To Ensure Easy Starting.

Two newer models conform with the usual type of B. and B. carburetter except for the addition of a pilot jet lying close to the vaporising chamber, but on the engine side of the throttle. In one case this jet is only used as an easy starting device, and, once the engine is running, the jet is put out of action by a quarter turn of a small lever placed directly over it.

In the other case the operating lever is fitted with a very fine adjustment, so that the pilot jet may be left in action at all times, and can be relied on to keep the engine ticking over when the throttle is closed.

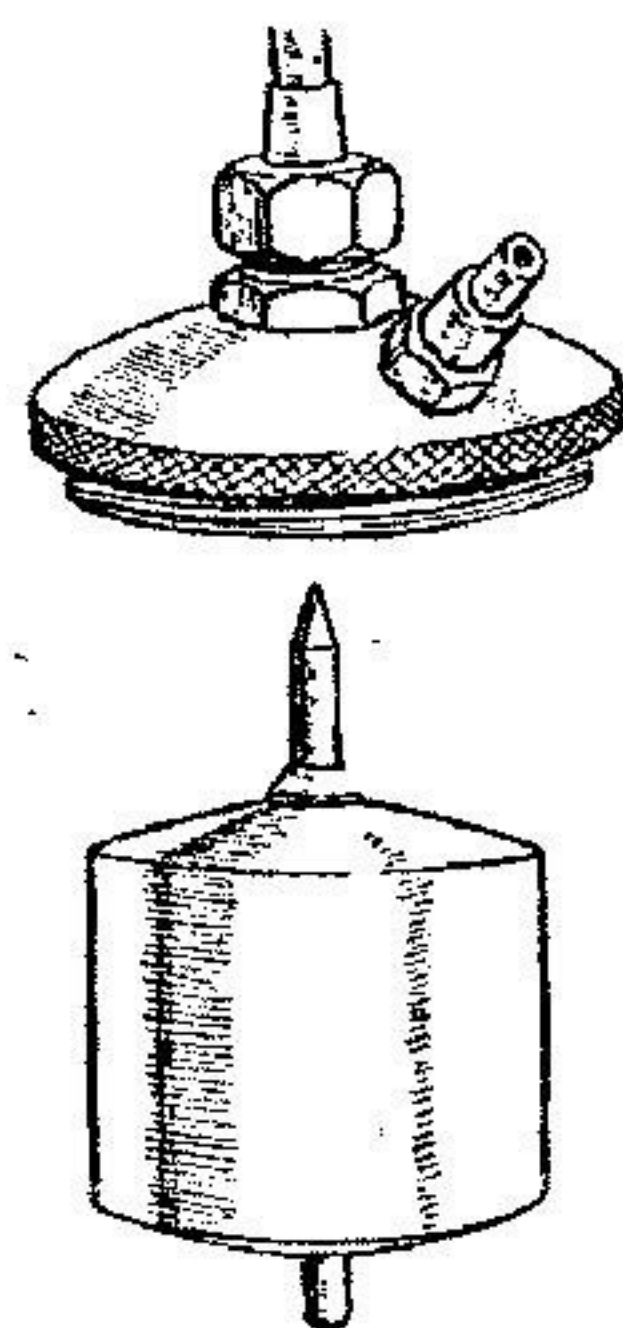
All the latest models are fitted with the air slide enveloped in the throttle

slide and moving in dovetail grooves. This gives an easier action, and also, as the air slide is narrow, admits a certain amount of air when the throttle is opened, thus rendering the carburetter more automatic in action. The variable jet carburetter may be set to be controlled entirely by the throttle lever, but the makers recommend the use of the air slide, as a wider range and better consumption can be obtained.

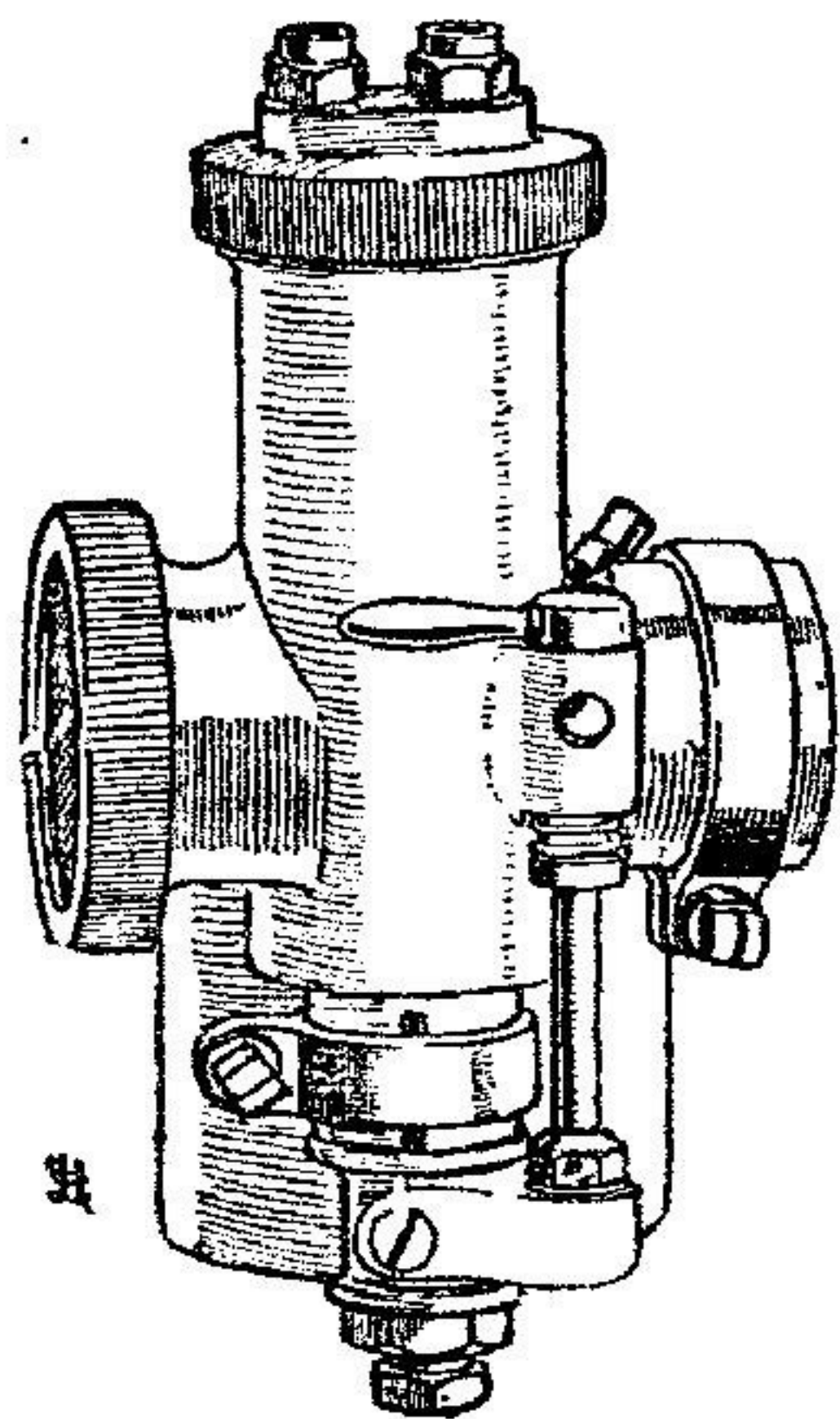
Results of Road Tests.

The new models have been undergoing road tests since the spring, and amongst the results which have been recorded the following may be taken as typical performances: On a very hilly course, with a load of 26 stones, a 6 h.p. Enfield and sidecar travelled 67 m.p.g., a 7 h.p. Matchless M.A.G. and sidecar accomplished 55 m.p.g., and a 3½ h.p. Triumph bicycle practically 110 m.p.g. These results are with the variable jet model, the single jet carburetter giving a slight increase in consumption in each case. The single jet type is peculiar in that the jet is cupped at the top, which improves starting.

We had the pleasure of a run on an 8 h.p. Matchless-M.A.G. sidecar outfit fitted with the pilot jet B. and B. carburetter, and it was indeed an experience to remember. The engine started regularly at the first dig of the kick starter, and ticked over slowly and quietly like any well-tuned four-cylinder car engine. It was impossible to choke the engine by sweeping open the throttle suddenly, and one could shut it down just as quickly and the engine would continue to tick over without fuss. It was proved to us that the power was in the engine too, and as regards economy we give the makers' test figures above. We must say that we were exceedingly impressed with the exhibition of this the latest B. and B. production, and it is bound to be largely in evidence on the new models for 1915.



The new top feed to B. and B. float chamber. It will be noticed that the balance weights have been done away with, and the needle acts direct in the cap.



Showing the pilot jet of the 1915 B. & B. carburetter.

TWO SPECIAL ISSUES OF "THE MOTOR CYCLE"

are in course of preparation. Both will be considerably enlarged and profusely illustrated. In the absence of the Show they are bound to be in great demand, and early orders should be placed with newsagents.

ANNUAL BUYERS' GUIDE ON NOV. 19th.

EQUIPMENT NUMBER ON DEC. 10th.

