



“MATCHLESS” MOTOR-CYCLES

Telegrams and Cables :
“MATCHLESS, WOOLWICH.”

Code : A.B.C. 5th EDITION and
PRIVATE CODE.

Telephone :
WOOLWICH 17 and 18.

“MATCHLESS”
THE WORLD'S BEST
MOTOR - CYCLES
1915.

H. COLLIER & SONS LTD
MOTOR-CYCLE MANUFACTURERS.
CONTRACTORS TO H.M. GOVERNMENT.

Registered Offices and Showrooms :
44 PLUMSTEAD ROAD,
PLUMSTEAD, LONDON, S.E.
ENGLAND.

Nearest Station :
WOOLWICH ARSENAL (S.E. & C. Ry.).

Works :
BURRAGE GROVE, PLUMSTEAD.

“MATCHLESS” MOTOR-CYCLES

"MATCHLESS" MOTOR-CYCLES, 1915.

WE have great pleasure in presenting herewith our 1915 Catalogue, feeling sure that the New Models illustrated and described within represent the type of passenger-carrying vehicle which will appeal to all motor-cyclists who desire to purchase the most perfect motor-cycle of the day.

The phenomenal success attained by the 8B Model during the past season was proof that our efforts to produce a machine—powerful, reliable, silent, and easy to control—were appreciated, and the flattering testimonials we have received from numerous satisfied owners have encouraged us to adhere to our policy of supplying the best motor-cycle that can be produced.

Our determination has been to produce a motor-cycle and sidecar combination as near perfection as present day mechanical science can accomplish, and the improved organization of our works has resulted in a much higher standard of excellence being reached than has ever been possible before.

This, combined with the fact that nothing but the very best material is used in manufacturing, has resulted in a very much improved motor-cycle, which has given the utmost satisfaction.

The system of rigid inspection to which every detail is subjected makes it almost an impossibility for either defective workmanship or material to pass through the works, with the result that every motor-cycle now manufactured can be relied upon to give the best results in every way.

The New Model 8B/2 represents the limit of refinement which has been reached, and is the result of our most strenuous efforts to provide "something obviously better" than anything else on the market.

This model has been put through the most severe trials possible, and competed successfully in all the most important trials during last season. A few illustrations of our methods of testing new models are shown on pages 10 and 11; and the severe class of work to which our machines are subjected, both at home and abroad, is referred to on pages 12 to 15. Numerous Trophies now held by the "Matchless," together with some of the medals recently won, are illustrated on pages 16 and 17, whilst the fact, that for the past two seasons our Mr. C. R. Collier has been selected to represent Great Britain in the International Trials is indisputable proof that the claims of the "Matchless" are fully recognised by the Authorities who govern Motor-cycling Sport in this Country.

H. COLLIER & SONS LTD.

TERMS OF BUSINESS.

HOME TRADE.

PRICES.—The prices of all machines in this Catalogue are Nett Cash, and no allowance of any kind can be made, whether orders are received direct at our works or through any of our appointed Agents.

ORDERS.—A deposit is required upon all orders for Motor-cycles, except in cases where contracts have been arranged.

When machines are nearing completion a statement will be sent showing balance due, and on receipt of cash to cover same, machines will be forwarded immediately.

PACKING AND FORWARDING.—Delivery is at our Works; all charges for carriage to be paid by purchaser.

Crates are charged at 5/6 each, and are not returnable.

Our responsibility ceases when goods leave our works. Careful examination should be made of machines before signing for them, and claim should immediately be made on Carriers for any damage done.

FOREIGN AND COLONIAL.

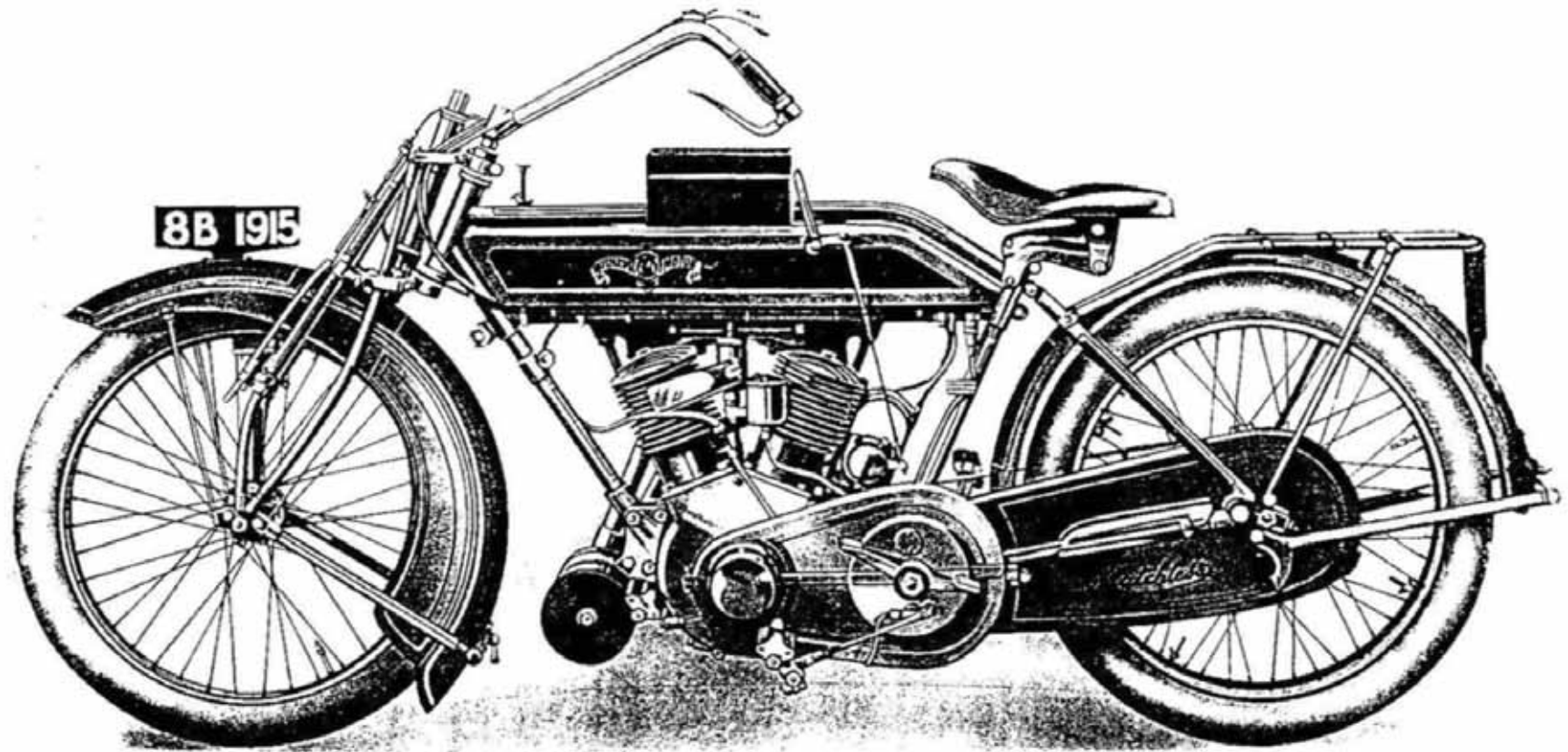
All orders from abroad, unless received through Established Agencies or Shipping Houses, must be accompanied by a deposit of not less than £10, and credit opened with English Bank or first-class firm who will pay balance on receipt of Shipping Documents.

Delivery is at our Works, and purchasers must bear cost of cartage to London Docks.

PACKING.—Cost of strong pitch-paper lined case and packing for export is 25/- for one machine. If two machines are packed in one case, the cost will be £2 per case. Case for sidecar 25/-.

Every motor-cycle is thoroughly tested on the road before being despatched.

MODEL 8B



MODEL 8B

DESCRIPTION

DESCRIPTION OF MODEL 8B.

THE machine illustrated on opposite page was designed to meet the demand for a powerful chain-driven passenger machine. Many months were spent in experimenting and testing before the gear was finally adopted, and, in our opinion, the three-speed countershaft gear operated by a gate change and fitted with shock absorber overcomes all the defects which have been found on chain-driven machines in the past.

The drive is by silent chain from engine to countershaft, and thence by large roller chain to the rear wheel. On the engine shaft a simple and most efficient shock absorber is fitted, which makes the drive as silent, smooth and silky as the belt, with greatly increased reliability. The silent chain was first introduced on "Matchless" Motor-cycles.

A friction clutch is provided on the countershaft, controlled by foot. It is of the metal-to-metal type, and consists of two phosphor bronze wedge-shape discs, upon which is mounted

the countershaft sprocket. These bronze discs are gripped between two V-shaped steel discs by the pressure of six springs, thus providing a very simple form of clutch, with very large contact surfaces. It is well known that to obtain the best results from a metal-to-metal clutch it is necessary that the contact surfaces be well lubricated; a bye-pass in the main oil supply to the engine is therefore provided which automatically delivers oil to the interior of the clutch, and from thence to the front driving chain. Both chains run in an oil-tight and dust-proof case, on the front of which is the oil connection for the clutch lubrication, described fully and illustrated in Instruction Book.

The method of operating the gear is similar to that of the latest motor-car, it being most essential to declutch when changing gear. A foot-operated internal expanding brake is provided in the rear hub. This brake gives a very powerful retarding effect, which is perfectly smooth and progressive.

SPECIFICATION.

