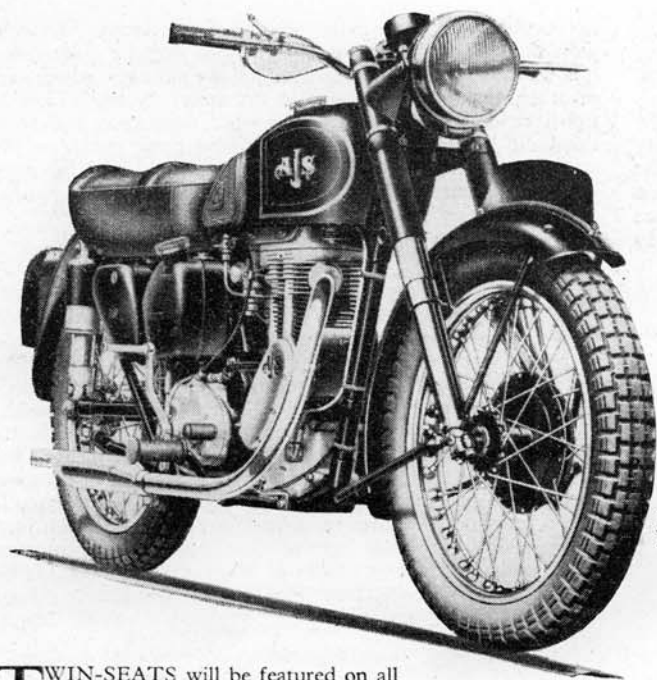


Modified A.J.S. and Matchless Models

A Host of Detail Alterations to Famous Ranges
of 350 c.c. and 500 c.c. Machines



A popular mount for solo and pillion riding—the 347 c.c. A.J.S. springer 16/MS

TWIN-SEATS will be featured on all A.J.S. and Matchless spring-frame models for 1953. The seat to be standardized is similar to that introduced with the 498 c.c. twin-cylinder Matchless Super Clubman in 1948, but it is narrower and now measures 11in across the top. The length remains the same, at 24in, and the general seat construction is unchanged. Blue piping will be used to edge A.J.S. seats, and red for those on the Matchless models.

Otherwise, at a cursory glance, it might be imagined that the ranges of A.J.S. and Matchless machines are unchanged. That, however, is far from being the case. Although it is true that there are no major changes, and no new models, there are numerous detail refinements—all of which add up to making the machines, long recognized as being in the top class, even better.

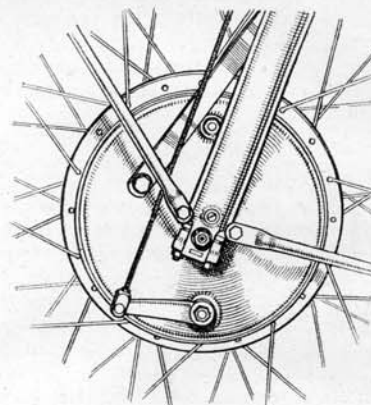
A novel and most practical innovation is provision for a simple, thief-proof lock. The lower steering-head lug is drilled ver-

tically in the vicinity of the left-hand tank stop. A small malleable casting, slotted so that it slips over the tank stop, is provided. When the front wheel is turned to the right, the rear end of the locking bar abuts against the machine's frame. A padlock—any padlock of suitable size—is then inserted in the hole in the lower head lug. The device is extremely simple, and the locking bar is small enough to be carried in a pocket. The price of the locking bar is a mere 1s 6d.

The existing range of A.J.S. and Matchless machines is continued. That is to say, each programme embraces the famous 350 c.c. and 500 c.c. singles—widely renowned for their excellent all-round performance and mechanical quietness—which are available with rigid or sprung frames; 350 and 500 c.c. single-cylinder trials and scrambles mounts, which feature light-alloy cylinders and heads; and last, but far from least, the luxury, high-performance,

500 c.c. rear-sprung vertical twins. All models are paralleled in both A.J.S. and Matchless ranges; all have overhead-valve engines.

