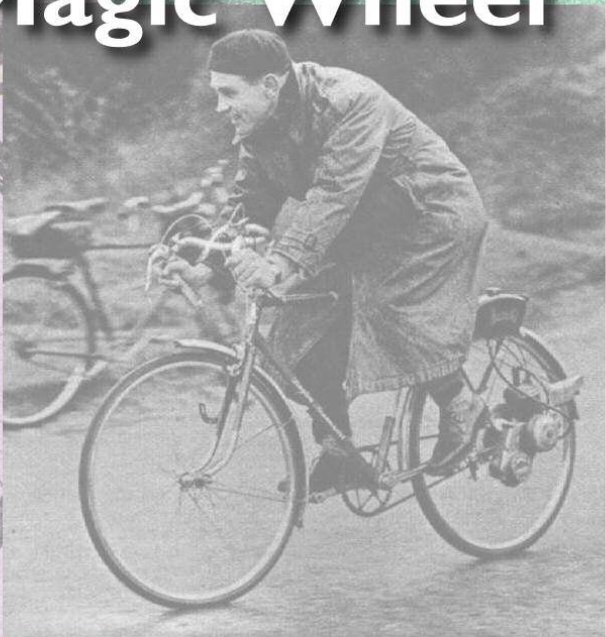
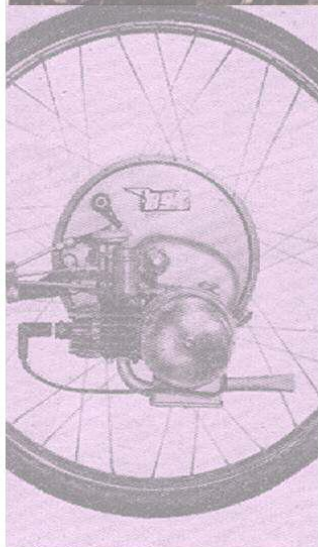


IceniCAM Information Service



The Magic Wheel



The

Magic Wheel

A QUARTERLY MAGAZINE FOR CYCLEMASTER OWNERS

Vol. 2. No. 4.

JANUARY, 1955

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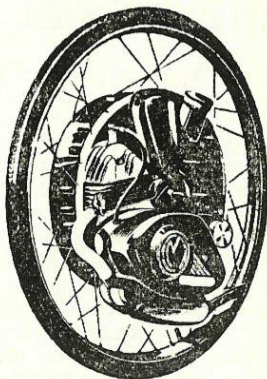
Cyclemaster Dealers' and Traders' enquiries for agencies welcomed

IRON TRADES MUTUAL INSURANCE CO. LTD.

Head Office : Iron Trades House, 21-24, Grosvenor Place, London, S.W.1

VOL. 2
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JANUARY
1955



PRICE
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THE MAGIC WHEEL

A QUARTERLY MAGAZINE FOR CYCLEMASTER OWNERS

*All communications should be addressed to
Cyclemaster Ltd., 38a, St. George's Drive, Victoria, London, S.W.1.*

No Racing—Please!

OF COURSE it was bound to happen. The longer cyclemotors are used and the more popular they become the more obvious it is that sooner or later some bright spark would suggest that they be used for racing. Now a club has been formed for owners of cyclemotors which intends to organise racing events as well as week-end runs through the countryside.

Once more, we must make it clear that the Cyclemaster was never intended to be used for any kind of competition or race and Cyclemaster Ltd. will not be associated with any event of this nature.

The reasons for this are obvious. The Cyclemaster was designed to provide motive power for a cycle, a vehicle which normally travels at between 10 and 25 m.p.h. Above that speed the pedal cycle is no longer a truly roadworthy machine because all its design features have been evolved with the speed limitations in mind. True, you could probably ride your cycle downhill at over 30 m.p.h. and still feel that you had perfect control; but just consider what might happen if you were suddenly faced with an emergency

which required quick and effective braking, or if your narrow and unsprung front wheel struck a bump in the road.

No, it is better not to have any illusions about the speed capabilities of the ordinary bicycle. And it is certainly better, in our opinion, to treat the Cyclemaster as a handy little machine which will help you to get about easily and economically than as a racing mount which will help you to adorn your mantelpiece with cups.

We have nothing against small-capacity motor-cycles being used for racing. In the motor-cycling journals one can read of plans for special events for machines of small engine capacity. But in order to successfully compete in such events a competitor would have to be riding a machine designed for speeds up to about 75 m.p.h. And, of course, the engine would be of special design too.

In short, it is a specialised field, for which the normal touring machine is quite unsuited. Tours, yes; rallies which are designed as tests of driving skill, by all means; but racing, quite definitely no.

Further Impressions

By Aries

WELL, it looks as though I am becoming an institution. My impressions of a first ride on a Cyclemaster in the last issue seem to have been "just what the Editor ordered" so here I am again with some more chit chat about riding—how I think it should be done and how I have seen some others doing it which I don't like one little bit.

We all know that mastering the controls of a Cyclemaster is a very simple job. It is probably true to say that a new owner can ride his machine with assurance within a few hours of first mounting it. But of course it does not end there. There are all sorts of little snags and troubles that you can get into unless you ride intelligently and with both eyes very wide open.

Goggles help

Incidentally, if you do ride with your eyes open you will probably find, as I did, that a pair of goggles is a very real help. It may seem rather silly at first when you are only riding what is virtually a cycle, but I am a firm believer in the comfortable way and I am quite convinced that it is far more comfortable to ride with goggles than without—especially when there is a nip in the air.

