

ALL-ENCLOSED. 2 & 3-SPEED. COUNTERSHAFT-GEARED, CHAIN-DRIVEN.

# Molor Cycles



#### IMPORTANT NOTICE.

Our various 23 h.p. Lightweight Models will no longer be manufactured, but with this exception the 1916 Catalogue applies throughout for 1917, until further notice, as to prices and specifications.

A. J. STEVENS & CO. (1914) Ltd.

### IMPORTANT NOTICE!

WE ARE reluctantly compelled to give general notice to our private customers that when once their order has been placed in the hands of our agents, all enquiries concerning delivery of their machine must likewise be made through the agent, and in no case can we undertake to give information direct to the third party, viz. :—the agent's customer.

A moment's thought will show our clients how impossible it is for us to answer such questions as "When will my machine, ordered through Messrs. So-and-So, be ready?" Without such details as Order No., booked date of delivery, and other details which the agent alone possesses for such enquiries—to say nothing of the fact that we are not in a position to know to whom the agent intends to deliver the machines for which he has contracted—the possibility of our tracing any such queries for a satisfactory reply is quite beyond our powers.

The habit of making these enquiries to us direct has so increased of late that we are forced to issue this notice, and we feel sure that the matter only needs frank mention to ensure respect at the hands of our clients.

ALL ENQUIRIES REGARDING DELIVERIES, ALTERATIONS FROM AND ADDITIONS TO SPECIFICATION, &c., OF MACHINES ALREADY ORDERED THROUGH AN AGENT, MUST PASS TO US THROUGH THE AGENT.

ALL ACCESSORIES, SUCH AS LAMPS, HORNS, SPEEDOMETERS, REGISTRATION NUMBERS, &c., WHICH THE CUSTOMER WISHES TO BE ATTACHED TO HIS MACHINE, MUST BE SENT THROUGH THE AGENT FROM WHOM THE MACHINE IS ORDERED.

A. J. STEVENS & CO. (1914) Ltd.

Wolverhampton

### Introductory:

The present war is affecting us all, and beyond stating that at the moment we are continuing to produce motor Our cycles, we do not feel justified in indulging in any present forecast concerning what may be in store for us as the season advances. Output is very seriously position reduced, and the ever-increasing difficulty of obtaining material and labour will undoubtedly reflect itself in a further decrease in the production of our motor cycles before the situation improves.

For the above reason we can say little or nothing respecting prompt deliveries, and we feel sure all our good friends will make every allowance for the difficulties of the present position. They can, however, rest assured that we shall continue to give their requirements the best attention possible from time to time.

Looking forward to our victorious termination of the present conflict, we would remind you that our present new The works are in a position to cope with a large output future as soon as circumstances permit, and that further large extensions await commencement at the moment the horizon is clear, so that we may lose no time in again getting into commercial touch with all those good friends whom we have been compelled to disappoint so long and so often.

Other than detail improvements no change has taken place in our designs for this season. This policy is "1916" prompted mainly from the desire to add as little as Models possible to the present disturbance of manufacturing difficulties—and we feel sure this point of view will receive the support of all our customers.

## A. J. STEVENS & CO. (1914) Ltd., WOLVERHAMPTON.

Offices and Repair Department: RETREAT STREET. Works: GRAISLEY HILL.

TELEPHONE: "894, Wolverhampton."

TELEGRAMS:

CODE . A.B.C. 5th Edn.



## SIGNIFICANT



SUCCESSES

¶ Up to the time of publishing this Catalogue the A.J.S. has been awarded

The 1914 Junior Tourist Trophy
The 1914 Junior T.T. Race at Brooklands
52 Silver Cups 2 Shields 128 Gold Medals
77 Silver Medals 136 First Prizes
17 A.C.U. First-Class Certificates
Various Club Trophies

and numerous other awards of which we do not know the nature

N.B. IMPORTANT.—The Majority of the above successes have been achieved by genuine PRIVATE OWNERS, and in every case (excepting in the "T.T." Races) only standard machines were used, exactly as sold to the Public

THE

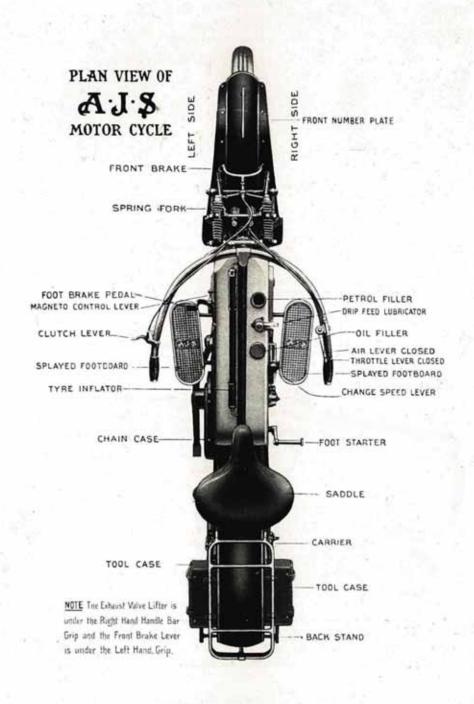
FOR SPEED
HILL CLIMBING

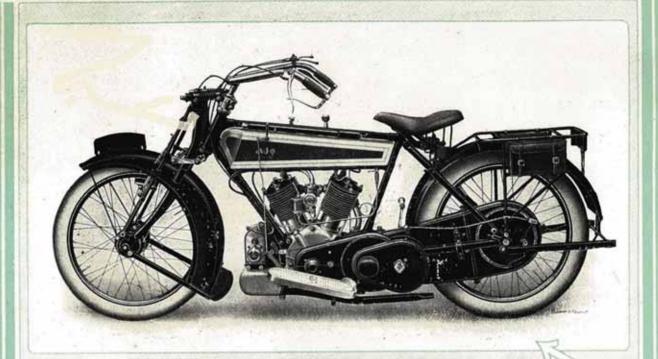


ABSOLUTE RELIABILITY

STANDS PRE-EMINENT.

Ask the Man who Owns One!





RIGHT-SIDE ILLUSTRATION.

LEFT-SIDE ILLUSTRATION.



THIS is the famous "A.J.S. Model D," incorporating our pioneer features of ALL-ENCASED WEATHERPROOF CHAIN DRIVE, 6 H.P. TWIN-CYLINDER ENGINE, HAND-CONTROLLED CLUTCH, THREE-SPEED COUNTERSHAFT GEAR, PATENT GATE CHANGE, INTERNAL EXPANDING REAR DRUM BRAKE, AND KICK-STARTER. FITTED WITH A.J.S. PATENT DETACHABLE INTERCHANGEABLE WHEELS.



## 6 h.p. Three-Speed Passenger Machine Model D

#### SPECIFICATION

ENGINE	Twin Cylinder (74 × 87 m/m, Bore and Stroke, 748 c.c. capacity). Cylinders set at 50° Manufactured throughout in our own Works. All Valves large, mechanically operated and interchangeable. Adjustable Valve Tappets. Improved Cylinders. Improved highly efficient Silencer.
CARBURETTER .	A.M.A.C. Multiple Jet. Handlebar control.
FRAME	Perfectly balanced, scientifically constructed with no bent tubes.
TANK	Improved design with rounded edges. Made with one Longitudinal Seam and supported from the bottom on brazed-on brackets. Petrol Injectors, Filter and extra large transparent top filler. Petrol capacity, 2  gallons. Oil, 12 quarts.
LUBRICATION	Best & Lloyd, Semi-automatic to Main Bearings and Big Ends of Connecting Rods, as in Car practice.
IGNITION	"Dixie Magneto" Model M2, enclosed type, driven by enclosed chain.
CHAINS	"Hans Renold" or "Coventry" extra strong Motor Cycle Chain, \$ in.pitch × \$ in.wide.
CHAIN CASES .	Weatherproof. Entirely enclose the chains. The chains can be inspected without the use of tools, and the Back Wheel, Clutch, Sprockets, Chains and Kick-Starter can be removed without removing the chain cases.
STANDS	Strong "Kick-up" type, fitted to Fork Ends of back wheel and front wheel.
CARRIER	Improved design, fitted with two Pannier Bags with steel outer cases.
TOOLS	A Tool Roll with full kit of first quality Tools is provided.
FORKS	"Brampton" Patent "Biflex," built to our special instructions. This Fork absorbs both vertical and horizontal shocks, and all links are adjustable for side-play.
WHEELS	A.J.S. Patent. Both wheels are interchangeable and can be detached in under 30 seconds. To take out back wheel it is unnecessary to disturb the chain case, chain sprocket or mudguard. Wheels fitted with 650 × 65 flat base rims.
SADDLE	The Leatheries, Ltd. "Empire-de-Luxe," with extra large Pan Seat. 30 in. from ground.
BRAKES	Front, latest "Bowden" Patent, operated by Lever on Handlebar. Back, extremely powerful and smooth acting, enclosed Internal Expanding Brake, operated by Foot Pedal on left side of machine.
FOOT BOARDS .	With Rubber Matting and polished Aluminium Bead, with Heel Rest.
GEAR BOX	Improved design. Three-speed Bottom Bracket Gear Box, Ball Bearings throughout. Operated by Patent Gate Change-speed Lever. Gear Ratios, 47, 71 and 16 to 1.
STARTING	Improved design "Kick-down" Starter, entirely enclosed in Case. The Engine can be easily started without leaving the saddle and with back wheel on the ground.
CLUTCH	Improved design Patent Multiple Plate, with Cork insets. Hand-controlled by Lever on Handlebar. The Correct Position.
MUDGUARDS ,	The Front Mudguard has been specially designed. Detachable Splayed Side Shields with an extra valance are fitted, giving perfect protection in bad weather. Back Mudguard 7 ip. wide.
TYRES	Back wheel fitted with 650 × 65 Extra Heavy Car Type Three-Ribbed. Front wheel fitted with 650 × 65 Heavy Car Type, Three-Ribbed.
FINISH	Finest Black Enamel, four coats on special Rust Preventative process. The Handle-bars and a few special parts are heavily Nickel Plated. The major part of the machine however, is enamelled to save cleaning. Tank, Aluminium, with Black Panels, and Lined Green.
MEASUREMENTS	Wheelbase, 4 ft. 9 in. Weight, 280 lbs. Crank-Case Clearance, 41 in. Overall Length, 7 ft. 2 in. Overall Width, 2 ft. 2 in. Overall Height, 3 ft. 5 in.

