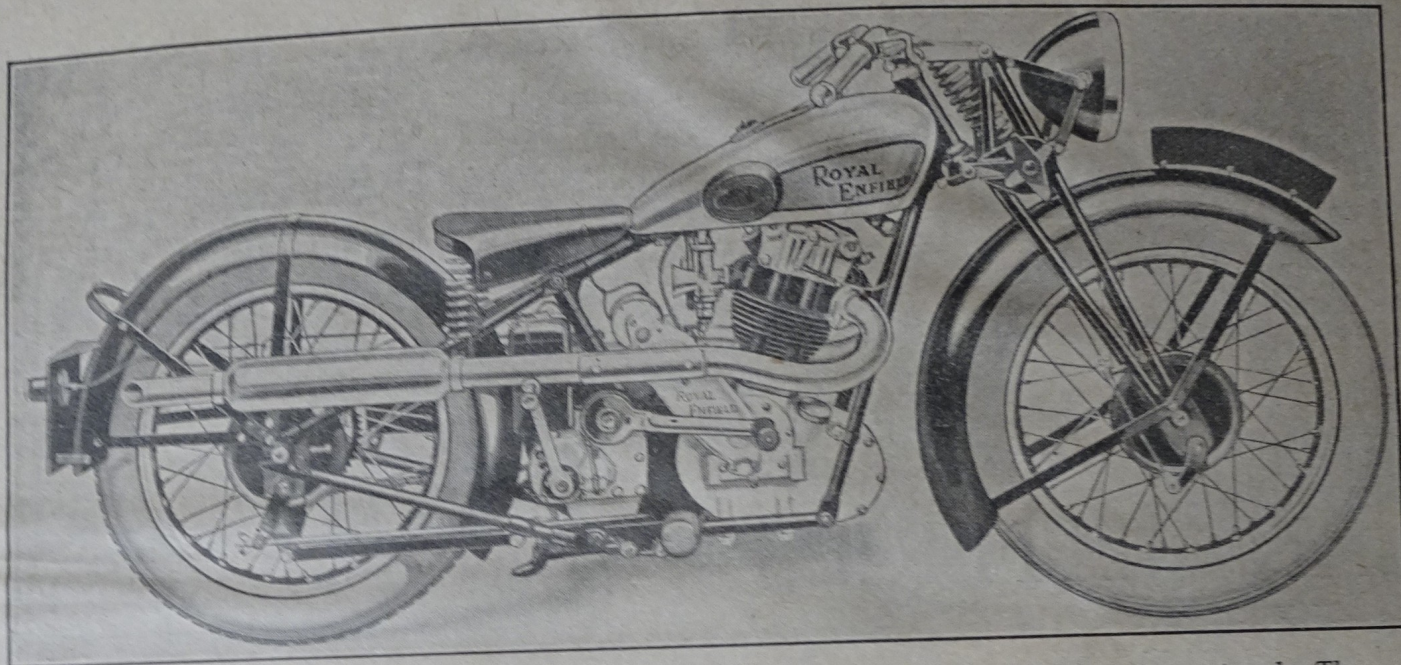


AN EIGHTY m.p.h. FOUR VALVE

Three "Bullet" Super Sports 250, 350 and 500 c.c. Models
A Representative Range With Many Improvements



Made to go fast! The 499 c.c. four-valve "Bullet" which is listed at £53 17s. 6d. fully equipped. The performance is commented upon in the following pages and appears to be truly remarkable.

FOR next season the Royal Enfield concern is producing a very representative selection of machines, ranging from the 148 c.c. "Cycar" to the 976 c.c. twin at the other end of the scale.

Several models, notably the 570 c.c. s.v. are no longer made, but there are others to take their place. Particular interest attaches to three overhead-valve sports machines, to be known as "Bullets." Throughout these have been produced to appeal to the sporting rider and the enthusiast, and undoubtedly they will have better performances than machines in their class which have previously left the Redditch factory.

Taxed at £1 10s.