And of course the safety factor comes in. When there is dust about it is possible to be blinded quite suddenly and without warning. A nasty thing if you happen to be in traffic or approaching any sort of road hazard.

Gloves are just as important; and for the same reasons. They make riding far more comfortable and they enable you to maintain perfect control of the machine.

But my real concern here is with riding methods, especially in traffic. Let me say right at the start that the practice which seems to me the nearest thing to suicide is this business of running up a line of stationary traffic on the inside. In the first place, you can never tell when that bus or big

lorry is going to pull a little further into the kerb and then, if you do manage to get to the head of the queue without being thrown off, it's very possible that the vehicle you stop alongside is going to turn left across your bows, very nearly taking you with him. In both cases it's very difficult for the other chap to see you unless he has a wing mirror on the near side, and even if he has he's probably far too busy watching the other traffic to look out for you.

And the simple answer to the whole thing is that you have no right to be there at all. Overtaking should be done on the outside or not at all.

Of course it's tempting, when there is a gap there, to go scuttling through in order to save a bit of time. But, you know, the amount of time saved is so little that it isn't worth the risk.

If you are in a hurry and those few seconds count, then why not have a look at the amount of room on the outside of the line? It's usually just as accommodating, and as long as you are careful and give really good signals to indicate what you are going to do, it is safe enough.

A bit behind

While I am on signals, I would like to add just another little warning about riding in traffic. It is usually accepted among vehicle drivers in traffic that actual hand signals are unnecessary. Most cars are fitted with two direction indicators and brake lights that work, so theoretically the man behind should be able to work out for himself what the chap up front is doing.

Well, of course, this doesn't always work out. There is always the nimble character who jumps on his brakes at the very last moment and by the time you see his signal you have already arrived. And there is that other care-free lad who knows that his indicators are liable to stick but he doesn't worry too much (after all, by some quirk of

fate he hasn't hit anything for the last ten years.)

You have to be on your guard all the time, and by far the safest policy, it seems to me, is to ride just far enough behind to give yourself a safety margin should the unexpected thing happen. In fact, nothing should ever be un-

expected to you, if you are a really good road user.

Riding a bit behind has other advantages too. It enables you to see a bus stop coming so that you are prepared for the bus to stop even before his brake light goes on. The same applies to zebra crossings.

Form Fours!

The way to have a cheap holiday on the Continent

SOME useful tips on the ideal way to spend a holiday on the Continent are contained in a letter sent to us by Mr. R. G. Freeling of Alcester. He and three friends took their machines over there last year, and because they did not set themselves too stiff an itinerary they contrived to have a most successful time.

One of the real secrets of their success was in the planning which went on beforehand. First of all of course, the route was mapped out. It was made reasonably short so that if the party met bad weather they could afford to stop and shelter until it was fine enough to travel on.

Then the amount of luggage to be carried by each machine was carefully controlled to 18 lb. each. This was carried on special carriers. The bicycles were also equipped with spare fuel cans, which proved most helpful.

Finally, no attempt was made to do the whole trip from Alcester on the machines. They were carried to Dover and back 200 miles each way, in a trailer towed by a car. This allowed Mr. Freeling and his friends more time on the other side.

The journey lay through Ostend, Bruges, Ghent, Malines, Turnhout and Eindhoven to Arnhem. Then back again passing through

the same towns, a second look at each being thought worth while.

The picture reproduced here was taken at Reusel just after the party had crossed the frontier control into the Netherlands. Mr. Freeling says that the coffee provided by the cafe in the background was very good and very welcome at that stage of the proceedings.

A good supply of Cyclomaster oil was taken on the trip and no mechanical difficulties were encountered. In fact, not one of the party bothered to do so much as clean a plug.

All four of the Cyclomaster enthusiasts agreed afterwards that they really had an enjoyable holiday on the roads of the Continent, and they were especially thankful for their machines when they found that most people in this country at that time (it was during August) were, as Mr. Freeling puts it, "moaning about the weather"



Petrol Mixers for All

THERE is great satisfaction in finding one's prophecies coming true. In our last issue we described two new petrol-oil mixers and said that it looked as though the situation was improving. Within six weeks of that article appearing three new mixers have been introduced and it certainly seems likely that before long most garages and service stations in the country will be equipped with a mixer.

And there will be plenty of Cycle-master owners saying "about time too" no doubt; especially when they see how simple these devices are. But perhaps we should not complain too much for it is necessary to bear in mind that the two-stroke owner is only a very small part of the garage's trade.

However, before long if the garages co-operate there should be no trouble in getting a fill-up with really thoroughly mixed petrol.

The ball was set rolling by the Esso Petroleum Co. Ltd. They produced a mixer for their service stations which consists of a mixing funnel and filter. The oil is poured in first and then the petrol mixes with it by the turbulence created when the full flow of the pump is discharged into the mixing chamber. This means that the mixture goes into the tank at almost full pressure, saving time as well as trouble.

Then we had the introduction of the Quick Mixer by C. C. Wakefield and Co. Ltd., the makers of Castrol oils. You may remember that we said last time that they had a mixer in hand. It consists of a funnel which is shaped so that the oil poured in first can be prevented from entering the tank by holding it on one side. Then, when the petrol pump nozzle is in the funnel and ready to discharge, the mixer is raised and once again the turbulence created by the flow of petrol causes a good mix to be made before the petrol actually reaches the tank.