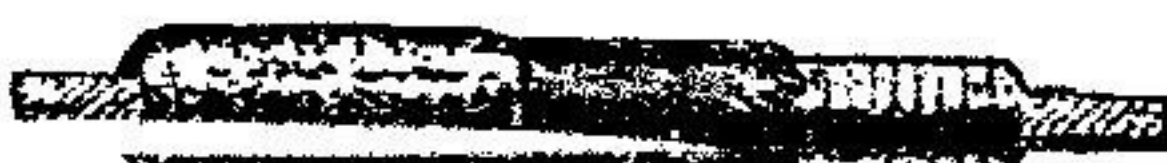
BOWDEN WIRE

BOWDEN Wire Mechanism assures the highest efficiency of control. Fitted to your motor cycle it will increase its safety and reliability.

All the Bowden Aids to Efficiency are designed and made by experts of practical experience who know where aids to efficiency and economy are necessary. A few are shown below, but there are many others fully described and illustrated in our 72 page catalogue. Write for a copy to-day.



BOWDEN SILVER.



BOWDENITE.

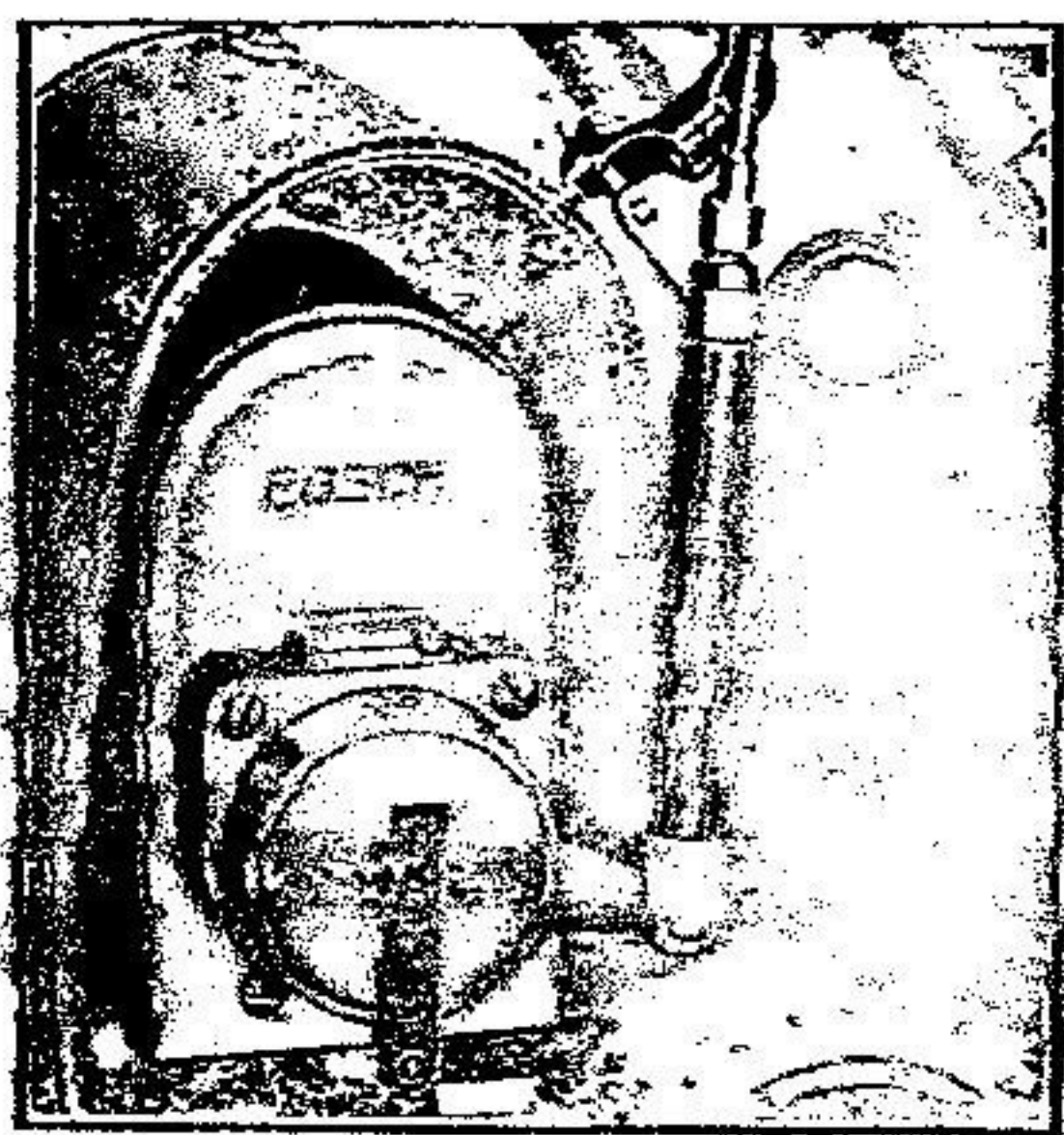


BOWDENOIR.



BOWDEN SOLO.

BOWDEN WIRE. For Controlling Brakes, Clutch, Air Inlet, Magneto, etc. Made in various strengths and finishes at from 2d. to 1 1/2 per foot.



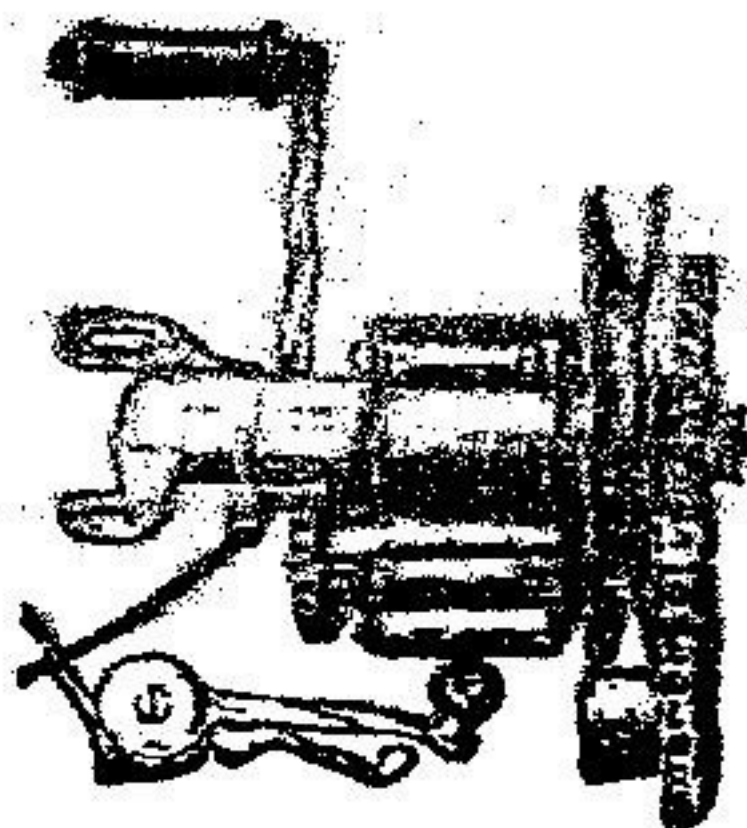
BOWDEN MAGNETO CONTROL

gives complete command of magneto adjustment from handle-bar—easily fitted to any machine. Just four screws to screw up—that's all.

Price from 8/6

BOWDEN CONTROL LEVERS

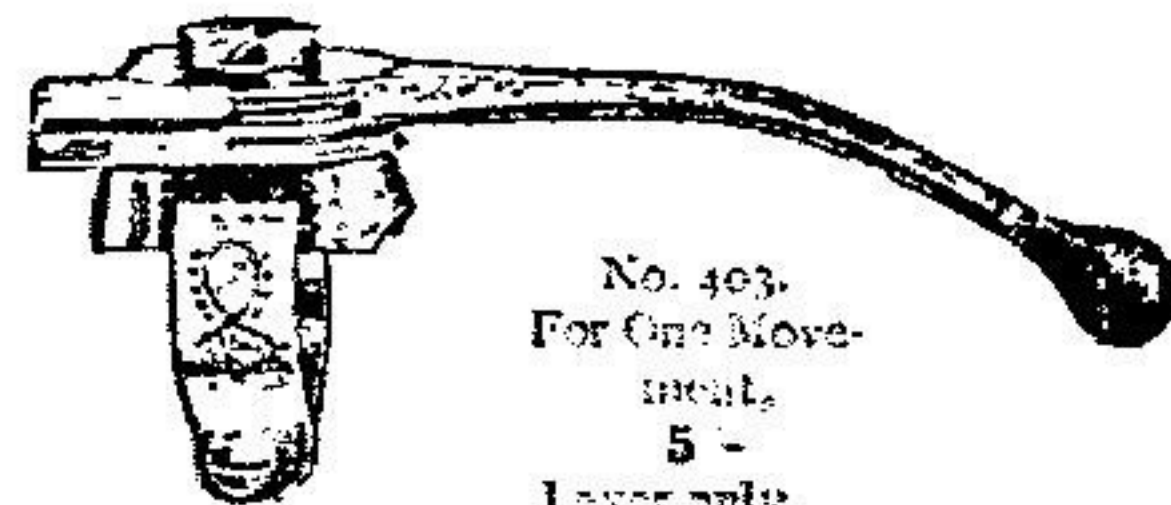
for Brake, Clutch, Air Inlet, Magneto, and other controls are made straight or curved, and for one, two, or three movements.