Price, complete

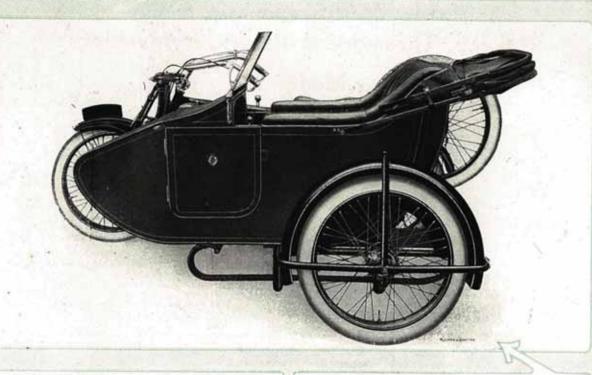
Fitted ready for painting.

REGISTRATION PLATES

£84 0 0

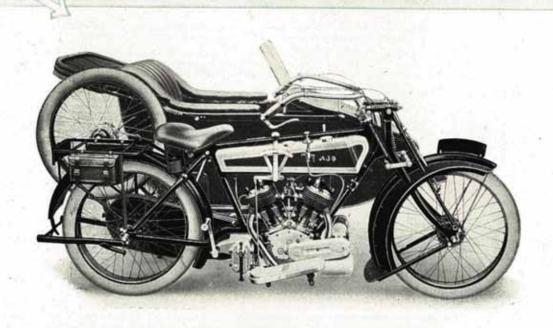
(We reserve the right to deviate from the above Specification and Price without notice.)

# Molton & Cycles



RIGHT-SIDE ILLUSTRATION.

LEFT-SIDE ILLUSTRATION.



THIS is The 6 h.p. A.J.S. SIDECAR COMBINATION—without question the finest high-powered Passenger Outfit in the World. It embodies the Model D 6 h.p. machine with our perfected SIDECAR. Where a 6 h.p. A.J.S. is intended for use with a Sidecar we urge the purchase of the complete combination, it being a specially-designed highest-class A.J.S. engineering job, guaranteed to give supreme satisfaction. (N.B.—Sidecar wheel is interchangeable with any other wheel on the outfit.)



### 6 h.p. Three-Speed Passenger Combination

#### SPECIFICATION

ACHINE . . . . Precisely as Specification Standard Model "D" Passenger Machine shown on page 5. DECAR . . . . We have this season improved the special Sidecar for use in conjunction with our passenger model, and have no hesitation in offering this as a product which stands as far in advance of its kindred as does the A.J.S. machine for which it is built to suit. The chassis is all that a sidecar chassis should be, of a design combining lightness with maximum strength. The axle is of the underslung type, thus allowing us to give a particularly low, comfortable body position. All attachment lugs fixing chassis to frame are dropped steel forgings, and only the best quality steel tubing is used throughout, while a special design of body enables us to get a perfectly straight torque rod. Mudguarding of the sidecar wheel has been studied as carefully as that on the motor cycle itself. The Guard is 5° wide, and this, in conjunction with the side shield, minimises the discomforts previously experienced with the old-style inefficient mudguarding. There are no mudguard stays to rattle or break, as the guard is fastened to the chassis itself at three points. Wherever possible, all parts are enamelled black. The body is beautifully finished throughout, very roomy and luxuriously comfortable, and lends itself to the fitting of a neat hood, side curtains and wind screen, etc., by means of which the passenger can be perfectly protected in wet weather. It is fitted with a patent hinged extension, which serves the double purpose of giving added protection and warmth to the passenger, and a means of fitting the wind screen much nearer to passenger than is possible with bodies not so fitted. The addition of this patent extension, the adjustable footrest to the body, and the incorporation of a detachable wheel in the chassis means extra cost, but we are sure that all thinking riders will agree that the added comfort and convenience are real needs, and should be part of the standard equipment of any Sidecar worthy of notice. The wh Precisely as Specification Standard Model "D" Passenger Machine shown on page 5. MACHINE . SIDECAR

work. Coach built throughout, made under our own personal supervision. Only the best seasoned timber is used. Beautifully upholstered with "Levrine" leather. Seat and back fitted with springs. BODY. .

A special underslung type, the design of which enables a more pleasing shape, and very capacious body to be fitted. Ground clearance, full 6 in. CHASSIS.

Large three-leaf Cee springs are fitted back and front, with shackles interposed on rear portion. The resulting action is a luxurious suspension unrivalled in point of comfort SPRINGS. portion. The and efficiency.

The wheel is fitted with  $650 \times 65$  rim and is instantly detachable and interchangeable with the wheels of Motor Cycle. WHEEL .

TYRE. . . . . 650 x 65 three-ribbed type of heavy section.

5 in. wide and fitted with Side-Shield, completely protecting passenger against mud and dust. MUDGUARD.

This is strongly made of metal, very spacious, and is integral with the body. Therefore any luggage carried is insulated from road shocks exactly the same as passenger. LUGGAGE GRID .

FOOT-REST. . An adjustable foot-rest is fitted which adds greatly to the comfort of the passenger. LOCKERS.

A roomy locker is provided under seat, which will accommodate a two-gallon tin of petrol and a quart tin of oil, a similar receptacle is built into the back of body large enough to carry a fair amount of spares, inner tubes, etc. This is so arranged that it is not necessary to disturb passenger to gain access thereto.

Sidecar only, 150 lbs,

MEASUREMENTS. Extreme length 8 ft. Extreme height 3 ft. 6 ins. Extreme width 5 ft. These measurements cover the complete combination.

COLOUR.

The standard colours are French Grey or Black. An extra charge of 10/- is made if colour is required out of standard. Black is highly recommended for durability and high-class appearance. Where no colour is specifically stated on the order, we usually send the colour which allows us to execute the order most conveniently.

#### Price, Complete Combination £102 18 Sidecar only

EXTRA FOR SPARE WHEELS:

Wheel fitted with extra Wheel fitted with heavy 650 x 65 Tyre £5:11:3 Wheel without Tyre heavy 650 x 65 Car Tyre £6:6:3 £3:7:6

EXTRAS Hood, Frame Screen Side Curtains Apron Cover for Hood Stand E2:4:0. £1:16:6. £0:16:6. £0:19:9. £0:11:0. £0:8:3.

For £2:9:6 extra we can supply a "Sidecar De Luxe," upholstered with the finest possible material—Coach Painting of the highest class, and finished with plated metal beading etc., and fitted with metal folding Luggage grid. This De Luxe Model is equal to any Sidecar on the market.

ELECTRIC LIGHTING SET:—Lucas' Dynamo Outfit, complete with headlight, sidelight, and tail lamp, switch, batteries, &c., will be supplied at maker's current prices. Price of fitting to outfit, net extra £2:10:0.

SPEEDOMETER: We can supply either the WATFORD, COWEY, or SMITH's Instruments, these firms making special fittings to attach to our forks and drive.

(We reserve the right to deviate from the above Specification and Prices without notice.)



### 6 h.p. Three-Speed Passenger Combination

#### SPECIFICATION

MACHINE . . . . Precisely as Specification Standard Model "D" Passenger Machine shown on page 5.

SIDECAR

Coach built throughout, made under our own personal supervision. Only the best seasoned timber is used. Beautifully upholstered with "Levrine" leather. Seat and back fitted with springs. BODY. . .

A special underslung type, the design of which enables a more pleasing shape, and very capacious body to be fitted. Ground clearance, full 6 in. CHASSIS.