This mixer is being supplied free of charge to every garage which stocks Castrol oils—and they claim that that

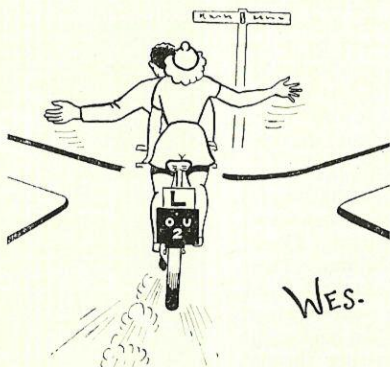
is virtually every garage in the country.

Last but not least we have the Avery-Hardoll Petroler. This is the other of the two mixers that we "foresaw." It is a rather more complicated affair which stands on the garage forecourt. It was designed and developed in conjunction with Shell and B.P. Ltd.

This pump contains tanks for petrol and two grades of oil. Most of the major manufacturers have approved one or other of the mixes produced when the handle at the side of the pump is operated, and you will find the name of Cyclemaster beneath one heading so you need not worry if you are getting the right mix or not. As the attendant pumps the fuel you can see it passing through a glass "eye" at the top of the pump and the ration of oil being pumped in too. Then the mixture flows down a transparent plastic pipe into your tank with no trouble at all.

Perhaps the main advantage of this mixer is that it can be used anywhere on the garage forecourt, so the Cycle-master owner can have his tank filled in an out-of-the-way corner and leave the cars and lorries to get their supplies at the main pumps without any hindrance.

So that's the situation at the moment. Quite a revolution isn't it? Let us hope that the Garage people will make good use of these mixers.



A 50 c.c. Cyclemaster Twin

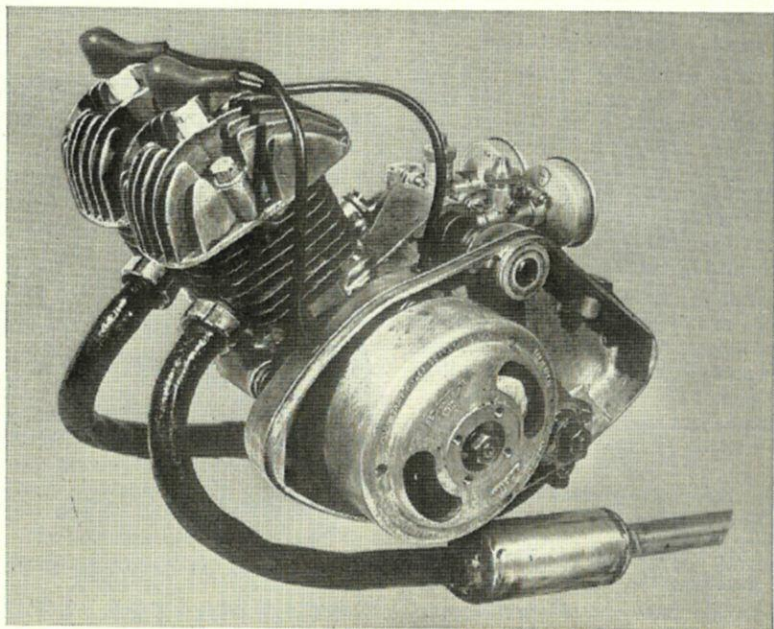
ANY Cyclemaster owner will tell you how adaptable the engine is as far as performance is concerned. It will purr along at a steady 20 m.p.h. or slog away up a long hill at about 7 m.p.h. But not many people have the facilities to investigate the mechanical adaptability of the engine and see how it shapes up in that respect.

One person who has practically all the facilities anyone could wish for is Mr. P. Mitchell, who works in the Cyclemaster department of the well-known firm Batchelor, Bowles and Co. Ltd., of Leicester. Since he works with Cyclemasters all day it is not surprising to find that he is an enthusiast and that he has been exercising his engineering skill devising a new version of the engine.

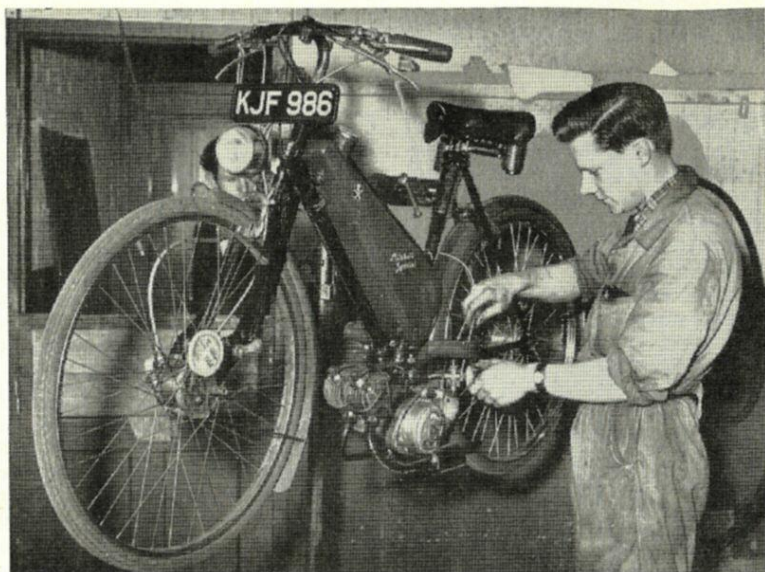
As you will have gathered from the illustrations, it is not strictly true to say "a new version of the engine." It would be more accurate to say a new version of two engines, for Mr. Mitchell has built two 25 c.c. units into one twin-cylinder machine, which is fitted to the bottom bracket in place of the pedal assembly, this being no longer necessary with the amount of power available from the double engine.