Two models coming within the present 30s. tax margin are retained, the C and CS, a light 350 side-valve and a light 350 o.h.v. These have three-speed gear-boxes, and the specifications are similar to those in current practice. The o.h.v. machine now has upturned exhaust pipes.

The utility model of the Enfield list is the 148 c.c. "Cycar," introduced in the middle of the present season, when it created such a stir by its many original points of design. It will be remembered that the frame consists of a single steel pressing, and that the engine and all the other working parts are fully enclosed, thus ensuring cleanliness for the rider. Despite the "boxing in" of all the power unit, everything is particularly accessible, and it has not been found necessary to make any changes in its construction nor in the willing little single-port two-stroke.

The appearance has been greatly improved by the addition of gold lines,

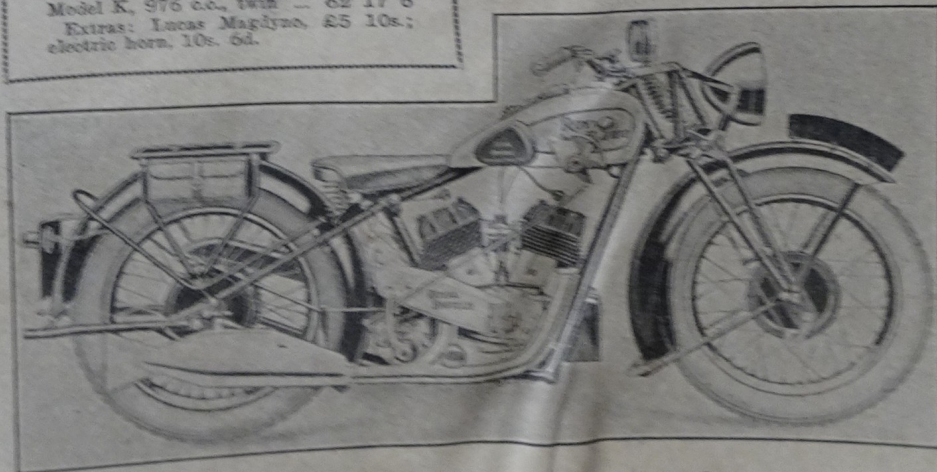
where previously unrelieved black was found. They run down the top portion of the frame, enclosing the tank, along

| 1933 ENFIELD PRICES. | | |
|---|----|-------|
| | £ | s. d. |
| Model Z.2 "Cycar," 148 c.c., with direct lighting | 23 | 17 6 |
| (Extra for rectifier set, £5.) | | |
| Model A, 225 c.c., two-stroke, with 6-volt coil ignition and lighting | 35 | 17 6 |
| Model B, 248 c.c., side-valve | 38 | 17 6 |
| 346 c.c. light o.h.v. | 40 | 17 6 |
| 346 c.c. side valve | 38 | 17 6 |
| "350 Bullet" | 42 | 17 6 |
| "350 Bullet" | 46 | 17 6 |
| "500 Bullet" | 53 | 17 6 |
| Model L, 499 c.c., side-valve | 47 | 17 6 |
| Model K, 976 c.c., twin | 62 | 17 6 |
| Extras: Lucas Magneto, electric horn, 10s. 6d. | £5 | 10s.; |

the side panel round the engine and also on the extension of the rear mudguard.

Three models were originally catalogued, varying only as regards the lighting sets, but they have now been reduced to two, the standard one being the Z2, which has Villiers direct lighting with the improved Cobalt magnets, the 7-in. headlamp and separate 1932-type parking light. As is the trend throughout the industry, the prices of all the new Royal Enfields have been slightly increased, and this model sells for £23 17s. 6d. The Z3, which has the 6-volt accumulator rectifier set, is priced at an additional £3.

The Model A, the 225 c.c. Enfield-



The biggest Enfield. Having a capacity of 976 c.c. this s.v. twin is in the forefront of heavy sidecar machines and for several years has been a favourite with some solo riders who favour "thousands." Its cost is £62 17s. 6d. less £4 shipping.