Large three-leaf Cee springs are fitted back and front, with shackles interposed on rear portion. The resulting action is a luxurious suspension unrivalled in point of comfort SPRINGS. portion. The

The wheel is fitted with  $650\times65$  rim and is instantly detachable and interchangeable with the wheels of Motor Cycle. WHEEL....

650 x 65 three-ribbed type of heavy section. TYRE. . . . . .

5 in. wide and fitted with Side-Shield, completely protecting passenger against mud and dust. MUDGUARD. . .

LUGGAGE GRID . This is strongly made of metal, very spacious, and is integral with the body. Therefore any luggage carried is insulated from road shocks exactly the same as passenger.

FOOT-REST. . . . An adjustable foot-rest is fitted which adds greatly to the comfort of the passenger.

A roomy locker is provided under seat, which will accommodate a two-gallon tin of petrol and a quart tin of oil, 'a similar receptacle is built into the back of body large enough to carry a fair amount of spares, inner tubes, etc. This is so arranged that it is not necessary to disturb passenger to gain access thereto. LOCKERS.

Sidecar only, 150 lbs,

MEASUREMENTS. Extreme length 8 ft. Extreme height 3 ft. 6 ins. Extreme width 5 ft. These measurements cover the complete combination.

The standard colours are French Grey or Black. An extra charge of 10/- is made if colour is required out of standard. Black is highly recommended for durability and high-class appearance. Where no colour is specifically stated on the order, we usually send the colour which allows us to execute the order most conveniently. COLOUR.

#### £102 18 Price. Complete Combination Sidecar only

EXTRA FOR SPARE WHEELS:

Wheel fitted with extra

IMPORTANT NOTE.

#### ERRATA.

Spare Wheel, with Extra Heavy Tyre should read £6:3:6

Spare Wheel, with Heavy Tyre £6:0:0

Wheel fitted with 650 x 65 Tyre : 11 : 3

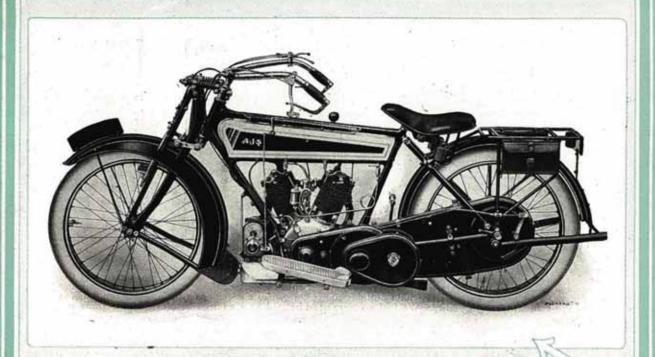
> -Proof r Hood 1:0. Side Car r Hood Stand
> 1:0. £0:8:3.
>
> ssible material—Coach
> ted with metal folding

idelight, and tail lamp, ting to outfit, net extra

switch, batteries, &c., will be supplied at Baker & current process. £2:10:0.

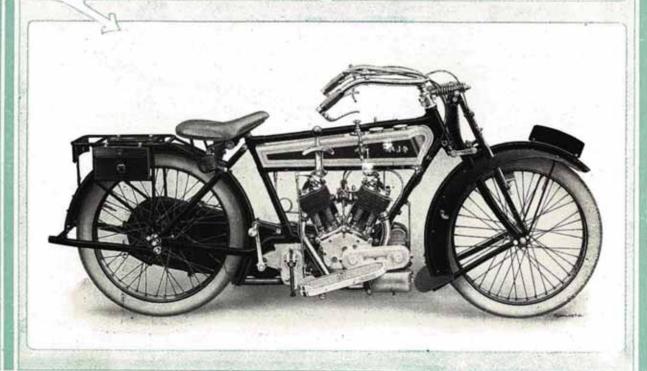
SPEEDOMETER: We can supply either the WATFORD, COWEY, or SMITH'S Instruments, these firms making special fittings to attach to our forks and drive.

( We reserve the right to deviate from the above Specification and Prices without notice.)



RIGHT-SIDE ILLUSTRATION.

LEFT-SIDE ILLUSTRATION



THIS is our 4 h.p. Twin "A.J.S. Model A" incorporating our pioneer features of ALL-ENCASED WEATHERPROOF CHAIN DRIVE, INTERNAL EXPANDING REAR DRUM BRAKE, HAND-CONTROLLED CLUTCH, THREE-SPEED COUNTER-SHAFT GEAR, PATENT GATE CHANGE, AND KICK-STARTER. Specially suitable for Solo use. FITTED WITH "A.J.S." PATENT DETACHABLE INTERCHANGEABLE WHEELS.



## 4 h.p. Three-Speed "Double-Purpose" Machine Model A

#### SPECIFICATION

Twin Cylinder (65 × 83 m/m Bore and Stroke, 550 c.c. capacity). Cylinders set at 50° Manufactured throughout in our own Works. All Valves large, mechanically operated, and interchangeable. Adjustable Valve Tappets. Large and efficient Aluminium Silencer.

CARBURETTER . A.M.A.C. Multiple Jet. Handlebar Control.

FRAME . . . . . Perfectly balanced, scientifically constructed with no bent tubes.

Improved design with rounded edges. Made with one Longitudinal Seam and supported from the bottom on brazed on brackets. Petrol Injectors, Filter, and extra large transparent top Filler. Petrol capacity, 15 pints. Oil, 22 pints.

Best & Lloyd Semi-Automatic to Main Bearings and Big Ends of Connecting Rods, as in Car practice. LUBRICATION . .

"Dixie Magneto" Model M2, enclosed type, driven by enclosed chain. 4GNITION .

"Hans Renold" or "Coventry" extra strong Motor Cycle Chain, \$\frac{1}{2}\$ in. pitch \times \$\frac{1}{4}\$ in. wide CHAINS . . . . .

Weatherproof, entirely enclose the chains. The chains can be inspected without the use of tools, and the Back Wheel, Clutch, Sprockets, Chains and Kick-Starter can be removed without removing the chain cases. CHAIN CASES . .

Strong "Kick-up" type, fitted to Fork Ends of back wheel and front wheel. STANDS . .

Improved design, two Pannier Bags with steel outer cases. A Tool Roll with full kit of first quality Tools is provided. TOOLS

"Brampton" Patent "Biflex," built to our special instructions. This Fork absorbs both vertical and horizontal shocks, and links are adjustable for side play. FORKS

A.I.S. Patent. Both wheels are interchangeable and can be detached in under 30 seconds. To take out back wheel it is unnecessary to disturb the chain case, chain, sprocket or mudguard. Wheels fitted with 650 × 65 flat base rims. WHEELS. . . . .

The Leatheries, Ltd. "Empire-de-Luxe," with extra large Pan Seat. 293 in. from ground. SADDLE . .

Front, latest "Bowden" Patent, operated by Lever on Handlebar. Back, extremely powerful and smooth acting, enclosed Internal Expanding Brake, operated by Foot Pedal on left side of machine. BRAKES

With Rubber Matting and polished Aluminium Bead, with Heel Rest. FOOT BOARDS .

Improved design. Three-speed Bottom Bracket Gear Box, Ball Bearings throughout. Operated by Patent Gate Change-speed Lever. Gear Ratios, 52, 9 and 15 to 1. GEAR BOX . .

Improved design "Kick-down" Starter, entirely enclosed in Case. The Engine can be easily started without leaving the saddle and with back wheel on the ground. STARTING

Improved design Patent Multiple Plate, with Cork Insets. Hand-controlled by Lever on Handlebar. The Correct Position. CLUTCH . . .

The Front Mudguard has been specially designed. Detachable Splayed Side Shields with an extra valance are fitted, giving perfect protection in bad weather. Back Mudguard extra wide. MUDGUARDS .

650 x 65 Three-Ribbed Car Type of heavy section. TYRES

Finest Black Enamel, four coats on special Rust Preventative process. The Handle-bars and a few special parts are heavily Nickel Plated. The major part of the machine however, is enamelled to save cleaning. Tank, Aluminium with Black Panels, and FINISH

Wheelbase, 4 ft. 7 in. Length over all, 7 ft. Width over all, 2 ft. 1 in. Height over all 3 ft. 3 in. Crank-case Clearance, 5½ in. MEASUREMENTS

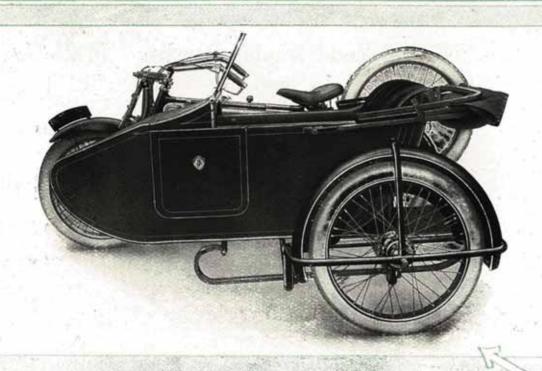
WEIGHT.

REGISTRATION PLATES Fitted ready for painting.