He tells us that the "Mitchell Special," as he calls it, will carry his weight (12 stone) up a gradient of 1 in 8 quite comfortably in top gear (the engine drives through a Sturmey-Archer three-speed unit) and it will top 40 m.p.h.

Of course, it was not just a matter of fixing two engines side by side. There



This is the twin engine that Mr. Mitchell built for his "special".



This picture shows Mr. Mitchell working on the machine in his workshop.

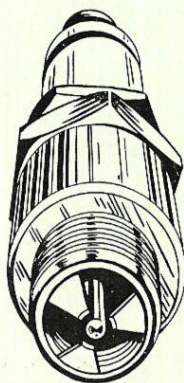
were a lot of mechanical problems that had to be overcome and in a number of cases Mr. Mitchell departed from standard practice on the normal machine to enable his "twin" to function.

The machine has covered well over 1,000 miles and, apart from some early teething troubles, it has run very well. Perhaps one of the most amazing features of the Special is that it does 180 miles to the gallon. That is with two pistons to be moved and no assistance from the rider. Carburation is provided by two Amal carburetors.

Well, the list of odd uses and applications of our little engine grows longer and longer. What shall we hear of next, I wonder? Perhaps some wag will try

fitting a battery of them together and running a car with them!

The New **K. L. G. Cyclemaster SPARKING PLUG (C.F. 50)**



Designed specially for use in Cyclemaster Engines to ensure best performance. The earth disc moves and so prevents adhesion of "whiskers" which can cause a plug to stop firing or fire erratically.

5/-

Obtainable from all Cyclemaster Dealers

CYCLEMASTER LTD.

38a St. George's Drive, London, S.W.1.

ON THE COVER

Yes, you've guessed it—it's the new Cyclemate, which has proved very popular since it was introduced at the Motor Cycle and Cycle Show at Earls Court, London, last November.

WHAT'S NEW IN ACCESSORIES?

The ZB Traffic Indicator

OUR accessory review for this issue is taken up with two "extras" that have been sponsored by Cyclemaster Ltd. In each case they have been developed because it was felt that they would definitely help the owner of a cyclemotor, both from the point of safety and also of convenience.

With a revised Highway Code just out and a change in the regulations which allows flashing direction indicators on vehicles, one has to be alive these days to keep up with the latest developments in the safety field. But one thing is certain: the semaphore type of direction indicator will always be acceptable and therefore the new ZB Cyclemaster Traffic Indicator is likely to prove a very popular fitment for cyclemotor owners.

This indicator gives you four things for the price of one really. It consists of a semaphore-type direction indicator, a rear number plate (both of these are illuminated at night), a rear light and a reflector.

The control lever for the indicator is designed to be mounted at the front end of the crossbar or at the top of the down tube, like a three-speed gear control on an ordinary bicycle. There are three positions for the lever; left, central (neutral) and right. The rear light is arranged so that it can be connected to the 6-volt supply generated by the motor.

The aluminium number plate is of the regulation size and the chromium-plated cover containing the rear light and reflector is fitted at the top. The main housing is a one-piece die-casting which contains the mechanism for operating the direction arms.

The complete unit can be fitted in a matter of minutes by means of two clips. A hole is also provided so that it can be bolted to the mudguard if this is considered necessary.

When ordering the unit, it is necessary



to state whether you have a crossbar or an open-frame cycle as the cable lengths are different.

The price is 38s. 6d. and for that you can have trouble-free cornering for the rest of your days, because once you have put out the indicator arm you are then free to concentrate on negotiating the corner with both hands on the handlebars and controls.

The Cyclemaster Sparking Plug

THE word "whisker" has a number of various meanings. To some it conjures up those full and flowing moustachios that were so popular in this country about the turn of the century; to others it recalls the first days of radio when the best "wireless set" that many a home could afford was one that worked on the principle of the "cat's whisker." There must be many other meanings that one could think up but probably the one that springs most readily to the mind of the

two-stroke owner is the whisker that bridges the gap on a sparking plug when it gets dirty.

This bridge is in fact made up of carbon deposits and, of course, as soon as the plug gap is bridged no spark flies or else becomes intermittent and the engine ceases to function efficiently. Since it was known that two-stroke motor owners experience whiskering in their engines, the Cyclomaster engineering department began to experiment to see if the difficulty could be overcome. The result is a new sparking plug which is being manufactured by K.L.G. and is being marketed under the name of K.L.G. Cyclomaster Plug and will be sold by all Cyclomaster dealers.

This new plug is suitable for use in other types of cyclomotors and should always be used as a replacement for a Cyclomaster or Cyclomate engine.

The way that this plug prevents whiskering is as ingenious as it is simple.

Obviously, no carbon gap can form if the earth electrode is constantly changing its position in relation to the central electrode, so the earth electrodes on this C-F.50 plug are shaped into a disc which moves slightly with the vibration of the engine. Usually, of course, the earth electrodes are made as part of the body of the plug.

Servicing of the new type of plug is quite simple. At about every 400 miles it should be removed and brushed with a wire brush to make sure that the earth disc is free to rotate; and at every 1,000 miles the plug should be taken to pieces and cleaned thoroughly.