FRAME.—Latest low pattern, built up throughout with selected weldless steel tubing and drop forged-steel lugs, with sidecar attachments.

FORKS.—Girder pattern, reinforced, with concealed springs, and grease cups to all bearings.

TANK.—Extra large, to carry two and a quarter gallons of petrol, half a gallon of oil. Large filler caps, petrol strainer, drain tap, petrol filter and semi-automatic combined sight-feed and drip oil pump.

ENGINE.—7 h.p. twin-cylinder V type. Bore 82, stroke 94—996 cubic capacity. Overhead inlet valves entirely enclosed, silent timing and adjustable tappets.

MAGNETO.—Latest ball-bearing, weatherproof, carried on platform at rear of engine.

CARBURETTOR.—Two-lever, hand-controlled, semi-automatic, with hot air pipe.

SILENCER.—Large and effective, with tail pipe to rear of machine.

CONTROL.—Valve lifter on left handle bar. Ignition lever on left side of tank.

GEAR.—Countershaft three-speed gear box, operated by gate change on right side of tank.

FREE ENGINE CLUTCH.—Metal-to-metal, practically indestructible, automatically lubricated, with suitable foot-pedal on left side of machine.

KICK STARTER.—Effective kick starter direct to gear on right side of machine.

TRANSMISSION.—Silent chain drive from engine to countershaft, heavy roller chain to rear wheel.

SHOCK ABSORBER.—Fitted to engine shaft; simple and effective.

CHAIN CASE.—Heavy metal, oil retaining, entirely enclosing chains and clutch.

WHEELS.—Front 650 x 65, with Car tyre.

Rear 650 x 65, with three-inch heavy Car tyre.

MUDGUARDS.—Four and a quarter inches wide, with side wings for front wheel.

STANDS.—For both wheels.

SADDLE.—XL'ALL pan seat; very comfortable.

HANDLE BARS.—V pattern with cross stay.

CARRIER.—Strong, tubular, to carry ten to twelve stone.

FOOT-RESTS.—Two pair, giving comfortable change of position.

BRAKES.—Front rim, hand-applied, inverted lever.

Rear, internal expanding metal with foot pedal.

LUBRICATION.—Semi-automatic drip feed to engine, and carried by bye-pass to clutch and chains.

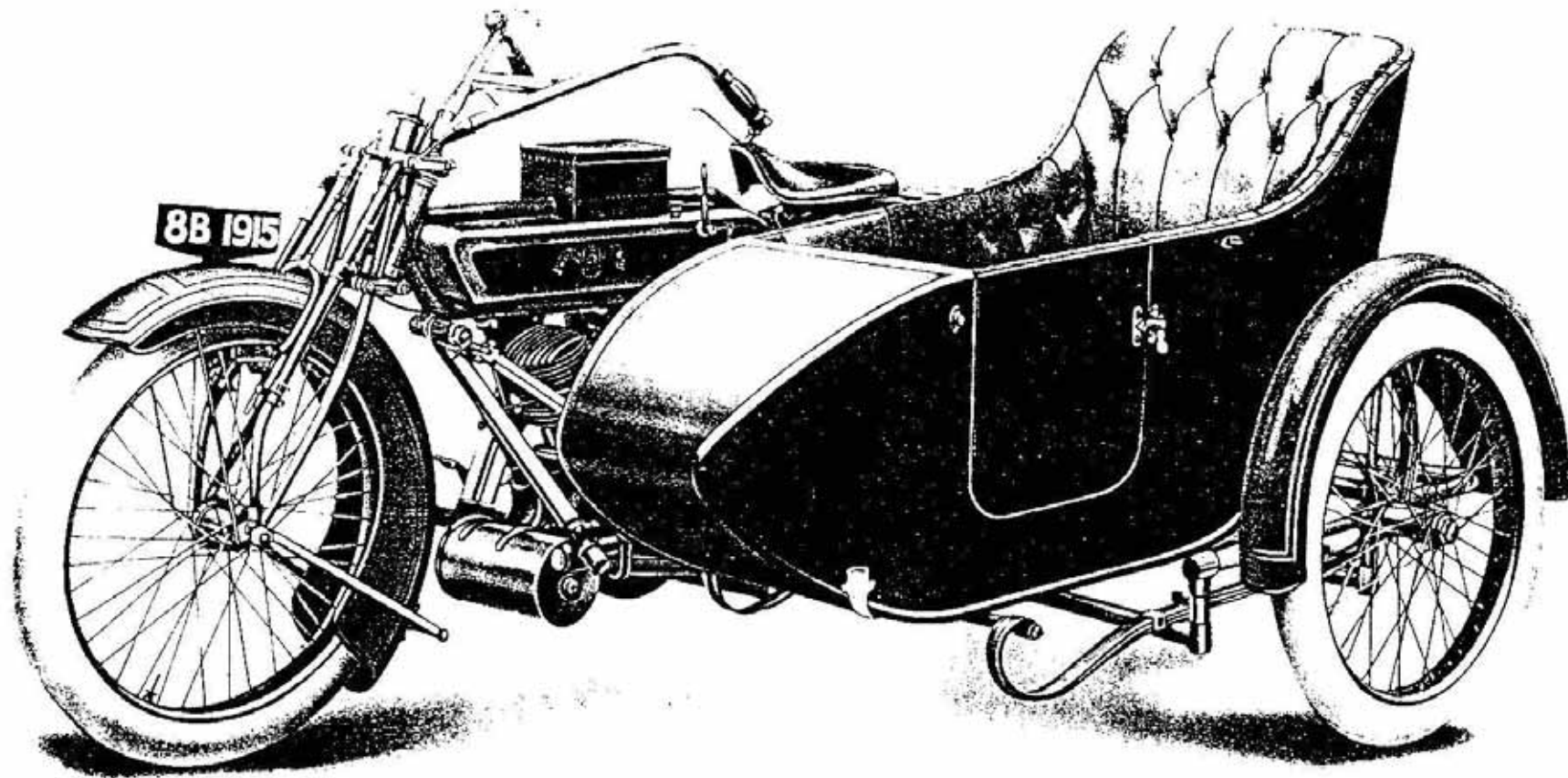
EQUIPMENT.—Inflator carried on front forks. Tool bag on top of tank, containing full kit of tools for all parts of machine, and Instruction Book.

FINISH.—Enamelled "Matchless" grey, fine lined green and gold, usual parts heavily nickel plated.

PRICE.—£75.

SPECIFICATION

8B COMBINATION



8B COMBINATION

DESCRIPTION OF MODEL 8B COMBINATION.

THE Combination illustrated on opposite page is the outcome of the most extensive experience possible in this class of motoring.

The "Matchless" has for years past been the most popular on the road for use under all conditions as a Sidecar machine, and the unparalleled success which has accompanied our productions in every class of competition is a guarantee that you are not buying any string of untried ideas assembled with the hope of catching the eye, but a machine which shows that every point has been most carefully studied and developed by the steady cultivation of approved principles.

By introducing the above Motor-cycle and Sidecar as one unit, we have been able to meet every requirement of the novice and expert alike, and the various refinements incorporated must appeal to all riders.

The kick starter and valve lifter allows the engine to be started in the easiest possible manner without undue effort.

The three-speed gear and foot-operated clutch makes the control as perfect as the most expensive car, and, combined with the gate change, the machine can be driven in the most congested traffic with delightful ease, the sidecar entirely eliminating all possibility of sideslip.

The 7 h.p. engine provides ample power for all requirements, being capable of climbing practically any hill on top gear. The second speed enables the rider to take any unusual gradient without unduly racing the engine, and the low speed provides an emergency gear

which enables the machine to be driven up any hill having a rideable surface regardless of adverse conditions.

The range of speed is so great that the entire combination can be driven on top gear from five to fifty miles per hour with perfect ease and safety, whilst by using the free engine clutch, the rider can crawl through the slowest traffic without stopping engine.

The "Matchless" Silencer is designed to give the utmost silence without back pressure, and this model is by far the quietest motor-cycle on the road, regardless of power.

Comfort has been studied for both rider and passenger. XL'ALL saddle, adjustable foot-rests, and position of handle bar, fully meeting all requirements of the rider, whilst the design, cushion, trimming and springing of sidecar leave nothing to be desired.

First cost is not the only factor to consider regarding real economy; length of service, freedom from breakdown and low petrol consumption all count; whilst the high price which can always be obtained for a second-hand "Matchless" reduces running expenses considerably and goes far towards making our machines the most economical in use.

The appearance of the "Matchless" is always distinctive, the neat design, absence of superfluous rods and wires, and the high-class grey finish entirely eliminate the untidy appearance usually associated with motor-cycles.

We feel confident that the care and attention we have bestowed upon the above will be fully appreciated by all riders

SPECIFICATION.

FRAME.—Latest low pattern.

FORKS.—Reinforced girder with concealed springs.

TANK.—Capacity, two and a quarter gallons of petrol, half a gallon of oil. Large filled caps, petrol strainer, drain tap, and semi-automatic sight-feed pump.

MAGNETO.—Latest ball-bearing, weatherproof.

CARBURETTOR.—"Matchless" Amac, semi-automatic, hand-controlled.

SILENCER.—Large and effective.

GEAR.—Countershaft three-speed with gate change.

CLUTCH.—Metal, foot-controlled.

TRANSMISSION.—Silent chain to countershaft, extra heavy roller chain to rear wheel. Efficient shock absorber, all entirely enclosed in metal oil-tight case.