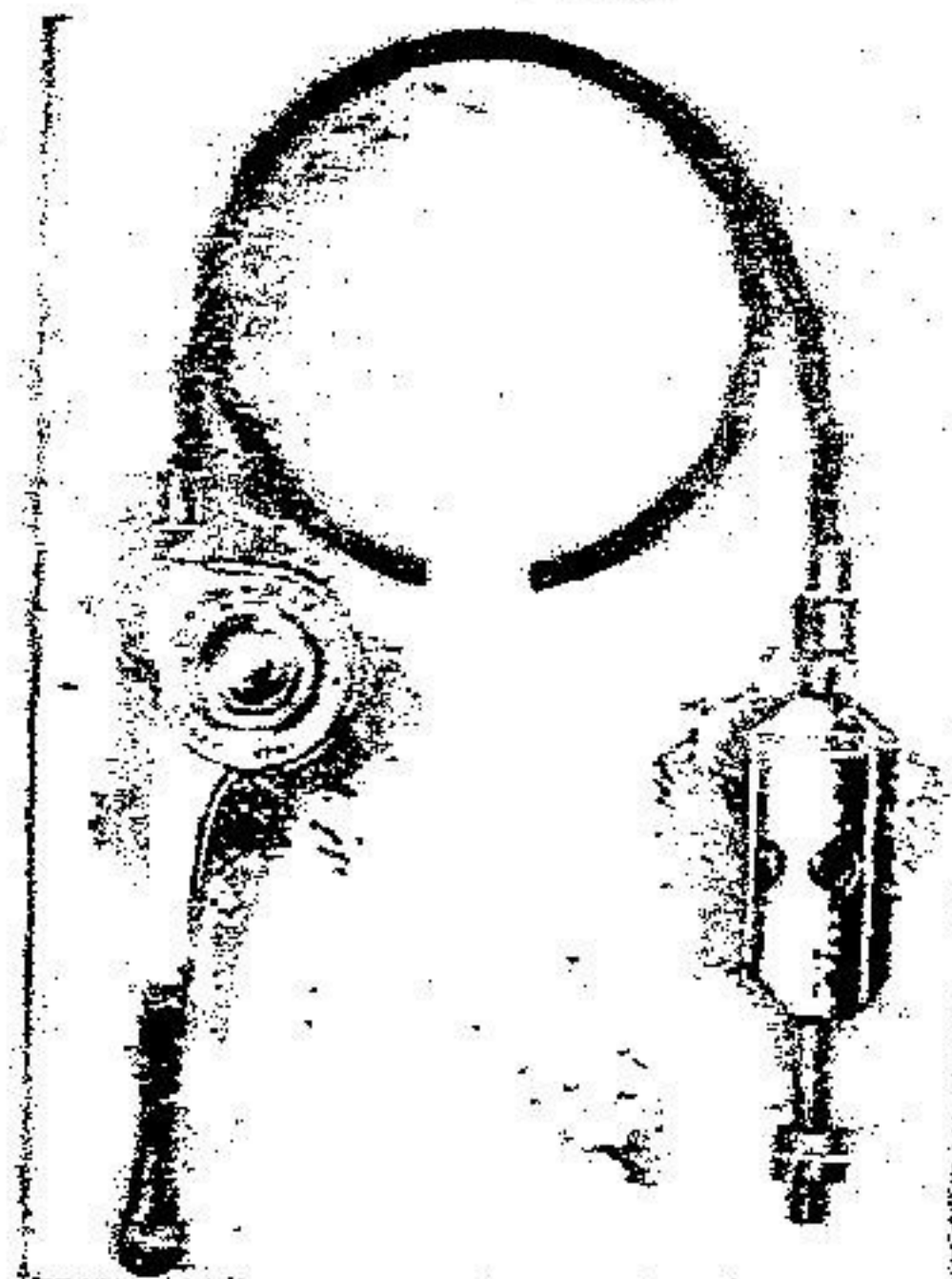
BOWDEN TWO-SPEED GEAR.

Fits a number of machines without any, and most machines with slight, alteration. The parts are few and simple. Counter-shaft type with Kick-starter. Guaranteed for engines up to 6 h.p.

Price from £8 8s.

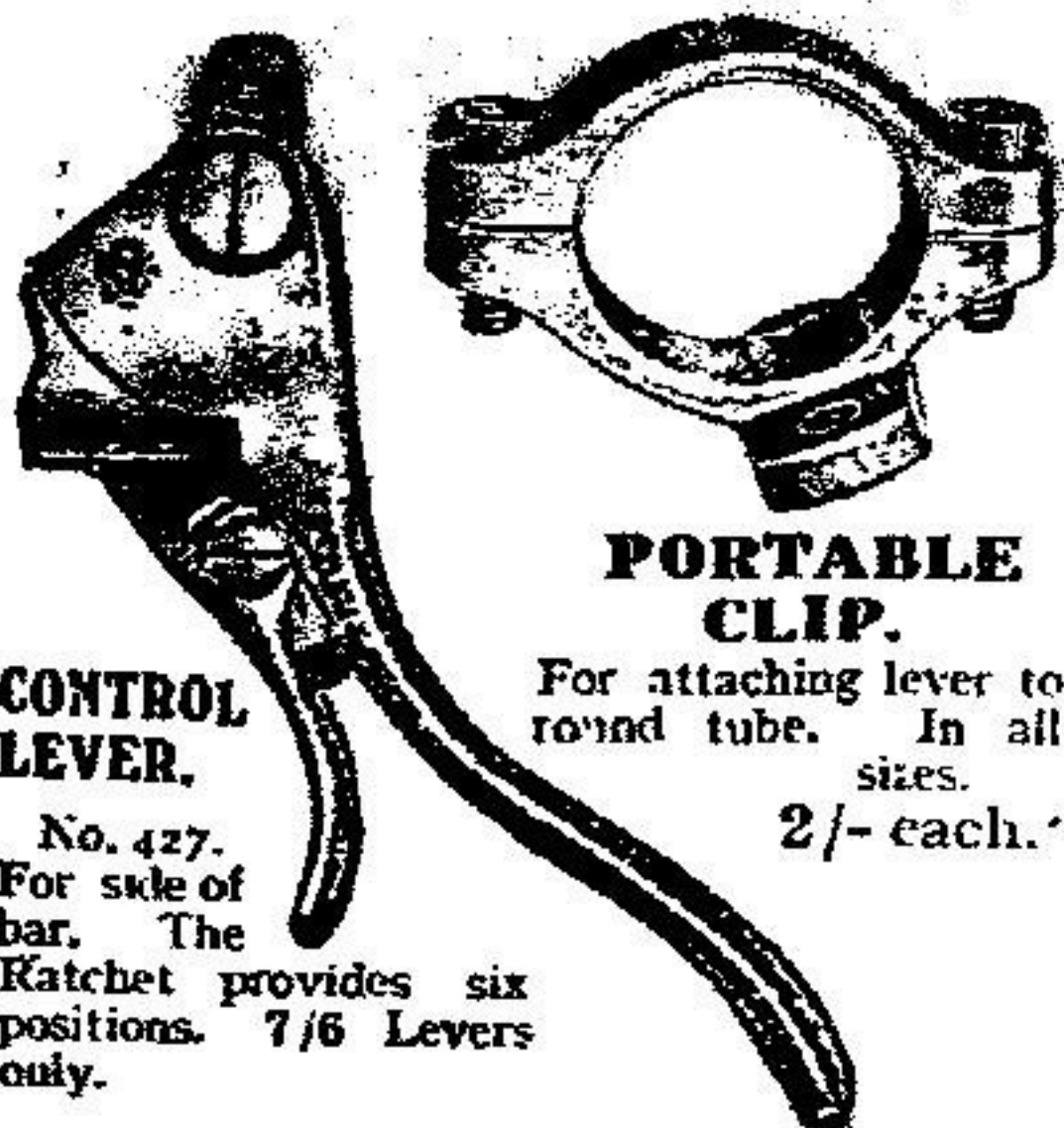


No. 403.
For One Movement.
5 -
Lever only.



BOWDEN EXTRA AIR INLET

A great Money Saver. Reduces Petrol Bill. Keeps the Engine clean and cool, and increases its efficiency. Provides an auxiliary brake. Write for descriptive folder.



CONTROL LEVER.

No. 427. For side of bar. The Ratchet provides six positions. 7/6 Levers only.

PORTABLE CLIP.

For attaching lever to round tube. In all sizes. 2/- each.



STOPS, with Lock Nuts.

For use with Bowden Wire Mechanism. When ordering give number and description of wire with which stop is to be used. Price from 4d. each.



BOWDEN RAPID VALVE GRINDER.

Helps you to grind a valve quickly and with absolute accuracy without dismantling cylinder. The most efficient valve grinder made.

Price 7/6

When ordering send remittance to cover cost of postage—any balance will be refunded.

BOWDEN WIRE LTD., LONDON.

Godbold

Pratt Street, Camden Town, N.W.

In answering this advertisement it is desirable to mention "The Motor Cycle."

THE AUTO-SIDECAR.

SINCE the Auto-Sidecar, made by the Auto-Sidecar Company, Perseverance House, Cubitt Town, E., was described in our issue of October 1st, various alterations have been made in its design. These are clearly evident in the accompanying illustrations, from which it will be seen that the sidecar frame has been very much improved and strengthened, while another important change is the fitting of a really effective mudguard of ample width and provided with a deep valance on its inner side. Further, a body of pleasing outline has been fitted by Messrs. Purcells, 78, Charlotte Street, W. Hinged legs for the purpose of jacking up either the sidecar or pedal cycle wheel are fitted to the longitudinal members of the frame, thus acting as an efficient jack. We understand that in the near future an expanding pulley will take the place of the fixed pulley, so that some means of varying the gear will be provided, and the petrol tank will be cylindrical in shape.

