

# Can't you picture it it should be a Wow!

**I**t certainly would have been, had it ever made it the half way around the world, to P & R Williams, the New South Wales distributors of A.J.S. motor cycles who, back in December 1935 wrote those very words in our caption. They were writing then to their agent in Newcastle, New South Wales, with the news that Ajays had unfolded a surprise, a real surprise too - nothing less than a road-going VEE FOUR!

The Four was revealed to the press just hours before the doors opened on 30th November and proved to be, quite literally, the sensation of that year's Olympia Show. By 1935, of course, the proud A.J.S. marque belonged to the growing stable of companies owned by Colliers Ltd of Plumstead in South East London. The brothers Collier, were maker's of Matchless motorcycles and always had been. By 1931 they were on the acquisitions trail and collared the liquidated A.J.S. company, which had a fame and reputation equal to their own. Ajays had developed a line of overhead

camshaft sporting and racing singles, in which the camshaft was driven by chain, rather than the more usual shaft or gears and it was this principle which lay at the heart of the new four. In effect, four separate single cylinder barrels, heads, camboxes and cam chain drives, mounted in a Vee formation on a common crankcase. It was neat, it looked fantastic and together with its Burman four-speed footchange gearbox, it fitted into the same cycle parts as the single cylinder ohc models. A high-efficiency road machine, with the capability for an alternative racing specification, was the way in which this superbike was perceived by its manufacturer.

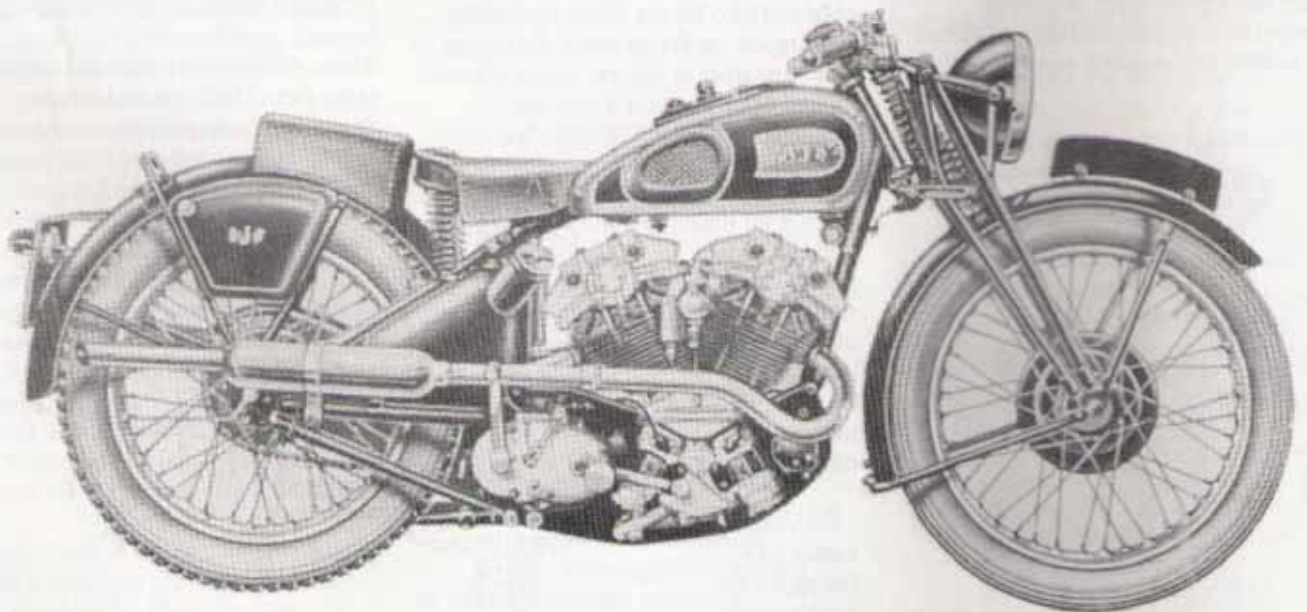
Collier's wasted no time in ensuring that news of this bombshell reached the farthest corners of the Empire and they air-mailed an illustration and a press cutting out to Oz post haste; such that Williams' in Sydney were themselves writing out around the continent, in the week before Christmas, with the good news. Here's how they put it to Moss Williamson in Newcastle -