Of chief interest to the hard rider is the fact that all models for 1953 will have a new-type front brake—a brake which is claimed to be even better than that employed on 1952 models. A prototype of the new brake has undergone considerable testing on the Matchless twin owned by a



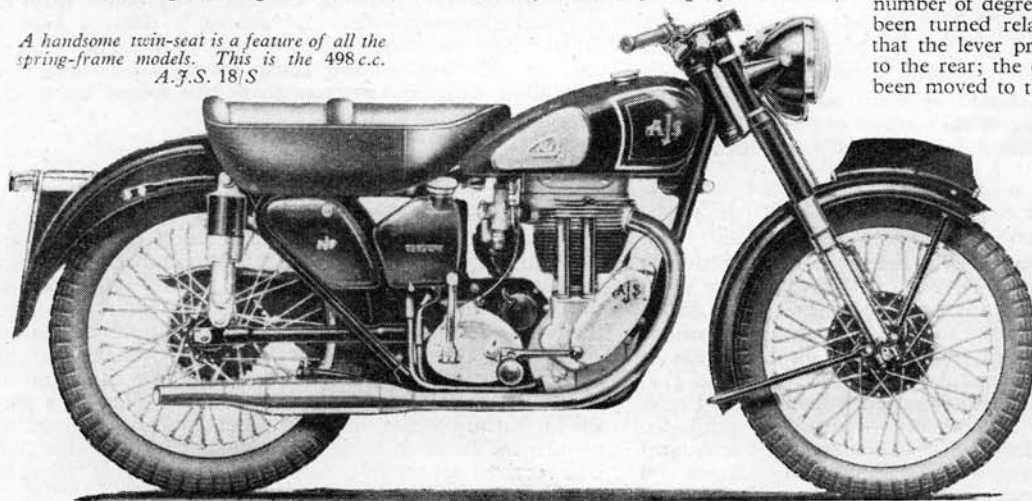
New front brake of increased power on all A.J.S. and Matchless models

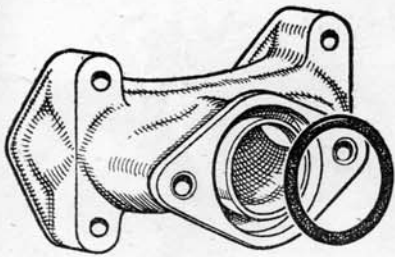
member of the staff of *The Motor Cycle*, and its efficiency is almost beyond belief. Braking is smooth and progressive, and braking distances so incredibly short that they seem impossible to achieve.

There is very little that is different in the appearance of the new brake compared with the former pattern. The shoe plate has been moved anti-clockwise through a number of degrees, and the cam lever has been turned relative to the camshaft, so that the lever projects forward instead of to the rear; the cable stop has, of course, been moved to the front of the fork stanchion. The new position of the cam lever provides maximum mechanical efficiency on the leading shoe instead of the trailing shoe, and hence better stopping power.

Engines of the twins present a slightly different appearance insofar as the rocker box covers are concerned. These are now retained by only two studs—instead of four as previously. Another externally apparent modification is that the pair of

A handsome twin-seat is a feature of all the spring-frame models. This is the 498 c.c. A.J.S. 18/S





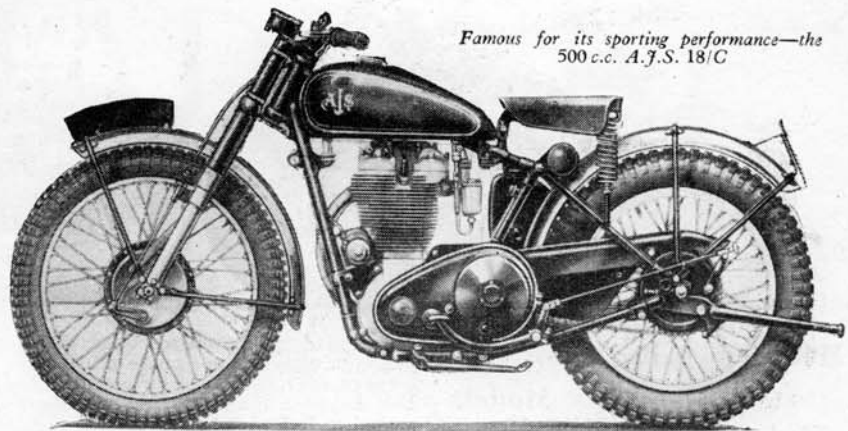
Hycar ring employed to seal the manifold-to-carburettor joint on the twins

cylinder-head steady tubes used formerly are replaced by a roughly triangular, 1/4-in-thick, mild-steel plate. The plate picks up to the cylinder-heads and to a malleable lug which is brazed to the frame front-down tube. Yet another detail modification is the provision of slightly longer cam followers. This has been done by moving the follower fulcrums farther away from the cams. The reason for the alteration is to improve the angularity between the cam and follower and thus lengthen the life of the follower.