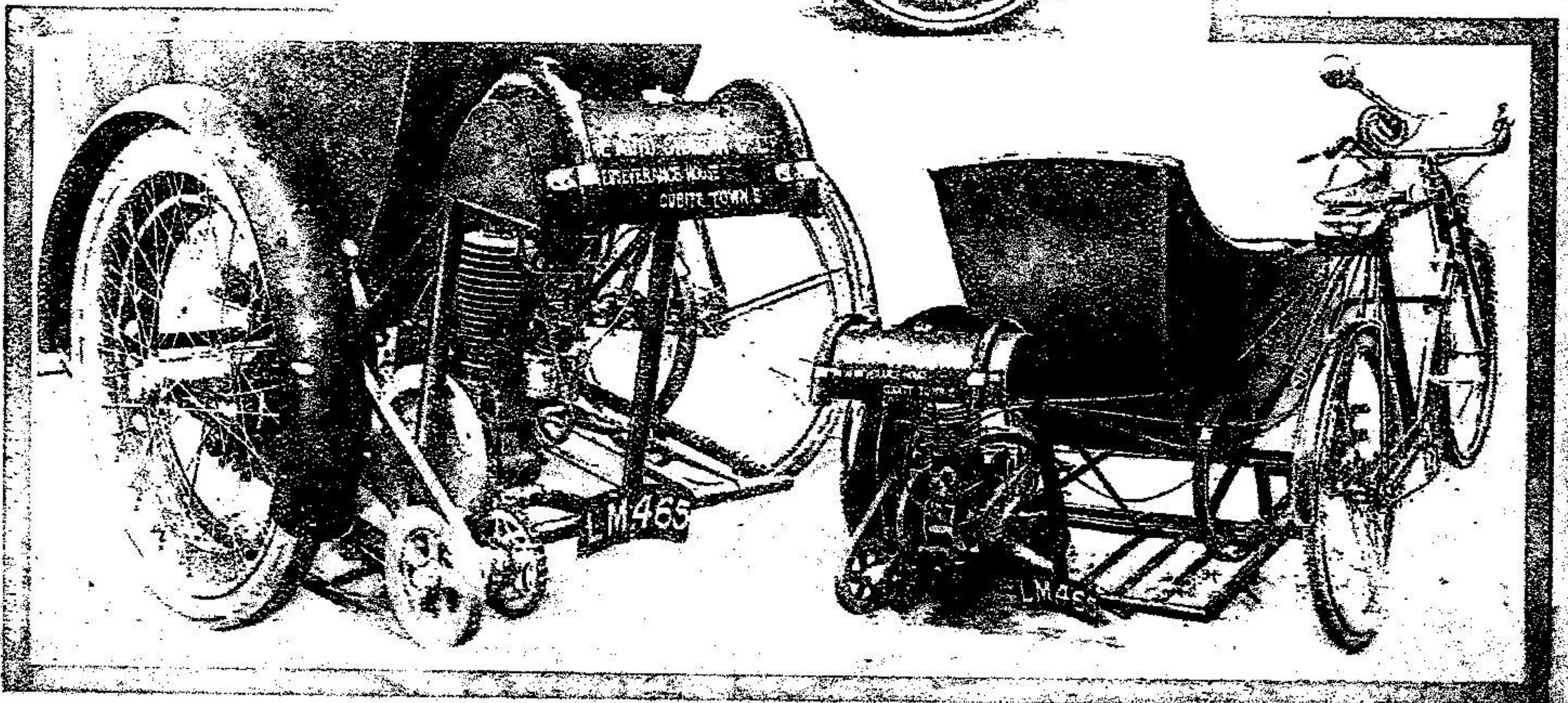
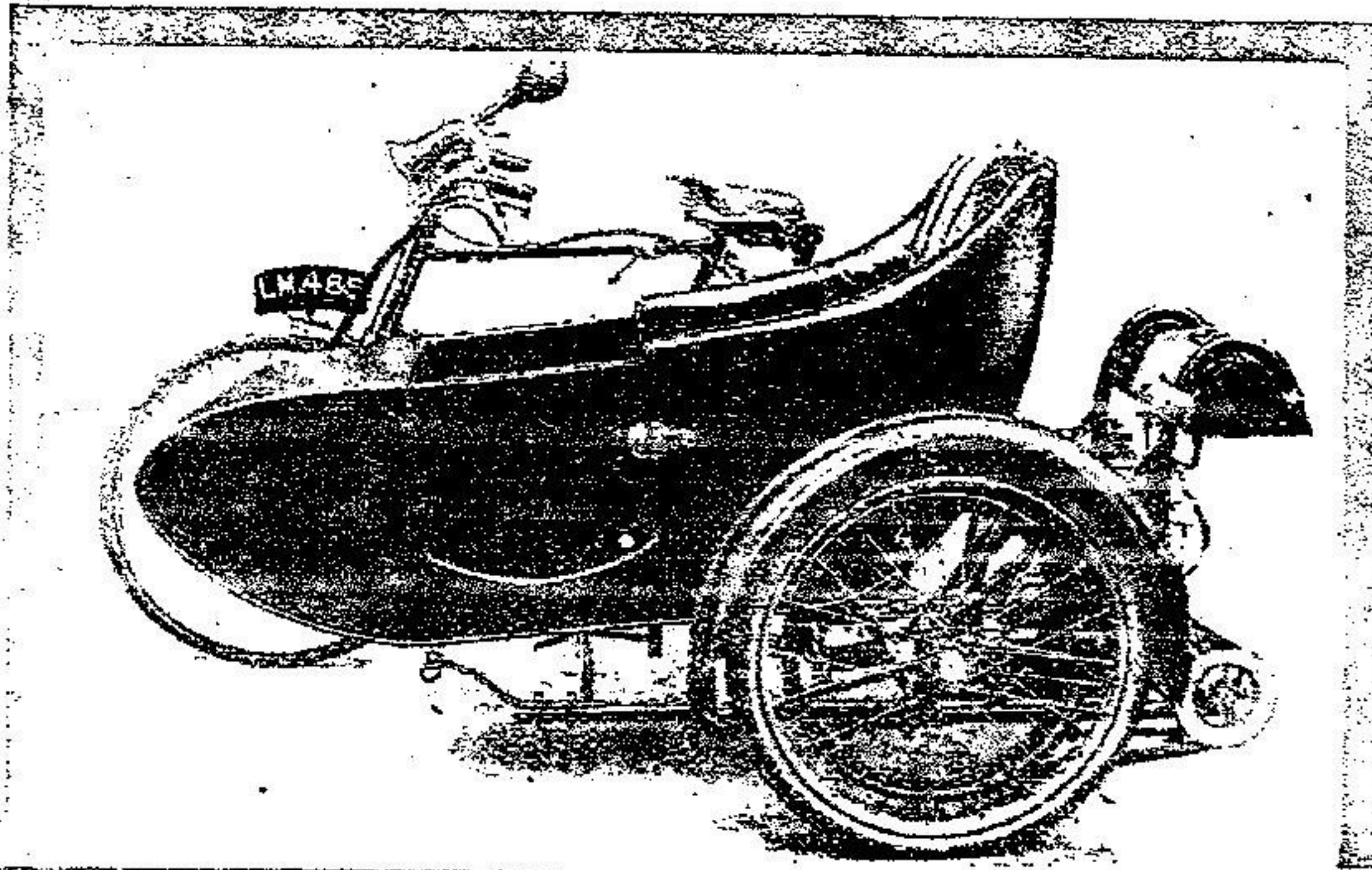
Before we tried the Auto-Sidecar it did not seem possible that the diminutive little engine would develop anything like sufficient power to propel the required load at a steady speed of 12 to 15 m.p.h. However, this was

the case, and it was only on fairly steep gradients that a little pedal assistance was necessary.

Practically No Vibration.

At first sight one would imagine that the sidecar passenger would feel a certain amount of vibration owing to the way in which the engine is mounted, but in actual practice all tremor caused by the engine is effectually damped by the springs and upholstery of the sidecar. It is difficult to make the sidecar lift on corners owing to the weight of the engine and low speed obtainable. Turning to the point of view of the cyclist, there are many little advantages which accrue from such a design. Perhaps the foremost of these is the fact that special overalls can be dispensed with on good roads and in fine weather, as there is little possibility of getting oil stains on one's clothes,

and both driver and passenger are seated well away from the noise. Naturally, the attachment is not intended to take the place of the more powerful sidecar combination, nor is it meant for serious touring, but rather to provide a leisurely means of getting about for the potterer in not too hilly country.