STANDS.—To both wheels.

SADDLE.—XL'ALL pan seat.

FOOT-RESTS.—Two pair, with rubber pads.

BRAKES.—Hand-applied front rim, foot-controlled internal metal expanding bands to rear hub.

SIDECAR.—Standard "Matchless," with girder pattern underslung frame, long C springs, stand, and petrol can carrier, four-point attachments. Metal coach-built body of registered design, trimmed "Matchless" grey leather-cloth, spring cushion, hinged top cover, folding luggage grid.

DETAILS.—As specification and illustrations on pages 8 and 9.

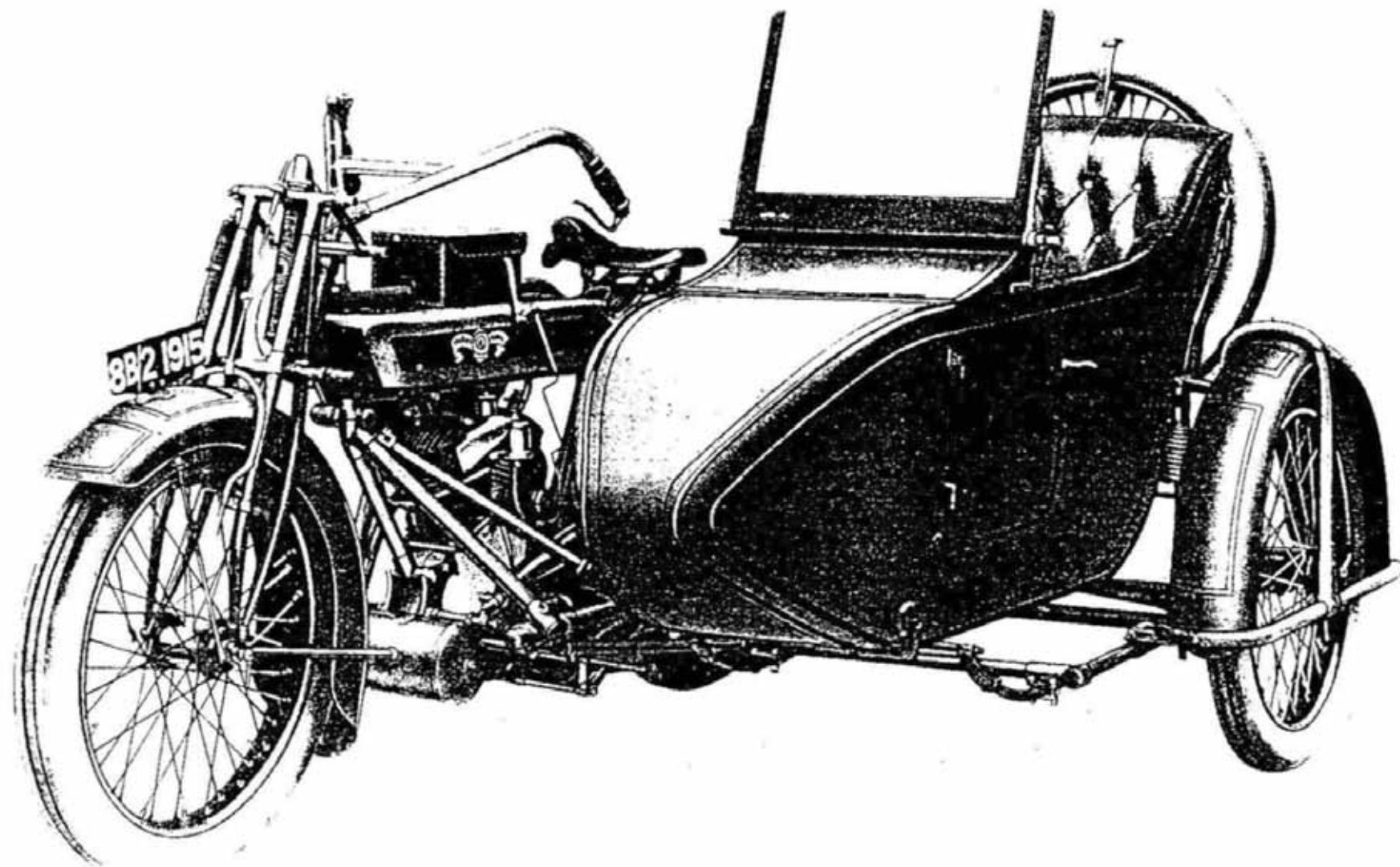
FINISH.—Enamelled "Matchless" grey, fine lined green and gold, usual parts heavily plated.

EQUIPMENT.—Strong tool bag and full set of tools; powerful inflator.

PRICE.—£92 17s.

EXTRAS.—Lucas electric lighting outfit, £13 13s., Lucas horn, 18", Cowey speedometer, £4 4s., or fully equipped with all above items £110. For other extras, hoods, screens, two-seater bodies, etc., see Spares List.

MODEL 8B/2 COMBINATION



MODEL 8B/2 COMBINATION

DESCRIPTION

DESCRIPTION OF MODEL 8B/2 COMBINATION.

THIS Model combines every improvement that has yet been devised in connection with the manufacture of Motor-cycle Sidecar Combinations, and represents the highest point of efficiency in every detail. Nothing but the very highest-class of

material is used in its construction, and the design and workmanship leave nothing to be desired. The purchaser of this model will know that he is the possessor of the finest turnout on the road.

SPECIFICATION.

FRAME.—Latest low pattern, built up throughout with selected weldless steel tubing and drop forged-steel lugs.

FORKS.—Improved girder pattern, with extra long flexible concealed springs, and grease cups to all bearings.

TANK.—Extra large, to carry two and a quarter gallons of petrol, half a gallon of oil. Large filler caps, petrol strainer, drain tap, combined petrol tap and filter, semi-automatic combined sight force-feed and drip oil pump.

ENGINE.—7 h.p. twin-cylinder V type. Bore 82, stroke 94=996 c.c. Overhead inlet valve entirely enclosed, adjustable tappets and silent timing gear.

MAGNETO.—Latest ball-bearing, weatherproof, carried on platform at rear of engine.

CARBURETTOR.—Two-lever, hand-controlled, semi-automatic, with hot air pipe, very economical.

SILENCER.—Large and effective, with tail pipe to rear of machine.

CONTROL.—Valve lifter on left side handle bar, ignition lever on left side of tank.

GEAR.—"Matchless" countershaft three-speed gear box, operated by gate change on right side of tank.

CLUTCH.—Free engine, metal, V type, practically indestructible, automatically lubricated, with suitable foot pedal on left side of machine.

KICK STARTER.—Effective, fitted direct to gear on right side of machine.

TRANSMISSION.—Silent chain drive from engine to countershaft, heavy roller chain to rear wheel.

SHOCK ABSORBER.—Fitted on engine shaft, simple and effective.

CHAIN CASE.—Heavy metal, oil retaining, entirely enclosing chains, clutch and shock absorber.

SADDLE.—XL'ALL pan seat; very comfortable.

HANDLE BAR.—Registered V shape, with cross stay; exceptionally strong and comfortable.

FOOT-RESTS.—Two pair, with rubber foot pads, giving comfortable change of position.

BRAKES.—Front rim, hand-applied, inverted lever on right side of handle bar. Rear, internal expanding metal, fitted inside chain case on left side of machine, with suitable foot pedal on right side of machine, and operated by rods and cross-over levers.

LUBRICATION.—Semi-automatic drip feed to engine, and carried by bye-pass to clutch and chains.

SIDECAR FRAME.—Entirely new design girder type, incorporating petrol can carrier, and arched, sprung side member for wheel.

SIDECAR BODY.—Registered design, metal, coach-built, trimmed with "Matchless" grey leather-cloth, well padded, spring cushion, two partitions for spares, side door, side pocket, and folding top cover.

SUSPENSION.—Coil springs at rear, semi-elliptical at front.

WHEELS.—Patent quick detachable, and interchangeable all round.

TYRES.—26 x 3 Hutchinson Car Tyres on all three wheels.

MUDGUARDS.—Extra wide, with side wings on front and sidecar wheels.

STANDS.—Fitted to all three wheels.

EQUIPMENT.—Strong tool bag on top of tank, containing full kit of tools to fit all parts of machine. Inflator carried on front forks. Instruction Book and Spare Parts List.

FINISH.—"Matchless" grey throughout, fine lined green and gold, green panel on tank, usual parts very heavily plated.

PRICE.—As above, £97 13s. nett.

EXTRAS.—Lucas electric lighting outfit, £13 13s., Lucas Horn, 18/-. Cowey speedometer £4 4s., or fully equipped with all above items, £115. Spare wheel, complete with tyre, £5. For other extras, hoods, screen, two-seater bodies, etc., see Spares List.

SPECIFICATION

POINTS OF SUPERIORITY



Luggage Grid, Closed.

THE body is a fine sample of the coachbuilder's art, and is infinitely superior to the so-called coach-built body, being built up with metal panels on strong bentwood frame, obviating the possibility of splitting, which is so common with the wood-built body.

A locker is incorporated in top-front portion of body for carrying light spares, and ample room is provided under the seat for tools and heavy spares.

A side pocket is fitted for carrying maps, etc.

A substantial lamp bracket is fitted in a convenient position at the front end.

Following motor-car practice, the seat is properly sprung, and the trimming is carried out in "Matchless" grey, best quality leather-cloth, very thickly padded to give the utmost comfort when riding.