Those of our readers who have bought their machines recently will probably have discovered by now that they are fitted with this new plug. In future all new Cyclomaster engines will be fitted with it, and any owner buying a new plug should make sure that he gets a K.L.G. Cyclomaster Plug.



Hey! Just a minute, sir. It's supposed to be fitted to a bicycle first!

Decarbonising the Engine

How to do it for yourself

IN OUR previous issue, we dealt with carbon in the engine; its cause and effect. Those owners who desire to carry out decarbonisation for themselves, can be guided by the procedure described in the following notes:—

First of all, make sure the exhaust is not blocked. Remove the exhaust system from the engine. If it is of the older type (up to Wheel No. 113407), it cannot be dismantled, but if it is of the later pattern, the front pipe can be taken out of the silencer, by slackening the clamping screw. Withdraw the pipe, and using a piece of stiff wire, poke out the holes in the end of the pipe and clear the apertures at each corner of the silencer baffle, which

method is to place the silencer on a hot fire and let the fumes go up the chimney. If you wish, the silencer can be placed on the fire at night, and left there until the following morning. When dealing with this type of exhaust system, always make sure that the fish tail is free from obstructions, even if it means straightening it and opening it out slightly, so that the cleaning wire can be inserted. It is a good idea to recheck this fish-tail after warming up the engine, in case some of the loose carbon from the silencer, has blown into the bend of the tailpipe.

To inspect and decarbonise the exhaust port piston and cylinder head on models up to No. 111859, it is necessary to remove the wheel from the cycle, and then remove the engine from the wheel as follows:—

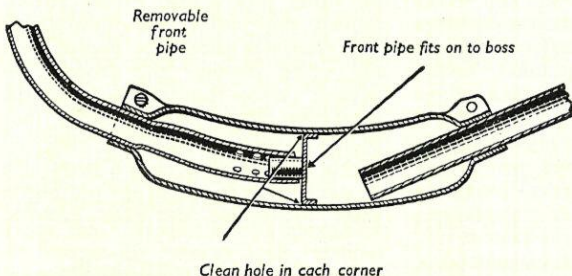
On the back-pedal brake model, remove the spindle lock nut, and gently lever off the brakearm; rotate the eccentric sleeve until the secondary chain is at its

slackest. If the engine is then rocked gently, the eccentric may be withdrawn with the fingers. Tilt the engine slightly to disengage the sprocket from the chain, and lift out the engine.

To remove the engine on models without a coaster hub, proceed as follows:—

Slacken and remove the large spindle nut, and then turn the square end of the hub spindle until the secondary chain is at its slackest. Withdraw the engine by lifting clear of the chain, and retain the shims behind the suspension bracket, if any are fitted.

On wheels produced since Engine 111859, a shorter stud is used for fastening the cylinder and head. This,



can now be seen by looking into the open end of the silencer. Shake out all loose carbon before reassembling.

To clean out the early type, some of our readers have suggested that the silencer is cut open with a hacksaw and rewelded together after the inside has been scraped clean. Our own method is to get the silencer very hot, over a gas ring, so that the carbon inside becomes dry and brittle. Tapping the outside of the silencer causes the dry carbon to flake off and it can then be shaken out of the front pipe. Heating the silencer in this way, usually causes a lot of fumes and smoke, and because of this, there may be some objection to heating in this way. An alternative

together with a special nut, allows the cylinder head to be removed from the cylinder without taking the engine from the wheel.

For all models, the procedure from there on is the same.

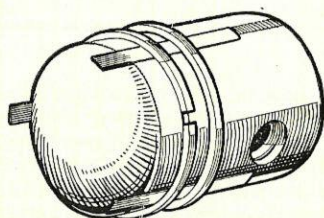
First, remove the exhaust system, the sparking plug lead and then take out the sparking plug. Slacken and remove the three cylinder head nuts—an OBA. box spanner is necessary for this purpose. A suitable type can be obtained from our dealers—the Part No. is CA.18. Remove the “CM” engine cover, so that the crankshaft can be rotated by gripping the flywheel. To do this the clutch should, of course, be disengaged by lifting the handlebar lever. Once the cylinder head nuts are off, the cylinder is free to lift on the studs. It is therefore, important to hold the cylinder down firmly towards the crankcase, any time the crankshaft is being moved. Place a finger on top of the cylinder and rotate the engine until the piston is at the top of its stroke. Scrape all carbon away from the inside of the cylinder head and from the top of the piston. Do not use sharp tools, as the surface of the components should not be scratched. Clear away all fragments of carbon with an airline or tyre pump, and again holding the cylinder, rotate the engine until the piston is at the bottom of its stroke.

Examine the inlet and exhaust ports. If the two inlet ports are clean, the exhaust port can be scraped at this stage and the engine reassembled. If however, the inlet ports also require cleaning, the cylinder must be removed, and the logical thing to do, is to leave the exhaust port until the cylinder is off, and then clean all three together. If you are dealing with an engine with a quickly detachable head, the engine will have to be removed at this stage, in order to take off the cylinder. The procedure for removing the engine is exactly the same as has been already described. After the engine has been removed, remove the cylinder, but first of all, take out the three studs using two nuts locked together. If for any reason, an oversize stud has been fitted to the crankcase, it may lift the cylinder

with it, as it is screwed out. In this case, ease the cylinder gently upwards as you remove the studs. Always note carefully the position from which any oversize stud has been removed.