Price, complete

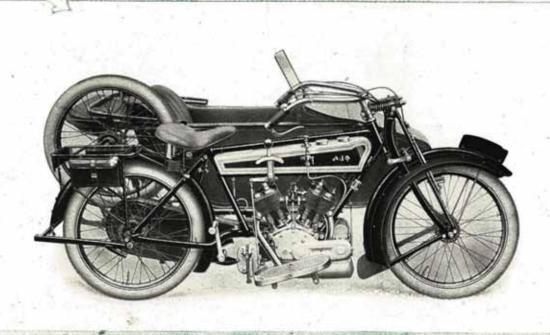
£76

(We reserve the right to deviate from above Specification and Price without notice.)



RIGHT-SIDE ILLUSTRATION.

LEFT-SIDE ILLUSTRATION.



THIS is our 4 h.p. twin "DOUBLE-PURPOSE" Model A, harnessed to its specially-designed sidecar outfit. The combination virtually forms a complete replica of the famous 6 h.p. 'A.J.S.' Combination except in dimensions, horse power, and total weight. In its class this vehicle stands absolutely alone and unrivalled, and includes all the distinctive 'A.J.S.' features found in the larger model.



### 4 h.p. Three-speed Passenger Combination

#### SPECIFICATION

MOTOR CYCLE . Precisely as Specification Standard Model A on page 9.

We have this season improved the special Sidecar for use in conjunction with our 4 h.p. model, and have no hesitation in offering this as a product which stands as far in advance of its kindred as does the A.J.S. machine for which it is built to suit. The chassis is all that a sidecar chassis should be, of a design combining lightness with maximum strength. The axle is of the underslung type, thus allowing us to give a particularly low, comfortable body position. All attachment lugs fixing chassis to frame are dropped steel forgings, and only the best quality steel tubing is used throughout. Mudguarding of the sidecar wheel has been studied as carefully as that on the motor cycle itself. The Guard is wide, and this, in conjunction with the side shield, minimises the discomforts previously experienced with the old-style inefficient mudguarding. Wherever possible, all parts are enamelled black. The wheel is instantly detachable by unscrewing one bolt only, and is interchangeable with both wheels of Motor Cycle. The body is of a pleasing design, beautifully finished throughout, very roomy and luxuriously comfortable, and lends itself to the fitting of a neat hood, side curtains, and wind screen, etc., by means of which the passenger can be perfectly protected in wet weather. It is fitted with a patent hinged extension, which serves the double purpose of giving added protection and warmth to the passenger and a means of fitting the wind screen much nearer to passenger than is possible with bodies not so fitted. The addition of this patent extension to body and the incorporation of a detachable wheel in the chassis means extra cost, but we are sure that all thinking riders will agree that the added comfort and convenience are real needs, and should be part of the standard equipment of any Sidecar worthy of notice.

BODY . Coach built throughout, made under our own personal supervision. Only seasoned timber is used. Beautifully upholstered with Levrine leather, back fitted with springs. Only the best her. Seat and

A special underslung type, the design of which enables a more pleasing shape, and very capacious body to be fitted. The lowest part of Chassis clears the ground by 6 inches. CHASSIS .

Large three-leaf Cee springs are fitted back and front, with shackles interposed on rear portion. The resulting action is a luxurious suspension unrivalled in point of comfort SPRINGS portion. The and efficiency

The wheel is fitted with  $650\times65$  rim, and is instantly detachable and interchangeable with the wheels of Motor Cycle.

TYRE . . . . . . 650 × 65 three ribbed, heavy section.

This is strongly made of metal, very spacious, and is integral with the body. Therefore any luggage carried is insulated from road shocks exactly the same as LUGGAGE GRID .

A space is provided under seat which will accommodate a 2 gallon tin of Petrol and a quart tin of Oil. PETROL AND OIL CARRIER

WEIGHT

Extreme length, 7 ft. 4 in. Extreme height, 3 ft. 3 in. Extreme width, 5 ft. These measurements cover the complete combination. MEASUREMENTS

The standard colours are French Grey or Black. An extra charge of 10 - is made if colour is required out of standard. Black is highly recommended for durability and high-class appearance. Where no colour is specifically stated on the order, we usually send the colour which allows us to execute the order most conveniently.

Price, Complete Combination £93 Sidecar only £17 17

#### EXTRAS SAME AS ON PAGE 7,

except Dynamo Lighting Set, which cannot be supplied for this model.

(We reserve the right to deviate from above Specification and Prices without notice.)

# Motor Zalo Cycles



# RIGHT-SIDE ILLUSTRATION.



THIS is the famous "A.J.S. MODEL B"—The SOLO Mount—incorporating the original A.J.S. features, ALL-ENCASED WEATHERPROOF CHAIN DRIVE, 23/4 H.P. SINGLE-CYLINDER ENGINE, HAND-CONTROLLED CLUTCH, TWO OR THREE-SPEED COUNTERSHAFT GEAR, PATENT GATE CHANGE, INTERNAL EXPANDING REAR DRUM BRAKE, and KICK-STARTER. An ideal go-anywhere SOLO machine. Powerful hill-climber—flexible and handy in traffic—unrivalled for touring or professional use.



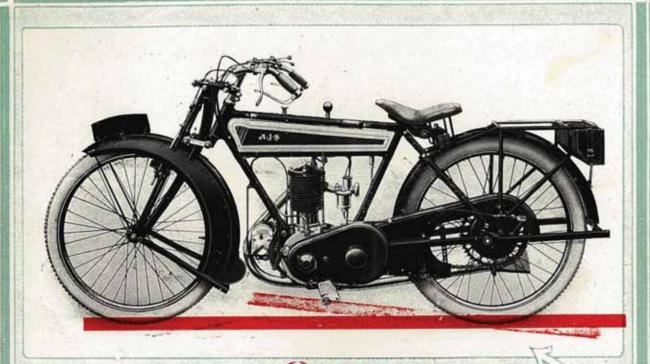
# 24 h.p. Two & Three-Speed Solo Machine Model B

#### SPECIFICATION

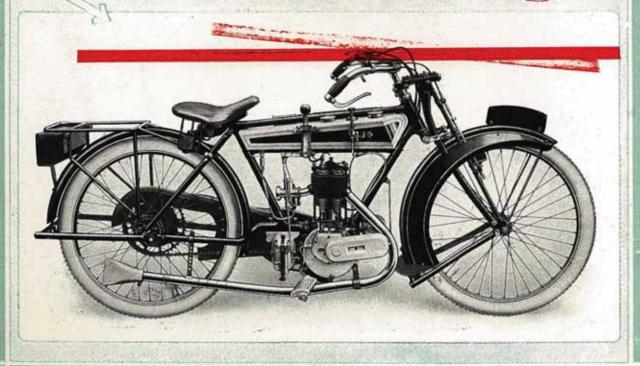
Single Cylinder (74  $\times$  81 m/m, Bore and Stroke, 349 c.c. capacity). Manufactured throughout in our own Works. Valves extra large, mechanically operated and interchangeable. Adjustable Valve Tappets. Large efficient Silencer. ENGINE . A.M.A.C. Multiple Jet. Handlebar control. CARBURETTER Perfectly balanced, scientifically constructed with no bent tubes. Improved design with rounded edges. Made with one Longitudinal Seam and sup-ported from bottom by brazed-on brackets. Petrol Injectors, Filter and extra large transparent top Filler. Petrol capacity, 5 quarts. Oil, I quart. Best & Lloyd, Semi-automatic to Main Bearings and Big Ends of Connecting Rods, as in Car practice. LUBRICATION . "Thomson-Bennett" Magneto, Type D.D.M., or E.I.C. make. IGNITION "Hans Renold" or "Coventry" extra strong Motor Cycle Chain, § in. pitch × § in. wide. CHAINS the use of tools, and the Back Wheel, Clutch, Sprockets, Chains and Kick Starter can be removed without removing the Chain Cases. Strong "Kick-up" type, fitted to fork ends of back wheel and front wheel. STANDS . Improved design. Built of Steel Tube, with all joints flush and electrically welded. CARRIER full kit of first quality tools is provided in tool roll. COOLS Special design. The case is best quality leather and it enclosed in metal case forming Number Place. "Brampton" Patent "Biflex," built to our special instructions. This Fork absorbs both vertical and horizontal shocks, and links are adjustable for side play. FORKS A.J.S. Patent Detachable Back Wheel. The wheel can be detached in under 30 seconds, without disturbing the chain case, chain, sprocket or mudguard. Wheels WHEELS. The Leatheries, Ltd. "Empire-de-Luxe," with extra large Pan Seat. 291 in. from ground SADDLE . . . . . Front, latest "Bowden" Patent, operated by Lever on Handlebar. Back, extremely powerful and smooth acting, enclosed Internal Expanding Brake, operated by Foot Pedal on right side of machine. With rubber matting and polished Aluminium Bead, with Heel Rest. FOOT BOARDS Improved Two or Three-speed Bottom Bracket Gear, fitted throughout with Ball Bearings. Operated by Patent Gate Change-speed Lever. Gear Ratios, 52 and 102 to 1 (Three-speed 5, 72 and 12 to 1). GEAR BOX Improved design "Kick-down" Starter, entirely enclosed in Case. The Engine can be easily started without leaving saddle and with back wheel on ground. STARTING . . Improved Multiple Plate, with Cork insets. Hand-controlled by lever on handlebar The Correct Position. CLUTCH . . . The Front Mudguard has been specially designed for 1915 Models. Detachable Splayed Side Shields with an extra valance are fitted, giving perfect protection in bad weather. Back Mudguard 5 in. wide. MUDGUARDS . . 26 x 21 in. Heavy Rubber Non Skid. TYRES. Finest Black Enamel, four coats on special Rust Preventative process. The Handle-bars and a few special parts are heavily Nickel Plated. The major part of the machine however, is enameded to save cleaning. Tank, Aluminium, with Black Panels, lined FINISH. WHEELBASE, 4 ft. 4 in. WEIGHT, 160 lbs. CRANK CASE CLEARANCE, 6 in. MEASUREMENTS Fitted ready for numbering.