The passenger is fully protected from bad weather by a folding top-cover or waterproof storm apron, as desired.

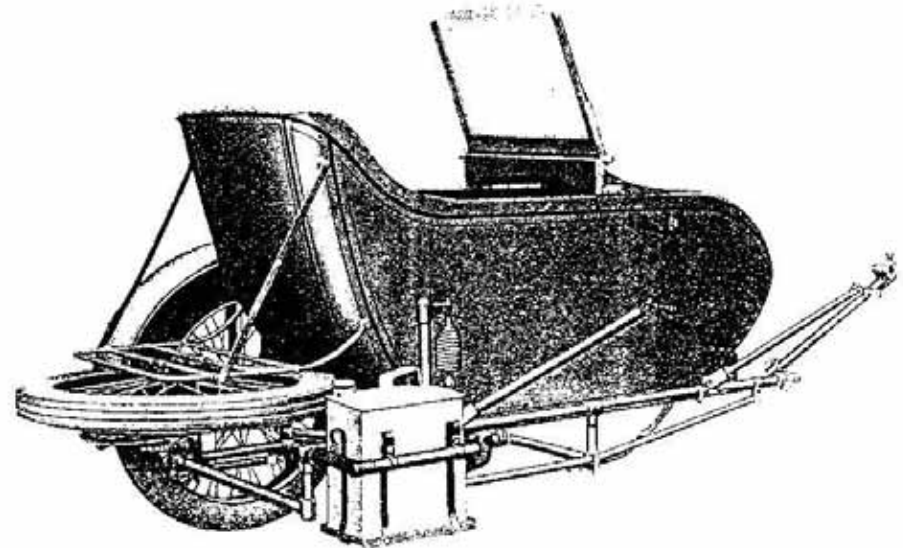
A spacious folding luggage grid is attached directly on the back of body, capable of carrying sufficient luggage for a lengthy tour, and yet leaving sufficient space for carrying spare tyre.

The finish is carried out entirely in our well-known "Matchless" grey, which gives a particularly handsome appearance to the entire sidecar.

Luxurious is the only word that can be applied to the "De Luxe" Sidecar as fitted to the Model 8B/2 machine.

In this model an adaption of our well-known spring fork is incorporated in the design of frame, so that side wheel is mounted on springs independent of the body springs: this adds considerably to the passenger's comfort, and, in addition, entirely eliminates the strain set up throughout the entire machine from road shock.

In addition to this, the rear lug connecting sidecar to motor-cycle is fitted with a universal ball joint, ensuring a flexible connection which is also rigid and free from any suspicion of rattle. On this model a different method of springing the body is adopted, and in place of the large C springs used on the 8B Sidecar, coil springs suspended from vertical posts support the rear with quarter elliptic springs in the front. This model is, of course, fitted with a detachable wheel, interchangeable with either of the other wheels of the combination.



8B/2 Sidecar, with Spare Wheel.

POINTS OF SUPERIORITY

POINTS OF SUPERIORITY



8B/2 Front Forks.

THE mudguards are fixed in the most rigid manner, and afford the utmost protection. Stands are fitted to both wheels, and also act as mudguard stays when running. The tubular carrier will carry any reasonable weight.

The tank is carried on strong cross-arms, built direct on to the middle rail of frame, and secured by bolts which pass into plates inside. This prevents any possibility of leakage or of tank working loose.

It has a petrol capacity of two and a half gallons, and over three pints of oil. The filler caps are of large diameter, and a gauze strainer is fitted for petrol.

The lubricator is of the simplest and most efficient semi-automatic combined drip-feed and force pump. All that is necessary when running is to push plunger down once in every four miles. A regulating screw is fitted to allow oil to drip fast or slow as desired.

The petrol tap is fitted with internal gauze strainer, so that trouble with choked carburettor jet is avoided. The drainer tap enables rider to obtain supply of petrol when required.

The pan seat as fitted is the acme of comfort. Two pair of foot-rests allow ample change in riding position.

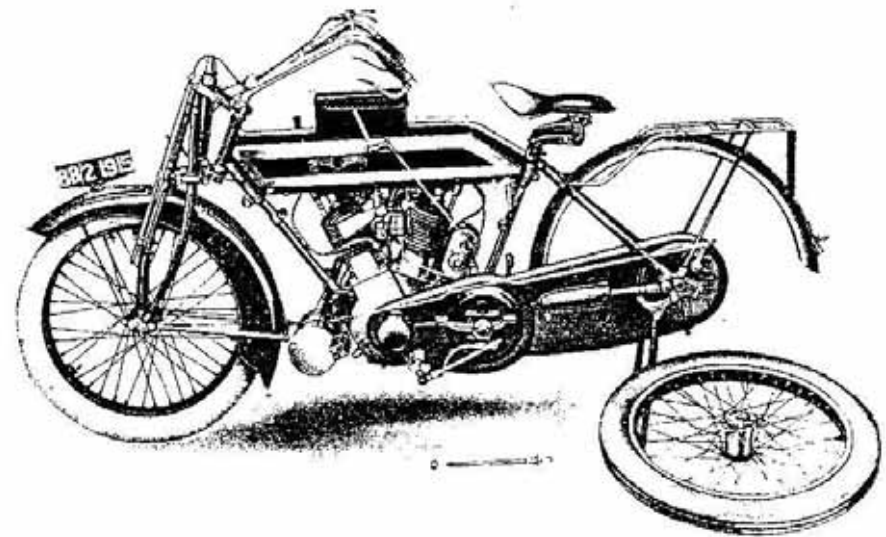
Our well-known V type handle bar is retained, the stem being strengthened by a cross-section steel girder running through the entire length.

The cross member greatly strengthens the bars, and provides ample space for carrying speedometer, generator, and watch.

Inverted levers are used for brake and valve lifter, giving a very neat appearance.

Wheels are built up with extra strong spokes, with nipples countersunk into rims to allow the beaded edges of covers to fit down correctly, thus eliminating much of the past trouble of beads lifting when turning corners, and the consequently ripped inner tube. All rims are of car section, exceptionally strong, and car section tyres are fitted. On the De Luxe Model 8B/2, quick detachable wheels are fitted.

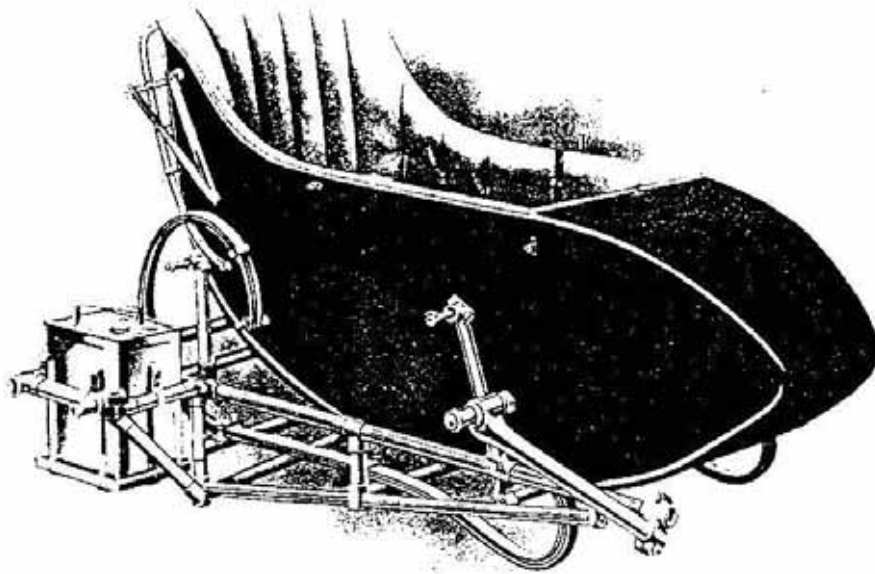
The chief advantage of detachable wheels over the ordinary type to the rider who uses his machine for pleasure only, undoubtedly lies in the fact that in the event of a puncture, the wheel can be removed and the spare replaced in a matter of seconds only, and without Herculean efforts. To the rider, however, who covers great distances, and probably uses his machine for business in addition to pleasure, another still greater advantage presents itself, viz., tyre economy.



Detachable Wheel Dismounted.

POINTS OF SUPERIORITY

POINTS OF SUPERIORITY



8B Sidecar

Bearing in mind that all the wheels are fitted with tyres of the same size and quality, it will readily be seen, that by periodically changing the wheels about, it is always possible to provide a good tyre for the driving wheel, and use up the worn ones on the lesser loaded front and sidecar wheels. By this means, it is possible to obtain 8,000 to 12,000 miles' running before any expenditure becomes necessary on tyres.

The construction of the "Matchless" patent detachable wheel is the simplest, and yet most efficient, type it has yet been possible to devise. All that is necessary to detach any wheel being to remove the axle locking-nut and withdraw the spindle, leaving, in the case of the rear wheel, all the transmission mechanism undisturbed and intact. The spare wheel

is carried on a stud fixed to the luggage grid at back of sidecar body, and is therefore efficiently sprung, and, moreover, does not interfere with the use of this grid for carrying luggage.

Security, comfort, and appearance, have all been most carefully studied in the production of our sidecar.