When the studs are out, lift the cylinder straight up. Do not attempt to twist it or there will be a serious risk of breaking the piston rings. There is a paper gasket between the cylinder and the crankcase, and a new one will be required; the Part No. is B.10. Clean the cylinder carefully, both inside and out, making sure that the top and bottom faces are clean and free from all traces of the old paper gasket. When scraping out the ports, care must be exercised, so that there will be no possibility of raising a sharp edge, which would damage the piston, when it is moving up and down the cylinder.

It is important to remove carbon from the piston ring groove. The rings are delicate and should be eased off using thin shims, evenly spaced around the piston (see illustration). The crankcase should be packed with rag whilst cleaning the grooves, to prevent carbon from falling inside the crankcase. If the rings are worn, they should be replaced with new ones, and if this is being done, it is a good idea to use a piece of one of the old piston rings to scrape out the grooves.



Easing off the piston rings

Whether fitting the original rings or new ones, it is important to make sure that they are correctly located, with the gap of each fitting over the small projection in each groove. If refitting the original rings, they must be replaced in the grooves from which they were removed, and also refitted the same way up. Inspect the small end of the

connecting rod; this, incidentally, is to be found inside the piston, and make sure that the oil holes in it are not blocked with carbon. If they are, they should of course, be cleaned out and it may be necessary to remove the piston and gudgeon pin in order to carry this out properly. If you do not have the correct tools for removing the piston, it is unwise to attempt this operation, and our suggestion is that you consult your dealer before carrying out further dismantling. The need for this action is most unusual and should never be required until after the machine has done a very big mileage.

Carefully clean the crankcase face on to which the cylinder is bolted. Check again to make sure all the other parts are also properly cleaned. The engine can then be reassembled. Using the oil which you normally add to the petrol, lightly oil the cylinder wall and piston. Smear the faces of the crankcase and cylinder also with this oil; fit a new paper gasket and then replace the cylinder over the piston. Before pushing the cylinder over the top piston ring, position it so that it can be pushed straight down and the studs will then line-up with the crankcase, without rotating the cylinder about the piston. Once the cylinder is on the piston, twisting it may cause the end of the rings to jam up in one of the ports, and it is then almost impossible to remove the cylinder again, without breaking the piston. For easy entry of the rings into the cylinder, it is advisable to use a piston ring sleeve, the Part No. of which is CA.8. for the 25 c.c. engine, and CB.8. for the 32 c.c. engine. Refit the cylinder head and tighten the nuts. Only after this has been done, refit the exhaust system. Clean the sparking plug and refit to the cylinder head. Do not connect the plug lead at this stage.

The engine should be refitted to the wheel, and the wheel to your machine by reversing the dismantling procedure. Full information is provided in your instruction book with regard to the method of testing the wheel bearings and chain. It is most important that these adjustments should be correctly carried out after the wheel is fitted to

the bicycle. No attempt should be made to run it on the road if either of these adjustments are incorrectly set.

After road test, and with engine hot, always recheck the cylinder head, sparking plug and exhaust ports for tightness. On recent machines, there is a locking clip on the main exhaust nut, and this should be refitted after final tightening. In the case of earlier machines, the new type of locking clip may be incorporated, and this is described, together with the necessary information concerning Part No., in the "Tips worth remembering" on page 96 of this issue.

To get the full benefit from the decarbonising of the engine, it is advisable to pay attention to the magneto, the sparking plug and the carburettor, all of which have been fully dealt with in previous issues.

Finally, may we remind you of one or two of the important points to remember.

DO NOT use sharp scrapers, which will scratch the faces inside the combustion chamber.

DO NOT try to clean out the exhaust port unless the piston is at the bottom of its stroke. Otherwise, you may cause irreparable damage to the working surface of the piston.

DO NOT rotate the cylinder or otherwise put sideways pressure on the connecting rod when you are removing or refitting the cylinder.

DO NOT attempt to slacken or retighten the exhaust system unless the cylinder head nuts are tight.

DO oil the cylinder and piston, but remember that excess oil may cause bad starting and a lot of smoke.

DO pay a great deal of attention to cleanliness and avoid particles of carbon getting inside the crankcase.

DO adjust the wheel bearings (back-pedal brake model only) and secondary chain, after refitting your Cyclemaster to your cycle.

Readers will find full information on the exhaust nut locking clip in our "Tips worth remembering" feature on page 96 of this issue.

And Now—THE CYCLEMATE

A brilliant new version of the Cycl MASTER which was introduced at the London Motor Cycle Show

THERE were several new machines introduced at the Motor Cycle and Cycle Show at Earls Court in London last November and one that received a good share of the attention of the crowds was to be found on the stand of Cycl MASTER Ltd. It was the Cyclemate, the latest variation on the well-proven Cycl MASTER engine.

The Cyclemate has been produced on the basis of the old saying "two heads are better than one," for into its design and development have gone the combined experience of Cycl MASTER Ltd. in the engine field and Norman Cycles Ltd. in the cycle field.

As can be seen from the illustration, the result of this amalgamation of "know-how" is a good-looking and sturdy machine which has a specially-designed frame and the well-known Cycl MASTER engine mounted in front of the pedals. The frame is the result of two years' intensive research and, of course, the engine has undergone a series of modifications during the last four years.

What are the features of this new machine?

First, it is very accessible, so that the owner can carry out any sort of adjustment or maintenance with ease; from a plug clean to a complete dismantling.