Price, complete - Three-speed, £58 0 0 ...
Two-speed, £55 0 0

(We reserve the right to deviate from above Specification and Prices without notice.)



RIGHT-SIDE ILLUSTRATION A LEF SIDE ILLUSTRATION.



THIS is the "A.J.S. MODEL B 'T.T.' SPORTING" special—The Racing or Hill-Climb Mount. It incorporates exactly the same Specification as the 2\frac{3}{4} h.p. Model B with the exception of the items marked by an asterisk on opposite page. The Engine is specially timed and tuned up for high speeds. All reciprocating parts are lightened, and our past successful experience in speed work finds embodiment here. A special staff of builders and testers, highly trained in the production of high-speed and high-efficiency engines, deal exclusively with this model.



### 23 h.p. Two & Three-Speed Sporting Model B

#### SPECIFICATION

ENGINE	Single Cylinder (70 x 91 m/m, Bore and Stroke, 349 c.c. capacity). Manufactured
CHOI AVENUENCE ALL SOLIS IN	Single Cylinder (70 × 91 m/m, Bore and Stroke, 349 c.c. capacity). Manufactured throughout in our own Works. Valves extra large, mechanically operated and inter-

changeable. Adjustable Valve Tappets. Large efficient Silencer EXTRA LARGE is carried to the rear and terminates in a special silencer which can instantly be EXHAUST PIPE removed for special events, allowing open exhaust.

"Thomson-Bennett" Magneto, Type D.D.M.

\*CARBURETTER . A.M.A.C. with full range of jets. Handlebar control.

. Perfectly balanced, scientifically constructed with no bent tubes.

Improved design with rounded edges. Made with one Longitudinal Seam and supported from bottom by brazed-on brackets. Petrol Injector. Filter and extra large transparent top Filler. Petrol capacity, 5 quarts. Oil, 1 quart.

Best & Lloyd Semi-Automatic to Main Bearings and Big Ends of Connecting Rods, as in Car practice. LUBRICATION. .

Strong "Kick-up" type, fitted to fork ends of back wheel and front wheel. STANDS .

Improved design. Built of Steel Tube, with all joints flush and electrically welded. CARRIER

Special design. The case is best quality leather and is enclosed in metal case forming Number Plate.

"Brampton" Patent "Biflex," built to our special instructions. This Fork absorbs FORKS

both vertical and horizontal shocks.

S. Patent Detachable Back Wheel. The wheel can be detached in under 30 onds, without disturbing the chain case, chain sprecket or mudguard. Wheels of with 2 ×21 Rims.

Front, latest "Bowden" Patent, operated by lever on handlebar. Back, extremely powerful and smooth acting, enclosed Internal Expanding Brake, operated by Heel Pedal on right side of machine. BRAKES

\*FOOT RESTS are fitted instead of Foot Board Bearings. Operated by Patent Gate Change Lever. Gear Ratios, 5‡ and 10½ to 1 (Three-speed 5, 7½ and 12 to 1).

\*TWO EXTRA ENGINE SPROCKETS are supplied with this model to give different gear ratios for hill climbing competitions

\*KICK-STARTER . is not included.

\*HANDLEBARS are T.T. Racing Type.

\*HANDLEBAR CONTROL to Magneto is fitted.

Improved Multiple Plate, with Cork insets, Hand-controlled by lever on handlebar The Correct Position. CLUTCH . .

"Hans Renold" or "Coventry" extra strong Motor Cycle Chain, \(\frac{1}{2}\) in, pitch \(\times \) in, wide.

\*CHAIN CASES. . are Semi-Enclosed, and give instant access to the transmission for changing sprockets.

MUDGUARDS . . Of particular design specially suited to the machine. \*TYRES . . 26 × 2 in. on 26 × 21 in. Rims; Special Racing Type.

Finest Black Enamel, four coats on Special Rust Preventative process. The Handlebars and a few special parts are heavily nickel plated. The major part of the machine however, is enamelled to save cleaning. Tank, Aluminium, with Black Panels, lined FINISH

WEIGHT, 160 lbs. CRANK CASE CLEARANCE, 6 in. MEASUREMENTS WHEELBASE, 4 ft. 4 in.

REGISTRATION PLATES Fitted ready for numbering.

Unless in our opinion it is necessary, we cannot agree to deviate from the above standard Specification of this Model.

Three-Speed, £58 Price, complete Two-Speed, £55

(We reserve the right to deviate from above Specification and Prices without notice



# All about the Original Design-Features of "The A.J.S." Motorcycles

IN placing the particulars of the Constructional Details of our Motorcycles before the reader, we would mention, with pardonable pride, that "The A.J.S." has been designated

"The MOTORCYCLE of the PAST-PRESENT-and FUTURE"

The fact that so many prominent motorcycle manufacturing firms have moulded their machines on "A.J.S." lines and imitated our design on all material points, while reflecting less on the initiative than on the shrewd judgment of the copyists, only serves to emphatically prove the perfect character of our own design and the truth of our claims.

We know that our Motorcycles yield pride of place to none, and, as the originators, designers and sole producers of the "A.J.S.," we would assure you that it is our invincible determination to keep the "A.J.S." ahead; and it is obvious that our proved creative abilities of the past, combined with over eighteen years of accumulated skilled constructional experience, will enable us to do it.

We are well satisfied that riders will find the same relative advance in general improvement on our 1916 models as those of last year exhibited over their predecessors, and are confident they will appeal more forcibly than ever to those who will have QUALITY and EFFICIENCY and ALL THAT IS BEST IN DESIGN.

In the evolution of The A.J.S. we have always given special prominence to FIVE CARDINAL POINTS which have contributed in no small measure to its supremacy, viz.:—

# EFFICIENCY, DURABILITY, SIMPLICITY, ACCESSIBILITY, and EASE OF CONTROL

—which fundamentals undoubtedly form the basis of the position our products hold to-day. At the same time, all expedient constructional refinements have been embodied throughout our models wherever such have proved to be aids to the general comfort and convenience of the rider.

APROPOS. Were indisputable proof required of The A.J.S. Speed and Reliability 'twould be found in its behaviour in that notoriously most strenuous of "Road" Trials, THE 1914 JUNIOR "Tourist Trophy" RACE, where it established a World's record for Speed and Reliability, and emphatically demonstrated in an absolutely convincing and unique manner a real "Road-Reliability" performance unparalleled—pre-eminent—conclusive!



#### The Original Design-Features of the A.J.S. Motorcycles-continued

The A.J.S. ENGINE. Our design of cylinder casting is retained unchanged, and, as we stated when we introduced it for the 1914 season, the design preserves the merit of even cooling for which



our engines have always stood pre-eminent, a means having been evolved of so casting the onepiece cylinder that, to all intents and purposes, the valve chambers are integral therewith merely through the medium of the cooling gills, a free passage between both it and them being preserved for adequate air circulation. valve springs are borne upon housing rings fitted at the base of the valve guides in such a manner that they are practically insulated from heat induction, with its attendant evil of weakening the springs by annealing. These latter are of large diameter

and their tapered construction reduces the tendency to "buckle" under a compressing action, while assisting our main motive. The cylinders are held in place by our approved method of holding-down bolts and cross-members, thus permitting the removal in the minimum of time and obviating the "untidy" appearance which the presence of many nuts around the cylinder base imparts. We have always aimed at a "clean cut" unit, both as regards design and service, and the former is obtained by abolishing superfluous fittings, lugs, nuts, crevices, etc., which render cleaning impossible and, of course, do not contribute to efficiency; thus we refrain from following the usual method of casting the firm's title upon the crank-case; the practice is, moreover, commercially superfluous in our case, as we do not supply our engines to other firms—they are found only upon A.J.S. machines.