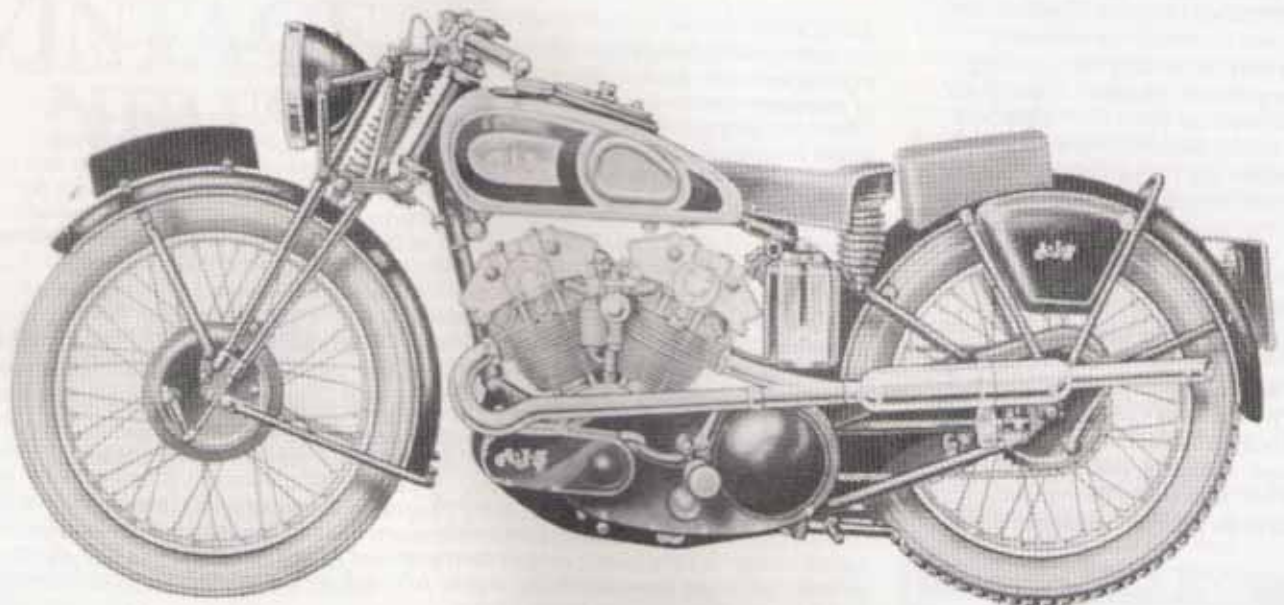
"Dear Moss.

We are able to unfold a surprise that I am sure will give you more pleasureable thoughts over Xmas.

A.J.S. have produced a bombshell. It is a racing 4 cylinder termed the 'VEE 4' which is almost sure to be used in next year's Senior T.T. and will also be the most attractive motorcycle ever produced for a super sportsman who wants everything of the best. It will be listed in their general range and will be supplied either electrically equipped in complete form or as a straight racing bike. Its name 'VEE 4' implies its construction, but as we have only one illustrated slip from the factory and a cutting concerning it from the Motorcycle Journal which was sent by Airmail, we cannot send you any illustrations just yet.

It is an overhead cam shaft with 2 throw crankshaft giving, of course, perfect 4 cylinder balance; 2 magnetos housed very neatly and running off the timing case by direct drive; 2 carburettors absolutely symmetrically and accessibly placed. All cylinders separate, no doubt, for the sake of cooling and with all separate rocker





boxes individually enclosed. The complete lay-out is the neatest thing I have ever seen and from what can be seen of technical construction, everything appears to be absolutely right and on correct principle, which means that no part should be fighting the other. It should have tremendous speed and equal reliability. The chain drive to the overhead camshafts is still employed with automatic tensioner, but this cannot be seen from the outside, and it is centrally displaced between the 4 cylinders. Everything seems to be more accessible than on the single cylinder Denley Model.

The spark plugs are on the outside of each cylinder, each carburetter is most accessible and the tappet adjustment should be the best thing that has ever happened. This is arranged by the rocker spindles being eccentric and the adjustment is effected by rotating the spindle which is done very easily from the outside. On this is a micrometer adjustment apparently on the Vernier system similar to the old A.J.S. magneto adjustment, as the illustration of the rocker spindle shows a peg, and micrometer adjustment is claimed. The overhead rockers do not accuate direct on to the valves, but through the medium of very short pushrods (like perpendicular rollers). The design is wonderfully clean and the only external oil pipes are four little short ones, the main oil passages being by internal drillings. It is dry sump lubrication, forced feed into the big ends, of course, and has a 6 pint oil tank which means that the oil should keep cool. The

crankshaft is claimed as being extremely rigid and has 5 'frictionless' bearings (whatever this means).