Sealing Ring

Final modification to the twins is the provision of a small, "rubber" sealing ring in the carburettor joint face of the inlet manifold. The A.M.C. engineers maintain that the carburettor joint face of a twin-cylinder engine can be far from flat after as little as 100 miles have been covered by the machine. The basis for this is the theory that the carburettor actively bends as a result of torque reversals in the engine, and the joint face, as a result, becomes slightly concave. Hence the reason for the sealing ring, which closely surrounds the carburettor tract. The ring is in Hycar, a material widely used in aircraft; it is said to be unaffected by very high temperatures. The ring is of round section, and is located in a square-section groove. When it is fitted, the ring stands proud of the inlet manifold joint face by some 20 thou, and thus squeezes out when the carburettor fixing nuts are tightened.

A notable improvement common to all the 1953 engines of both ranges is the fitting of a chromium-plated piston ring in the top position. Extensive tests carried out for some time past on the 500 c.c.



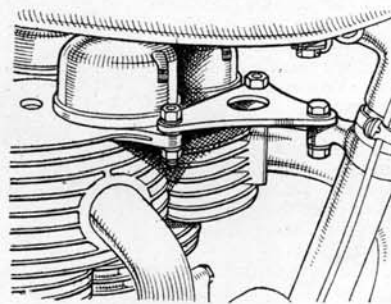
Famous for its sporting performance—the 500 c.c. A.J.S. 18/C

single-cylinder engines have shown that use of the chromium-plated ring reduces cylinder bore wear by, it is claimed, no less than two-thirds.

For 1953, all models will be fitted with a new primary chain case sealing band. The new band consists of an endless, synthetic-rubber moulding, which is wider

top, rear face and sides, and white underneath. It is designed not only to provide more light to the rear, but also to permit a stop light to be incorporated; the latter can be specified as an extra.

Other modifications which apply to all models are the incorporation of a short length of flexible tubing in the petrol pipe and an alteration to the top covers of the fork legs. The covers, to which the headlamp brackets are welded, are now free to pivot about the main fork tubes; a tight fit is achieved by the insertion of a soft rubber washer at the bottom of each cover tube. The alteration is merely to enable the headlamp brackets to be turned through 90 degrees when the machines are packed for export, and thus avoid marking other components in the same crate. So that there is no unsightly gap when the fork is fully extended, the slider extension tube has been lengthened. Allan screws, instead of studs, are used to clamp the fork stanchions in the lower steering-head lug.



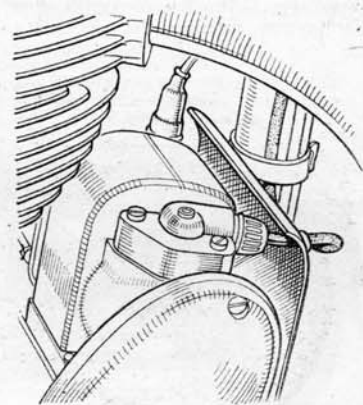
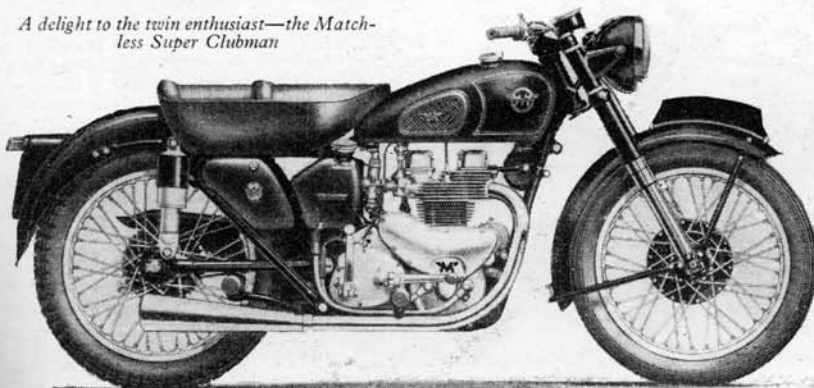
New triangular steady plate and rocker boxes for the cylinder heads of the twins

than the previous seal, and has much greater resilience. As a result of the change, it is stated that frequent removal and replacement of the band will in no way impair the oil tightness of the chain case.