Next, due to the position of the engine between the wheel centres, road shocks and vibrations are reduced to the very minimum. There is a strong carrier fitted which can be used for carrying parcels or for fitting panniers, so that a large quantity of luggage can be accommodated.

The frame has great rigidity because it has twin top tubes which are carried through to the rear chain stay ends. It is built of heavy gauge tubing. Dome-section mudguards ensure that the rider is properly protected from the weather.

The tank holds $5\frac{1}{2}$ pints of petrol, so the machine will travel more than 130 miles on a tankful; for the Cycl MASTER Engine uses its 32 c.c. to good effect, giving about 200 miles to the gallon.

Brakes are of the internal expanding



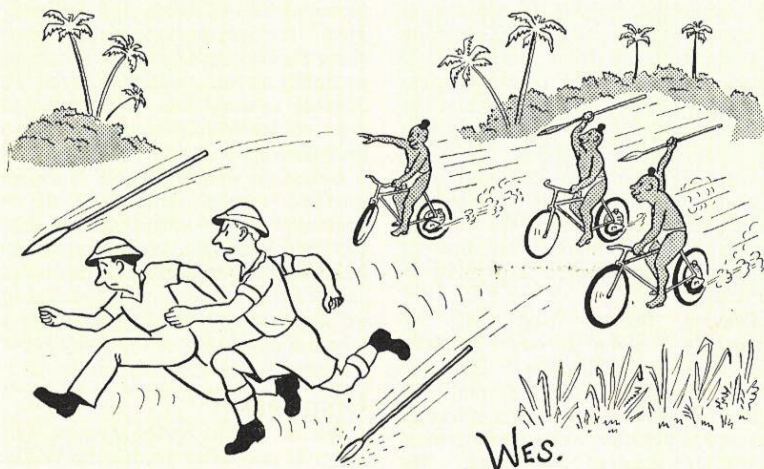
This view of the new machine shows what a good-looker it is. Note the neat control layout on the handlebars

hub type and the throttle control is a twist grip. The whole frame is rust-proofed by the spru-granodising process and finished in an attractive mid-green lustre.

For his £44 (which includes purchase tax) the Cyclamate owner has a machine which will carry him comfortably, safely and economically many thousands of miles; and he can rest assured that

good service is available if it is needed, for the Cyclamate will be sold through the nation-wide Cyclenmaster dealer organisation and backed with the same efficient service, which has maintained the Cyclenmaster in the forefront of auxiliary bicycle engines.

That price includes lamps, tools, tool bag, inflator, horn, number plates and licence holder.



"Who was it that said no white man had ever set foot here?"

Replies to Readers' Queries

Q. I purchased my Cyclenmaster towards the end of last year and understand that the law demands the fitting of a suitable ignition suppressor to avoid spoiling television viewers reception. I also understand that in view of the date of purchase of my machine it should have been supplied with a suppressor already installed. There is no sign of one in either the plug lead or on the plug.

A. The information you have received is quite correct and all engines from 117074 were so equipped. However, for reasons of neatness and weather protection the suppressor is fitted between the back of the magneto and the grommet where the plug lead comes from the crankcase. It can be seen quite easily if

the "CM" engine cover is removed.

Q. Can you please tell me why a small washer is fitted under the head of each spoke?

A. This washer was not fitted to the early type machines. It was then found under heavy loads and bad road conditions that there was some tendency for the spokes to break off at the head. The washer is brass and therefore, much softer than the material from which the wheel drum is made. The soft metal of the washer provides a better seating for the head of the spoke and contact with the tough steel of the drum is eliminated particularly at the point where the maximum load takes place.

A 20/- Tour of Scotland by Cyclemaster Tandem

by J. Moulds

LAST year, my wife and I had an interesting and unusual holiday in Scotland, thanks to the Cyclemaster. The combined weights of we two is 21 stone. We carried luggage weighing 3 stone and this total weight of 24 stone plus the weight of the tandem was transported without mishap or engine trouble of any kind throughout the whole tour of 749 miles.

We left Hull on July 25th, and made our way to Brough (Near Appleby) via York and Scotch Corner. We travelled through the Pennines arriving at Brough having covered 116 miles in 12 hours.

Leaving Brough next day we "motored" along through Appleby and Penrith to Keswick. Here we made a circular tour around the whole of Derwentwater via Grange, during which we obtained several beautiful views of the Lake. We ended our second day by going on from Keswick to Carlisle, where we arrived at 7 p.m. In spite of the hilly country encountered we had covered 82 miles, which included some grand scenery.

Our third day started when we left Carlisle *en route* for Glasgow. We travelled through Gretna Green, which made an interesting stopping place, to Lockerbie across Douglas Moor and so to Glasgow.

A day exploring

On the fourth day of our journey we made our way to Loch Lomond, and with fine, sunny weather all day we thoroughly enjoyed exploring, in leisurely fashion, the many beauties of this magnificent loch, including the charming villages which lie on the water's edge. We ended this day at Glen Falloch having travelled 46 very enjoyable miles.

On the fifth day we journeyed to Brig O' Turk passing through Killin and along Loch Tay through Glen Ogle

to Loch Earn. We also visited *en route* Loch Voile, the Braes of Balquidder, Rob Roy's grave, Loch Lubnaig, the pass and falls of Leny, and Callander. Then through more splendid scenery along the shores of Loch Verachar until we finally arrived at Brig O' Turk. The distance covered this day totalled 84 miles of rugged terrain with scenery on the grand scale.