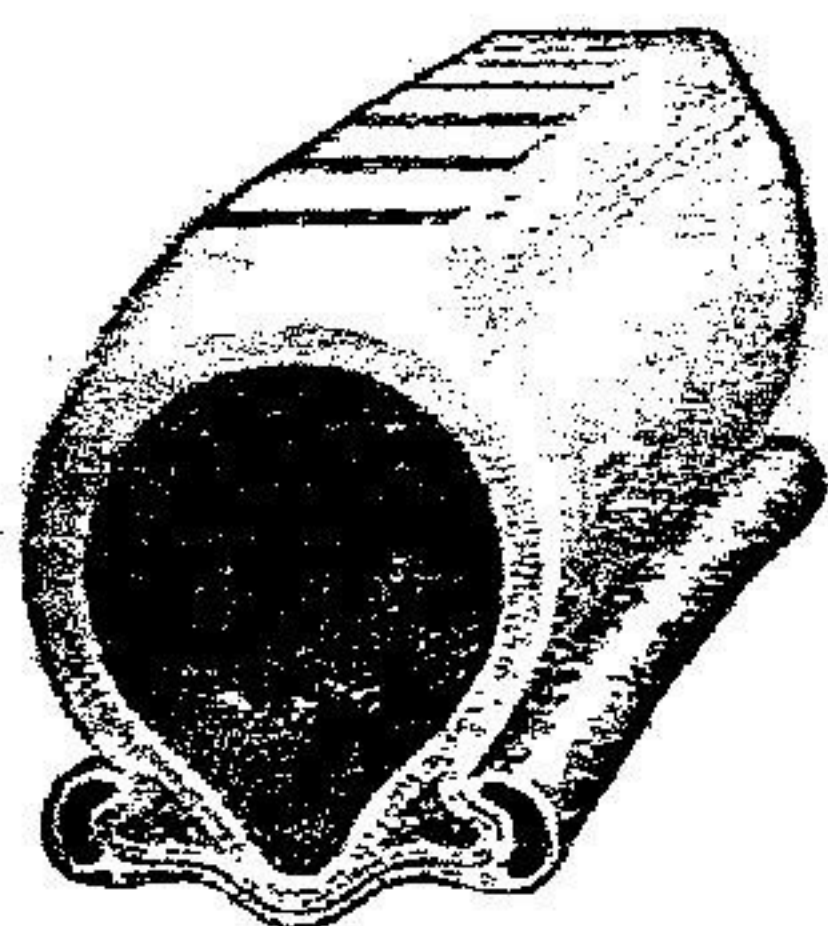
Various views of the latest Auto-Sidecar, detail improvements of which are described above.

TWO SPECIAL ISSUES OF "THE MOTOR CYCLE"

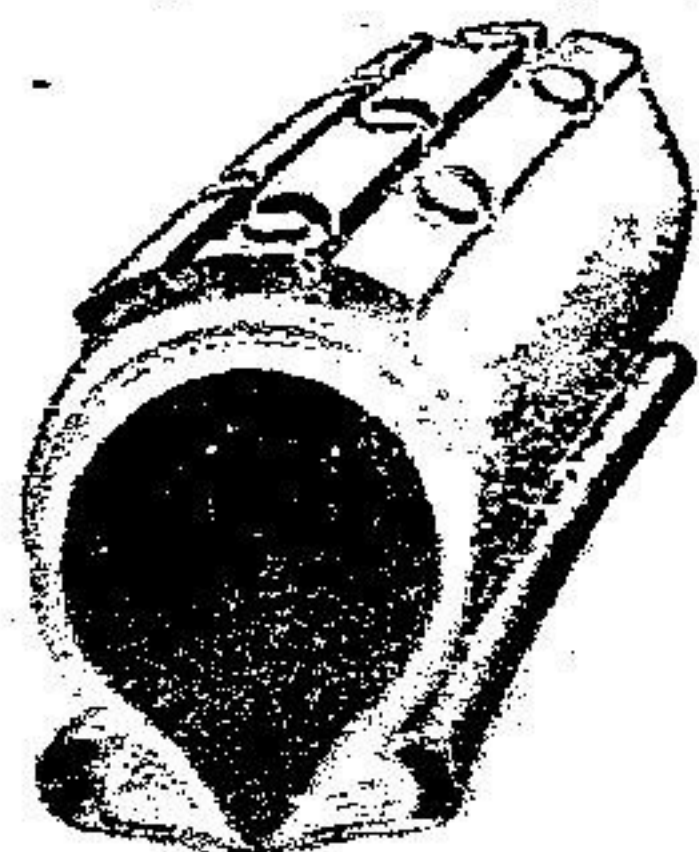
are in course of preparation. Each will be considerably enlarged and profusely illustrated. In the absence of the Show they are bound to be in great demand, and early orders should be placed with newsagents.

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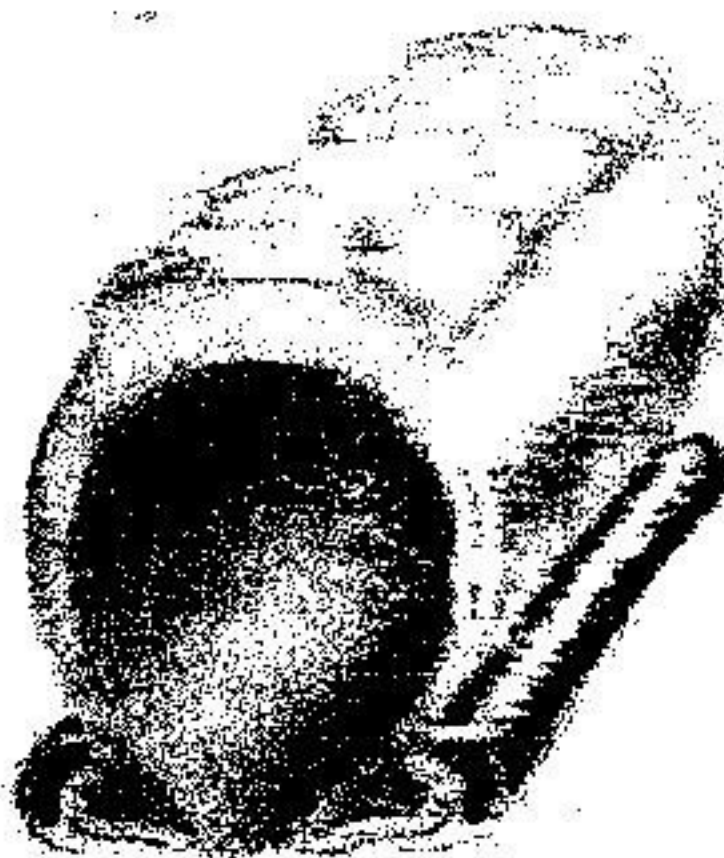


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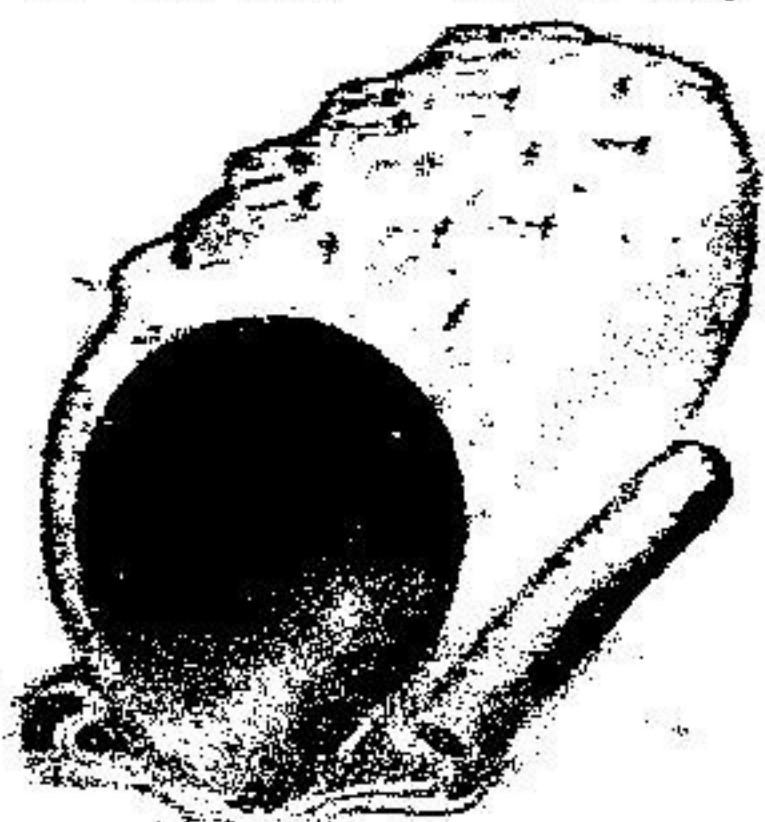