A new-type Lucas rear light will also appear on all models. The unit is manufactured in moulded plastic, red on the

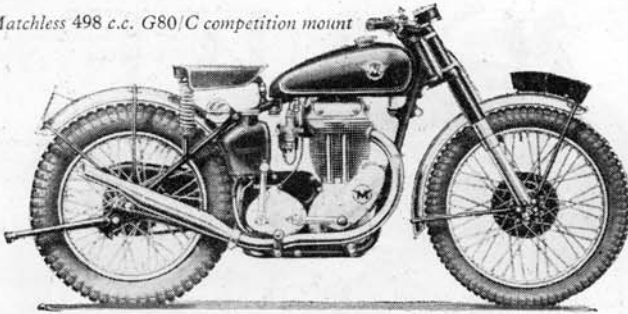
On both the A.J.S. and Matchless singles, the magneto weathershield has been shortened, and is mounted very neatly to the magneto base-plate bolts. An anti-rattle rubber grommet is fitted so that it abuts against the front down tube. The glands previously fitted round the down tube have thus been dispensed with. So that a better sweep is given to

A delight to the twin enthusiast—the Matchless Super Clubman

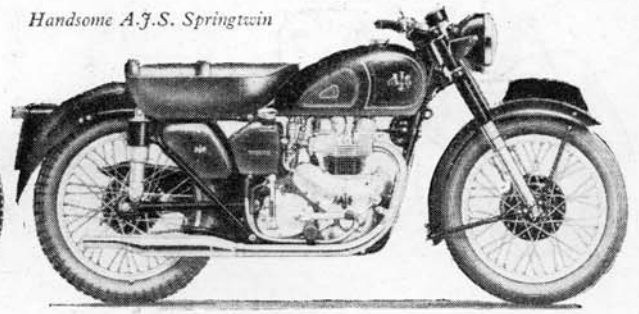


A shorter and neater weathershield is fitted to the single-cylinder models

Matchless 498 c.c. G80/C competition mount



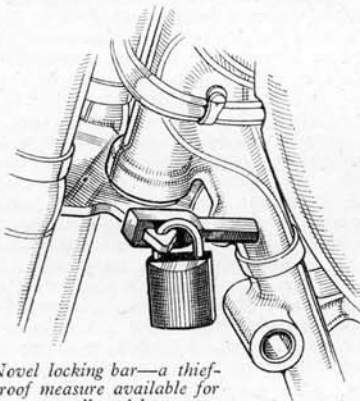
Handsome A.J.S. Springtwin



Modified A.J.S. and Matchless Models

the h.t. lead from the magneto pick-up, a 90-degree type of pick-up has been standardized. Its knurled cap faces forward, and the lead passes through a grommet in the weathershield.

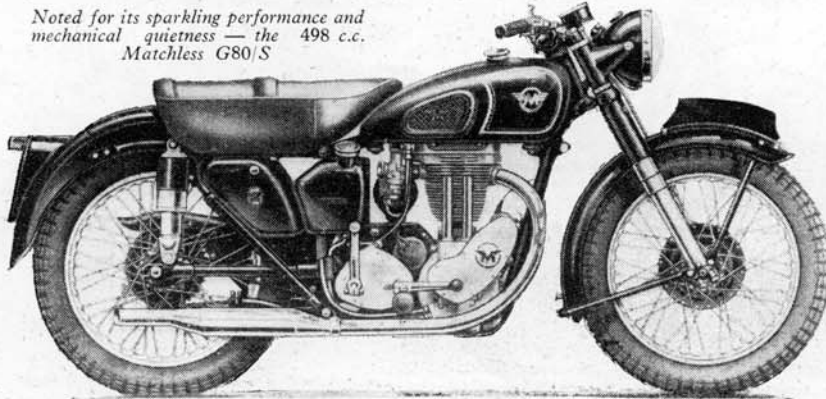
A modification that will be appreciated by the rider who is fastidious about finish



Novel locking bar—a thief-proof measure available for all models

is that the back portion on the rear mud-guard is now fully detachable. With the previous arrangement, both the mudguard and its hinged extension had to be dipped in the enamelling bath together; as a result, "runs" sometimes developed in the vicinity of the hinge and its rivets. Both sections of the guard will in future be dipped separately. Removal of the detachable portion requires the slackening of only four $\frac{1}{8}$ in B.S.F. bolts; these screw