500 c.c. ROYAL ENFIELD

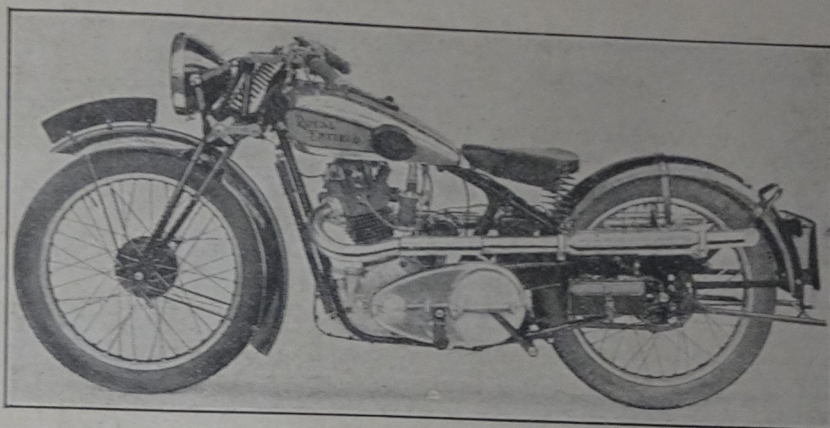
Starred For Next Year

engined two-stroke, remains as before, but the finish is now black with plated tank and green panels in place of red panels, although the latter shade may be obtained to order with extra charge. This machine is now supplied only with coil ignition at an inclusive price of £35 17s. 6d.

All the other models incorporate a full aluminium oil-bath case for the primary chain, and in each instance a four-speed gearbox is utilized. The latter is hand-controlled in the case of the side valves, but on the o.h.v. machines a foot-change is provided.

The New 250s.

To fulfil the needs of the new taxation laws, which come into operation on January 1st, two 250 c.c. machines have been introduced. Model B has a side-valve engine of quite a new design,



The 250 c.c. "Bullet" with attractive appearance, solid build and a speed in excess of 65 m.p.h. The efficient oil-bath chain case which encloses the primary drive is a noteworthy feature of this model which costs £42 17s. 6d. unequipped.

valve gear. The four-speed gearbox is supplied with tank-side control, and the price of the side-valve is £38 17s. 6d. without lighting.

Other points of interest on such a low-priced motorcycle are the chromium-plated tank with green panels, the wide mudguards, the "tidy" handlebars with Enfield improvements, the pressed-steel carrier and the exceptionally long anchorage for the rear brake.

In the case of the o.h.v., known as the "250 Bullet," the specification includes a 6½-in. rear brake in place of the 5-in. fitted on the side-valve, slightly higher gear ratios for the four-speed box, which in this case is foot-controlled, and upswept exhaust pipes with tubular silencers, guards shielding the pipes from the rider's legs.

The smallest "Bullet."

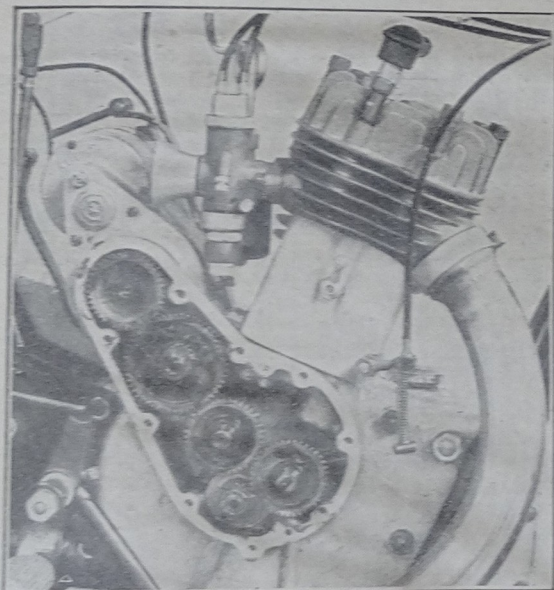
The engine of this model is specially tuned and has a high-compression piston,

giving a ratio of 6.5 to 1. The overhead rockers, which run on plain bearings, are lubricated by grease gun and also oil from the push-rod covers. The lubrication of the engine is exactly similar to the side-valve already described. In this instance a pump-type Amal carburettor is employed and the magneto is again gear-driven.

