

ROAD TESTS of UNKNOWN MODELS



The Three-cylinder Water-cooled Three-stroke Ercher.

A FEW months ago we heard that a totally new design in motor cycles was in course of production, and we are lucky to have been able to examine the machine in question and to have subjected it to a severe road test. The makers are the Ercher Engineering Company, of Little Bearing, and their product is called the Ercher.

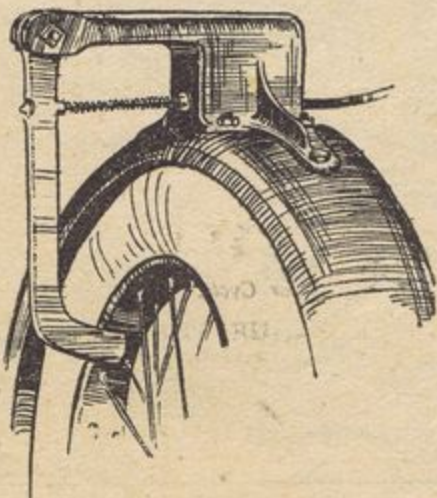
In the course of conversation with Mr. Ercher, the Managing Director, we learned that the machine is not yet available to the public—a statement which is absolutely correct and which we hope will always be correct. The policy of the firm is "Three strokes are better than two," the full significance of which will be realised when the specification is read.

To those accustomed to the conventional motor cycle the appearance of the Ercher will be somewhat startling.

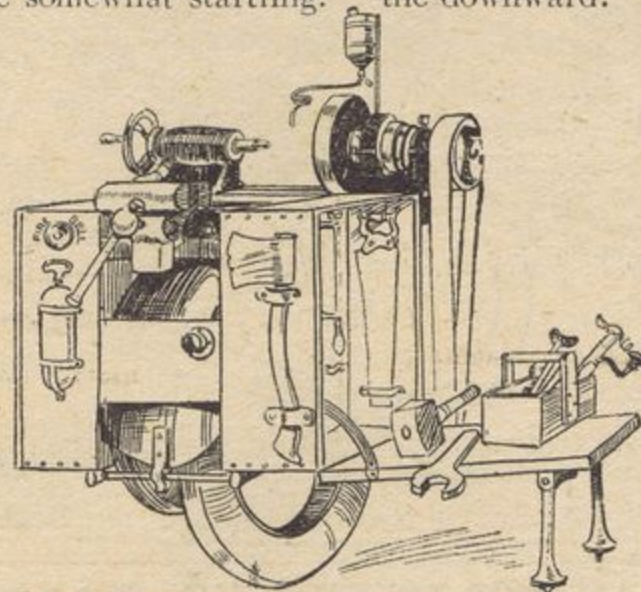
Mr. Ercher said that the designer had not been swayed by modern motor cycle practice at all; we quite believe this. Unfortunately, we were unable to take a photograph of the machine, the only model available being in use at the time for providing the pattern shop of the works with power. We have, however, sketched the more important features and these will be easily followed in conjunction with the text, which is "Oft in danger, oft in woe."

A brief survey of the Ercher specification will repay study. The power unit is the makers' own production—a three-cylinder water-cooled three-stroke. The strokes are, in order of firing, epileptic, paralytic, and sun.

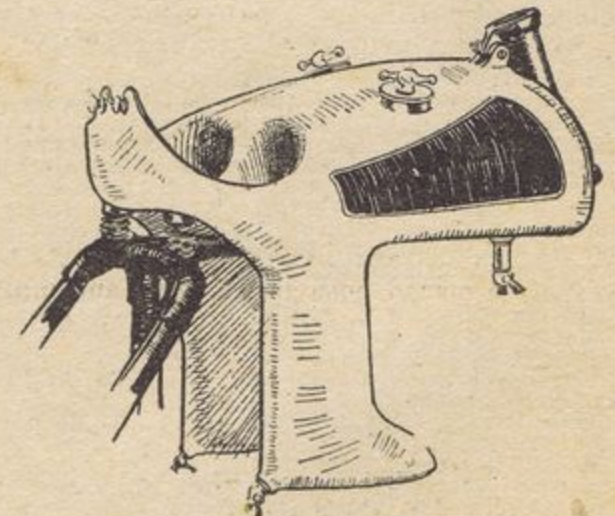
The scavenging system on most three-strokes is usually haphazard, and it is interesting to note that, on the Ercher, the scavengers call twice on the upward sweep and once on the downward. The ports are semi-spherical in operation,