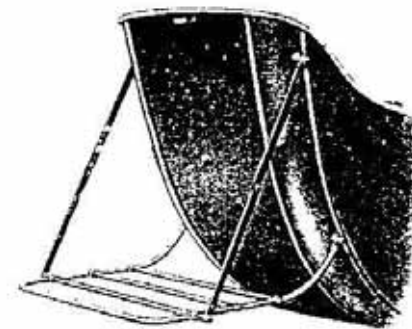
The sidecar is now recognised as the most popular passenger-carrying vehicle in the motor world, and amongst many fine samples at present in use we have been fortunate in designing one that has met with a full share of popular appreciation.

Our sidecar has been designed throughout in keeping with our powerful motor-cycle, and no point has been overlooked.

The frame is constructed on the straight tube girder principle, which gives the greatest strength without unnecessary weight.

Incorporated in the frame is a petrol can carrier, provided with springs which hold can perfectly secure without any extra fixing. Four-point fixing enables sidecar to be attached to motor-cycle in a perfectly secure manner, and entirely prevents the possibility of sidecar running out of line when subjected to severe strains in use.

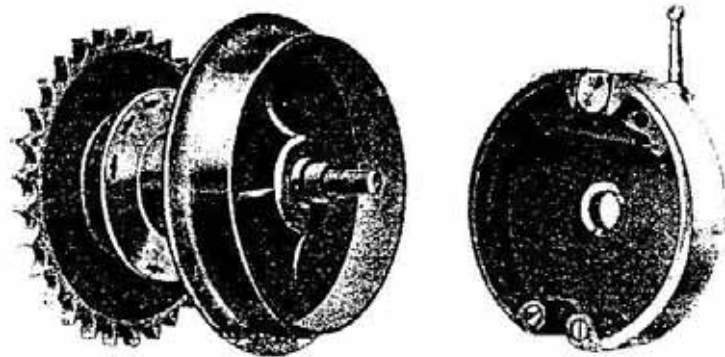
A stand is provided to allow of sidecar being jacked-up, same as motor-cycle, for cleaning or any other purpose.



Luggage Grid Open.

POINTS OF SUPERIORITY

POINTS OF SUPERIORITY



Rear Hub, showing Brake.

THE neat form of gate-change operating lever, mounted in a most convenient position at right side of tank, renders gear changing a most simple operation, and the spring operating rod ensures gears being engaged without knocking, and preventing damage being done by an inexperienced driver.

The "Matchless" all-metal foot-controlled free engine clutch embodies all the features necessary to ensure satisfaction, being positive in driving, smooth in action, independent of gears, easy of manipulation, and, in addition, is also practically indestructible.

There is no possibility of damaging this clutch, and same can be used to any extent without showing any appreciable wear.

The clutch is a most important feature, and enables the rider to control his machine in traffic in a manner altogether unknown before.

The bearings of rear hub are of the cup and cone type, easily adjusted. The axle is made of a special unbreakable steel, and cones are of large diameter, carefully ground and hardened, thus ensuring the very best wearing qualities.

The transmission is by Renold's silent chain from engine to countershaft, and thence by Renold's heavy roller chain to rear wheel; a simple and efficient shock absorber is fitted on engine shaft.

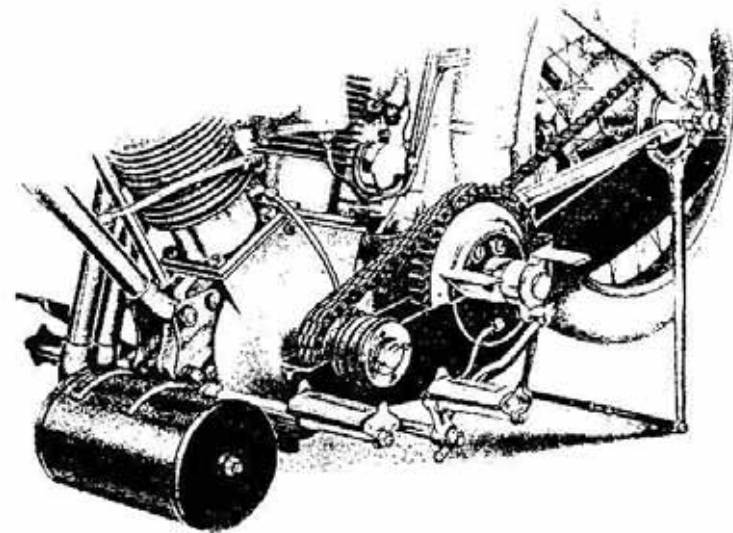
The "Matchless" was the first motor-cycle to be fitted with the perfect system of transmission by silent chain from engine to countershaft.

This, and a heavy slow-running roller chain to rear wheel, combined with the simple but effective shock absorber, accounts for the beautiful smooth running of our machines which is so noticeable.

The whole transmission is enclosed in a perfectly oil-tight gear case, and is lubricated by a bye-pass from the engine oil supply. On the "Matchless," transmission troubles of every description have been overcome.

One of the most outstanding features of the "Matchless" Motor-cycle Combination on the road, is the smooth, quiet running which appeals so directly to rider and passenger alike.

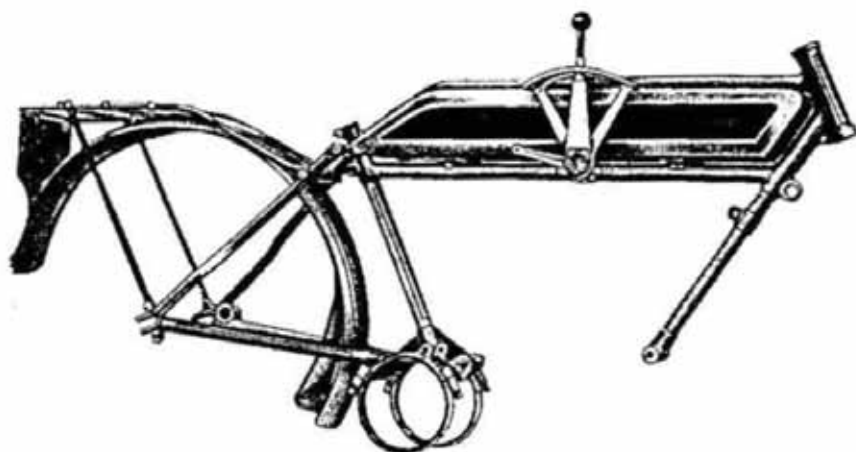
After years of careful study, we have introduced in the "Matchless" the same high efficiency in this respect which has been reached by manufacturers of the highest-class motor-cars.



Transmission.

POINTS OF SUPERIORITY

POINTS OF SUPERIORITY



Frame and Tank.

THERE is an entire absence of the objectionable valve-clattering which is so apparent on most motor-cycles. This is accomplished by the use of the perfect-fitting timing and valve gear, which are all entirely enclosed, and are kept lubricated under pressure from the engine. By the combination of silent chain and heavy roller chain for transmission, combined with perfectly cut teeth on the driving sprockets, the irritating rattle and hum always connected with chains have been overcome.

Another point of annoyance to rider and the general public, is the fitting of badly designed and inefficient silencer to the exhaust ports of the engine. The "Matchless" Silencer as now used has been designed entirely to overcome this objection, the exhaust gases being carried direct from the engine through pipes into a large expansion chamber, and thence to the rear of the machine through a long tapered pipe, with the result that the "Matchless" can be recognised anywhere when running by being seen but not heard.

No other manufacturer has been able to obtain anything approaching the degree of silence which is so uniquely the feature of the "Matchless."

One of the most important considerations with regard to a motor-cycle frame is strength. We have no hesitation in asserting that our frames are infinitely stronger than any other at present in use.

All the lugs are designed expressly for building up a frame strong enough to carry the power unit, and to stand up under the most severe strain that it can be subjected to. The lugs are all machined-up from the highest-class solid steel forgings, and nothing but the most carefully selected weldless steel tubing is used in the construction, with the result that it will be found practically impossible for any breakage to occur under the most severe conditions.

Our well-known girder forks with concealed springs are at once the neatest and strongest in use. The girder tubes are of large diameter, correctly tapered, and strengthened with inside cross-section steel plates.

The range of action of the springs ensures the utmost flexibility, and the design prevents the slightest tendency towards side play.

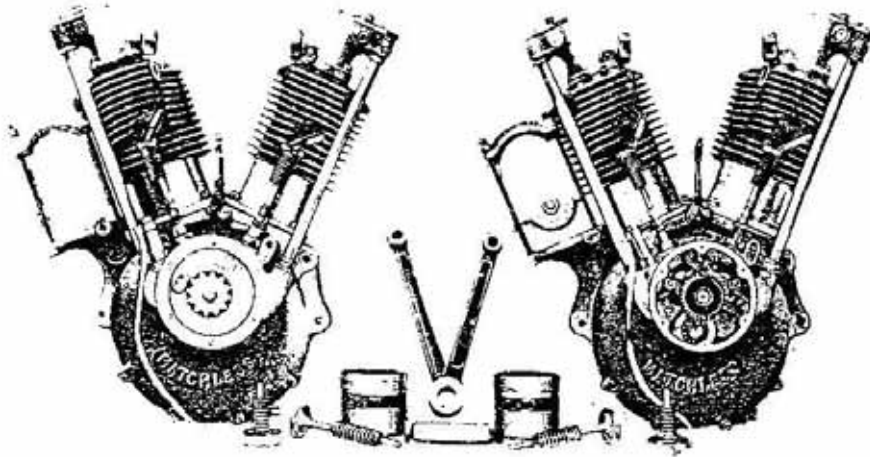
The fork connecting bolts are drilled to allow grease to be forced through all the joints grease cups being fitted for this purpose, ensuring efficient lubrication.