The frame, forks and gear box are the same as the Denley Model. The primary drive is in a cast aluminium case and the clutch is of the dry plate type separately enclosed so that the oil cannot reach it. The lighting system is by a separate generator which is very neatly housed.

There is a separate scavenger pump in each rocker box.

Can't you picture it - it should be a 'wow' in every respect, and we should be able to get one out in time to use in the T.T. at Bathurst. The doubt, of course, which must exist with this until it's proved, is in perfection of mechanical construction; but it seems absolutely impossible to think of such a perfect design carried out in such detail unless the firm is also capable of producing it in the right degree of mechanical construction. The compression ratio is 7.9 to 1.

You may have noticed by recent *Motorcycle Journal* a remark that there was going to be another very interesting 4 cylinder bike exhibited at Olympia, but that in the meantime they were not allowed to disclose the make or particulars. Well this is it and it will be in complete form for exhibition at Olympia which has already been held, so we have something really out of the box to uphold A.J.S. prestige, and we will be in a bubble of excitement until we can see the first one of these and give it a run."

Doubt, what doubt? We wonder how long the bubble of excitement lasted!!!

Sadly, this Ajay never reached the hands of eager road riding enthusiasts, neither over here, down under, nor anywhere else on the planet. But it did draw the crowds at the show and to prove that it really must have been the intention to put it into production, we can back up this opinion by including photographs and details culled from an original works catalogue (*Ed - which just happened to fall from our Archives Editor's shelf when he was searching for more choice bits and bobs for his own special page*). Tagged with the model code 36/20, there can be little doubt that the 495cc Four would have been a sensation and priced at 85gns (£89.25) it wasn't prohibitively expensive. Out of the reach of mere mortals, true enough, but if it was then so were the 350/500 Inter Nortons, Model 95 Sunbeam, Vincent-HRD, Brough-Superior and those of their ilk. In other words, it was affordable by some, a select few, but possibly enough around the world, to have made it a proposition.

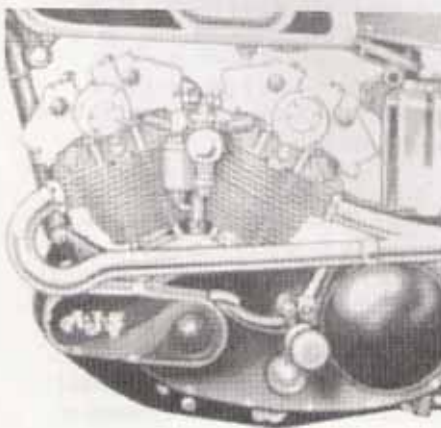
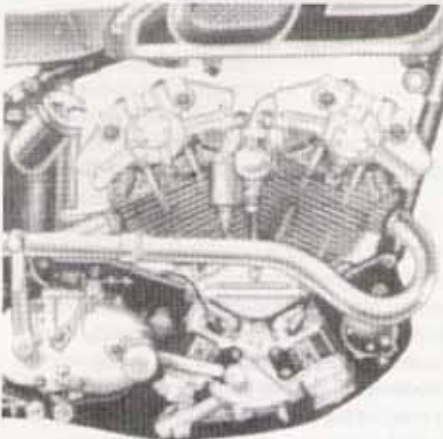
Still, there we are, it remained a pipedream, but it did materialise in racing form and, well, it wasn't to be a runaway success. It didn't complete the Senior T.T. in 1936, when examples in the hands of George Rowley and Harold Daniell both failed to complete the distance. It was reported that the bikes showed a marked reluctance to run on all four cylinders at any one time and that starting them was

difficult, to say the least.

All went quiet for twelve months or more, before a blown version was trotted out in 1938, only to prove unsatisfactory again, until eventually the air-cooled barrels were replaced by water-cooling and things began to happen. Walter Rusk's over-100mph lap in the 1939 Ulster will be the lasting testimonial to the design, the war stopped any further development and afterwards supercharging was out for Grand Prix racing, so no more was heard of the VEE 4.

But as for the sports roadster, a WOW it most certainly would have been!