Neat sidecar brake, which will be readily understood.



Well equipped tool panniers, vice, and lathe fitted as standard.



One-piece tank and leg shield.



Road Tests of Unknown Models.— and soundings are taken direct to the connecting-rods. These, by the way, are made of flexible aluminium, enabling them to bend slightly when the machine is cornering quickly.

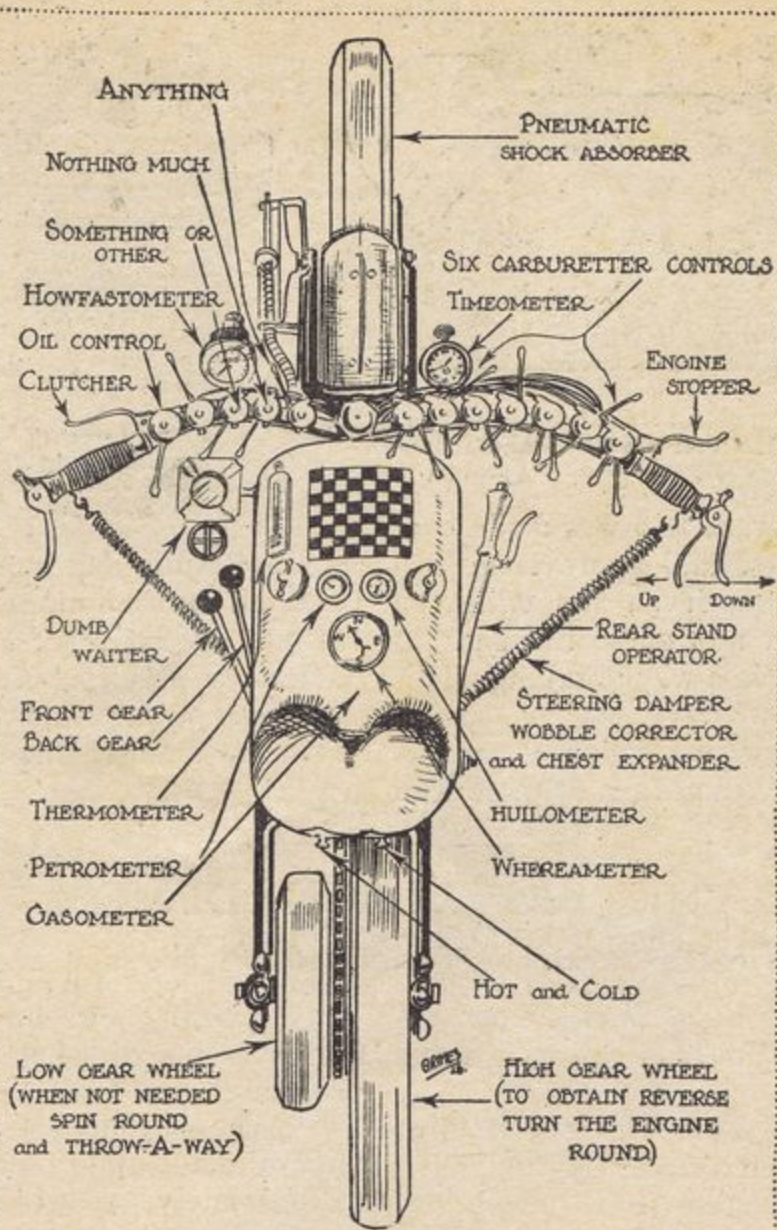
Ignition is by thermostatically controlled coil and mag., and the engine is particularly sensitive to the position of the spark. Four-stroking is dispensed with, being considered unnecessary.