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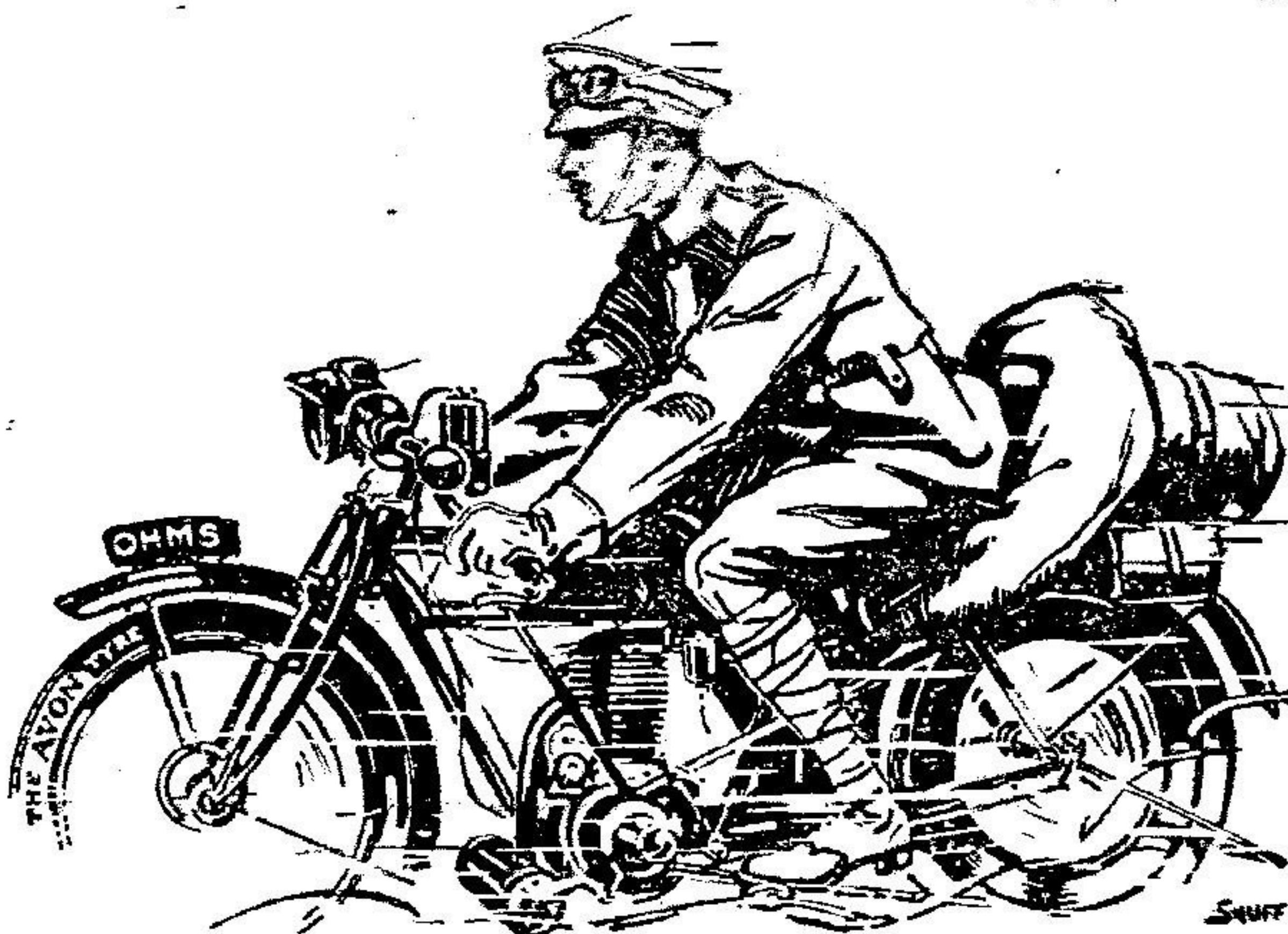
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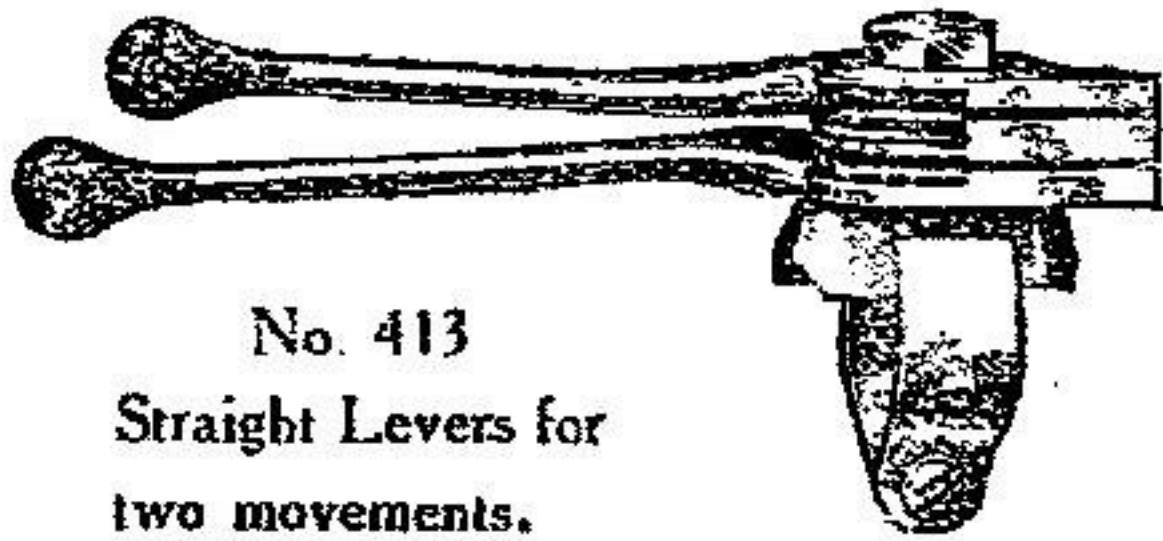
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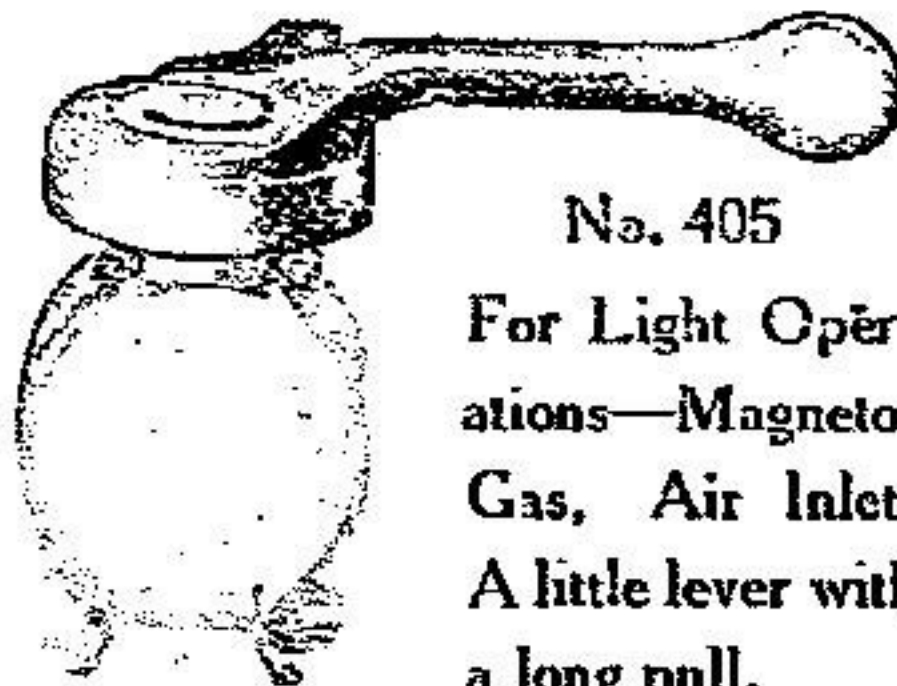
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Control Levers for Bowden Wire