SB Front Forks

POINTS OF SUPERIORITY

POINTS OF SUPERIORITY



"Matchless" Engine.

THE Engine as illustrated is undoubtedly the finest motor-cycle engine at present on the market. The bore is 82 m.m. and stroke 94 m.m., giving a cubic capacity of 996. Nominal horse power 7

Every engine is most rigorously tested, and is guaranteed to develop 12 h.p. on brake.

The inlet valves are worked on the overhead system, and the mechanism operating them is entirely enclosed.

The tappet rods are enclosed in tubes, and rockers also entirely closed in. The lubrication is carried to every part of engine by vacuum.

With the system of overhead inlet rockers used, air leaks are practically impossible, which enables engine to run at remarkably slow speeds. Every wearing part is most carefully hardened and ground dead to size, whilst all bearings are of ample size and properly grooved for oil. The exhaust valves are made of highest-grade steel and practically unbreakable, whilst their large diameter ensures a quick and clean exhaust, rendering overheating almost

impossible. All four tappets are adjustable, and the timing gear has been specially designed with the object of eliminating the objectionable clatter so usual in all other engines, the absence of which is at once noticeable.

A special non-return valve is fitted direct into timing gear-case, which, coupled with the utmost care in grinding all faces, keeps the entire outside of engine perfectly free from all traces of oil.

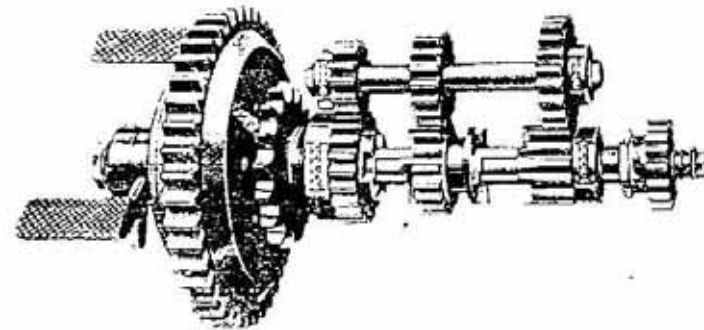
The magneto is the latest pattern waterproof type, neatly carried on platform at rear of cylinders, well out of the way of the elements, thus preventing any possibility of misfiring in wet weather, or when passing through water splashes.

The carburettor is of the two-lever type, semi-automatic, giving a great range of speed and extreme flexibility.

The three-speed countershaft gear follows the practice as now universally used on high-class motor-cars, dog clutches give direct drive on top gear.

The gears slide on a castellated shaft, which is most accurately machined and hardened, thus ensuring a perfect fit, absolute truth, and preventing any noise on the intermediate gears, and, being mounted on large diameter Journal ball-bearings, run perfectly free. The gear box is cylindrical in shape, and can readily be detached from machine.

A kick starter of ample proportions is mounted direct on gear box, enabling engine to be started without undue effort.



Countershaft Gear and Clutch.

POINTS OF SUPERIORITY

LUCAS ELECTRIC LIGHTING SYSTEM.

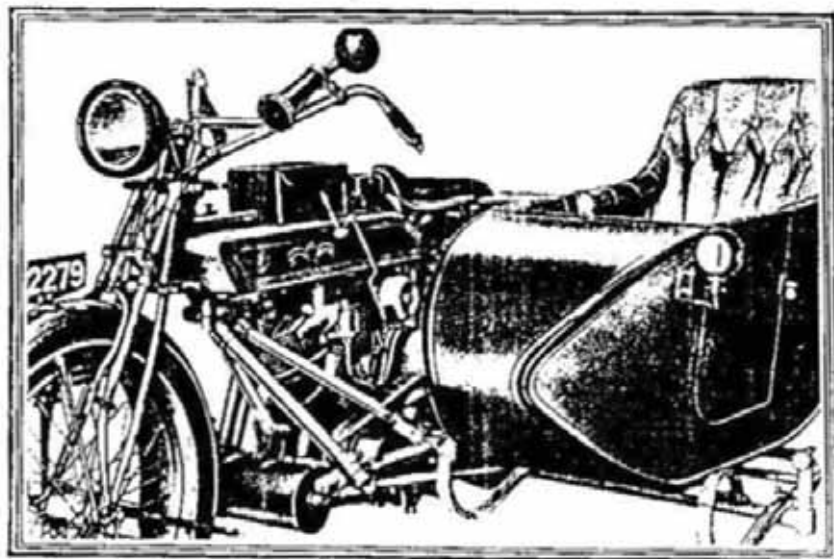
ELECTRIC lighting has become so universal on motor-cars that it is obviously only a matter of time when it will become the recognised form of lighting for motor-cycles with sidecars.

In designing a dynamo set for the motor-cycle, efficiency and reliability must be attained without adding any appreciable dead weight. After exhaustive tests on the road, we have decided that the Lucas Electric Lighting System for passenger machines, fully meets these requirements. Whilst this outfit is somewhat heavier than a full acetylene equipment, its cleanliness, ease of manipulation, and thorough reliability, will commend it to all practical motor-cyclists.

The point that will appeal probably above all others to the experienced rider, is the marked superiority of the driving light obtained, both as to length of beam and field of illumination.

The Lucas Dynamo requires no attention whatever beyond oiling the bearings occasionally, and as the armature is the only moving part it will probably outlast the motor-cycle itself.

When the dynamo is not charging, the armature runs absolutely free of magnetic drag.



"Matchless" Combination equipped with Electric Lighting Outfit.

The switch-box is a very neat arrangement, fitted in a most convenient position on the top tube of motor-cycle, so that the light can be switched on at will when riding.

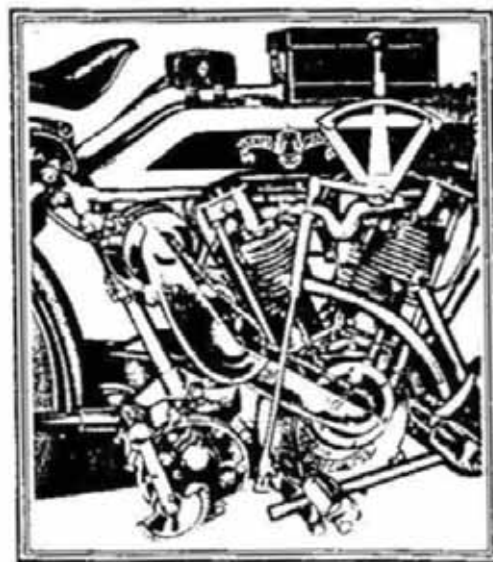
The head-lamp contains a special double-metallic filament bulb which is controlled by a plug switch at the rear of lamp, the idea being for the full light to be used in the country, and the reduced light for driving through town or for leaving "on" when the machine is standing.

The sidecar lamp is carried at the front of body, and tail lamp fitted in a convenient position.

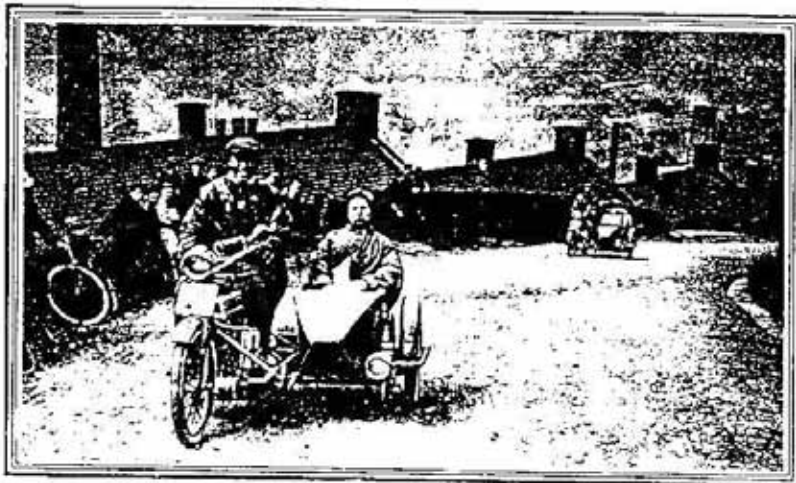
Cost of fitting complete set to new machine, £13 13s.



Showing position of Switch, Dynamo and Drive.



Chain Case removed, showing Driving Chains to Dynamo.



G. Hardee, Esq., among the Chimney Pits, Don Hill, Stockbridge. A.C.U. Six Days' Trial.—Highest Award.

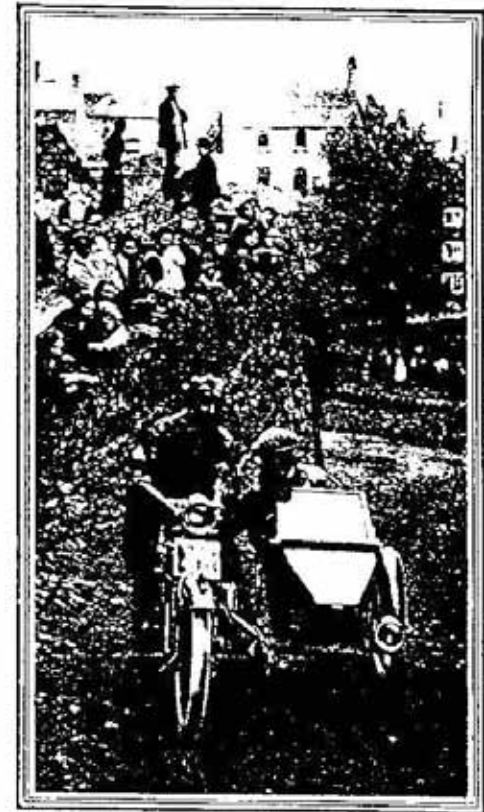


R. E. Guest, Esq., photographed by the "Motor Cycle" Photographer, driving through a flooded area, with engine partly submerged.