Six carburetters are used, three on each side, and the induction is held in position by close-grained cross segments running in an oil bath. Gear box, clutch, and pedal-assisted compensator are housed in a cradle frame clamped to the main frame behind the rear plug. The ratios of the gears are: 1st, 4.2 to 1; 2nd, 2.4 to 1; 3rd, 1 to 2; 4th, KB4Q (the Ercher gambit).

The official rating of the engine is very nearly six horsepower, but with a soft pencil graphs have been plotted to give a theoretical b.h.p. of almost seventeen. (In plotting these, of course, the accepted formula of $\frac{Dr^2}{3.3(Y)}$ is used— r being the ratio of the front wheel, D the divergence of opinion, 3.3 an arbitrarily chosen constant, and Y the propelled element.)

The frame is sturdy, and being constructed of pressed steel, interlaced with rubber, is capable of withstanding any amount of vibration. Oiling is almost mechanical, the ducts being taken across a via to the cylinder walls, which are distempred evenly.

Starting is effected by the patented Ercher "Knee Wrench Starter"; the starter mechanism is engaged by pushing the knee smartly against a cranked bar set horizontally to the rider. It is aptly named. Another Ercher patent is the



SPECIFICATION.

ENGINE: Makers' three-cylinder water-cooled three-stroke; almost mechanical oiling.

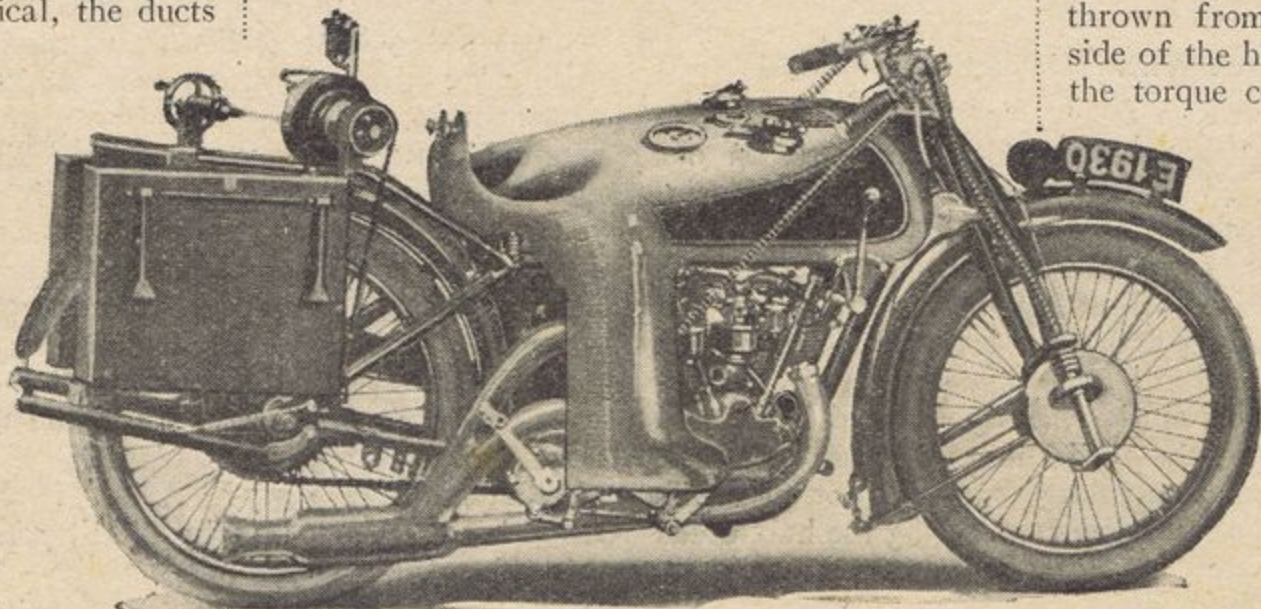
CARBURETTERS: Six—Amac, Binks, B. & B., Constantinesco, Senspray, Wex, with feet accelerators.