In addition to the chromium-plated tank the wheel rims and handlebars are also so finished, and the price of this attractive small sports machine, which is claimed comfortably to exceed 65 m.p.h., is £42 17s. 6d.

The "350 Bullet" is also a highly tuned sports model, and to this the Enfield dry-sump lubrication system is installed. The compression ratio is 6.5 to 1 (although an l.c. piston giving 5.5 to 1 is recommended for sidecar work). With 26-in. by 3-in. tyres, instead of 25-in. by 3-in. on the 250s, and 6½-in. brakes back and front, the price is £46 17s. 6d.

Undoubtedly the machine which will appeal most to sporting riders is the "500 Bullet." This makes use of the 488 c.c. four-valve engine, with which riders are already familiar. The general lines are the same as with the other "Bullets," but roller-bearing rockers,

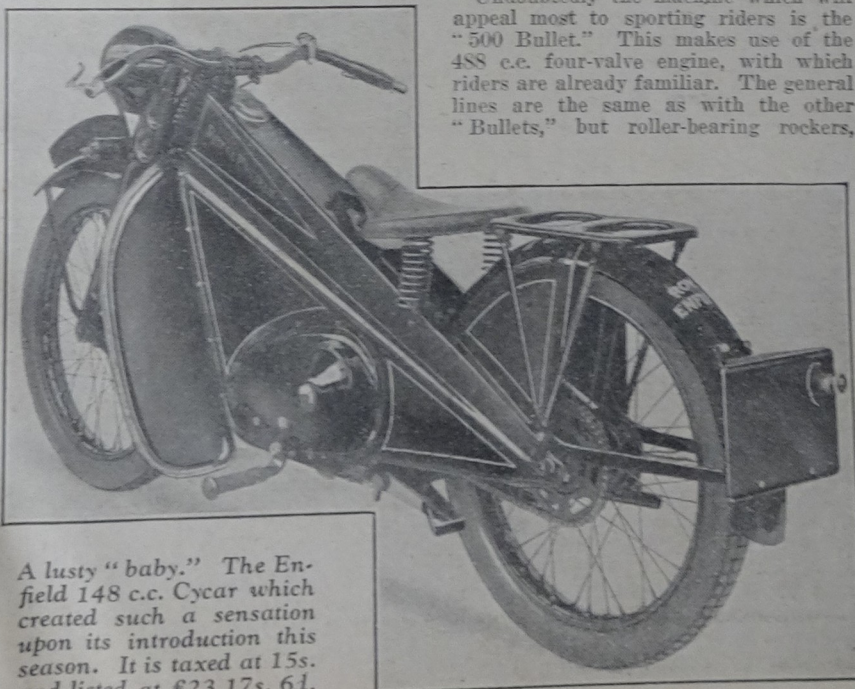


Inside information on the timing mechanism of the 1933 model B 250 c.c., s.v. Royal Enfield, which has magneto ignition. The detachable cylinder head and the neat valve cover will be noted together with the separate cam wheels.

but the rest of the machine follows the specification of the light 350s, with the additions mentioned in the previous paragraph.

The bore and stroke are 64 mm. and 77 mm., and the detachable cylinder head is fastened by eight studs. Oil is carried in a container made by an extension of the forward portion of the crankcase, and the lubrication is by mechanical Pilgrim pump acting through a sight-feed and delivering oil direct to the big-end. There are no external pipes at all.