LUBRICATION: This is supplied by a spring-loaded hand pump, and is designed to force a constant supply of oil via the near side of main shaft bearing (which takes the full weight of the driving load) direct to the big-ends of connecting rods through the drilled main shaft, thus following the best accepted car practice. After passing through the big-end bearings the oil escapes into the crank chamber and is fed to the remainder of the bearings by 'splash.' Adequate provision is also made should stoppage of the direct feed occur at any point, the oil then flowing direct to the crank case and providing for lubricant by 'splash' to all bearings. In addition to this the rider is able at any moment to inject an extra pumpful when desired, and prolonged experiments have shown us that this system most surely solves the vexed question of adequate lubrication under the varying conditions of load, &c., experienced in ordinary usage.

GENERAL: The foregoing details, in conjunction with sundry minor improvements embodied in the detail work, weight of parts, construction of timing gear

#### The Original Design-Features of the A.J.S. Motorcycles-continued

together with the slight advance which we effected in the cubical capacity during 1914 for the 6 h.p. model - have materially augmented the effective horse power of the engines, and needless to say, the 4 h.p. twin engine also enjoys the benefits of the foregoing advance in efficiency. Flexibility, absence of vibration, and silence are, in addition, points which have benefited under our policy of continued and close attention to detail -in fact we may claim, under the latter head to be far in advance of our nearest competitor. Not only is the exhaust wonderfully silent (without, be it noted, placing any back-pressure upon the engine), but the general multiplicity of sounds usually arising from valve clatter, timing gear and transmission are noticeably absent, resulting in our models being practically inaudible when travelling under ordinary conditions. The connecting rods are light and strong, being machined from chrome nickel steel, and are all finished to a "dead standard" in weight. Large nickel steel valves, exhaust and inlet ports of stream-line" design, eccentrically disposed balance-weights on flywheels, long guides to valves and tappets, the employment of single rocker arm for tappet operation, and a special alloy for certain bushes, are all A.J.S. points which have proved themselves invaluable. Our Unbreakable Piston is also retained, drilled around its "skirt" for lightness and for lubrication; it is flat-topped, and the employment of but two rings has been found ample. The gudgeon pin, which is drilled throughout its length for lightness, is held in place by perfection of fit (it is hardened and ground, and is a good "push-in" fit in its housing), coupled with a dowel-pin fastening to obviate revolving, and a final snap-on ring which effectually safeguards its "working back." We are still convinced of the superiority of plain bearings for internal combustion motorcycle engines and employ these throughout, past results proving our contention on this point. Here, as in other respects, we base our policy on the experience acquired by the best designers of motor car engines; they have, despite the more favourable conditions under which the multi-cylindered car engine operates, found the use of ball bearings largely unsuited to the work. Where the destructive action of a rapidly alternating load-weight is absent, and a fairly smooth and regular load is carried, there is nothing better than the ball bearing if it is of adequate dimensions, and such are fitted throughout to our gear box. The 1916 engine is the result of 17 years' experience in the designing and manufacturing of internal combustion Engines, and we have no hesitation in stating that the new models maintain our reputation. Very stout timing wheels, integral with large cams cut from the solid, large diameter crank pin, and a special method in our Twin Model of mounting the connecting rods on the Crank Pin-affording maximum bearing surface to both members - are some of the special minor features also embodied in our models, while there are still further details making for the convenience of the user and the general efficiency of the Unit. A word concerning the thoroughness of our Engine Tests-Prior to the bench test proper, each complete unit is "run in" for several hours at moderate speed by independent power in the assembling shop; following this, it is fixed upon a specially constructed Test-Bench and run under its own power, which has to reach and maintain a high standard set up by ourselves, and far in excess of the nominal rating. The test is by fan brake in conjunction with meter and continued for several hours, a notable point being that no artificial means of inducing a special draught of air upon the valve pockets of the engine is employed—the Unit, in actual fact, working under much more



#### The Original Design-Features of the A.J.S. Motorcycle-continued

trying conditions than are experienced in road practice, and the results speak for themselves on the overheating question. Every complete machine receives at our hands a searching road test by experienced riders who leave no stone unturned to ensure that the adjustment of every part is in order and that in no case does a machine pass their final supervision until every minor detail is duly checked as correct.

THE MAGNETO We are this season using the "Dixie," type M2, on both our twin models. This magneto is of remarkably simple and efficient construction, and reflects the greatest credit upon both the designer and producers. The firm responsible for the "Splitdorf" model E.V., which we fitted last season, have embodied the last word in magneto construction in this "Dixie" model which now supersedes it, and users of the former will undoubtedly accept this fact as convincing proof of the high efficiency the new model offers. It is the acme of simplicity in construction, and contains many practical points which, for efficiency and "fool-proof" qualities, place it in advance of any ignition plant yet evolved.

Speaking broadly, the previously-accepted principle of rotating the armature between the magnetic poles is relinquished, a rotor of special construction taking the place of the orthodox armature shaft; the windings are stationary, as a result of which method the contact breaker is likewise a stationary instead of a revolving unit, and, if desired, adjustment of same can readily be effected while the magneto is running, the platinum points being housed outside the breaker-box proper. Incidentally, also, they are well out of reach of stray oil.

The complete instrument is marked by a high degree of workmanship, and we have no doubt that it will provide complete immunity from ignition troubles for its users.

LUBRICATION: Ten drops of light machine oil every 500 miles, through the oil-hole on the side of the instrument, and a few drops only on the breaker lever for the same distance travelled.

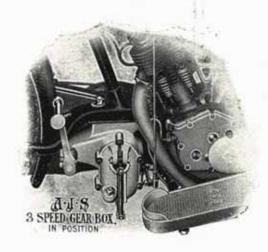
THE CARBURETTER We continue to fit the A.M.A.C. multiple jet carburetter as standard. This instrument still provides, in our opinion, the best all-round solution of the problem of carburation for the average rider, as it is extremely simple to handle and provides a measure of automaticity which particularly appeals to all except those riders who revel in constant lever manipulation. Its construction, however, at the same time allows of a large range of adjustment at the hands of the expert, the choice of jets being so proportioned that while the best results can be achieved by a skilful use of the air lever in conjunction with the throttle, use of the latter alone, with the air lever fully open, will yield results equal to those of many two-lever instruments demanding the intelligent handling of both levers. The control adjustments are effected at the top of the throttle chamber instead of at the handle-bar end of the wires, and the patent trap for preventing petrol loss from "blow back" is an efficient feature. The jet can be removed without disturbing the Carburetter in any other respect.

The Original Design-Features of the A.J.S. Motorcycles-continued

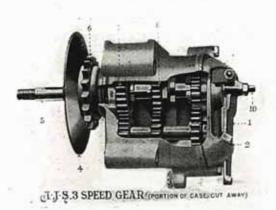
### THE A. J. S. COUNTERSHAFT GEAR - THREE - SPEED AND

TWO-SPEED Our Gear Boxes are constructed throughout on car lines and this has been our practice for years. As regards

its strength and indestructibility, we may say that if there is one part of the A.J.S. machines more than another which allows the rider to forget its With the existence, it is this unit. exception of occasional replenishing of lubricant, it needs no attention and will outwear any part of the machine. Our 1916 Gear Box has undergone no change since last season, and a critical inspection of same only serves to emphasize the high point of excellence at which the A.J.S. of to-day has arrived: the parts reveal the extreme accuracy and care bestowed on their



production, the closeness of the work being the equal, if not the superior, of that obtaining in car practice. Ball bearings are used throughout for the shafts, which are short, stiff, and of large diameter, and the result is complete absence of "whip" and unpleasant gear humming. Engagement of middle



gear is by sliding pinion, and the high and low by means of sliding dog There are no keys used clutches. in the Gear Box, and all the gears are machined from the solid bar. The low gears on our Models D and A are 16 and 15 to 1 respecively, providing an emergency ratio which will enable these passenger combinations to overcome any possible gradient. Under normal conditions it is seldom called into action, the middle speed being able to cope with the most severe gradients. OILING. Filled to the top

of the Oil Sump with lubricant, our Gear Box requires no other attention; the whole runs in an Oil Bath, and a clean exterior is maintained.

## THE A.J.S. PATENT GATE CHANGE-SPEED Our Gear-changing Lever is fitted on

a bracket mounted on the tube under Tank, and makes a very neat unobtrusive fitment, reducing the length of the operating, rod to the minimum. It is of strong dimensions, very easy to change, and provides a positive stop for each gear; with this appliance it is impossible to over-run the Middle Gear.