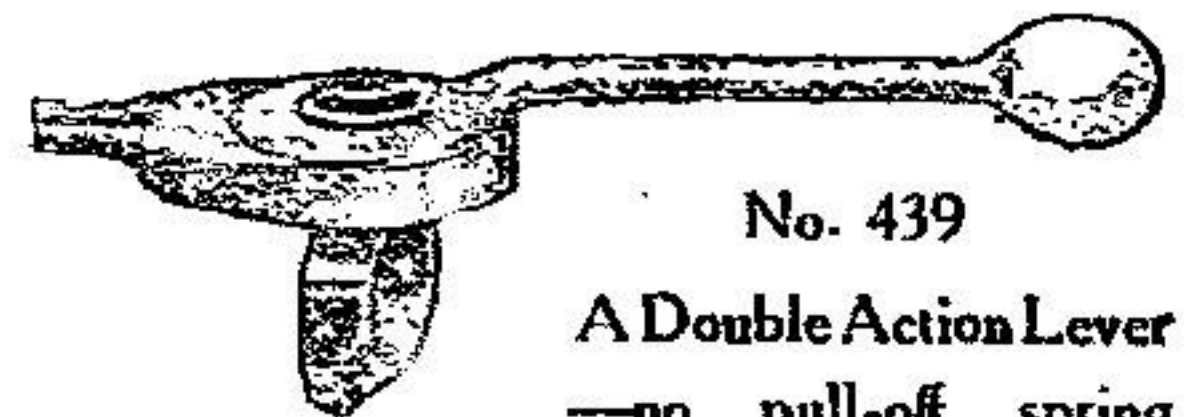
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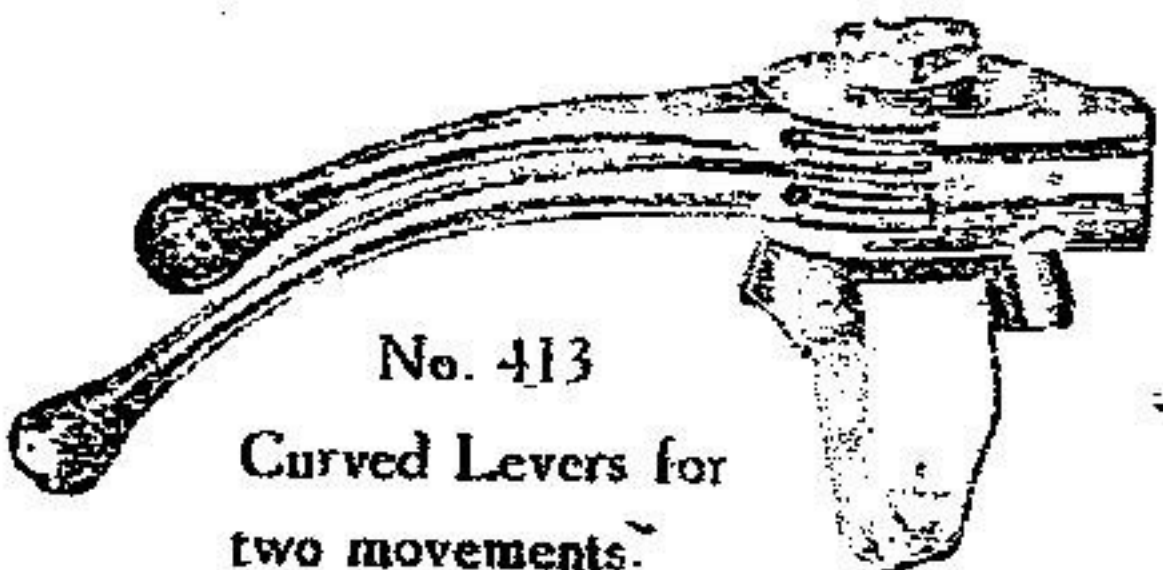
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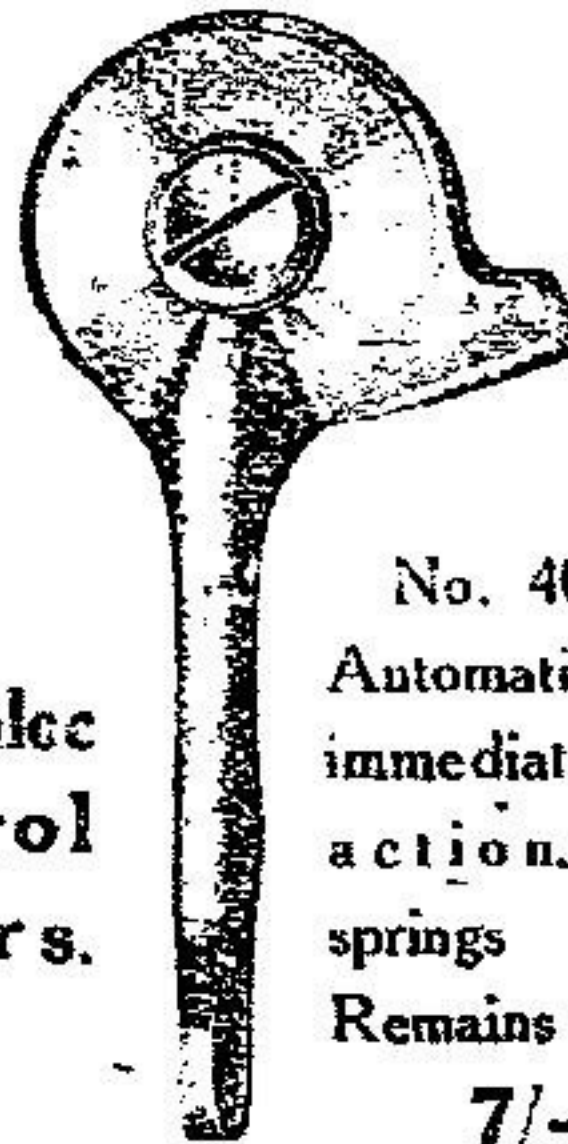
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A little lever with
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—no pull-off spring
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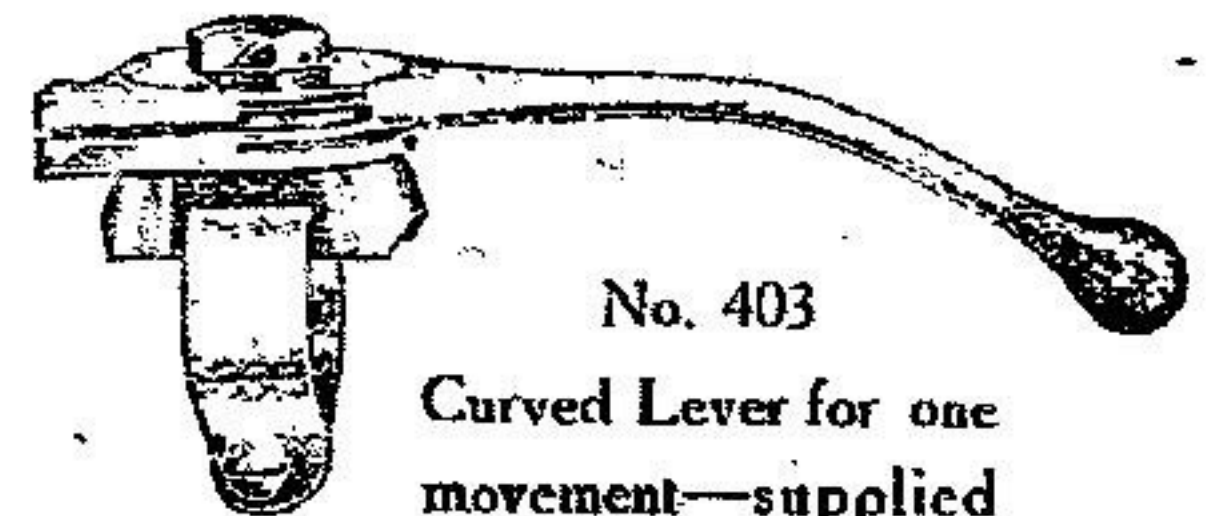


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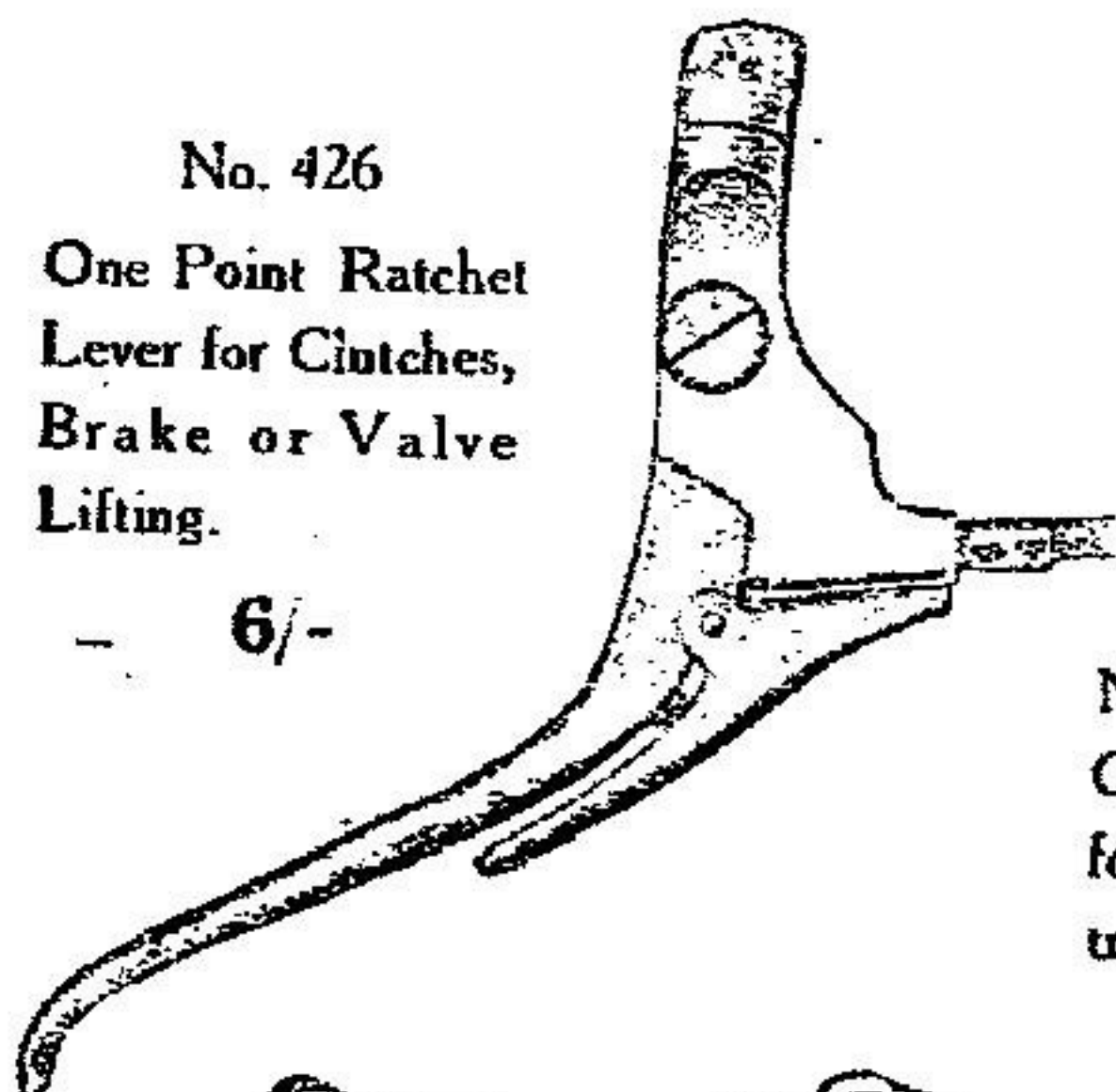