NO Trial can be too severe for us when we are testing New Models before offering same to the public.

Many months are spent and machines are tested to destruction, in our endeavour to discover any possible source of weakness.

The accompanying illustrations give some idea of the class of Trials undertaken: Long Distance Non-stop Runs, Public Reliability Trials, Hill Climbs, Speed Trials, and various other forms of competition, besides private tests which would never be undertaken by the average rider.



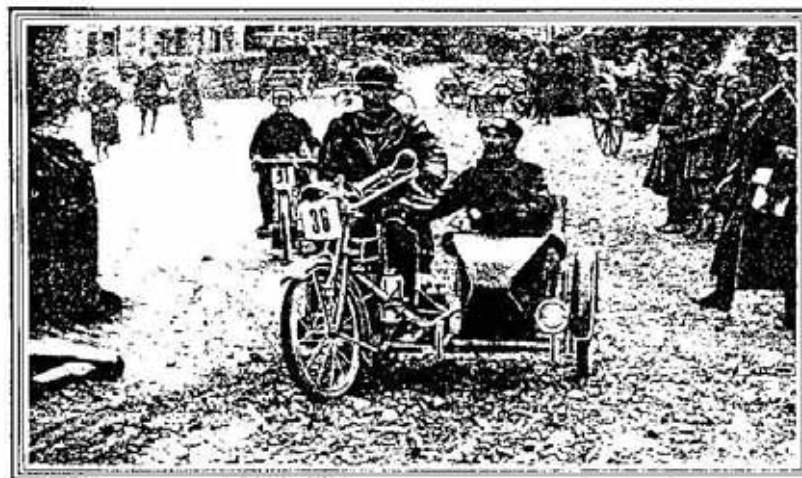
Mr. C. R. Collier driving round an awkward bend on Stoney Middleton Hill. A.C.U. Six Days' Trial.—Highest Award.

THE most important point to be borne in mind by the public, is the fact that all these Trials are undertaken on absolutely standard models, and every machine we now turn out can be relied upon to perform in the same manner.

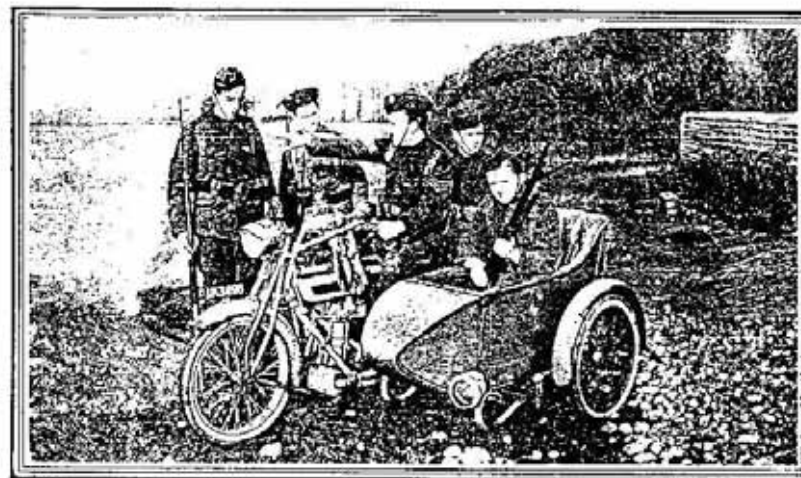


Mr. C. R. Collier climbing the famous Honister Pass.

This is one of the principal reasons why the "Matchless" enjoys such a world-wide reputation for reliability.



*Mr. H. A. Collier on Sir William Hill. A.C.U. Spring Trial.
Note terrible road conditions.*



The "Matchless" on Active Service.

THE "MATCHLESS" IN COMPETITION



*Mr. C. R. Collier on Sir William Hill.
A.C.U. Spring Trial.
Note terrible road surface.
Highest Award.*

Birmingham M.C.C. 1 Day Trial
—2 First Awards

Colmore Cup Trial—6 Special
Awards.

A.C.U. Spring Trial—3 Specials.

Circuit De L'Eure—First.

Birmingham M.C.C.—5 Firsts.

Colwyn Bay—3 Firsts.

A.C.U. 6 Days' Trial—3 Special
Awards.

Doncaster Speed Trials—3 Firsts.

Southend Speed Trials—3 Firsts.

Scottish Championship.



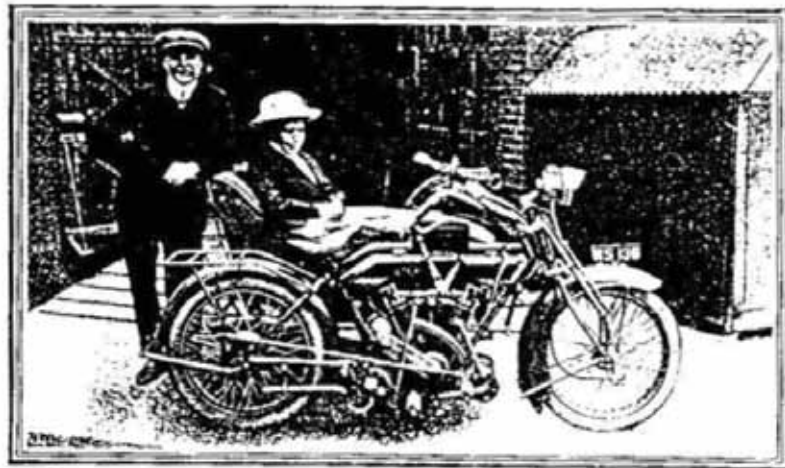
*R. E. Guest, Esq., on top of Kirkestone Pass. A.C.U. Six Days' Trial,
Highest Award.*



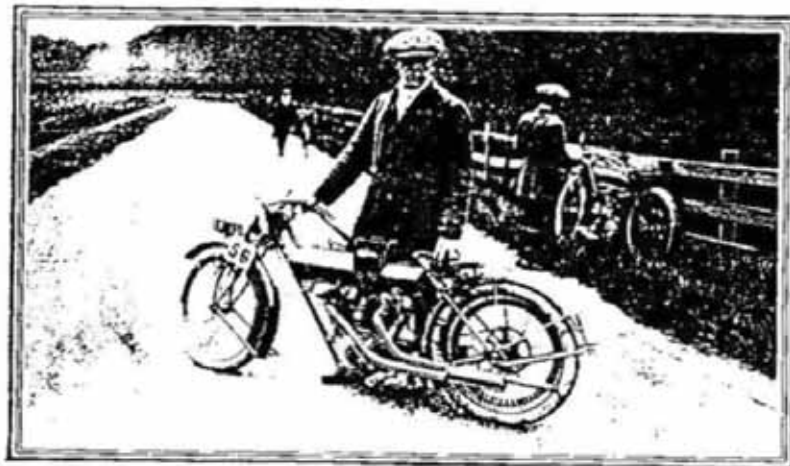
*An Australian Team of "Matchless" Riders. Winners of the Australian
24 hours' Reliability Trial.*

THE "MATCHLESS" IN COMPETITION

THE "MATCHLESS" IN COMPETITION



Walter Scott, Esq., Winner of the Gipsy Club's Prize for the Smartest Sidecar Combination.



S. Axford, Esq., Winner of the Doncaster and Southend Speed Trials.

SPACE will not permit us to give a full list of "Matchless" Successes during the past season in Competitions.

One has only to turn to such classic events as shown on next page, in all of which the "Matchless" secured First-class Awards and Special Prizes, to see that these successes have been a continual proof of "Matchless" superiority.



G. Hardee, Esq., climbing Rowsley Bar. A.C.U. Six Days' Trial—Highest Award

THE "MATCHLESS" IN COMPETITION

THE "MATCHLESS" ABROAD



A Canadian Road in Summer.



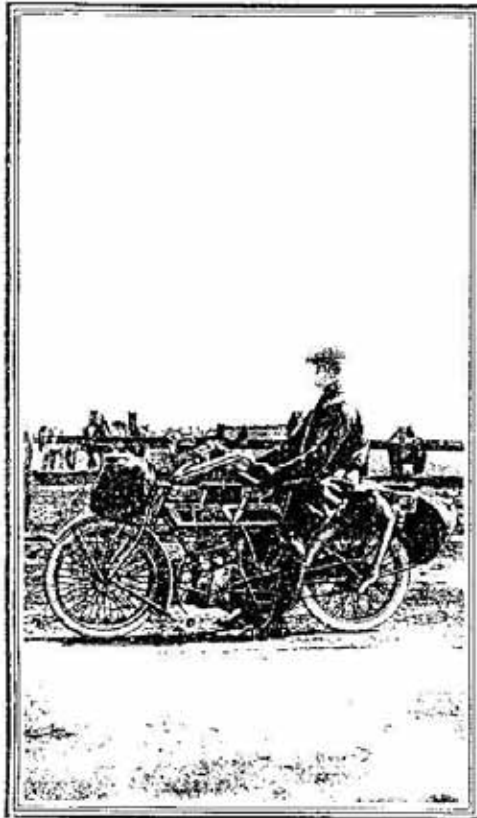
A Canadian Road in Winter.