An excellent feature is that the magneto is driven by a chain of gears, whilst a substantial cover encloses the

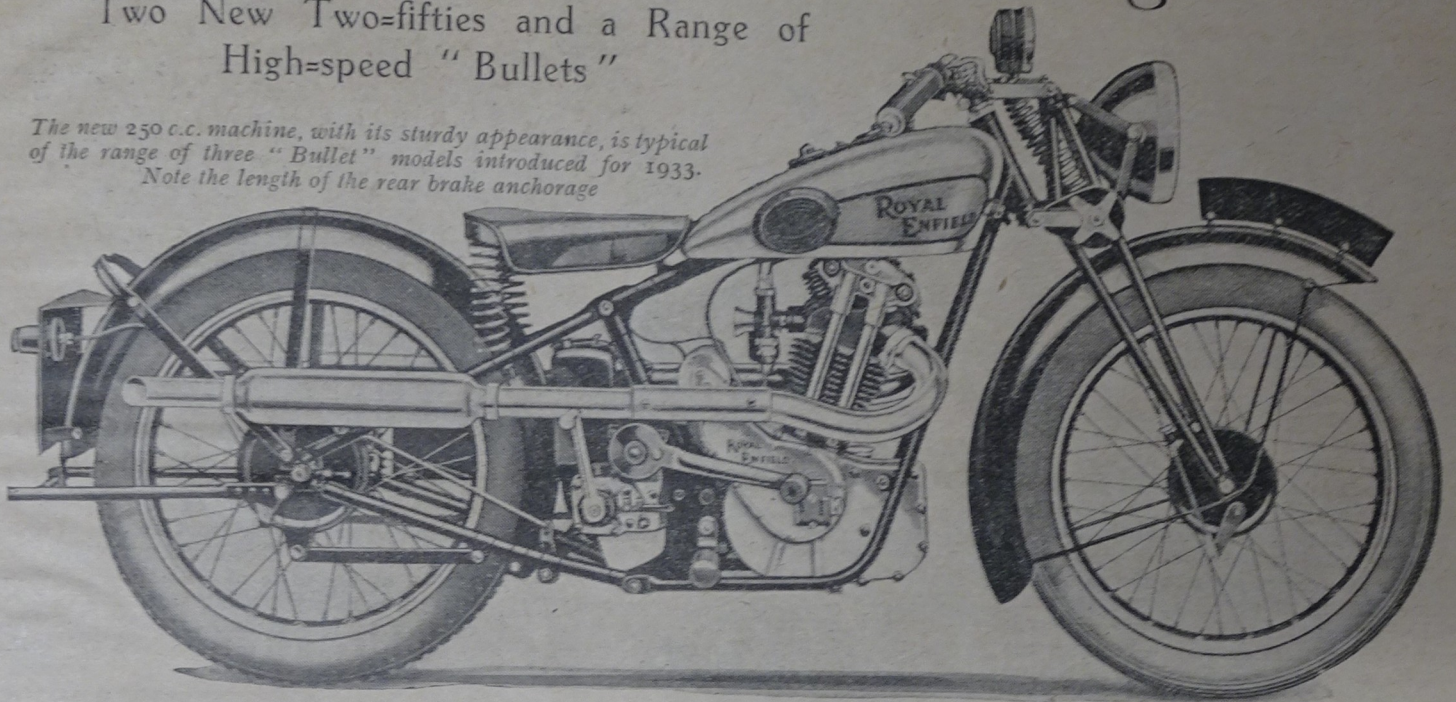


A lusty "baby." The Enfield 148 c.c. Cycar which created such a sensation upon its introduction this season. It is taxed at 15s. and listed at £23 17s. 6d.