*Our sincere thanks to reader Paul Reed, from Mount Crosby, Queensland, who kindly provided the copy letter from Williams' of Sydney, which gave the initial ide, then added flavour and feeling to the priceless catalogue details.*



## VEE 4 Specification

### ENGINE.

*An entirely original design of four-cylinder engine based on A.J.S. racing experience, and incorporating every feature proved desirable for the production of maximum power output, coupled with absolute reliability.*

*There are four separate cylinders, arranged in double Vee formation with 50 angle between the cylinders. Each cylinder is provided with its own separate cylinder head and overhead Camshaft, the four Camshafts being driven by one centrally disposed chain with Weller tensioner. Each Camshaft housing can be removed complete without disturbing the valve timing. The overhead Camshafts operate Duralumin valve rockers, which in turn operate inclined overhead valves, controlled by hair-pin valve springs, short tappets being interposed between the rockers and the valves to eliminate side thrust.*

*The crankshaft is of the two-throw type and is carried on five frictionless bearings, the whole assembly being designed to give the utmost stiffness. All big end bearings are of the roller type, and one con-rod on each crank is forked to give central thrust on all four con-rods.*

*Dry sump lubrication is provided by double gear pump, which through internal oil-ways and drilled crankshaft feeds oil under pressure to the big end bearings, cylinder walls, overhead camshaft housings and all other working parts. Each camshaft housing has its own scavenging pump.*

*Ignition is by two bevel driven Racing Magnetos mounted on the timing side of the crank case. Separate vertical carburettors are used for each pair of cylinders. The whole design is very clean, as will be illustrated by the fact that only four short external oil pipes are used in the engine lubrication system, all other feeds being made by internal drilling and oil-ways.*

*Bore 50 mm :: Stroke 63 mm :: Capacity 495 cc.*

### GEARBOX.

*4-speed heavyweight, with positive stop foot gear change.*

### CLUTCH.

*Dry plate type carried in separate compartment of chain case to ensure that the clutch is free from oil.*

### FRAME.

*T.T. type with triple rear fork members ensuring absolute rigidity at high speeds.*

### FORKS.

*Centre barrel-spring type with re-action damper springs and double located spindle mountings.*

### WHEELS.

*Taper roller bearing hubs, rear wheel specially reinforced with 14-gauge rim and 6-9 butted spokes. Rear wheel quickly detachable. Chromium plated rims.*

### TYRES.

*26 x 3.25 in. studded rear. 26 x 3 in. ribbed front.*

### HANDLEBARS.

*Adjustable with clip-on controls. Black finish with chromium fittings.*

*STANDS. Centre spring up stand and bolted up front stand.*

### PETROL TANK.

*Deep saddle tank, capacity 3 gallons. Chromium plated with black and gold panels.*

### OIL TANK.

*Capacity - 6 pints.*

### TRANSMISSION.

*Front chain enclosed in cast aluminium oil-bath chain case. rear protected by efficient guard with back panel.*

### ELECTRICAL EQUIPMENT.

*Separate Lucas Dynamo mounted in front of engine and driven by chain enclosed in cast aluminium oil-bath chain case. Instrument panel on top of tank includes detachable inspection light, in addition to switch and ammeter and provision for clock. Extra large headlamp, rubber mounted taillamp. Lucas Altette electric horn.*

A.J.S.

A.J.S.



*The New Four-Cylinder A. J. S. . . . the ultimate in  
high efficiency design. . . . race-bred in every detail*

Designed to combine the highest possible power output obtainable in this new model appears all new to the enthusiast by reason of the smoothness and efficiency of its design. There are four separate cylinders, four separate cylinder heads, four separate overhead camshafts in four separate housings—there is no possibility in this design of power loss through unequal cooling and consequent distortion.

The cylinders are arranged in two Vees, there are two magneto and two carburettors, and the four separate exhaust pipes merge into two downers, all to give maximum efficiency.

There is one sturdy crankshaft designed to give the utmost stiffness and so avoid power-loss through whip or spit thrust. The complete engine is neat, compact, and yet accessible. Capable of tremendous power output, yet turbine-like in the stillness of its running.

Mounted in a loaded T.T. type of frame and forks, giving superb steering and road-holding, with immensely powerful brakes, the result is the finest high-speed motor cycle ever produced.

For full specifications, see back page.

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**WITH ELECTRIC**  
**LIGHTING**  
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