THE accompanying illustrations show the faith private owners have in the capabilities of the "Matchless" under the most adverse conditions. When an experienced motor-cyclist requires a machine that will withstand the utmost rough usage to which a machine can be subjected to, he invariably selects the "Matchless," which has won its way to the front through sheer merit alone.



A Sandy Road in Australia.

OUR machines are in use in every civilised part of the Globe, and are used for purposes which would have been absolutely impossible had it not been for the fact that we have always specialised in producing a machine that would carry the rider safely under all conditions.



An Australian Sheep Shearer with his usual load of 6½ cwt.



A Unique Picture. Snow in Australia.



A party of "Matchless" riders on a visit to the famous Jenolan Caves, Australia. These are the largest natural caves in the world.

TROPHIES

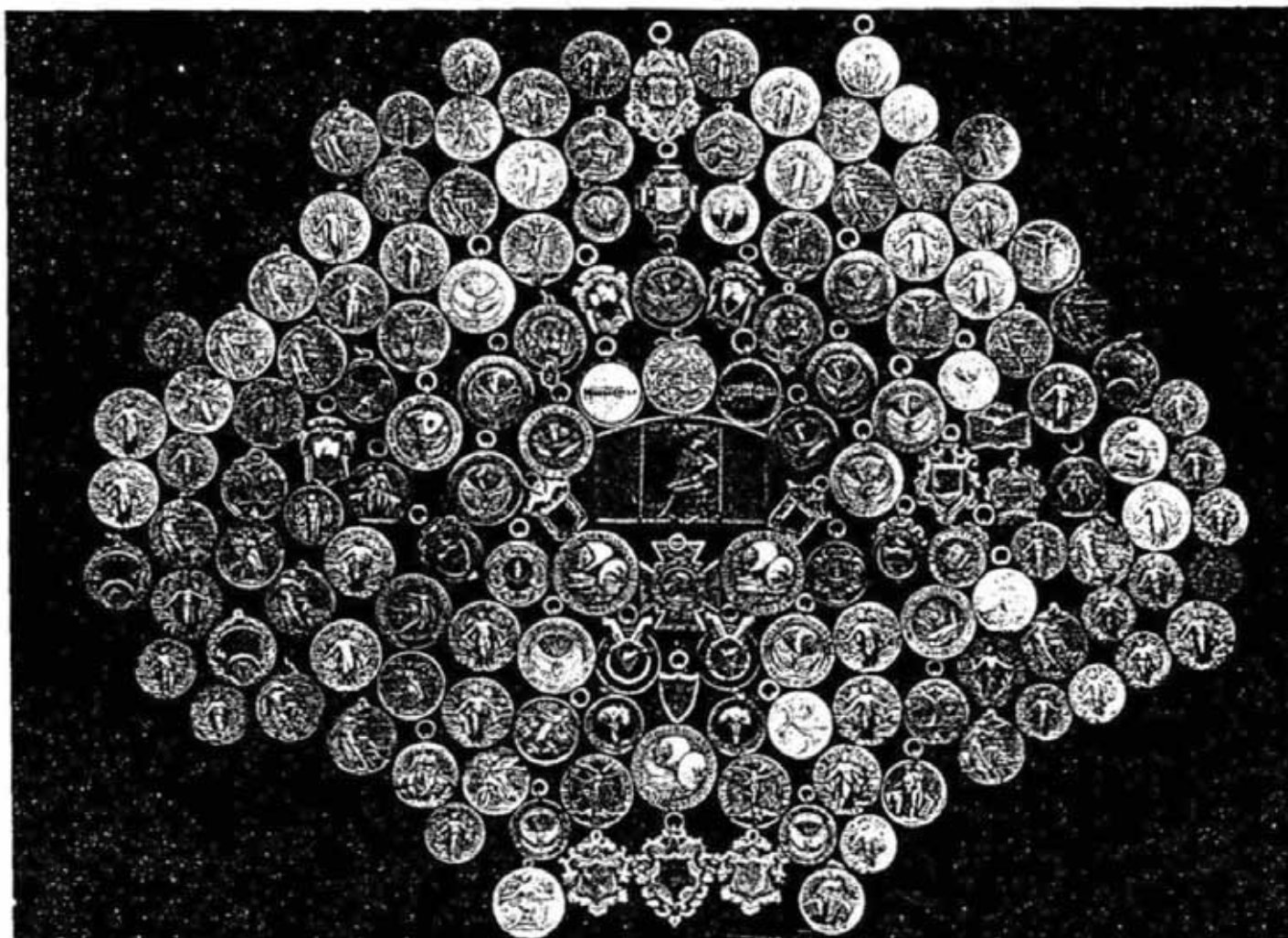


The above represents a selection of Gold and Silver Trophies at present held by the "Matchless." There is scarcely a trophy known in Motor-cycle sport that has not been won on a "Matchless." The most important of these are:—

TOURIST TROPHY -	- 3 Times	DU CROS CHALLENGE TROPHY	- - 7 Times	HARRY SMITH GOLD CUP	- 3 Times
INTERNATIONAL TRIAL -	Twice	"AUTO-CAR" CHALLENGE TROPHY	- - 5 Times	A.C.U. 6 DAYS' TRIAL -	- 5 Years in Succession.
		"MOTOR CAR JOURNAL" CHALLENGE TROPHY	5 Times		

TROPHIES

TROPHIES



The above represents a selection of Gold, Silver, and other Medals recently won on "Matchless" Motor-cycles by Messrs. J. Tassell, R. E. Guest, H. V. Colver and C. R. Collier. Ever since Motor-cycle sport commenced, the "Matchless" has always been one of the principal prize winners. Several hundred Gold and Silver Medals have been secured by amateurs and experts, and every competition of any importance adds to the number.

TROPHIES



GUARANTEE

DEPOSIT ACCOUNTS.

We strongly advise all purchasers to take advantage of our Deposit Account System, which is fully described in the Spare Parts List.

REPAIRS.

To enable us to deal with this branch in a prompt and efficient manner, a separate shop has been fitted up away from the main works.

We only undertake work in connection with our own machines, and clients can rely upon their instructions being carried out in a practical manner.

In the case of complicated repairs, customers will be well-advised to send their complete machines to us.

Charges in this department are based upon the actual cost of labour and material, and, as the margin of profit is so slight, we have been compelled to make our terms strictly nett cash before delivery.

To save delay invoices will be sent two days before completion of work, so that repairs can be forwarded immediately upon receipt of remittance.

INSTRUCTIONS.

A copy of our Instruction Book is now supplied free with every "Matchless" Motor-cycle, and purchasers will be amply repaid for the time they spend in studying same.

This book has been most carefully compiled, and contains many valuable hints on the care and upkeep of "Matchless" Motor-cycles.

REPLACEMENTS.

A Spare Parts List containing full details of all parts likely to be required as spares or replacements for Model 88 and 88 1/2 "Matchless" Motor-cycles, will be sent post free upon request.

GUARANTEE.

We give the following guarantee with our motor-cycles instead of the guarantee implied by statute or otherwise as to the quality or fitness of such machines for the purpose of motor-cycling, any such implied guarantee being in all cases excluded. In the case of machines which have been used for "hiring out" purposes, or in respect of which our trade mark or manufacturing number has been removed, no guarantee of any kind is given or is to be implied.

WE GUARANTEE, subject to the conditions mentioned opposite, that all precautions which are usual and reasonable have been taken by us to secure excellence of materials and workmanship: but this guarantee is to extend and be in force for three months only from the

date of purchase, and the damages for which we make ourselves responsible under this guarantee are limited to the replacement of any part which may have proved defective.

WE UNDERTAKE, subject to the conditions mentioned below, to make good at any time within three months any defects in these respects. As motor-cycles are easily liable to derangement by neglect or misuse this guarantee does not apply to defects caused by wear and tear, misuse, or neglect.

Any motor-cycle sent to us to be plated, enamelled, or repaired, will be repaired upon the same conditions as if it were a new motor-cycle, i.e., we guarantee that all precautions which are usual and reasonable have been taken by us to secure excellence of material and workmanship, such guarantee to extend and be in force for three months only from the time such work shall have been executed, and this guarantee is in lieu and in exclusion of any common law or statute warranty, and the damages recoverable are limited to the cost of any further work which may be necessary to amend and make good the work found to be defective.

CONDITIONS OF GUARANTEE.

If a defective part should be found in our motor-cycles, it must be sent to us, carriage paid, and accompanied by an intimation from the sender that he desires to have it repaired free of charge under our guarantee, and he must also furnish us the same time with the number of the machine, the name of the agent from whom he purchased, and the date of purchase.

Failing compliance with the above, no notice will be taken of anything which may arrive, but such articles will lie here at the risk of the senders: and this guarantee, or any implied guarantee, shall not be enforceable.

We guarantee only those machines which are bought either direct from us or from one of our duly authorised Agents, and under no other conditions.

We do not guarantee the specialities of other firms, such as tyres, saddles, chains, lamps, belts, etc., or of any component part supplied to the order of the purchaser differing from our standard specification supplied with our motor-cycles or otherwise.

THE TERM "AGENT"

is used in a complimentary sense only, and those firms whom we style our Agents are not authorised to advertise, incur any debts or transact any business whatsoever on our account other than the sale of goods which they may have purchased from us: nor are they authorised to give any warranty or make any representation on our behalf other than those contained in the above guarantee.



GUARANTEE