Noted for its sparkling performance and mechanical quietness — the 498 c.c. Matchless G80/S



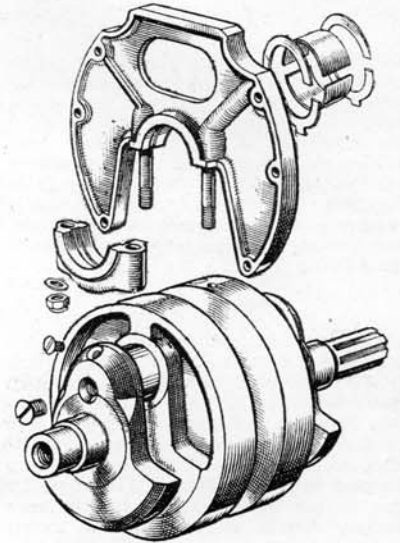
into captive nuts in welded pockets which are, in turn, welded to a mild-steel bridge-piece on the underside of the guard. The bolt holes in the detachable guard are slotted to facilitate removal.

On the spring-frame models, the rear lifting handles are now fabricated more simply—which makes for a neater appearance and a slight reduction in the manufacturing cost of the component. Sturdier centre stands than those used formerly are also standardized.

General specifications applicable to all single-cylinder models are 69 x 93mm bore and stroke for the 347 c.c. engines, and 82.5 x 93mm for the five-hundreds. All engines are of the high-efficiency, single-port type, famous throughout the world for their excellent all-round performance and extraordinarily high standard of mechanical quietness. All singles have light-alloy heads with cast-in valve seats, stellite-tipped valves, overlapping, hair-pin-type valve springs and wire-wound pistons. Drive to the Lucas magnetos is taken from the exhaust camshaft; separate dynamos are chain driven from the driving-side mainshaft.

The twin-cylinder engines are unusual for the three-bearing crankshaft. Light-alloy, separate cylinder heads and cast-iron cylinders are standard.

Gear boxes in all cases are separate Burman units. Front forks are of the Teledraulic type. Brakes are 7in in diameter front and rear. The wheels run on adjustable taper-roller bearings. Tyre sizes are 3.25 x 19in front and rear on the 350 c.c. models, and 3.25 x 19in front and 3.50 x 19in rear on the 500 c.c. models. Fuel-tank capacity is three gallons for all models with the exception of the 498 c.c. A.J.S. Springtwin, in which case the capacity is four gallons. Finish for all



Arrangement of the middle bearing for the three-bearing crankshaft of the twins

machines is in black stoved enamel. Wheel rims are Argentinized on machines for the home market but, for 1953, the rims on export machines will once more be chromium plated, and plated fuel tanks will be available at extra charge. On both export and home models, handlebars and controls, exhaust pipes and headlamp rims are chromium plated.

The makers of A.J.S. and Matchless machines are Associated Motor Cycles, Ltd., Plumstead, London, S.E.18. In the following list of prices, total price includes Purchase Tax, payable in Britain only.

	Basic Price		Total Price	
	£	s	£	d
A.J.S. 53/16/M. 350 c.c.	135	0	172	10
Matchless 53/G3/L. 350 c.c.	135	0	172	10
A.J.S. 53/16/MS spring-frame	154	10	197	8
Matchless 53/G3/L.S. spring-frame	154	10	197	8
A.J.S. 53/16/MC. competition	145	0	185	5
Matchless 53/G3/LC. competition	145	0	185	5
A.J.S. 53/16/MCS. competition, spring-frame	162	0	207	0
Matchless 53/G5/LCS. competition, spring-frame	162	0	207	0
A.J.S. 53/18. 500 c.c.	149	0	190	7
Matchless 53/G60. 500 c.c.	149	0	190	7
A.J.S. 53/18/S. spring-frame	168	10	215	6
Matchless 53/G80/S. spring-frame	168	10	215	6
A.J.S. 53/18/C. competition	159	0	203	3
Matchless 53/G80/C. competition	159	0	203	3
A.J.S. 53/18/CS. competition, spring-frame	176	0	224	17
Matchless 53/G80/CS. competition, spring-frame	176	0	224	17
Lighting extra, competition models	8	0	10	4
A.J.S. 53/20. 500 c.c. twin	195	10	249	16
Matchless 53/G9. 500 c.c. twin	194	10	248	10
A.J.S. 53/TR. 350 c.c. o.h.c. racer	To be decided later			