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Remains rigid.
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with pin fitting if
required.
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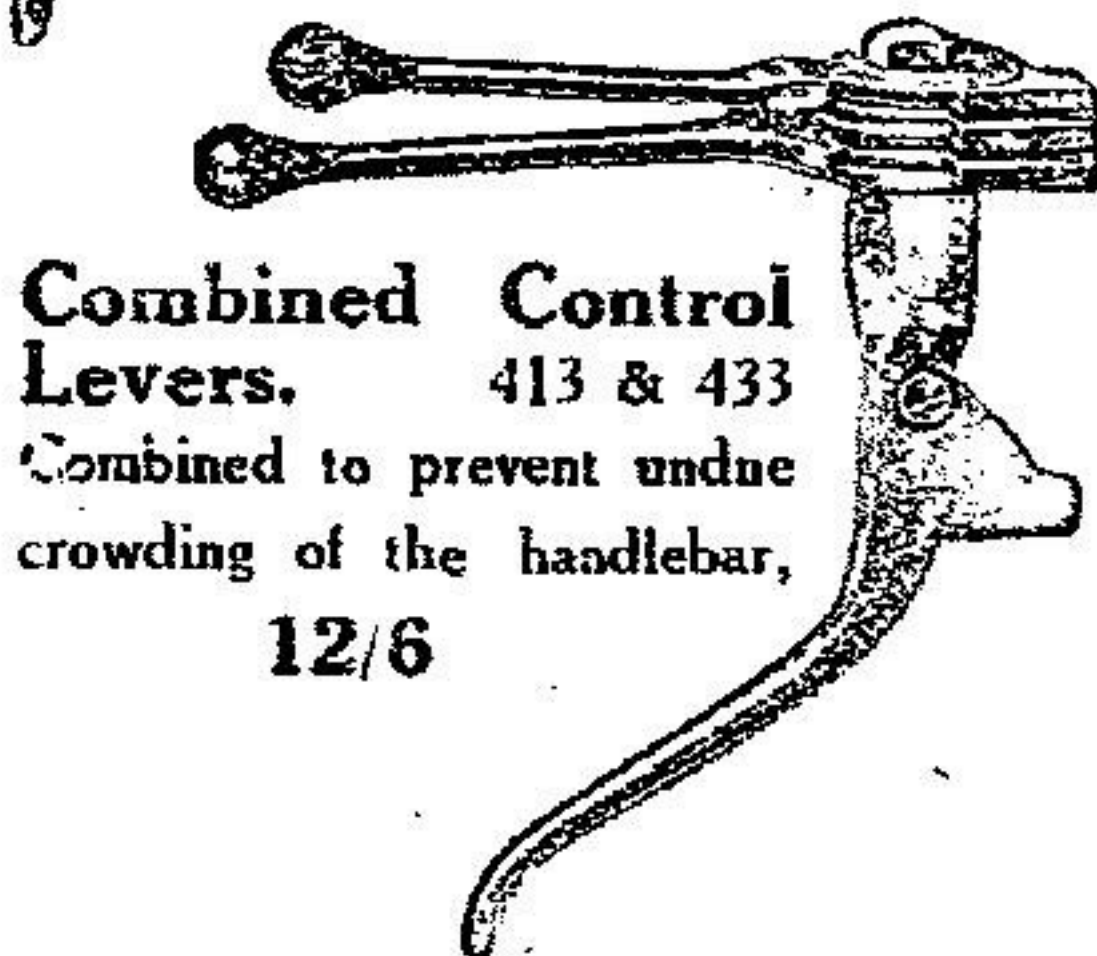
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The Ratchet pro-
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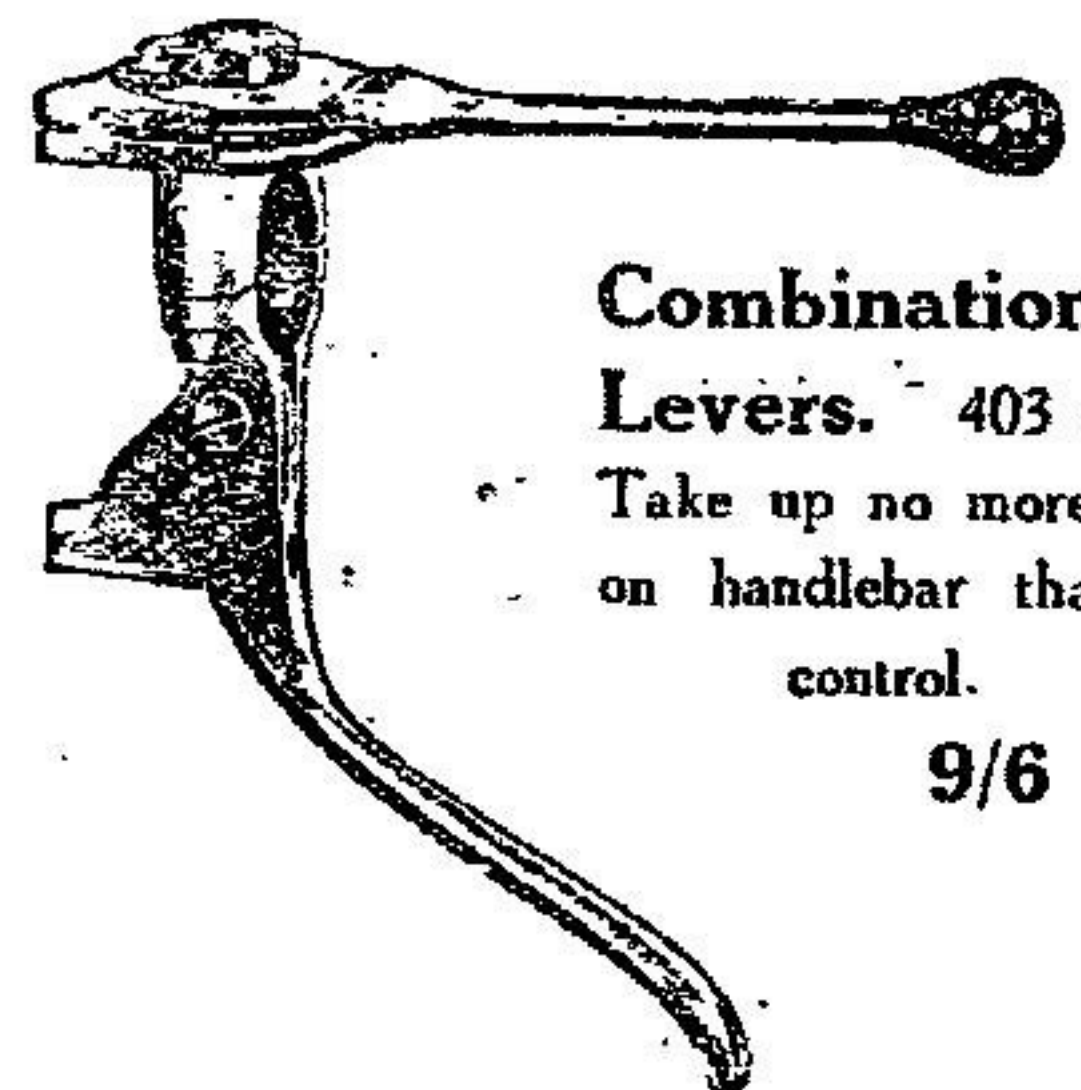
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Combined to prevent undue
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**Two
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9/6



**Combination of
Levers.** 403 & 433
Take up no more space
on handlebar than one
control.
9/6

When complete controls are ordered,
inner wires are nipped and outer
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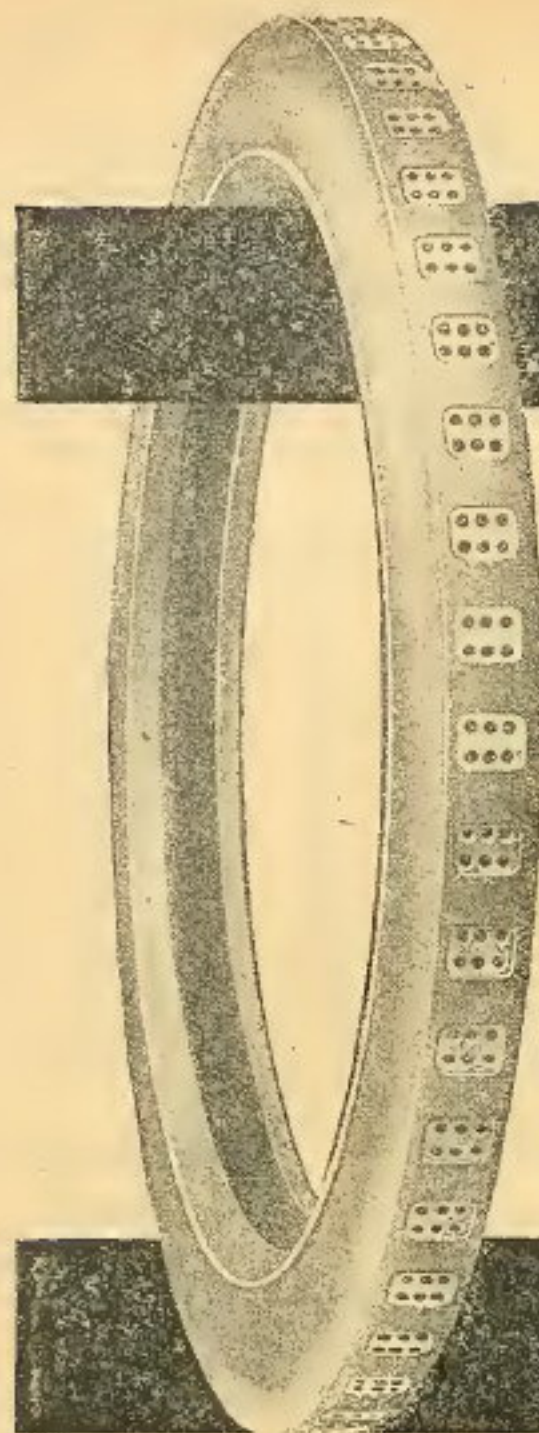
Godbold.

THE MOTOR CYCLE

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