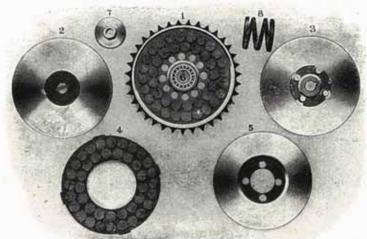


#### The Original Design-Features of the A.J.S. Motorcycles-continued

THE A.J.S. FREE ENGINE CLUTCH Our F.E. Clutch is mounted on an extension of the primary

shaft in the Gear-Box, and is of Multiple Plate type with cork insets engaging with

alternate steel discs keyed to the shaft but free to move laterally, an A.J.S. speciality; the pair of cork members-one of which is the driven chain sprocket-are mounted idly upon it, but transmit the thereto when engaged by the alternately disposed plates. See Illustration. Engagement and release is effected by means of an operating pin working within the drilled



RAS 6 HP CLUTCH PARTS

shaft; this is actuated by Bowden Cable from the handle-bar, the pin thrusting back the outside plate and spring by means of a cross-key. The Clutch is simplicity itself and the wearing qualities unrivalled. It requires no attention whatever, and for sweetness of engagement there is nothing to approach it. We might remark here that during the six years we have fitted our present Clutch Design we have never had to renew the cork insets on any machine through wear. We retain the same relative clutch areas, giving 100% more surface for our Twin Models than that for the Lightweights. We have perfected a device for obviating any tendency on the part of the clutch plates to "drag" when clutch is released, and this does away with a defect which, though unimportant, is an irritating feature of so many plate clutches.

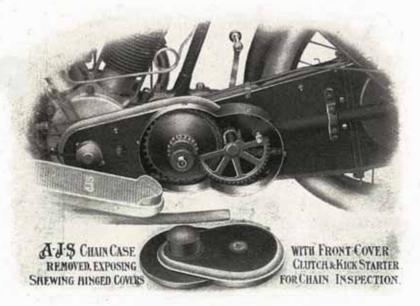
HAND-CONTROLLED OPERATION Our practice of fitting HAND-CONTROL for Clutch is

admittedly right, and meets with universal approval. The delicacy of control required for satisfactory clutch manipulation is such that the foot is incapable of imparting it owing to the constant influence of road shocks; moreover, the foot is probably, at the moment when clutch operation is imperative, in use for either manipulation of the brake or maintaining equilibrium of the machine by contact with the ground.

THE A.J.S. ALL-ENCASED WEATHERPROOF CHAIN TRANSMISSION The famous Original A.J.S. ideal system of SILENT CHAIN
TRANSMISSION which has pre-eminently remained our
practice for the last ten years, still asserts its marked superiority and has
proved itself of greater efficiency and reliability than any other form to date.
It ensures PERFECT POWER TRANSMISSION as none other can, and
embodies our Silent CHAIN DRIVE, COUNTERSHAFT GEAR AND
STARTING MECHANISM complete, ALL ENCLOSED in
WEATHER-PROOF CASES and operating under ideal conditions. This
principle of totally enclosing the drive and gear mechanism, apart from

#### The Original Design-Features of the A.J.S. Motorcycles-continued

rendering the transmission silent, imparts indefinite life thereto and secures the maximum of service with the minimum of attention. The A.J.S. CHAIN TRANSMISSION for 1915 has been improved from time to time in certain ingenious details, resulting in a transmission system which is absolutely unrivalled, and those who know our machines and their remarkable silence and sweetness of smooth running, will appreciate the statement that to-day the A.J.S. is as conspicuous as ever in this respect. "Coventry" or "Renold" Chains are used. A special feature in connection with The A.J.S. TRANSMISSION, to which we would draw your attention, is that while providing complete protection to the transmission gear and starting mechanism, we also make provision for the general ACCESSIBILITY of parts which should remain easily-get-at-able, enabling every part requiring periodical inspection to be laid bare as required. Immediate inspection of chains is obtained by using the Inspection Doors embodied in both front and rear cases, and the front of the case is removed by loosening the fixings around its edge, thus exposing clutch and kick-starter. If required, the top portion can be taken off in a trice, while treatment of the lower half is just as rapid and easy. Our patent quick detachable wheel solves the problem of easy removal of driving wheel, which in our case can be effected in 30 secs. without in the slightest degree interfering with the chain case.



A further feature in our Transmission on the Single-Cylinder Model is the inclusion of an Improved SLIPPING CLUTCH which gives a particularly flexible and sweet drive. This is on the engine shaft, the sprocket being mounted on a sleeve between fibre discs and held in frictional engagement therewith by a coil-spring similar to that employed for the clutch proper; the adjustment being alike in each case. This we regard as an essential provision, for the reason that Chain Drive in the case of a Single-Cylinder engine demands a slipping medium to absorb harshness or shock on chains. The Slipping Clutch is incorporated to do just what is required of it—to impart to the efficiency of the chain-drive the exceptional sweetness of an elastic form of transmission without the rider being conscious of its inclusion on the machine.

# Motor (St.) Cycles

The Original Design-Features of the A.J.S. Motorcycles-continued

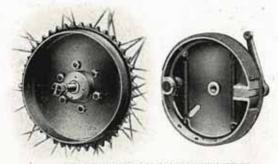
THE A.J.S. KICK-STARTER The STARTING MECHANISM is of substantial construction, very easy starting

and enjoys, with the chains, the advantages of working under complete protection. Experience calls for no change in its design, and if everything is in order a start can be generally relied on at the first time of asking. The spindle of the Starter passes through a rear extension of the gear box casting, and receives lubrication from the oil within the Box. The release-spring of the mechanism is housed upon the spindle within the chain case, and enables a particularly "clean" job to be made of this portion of the unit, for it would be difficult to detect its existence save for the presence of the Starting Pedal, which occupies a natural and comfortable position on Right side of machine for depression by the right foot. The Engine can be started without leaving the saddle and with back wheel on the ground.

## THE A.J.S. EXPANDING REAR BRAKE Our INTERNAL EXPANDING BRAKE

undoubtedly forms one of the finest standard features of the control mechanism of our various models, by reason of the absolute safety which it provides for the rider

on the very steepest declivities, no matter what the load opposed. It provides not only a most powerful instrument for emergency usage, but can be used with infinite delicacy of engagement owing to its sweetness of action. The accompanying illustration is almost self-explanatory of its design and construction—two shoes being expanded against the inner periphery of a large diameter drum carried integral with the rear wheel chain sprocket, the action



&J.S. INTERNAL EXPANDING BRAKE

being cam-operated through cable mechanism by foot pedal carried on the near side of machine in a convenient position. "Thermoid" is the material which we find affords the best all-round results as a brake lining, and this we are now fitting; it is of almost everlasting wear, and its co-efficiency of friction rather improves than deteriorates with use. The mechanism is very stoutly constructed, follows the best car engineering practice, and requires no attention.

THE A.J.S. QUICK - DETACHABLE and INTERCHANGEABLE WHEELS (PATENT) We incorporate the boon of wheel interchangeability as a standard fitting to all wheels (excepting only the front wheel of the 2\frac{3}{4} h.p. model, which is supplied with the ordinary form of hub). That this policy is vastly appreciated goes without saying. Moreover, we extend the benefits to the sidecar wheel, so that users of our combination—whether 6 h.p. or 4 h.p.—are able to change their three wheels over in any way desired, or fit the Spare Wheel (which is supplied as an extra—see below) to replace any

#### The Original Design-Features of the A.J.S. Motorcycles-continued



wheel on the outfit. This advantage only needs bare mention to be fully appreciated by every rider, while an actual experience of the benefits such a system offers, viz. :- quick removal of tyres, tyre repairs or replacements, tube withdrawal or replacement without the necessity for employing butt-ended or other special tubes and without disturbing wheels or transmission, front wheel withdrawal without removing brake shoes, and full interchangeability without disturbing the speedometer drive, are all points which, once enjoyed, will not be readily passed over by any who are in a position to acquire them. These special privileges are found, in their entirety, only upon A.J.S. motor cycles, and their advantages in economy, safety, comfort and convenience are

strikingly obvious. Constructionally we may mention that it HAS NO "DOG DRIVE"—NO "BACK-LASH"—NO FRICTION OR STRAIN—NOTHING TO SET UP WEAR, NOR WEAR OUT—NOTHING TO GO WRONG! THE WHEEL IS PERFECTLY RIGID AND SOLID WITH DRIVING SPROCKET. BALL BEARINGS HAVE ONE ADJUSTMENT ONLY, WHICH SUFFICES FOR EVERYTHING. (For full particulars see special booklet on A.J.S. Detachable Wheel.)

#### THE A.J.S. SPARE WHEEL

able and Interchangeable Wheels.

iently without interfering in any way with either general comfort or accessibility. It is, of course, an exact replica of the others and "dead interchangeable" therewith, so that should worn-out tyres or misadventure require the renewal of either wheel, this Spare Wheel can instantly be interchanged. The full benefit of this arrangement on tour can be imagined, and we illustrate the complete A.J.S. COMBINA-TION with SPARE WHEEL IN POSI-

This invaluable innovation follows as a natural corollary to our system of Detach-The spare can be carried quite conven-



TION to show how we provide for the carrying of same.



#### The Original Design-Features of the A.J.S. Motorcycles-continued

As mentioned in preceding paragraph—this SPARE WHEEL is an "extra," not fitted as part of the standard equipment. The prices, both with and without tyres, will be found on page 7 of this Catalogue.