The Royal Enfield Programme

Two New Two-fifties and a Range of High-speed "Bullets"

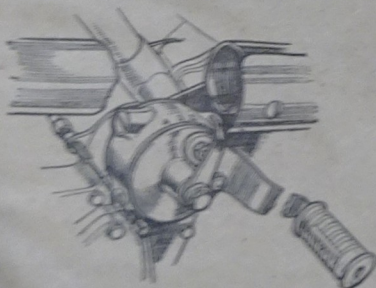
The new 250 c.c. machine, with its sturdy appearance, is typical of the range of three "Bullet" models introduced for 1933. Note the length of the rear brake anchorage



IT has been the object of the Enfield Cycle Company to improve its machines and specifications rather than to build them down to a price, and it is to be congratulated on the smart and practical 1933 range which has resulted.

Beginning with the smallest mount, we find the "Cycar," with its pressed-steel frame, but little altered. It is now marketed at £23 17s. 6d., with direct flywheel lighting, but the latest Villiers charging set with accumulator and rectifier may be obtained for £5 extra. It will be remembered that this little machine, which was introduced as a post-Show model, is propelled by a 148 c.c. two-stroke driving through a three-speed gear. Salient features include an oil-bath chain case, leg-shields, a pressed-steel carrier, and total enclosure of the mechanism, though due precautions have been taken to render all vital points accessible for adjustment or inspection. It is one of the best-protected lightweights on the market and a most practical runabout for all kinds of light work. In its new all-black finish, with gold lines, it is also a remarkably smart little vehicle. A two-lever Amal carburetter is now fitted.

Except for a black frame and plated



The Enfield foot gear change has a position indicator

A 29

tank with Enfield-green panel the 225 c.c. two-stroke remains almost unchanged. The two-port engine has a detachable light alloy head and the machine is standardised with coil ignition and full electric lighting at the price of £35 17s. 6d.

Next in order of size come two new models having side-valve and overhead-valve engines of 248 c.c. Though the two are identical in many respects the descriptions must be separated, since the o.h.v. model forms the smallest of the new "Bullet" range.



A sensible fitment that will appeal to all sidecar owners—the ratchet hand-brake on the 976 c.c. twin. The ratchet folds back along the lever when not in use

The side-valve model has a detachable head, held down by eight set-screws and of semi-turbulent formation, while a domed piston is employed. Roller bearings are employed throughout the crankshaft assembly. The valve springs and guides are protected by an aluminium cover plate, and the magneto, placed behind the cylinder, is driven through a train of gears. In order to ensure silent operation, separate camshafts are used having harmonic cams in direct contact with flat-base tappets.

Though all the oil is carried in a forward extension of the crank case, a dry-sump system is not employed, for a Pil-

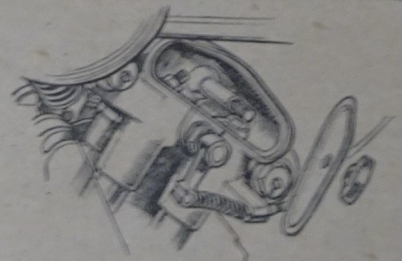
grim pump draws oil from the reservoir and delivers it direct to the inside of the crankshaft and thence to the big-ends. There is no return pump. This arrangement leads to a commendable absence of pipework, since the two leads are drilled and no external pipes are needed.

A pivot-mounted four-speed gear box forms the main item of the transmission system, but it is also important to note that the primary chain runs in a cast-aluminium oil bath. The gear box is hand-controlled.

A duplex frame, excellent mudguarding, 25x3in. tyres, and a smart black and green finish complete a very practical machine which is capable of 50 m.p.h. and sells at £38 17s. 6d.