TRANSMISSION: Iron chain.

GEAR: Makers' four-speed. Ratios: 4.2, 2.4, 0.5 and KB4Q to 1. Starter: Patent knee-wrench.

WEIGHT: More.

PRICE: Less.



The Ercher, showing push-rod operated scavengers.

sidecar. Conventional suspension is disregarded, and the body floats in a semi-vacuum created by oil pressure from the big ends. The vacuum is controllable, and may be regulated to suit the weight of the passenger. Lighting is by reflecting prisms placed in series from the cylinders, the front one glowing white-hot for the head lamp and the rear one red-hot for the back light.

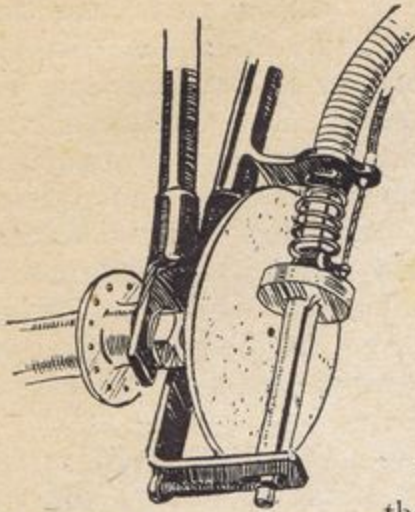
The makers' works are in the heart of the Mendiots, and we had ample opportunity therefore for testing the Ercher's climbing power.

Our first half-hour was spent in getting accustomed to the controls, which are unusually placed (feet accelerators, knee grip clutch, and chin brakes), and in regulating the sidecar vacuum to the light weight of our passenger, who unfortunately bounced out twice in the first ten miles.

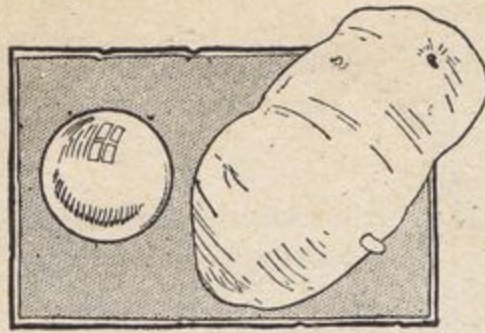
An all-out speed of thirty-one miles an hour was reached and held over a give-and-take road. It must be admitted that the road was more give than take, and that a strong head wind was blowing. We do not doubt that this speed could be improved upon. Changing smartly into third, we started the stiff ascent of Nettle Rash, which, with its wide bends and deceptive 1 in 12 at the top, proved the downfall of so many competitors in last year's Ten Days. The noise of the engine was magnified by the echoes thrown from the rocks at the side of the hill, and we brought the torque convertor into play.

This consists of a tube leading from the driver's mouth to the passenger's right ear, and a tube from the passenger's mouth to the driver's left ear. Torquing is thus greatly simplified. We reached the top in first at 9 m.p.h., and finding the water boiling stopped for tea and stretching.

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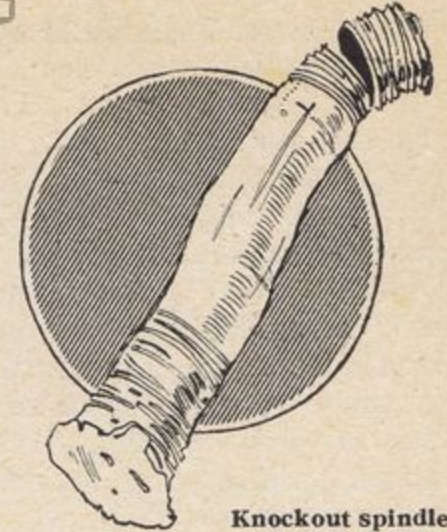
Combined magneto and speedometer friction drive from the front wheel.