THE A.J.S. FRAME Last season we returned to the policy of constructing our frames without a bent tube, resulting in our now well-known design with the sloping top tube devoid of a curve. We stated at length in our 1915 Catalogue the mechanical reasons which prompted us to the change, and there is no need to repeat them here. Suffice it to say, therefore, that the curved top tube is a constructional weakness, and which time will inevitably eradicate from motorcycle frames, and it is not without interest to note that no single case of frame fracture has yet been reported in respect of this new frame; we may add, moreover, that we are confident that, given fair treatment, it never will. The frame is low built, and of smart, racy appearance. It has, owing to the steadily increasing weight of Sidecar attachments and the overloading habit, been given an ample margin of strength, and it is perfect in its ability to withstand the very roughest use to which it can be put, without either departing from its correct alignment, or suffering at such vital points as the steering-head in the matters of ball-race wear or fracture, or trouble from crystallisation of frame tubes. The latter are all of amply stout gauge of highest quality steel, with mitred joints, while the front down tube is now 18 inch diameter and is supplemented by an internal girder to cope with the strain of Sidecar work. The steering head is both long and stout, and carries ball races of generous size which can be lubricated from outside. All enamelled parts are treated with the A.J.S. special Anti-rust process, afterwards being polished. then receive four coats of finest Black Enamel and are finally hand-polished. The HANDLE-BARS are symmetrically shaped and perfectly balanced for the most comfortable riding position.

THE PATENT SPRING FORKS We have adopted the Brampton Biflex" forks made to our special requirements, which we submit to our supporters with every confidence. is indeed the acme of strength and comfort, providing for the absorption of both vertical and horizontal shocks. One of its many capital points is that of providing ready means for "taking up" any wear which may eventuate at the coupling links, while yet another is the over-all width of the forks, thus not only effectively scotching the slightest suggestion of "whippiness" in the steering, but providing a measure of bearing surface to the hardened link-pins which is a guarantee of almost indefinite wear. Further, every bearing is thoroughly provided for efficient lubrication, and ready adjustment of the horizontal buffer springs ensures the maximum efficiency for the individual The workmanship throughout is of the highest rider, whatever his weight. class, and its general appearance of stoutness cannot fail to give an added sense of security to the rider. Incidentally, their design happily lends itself to our adoption of an improved system of front mudguarding, and to which we make detailed reference in the section dealing particularly with this matter.



#### The Original Design-Features of the A.J.S. Motorcycles-continued

THE A.J.S. MUDGUARDING Is as near perfection as the exigencies of motorcycle design will at present allow, and has resulted in the production of a front mudguarding system which

more nearly approaches the ideal—from the point of view of general efficiency



A.J.S. DETACHABLE WHEEL Centre-Pin of Rear wheel withdrawn to allow Inner Tube to be completely taken out and replaced without detaching the wheel!

and neatness-than any other on the market, providing both rider and machine with a measure of protection from mud and watersplash and spray which renders the fitting of leg shields a superfluity. Under the very dirtiest conditions of travel, exceedingly little of the splash can find its way on to the rider's lower extremities, while all the centre part of the machine-magneto, power unit and footboards-remain in spotless condition. feature of this new guard lies in the manner in which the side valances are designed and They are widely "flared" disposed. increase in effective width right down to their base, where an additional bottom valance to combat "up-splash" is fitted. This keeps down all upward throw from rear of tyre. Further, the outer edges of the guard are provided with a finishing valance fitted with turned lips which prove most effective in retaining upon the inner sides of the guard any dirt or

water otherwise tending to escape from confinement. The guard is built up around the forks in such a manner that the latter pass through the valances. This construction is in no sense ugly in appearance, but on the contrary, it looks what it is, a thoroughly workman-like job, obviating all tendency to vibration or rattle and forming practically one unit with the forks. In no way does it affect the instantaneous removal of the wheel from the forks when desired, and the guard is itself quickly detachable. We retain unaltered the rear guard, which is of generous width for each model, that on the 6 h.p. machine being 7 in. wide and built on Small Car lines. It effectively protects the rear portion of both machine and rider, and short of fitting cumbrous side-shields which tend to obstruction under certain conditions, it is difficult to see how our mudguarding system at this point could be further improved.

THE A.J.S. SILENCER We have never yet yielded pride of place to any of our competitors under this head, and for the present season we more than maintain our reputation for real quietness of running, especially absence of mechanical noise. A very special pattern Silencer is fitted, extremely efficient and with long exhaust Extension pipe to rear of machine, which has the effect of making the Engine even more silent than before. Many other machines creating more than treble the noise do not approach ours in actual volume of horse power and speed, although, given the resultant high efficiency from a correctly designed engine, there is no excuse (other than that of bad or inexperienced workmanship) for a badly-silenced one.

# Motor (51°) Cycles

The Original Design-Features of the A.J.S. Motorcycles-continued

THE A.J.S. CARRIER AND TOOL CASES The Carrier on all models has been strengthened and improved, and all joints being flush and electrically-welded provide a cleaner surface for attachment of luggage, etc. Two-side Pannier tool cases are fitted to the Twin Models and a single one at rear of Lightweight. They are well made of best quality leather, strongly sewn, with stout Strap and Buckle Fastening, and further protection is afforded by the provision of an outer steel case which renders them waterproof and prevents distortion. Tool Roll with complete set of best quality Tools is supplied with each model.

THE A.J.S. FOOT-BOARDS

Typically "A.J.S." in carefully-thought-out design, these Boards are of a most restful pattern, placed in a NATURAL splayed position which ensures the rider having the greatest possible comfort, with convenience for changing position of feet when driving. Strong Rubber-covered, well mounted with substantial Aluminium frames and Heel Pieces.

The above remarks apply in general to the 6 h.p. Model D, and the 4 h.p. Model A, but the Lightweight  $2\frac{3}{4}$  h.p. Model B also enjoys certain of the minor improvements and all the main ones, and has also been somewhat strengthened.

THE A.J.S. LARGE-CAPACITY TANK

A handsome, strongly constructed Tank, supported at the bottom upon a platform of cross-brackets brazed to frame under-tube. The Oil Pump is a Best and Lloyd Semi-Automatic, and a glass-top Petrol Inspection Filler-Cap of large size, and Petrol Injectors, are fitted to each model. Both Oil and Petrol Caps are now placed in a more convenient position, and the Oil Compartment is a separate one inside the centre of the

Petrol Tank. Our Patent Combined Gauge and Filter is, of course, retained, incorporated as before in the Filler. Petrol and Oil capacity respectively are ample on the various models (see Specifications).

THE A.J.S. WHEELS 26 inch diameter, built of best quality strong-gauge Rims with stout High-Tension Spokes and specially constructed large diameter Hubs. A specially designed Front Hub is fitted to the 2\frac{3}{4} Lightweight Models.

THE A.J.S. STANDS Specially designed "Kick-up" Stands of exceptionally sound construction, "built to last," are fitted on Front and Rear Wheels and are secured by substantial Spring Clip-Holders.



Showing Front Wheel detached and its interchangeability with Rear Wheel

### Terms of Business

PAYMENT

One-third Cash with order and balance against invoice when machine is ready for delivery.

CARRIAGE

Free on Rail Wolverhampton. Crates, 4 and 6 h.p. 8/6; 24 h.p. 8/-; Side Car 9/-; not returnable. (Owing to the fluctuation in the price of Timber during the present crisis, we reserve the right to still further increase or decrease the price of Crates without notice.)

RAILWAY TRANSIT

All goods are sent per Goods Train except otherwise ordered, and are signed for by the Railway Company as being in good condition. All Machines should, on arrival, be carefully examined, and if damaged, signed for as such, and an immediate claim made on the carriers.

### The "A.J.S." Guarantee

We give the following guarantee with our motor cycles, instead of the guarantee implied by statute, or otherwise, as to the quality and 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 from 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, that all precautions that 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 date of purchase, and damages for which we make ourselves responsible under this guarantee are limited to the replacement of any part which may have proved defective, and any work involved in the replacement of such part or parts will be charged for.

We undertake, subject to the conditions mentioned, 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.

The term "misuse" shall include amongst others the following acts:

- I. The attaching of a sidecar to the motor cycle in such a manner as to cause damage, or calculated to render the latter unsafe when ridden.
- II. The use of a motor cycle, or of a motor cycle and sidecar combined, when carrying more persons or a greater weight than that for which the machine was designed by the manufacturers.

Any motor cycle sent to us to be plated, enamelled, or repaired, whether the repairs are required for the purpose of making good the defect before referred to or otherwise, will be repaired upon the following conditions, 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, or in any part replaced, 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 at the same time with the number of the machine, the name of the agent from whom he purchased, and the date of the purchase, or the date when the alleged defective part was replaced, as the case may be.

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, and any implied guarantee shall not be enforceable.

WE GUARANTEE ONLY THOSE MACHINES WHICH ARE BOUGHT EITHER 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, 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 "A.J.S. Model B" Guarantee

The guarantee printed above covers the "A.J.S. Model B" Two and Three Speed motor, with the exception that the acts included in the term "misuse" shall read:

1. The attaching of a sidecar to the motor cycle.

II. The use of a motor cycle when carrying more persons, or a greater weight than that for which the machine was designed by the manufacturers.

### 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 purchase 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.