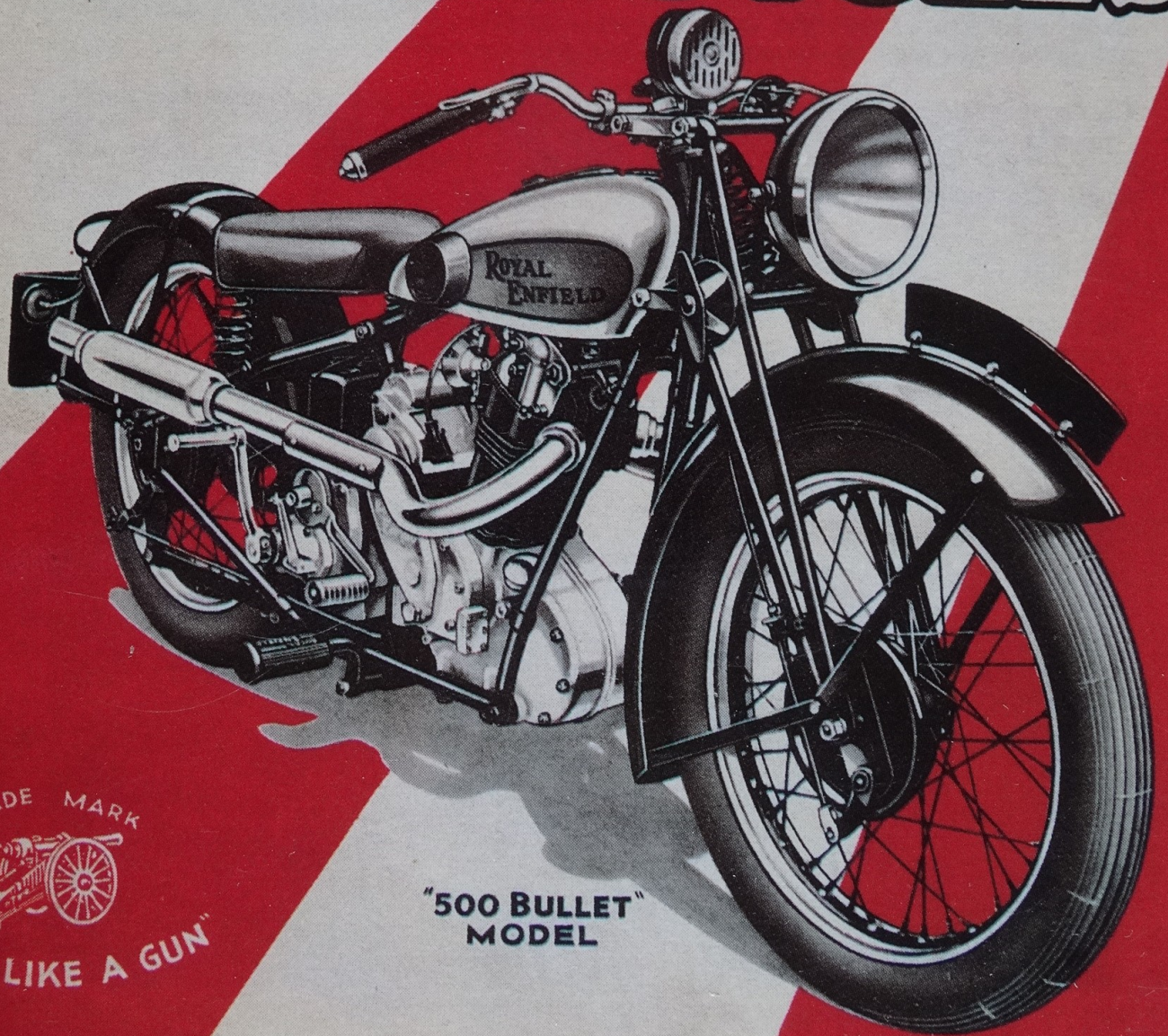
An extra charge of £5 10s. for Magdyno electric lighting includes a neat little tank panel to carry the switch and ammeter.

There are three Royal Enfield "Bullets," all of which have certain features in common. They include foot-controlled four-speed gears, upswept exhaust pipes (these can be replaced by hand control and normal exhausts, if desired), high-compression pistons, pump-type carburetter, grease nipples for the inlet-valve guides, polished oil-bath chain



Tappet adjustment on the "Bullet" models is a simple matter. Note the grease nipple on the inlet-valve guide

ROYAL ENFIELD MOTOR CYCLES



TRADE MARK

"MADE LIKE A GUN"

"500 BULLET"
MODEL