Steel ball used in manufacture compared with a potato.



New specially lightened piston with double gudgeon pin.



Knockout spindle—knocked out.

The return trip was made over the moors, and apart from two seizures (both on the epileptic) we had a no-trouble run back to the works. Acceleration is good, in a way; braking might be a little more progressive any way.

Altogether we found the Ercher production a remarkable outfit, and can thoroughly recommend it to those who

state gloomily that motor cycle design is stagnant. Petrol and oil consumption worked out at 28 m.p.h. and 28 m.p.g. respectively; and the tyres had a little tread left after our gruelling ride.

Those interested should write for further details to the makers, Ercher Engineering Co., Little Bearing.

“JACQUES.”

THE BIG BLACK DEMON.

Winter's Great Unpleasantness and His Evil Ways.

“IT'S getting a lot thinner,” says Lionel from the depths of the sidecar. “You can see that street lamp quite a long way off.”

“Thank goodness for that,” I reply. “I'll steer for it, and we'll get along like one o'clock. . . .”

I open the taps, and we accelerate to 20 m.p.h. towards the welcome halo of light. Then I have a strange impression that the halo is accelerating towards us. It is. And it shouts as it misses us by inches:

“Why the — don't you get on your right side? I thought you were a lamp-post!”

Nasty stuff, this fog. Everything you meet turns out to be something that it's not. You follow those railings which you know so well lead across the common, and you find yourself in the cemetery; not that you won't, sooner or later, anyway.

“This,” remarks Lionel hopefully, “is the Great West Road; there's one of those jolly winking red light-houses.”

Not What It Seems.

“This is where we go fast again,” I answer, operating accordingly. “We'll keep that lighthouse on our starboard beam. . . .” The lighthouse comes abeam, and then I see four wheels, a large body, a funnel projecting sparks, and other extremely substantial-looking items adorning its port side. Suddenly, a head appears and asks why the blankety-blank we can't overtake on the right side.

Wretched stuff, this murk. Dim your head lamp, and you can probably see the cyclist that isn't there; turn it on full, and an amazingly large wall of glowing white vapour effectively prevents you from seeing the half-dozen cyclists that are there.

Presently we stop to defog our eyes. Comes a Ford

car, crawling and spluttering out of a side turning. It turns in the direction we are going, and there is a concerted chorus from inside:

“Are we right for London?”

“Yes, straight on,” we shout back, and the Ford splutters on its way. . . .

Soon we continue. We have just spotted the Ford's rear light when Lionel tells me that a grass bank which he's seen on the left used to be on the other side of the road. Presently a signpost shines faintly through the gloom; Lionel directs his flashlamp on it. “London” it says mockingly, pointing the way we have come. Poor Ford man. . . .!

Ugh! Send rain or snow, or hail, or wind, or frost, but never, never fog!

The Demon's Sister.

Fog! That big, black demon, who is upon you before you know it; for he sends only his pretty, dainty, younger sister, Mist, to herald his coming. You see Mist sliding her silvery form over the hedges beneath the cold winter moon; trickling gently down into the valleys, and winding in long streamers about the hills; sometimes she makes a foot-deep white sea through which, fascinated, you plough your way; sometimes a cloudy white ceiling a few feet above you; but never the great, gross, disgusting, impenetrable black ocean of her brother. There is something sinister about Demon Fog—something that makes you feel that a horrible shape will jump upon you, and drag you away, while the demon stifles your cries with his great black blanket.

What's that you say? A lorry? No it isn't—it's a street lamp. Curse! Why didn't you tell me it was on this side of the confounded road? Now we're in the ditch. . . .

PATRIC.