Next day we left Brig O' Turk and travelled through the heart of the Trossachs via Loch Achray, Loch Katrine, Aberfoyle, Loch Drunkie and Lake Menteith to Stirling. The distance covered this day was only 26 miles but we made numerous stops in order to take full advantage of the many superb views.

Home again

We left Stirling on the seventh day of our tour and, after visiting the Wallace Memorial, cruised along to Edinburgh and made a circular tour of that noble burgh, including calls at Holyrood House, Princes Street and many other famous buildings. Continuing on from Edinburgh we journeyed through Berwick, Alnwick, and along the coast of Northumberland to Newcastle.

Our final day (the eighth) began when we left Newcastle *en route* for home. We travelled through Darlington, Northallerton, York and finally arrived back at Hull. This last homeward leg took 10½ hours to complete and the distance covered amounted to 125 miles.

During the complete tour we had travelled 749 miles, and most of this through rugged hilly country. In spite of this the total amount of petrol consumed was a mere 4½ gallons. We did not spend one penny on repairs and our travelling expenses for the round trip thus amounted to a few pence over the twenty shillings claimed above, which, in our view, represents real value for money!

THE THINGS YOU SAY!

We receive hundreds of letters every week, and they are all dealt with promptly by post. Most of them deal with matters of interest only to the owners concerned. When points of general interest are raised, the letters, with brief comments, will be set aside for publication in this feature.

Thanks for spares received

Dear Sir,

Both my wife and I are Cyclemaster owners and we cannot praise it highly enough. I must take this opportunity of thanking your spare parts department for their very prompt service. I posted a letter on Sunday asking for a new brake band for the back-peddalling brake and was delighted to receive it first post on Tuesday.

Congratulations for this good service. I thought some of your other readers might like to know how much it is appreciated.

Clydebank.

W. H. McK.

(Thank you, sir, for your kind remarks about the "back-room boys." They are very appreciative of your compliments I can assure you.—Ed.)

Tandem Experience

Dear Sir,

After spending 6 days on a Cyclemaster holiday with my wife I wish to give honest and enthusiastic praise to my recently-acquired Cyclemaster engine. It is fitted to a tandem and my wife and I help it along by pedalling uphill; we are averaging 15 to 18 miles per hour.

In the 6 days we covered nearly 500 miles, our route being Long Eaton, Manchester, Morecambe, Windermere, Settle, York, Scarborough, Bridlington and back to Long Eaton. We used $2\frac{1}{4}$ gallons of petrol and did not have the slightest mechanical trouble—not as much as a sparking plug to clean!

As the weather was rather miserable most of the time our Cyclemaster proved to be the only reliable bright spot on that sun-shineless journey.

E. H.

Long Eaton.

(Yes, it is amazing how much work such a small engine will do. The picture shows our correspondent and his wife about to set off on their trip.—Ed.)



It's easier this way



Dear Sir,

I have enclosed a photograph of my Cycle and Cyclemaster to show how much easier it is to do the maintenance of the engine when it is placed a few feet above the ground. In my case I use an old box.

It also helps you to keep the tools handy on the box top.

The coming of the Cyclemaster has been a great blessing to me because during my war service in the Royal Navy I had to have my right leg amputated below the knee due to a wound. Since getting my artificial leg I have always used a cycle but I used to be restricted by the distance I could travel. But now, with the Cyclemaster, all that has gone and I can go any distance I like.

P. G. H.
Leicester.

(Now that's a really useful tip. And it certainly looks as though Mr. P. G. H. does his maintenance thoroughly!—Ed.)

Ideal for the Archaeologist

Dear Sir,

I am enclosing a print of myself and my Cyclemaster taken near Exmouth. Details of what I am doing in the picture are as follows: I am very interested in archaeology and I collect flint implements of Stone Age man.

When I make a find I take a cross bearing of the location and pin-point it on a map. That is what I am doing in the picture. I find the Cyclemaster a great help in this as most of the sites are on high ground.

Exmouth.

F. P.

(Mr. F. P. also sent us a photograph of some of his flint implement finds, and a most impressive array they are too. Well, that is one application of the machine that very few would have thought of. We should all like to hear about some more of these unexpected uses for the Cyclemaster. If you use your machine for something out of the ordinary do write in and tell us.—Ed.)



JUST TICKING OVER... By The Idler

HERE'S a thought. I have just had a letter from Mr. Pugh, who lives in Birmingham. He pays a very pleasant tribute to the patrolmen of the A.A. and R.A.C. Apparently they have helped him out on a number of occasions and he has nothing but praise for their prompt and courteous co-operation. I suppose really that we have had the patrolmen with us so long now that we tend to take them for granted; but if you stop to think I am sure you will agree that they are most obliging, even if you are not a member. Mr. Pugh joined the R.A.C., and once again is full of praise for their help. He reminds me of another thing that I am afraid we are all apt to take for granted—a great number of the road signs that are put up throughout the country are the work of the motoring associations. Our Birmingham friend's last word is worth passing on too. If you do get a helping hand from a patrolman, don't forget the "thank-you" wave. It makes it all so much more friendly.

* * *

More news of cheap accommodation for those who go touring on a shoe-string—suitably attached to a Cyclemaster of course! Mrs. Buchan, of 17 Stenhouse Cottages, Edinburgh 11, has written to tell me that both she and a neighbour can offer bed and breakfast in Edinburgh for 8s. 6d. a night. Now that would be hard to beat, I'll warrant. There you are, you would-be tourers of the Highlands in the spring—what better stopping-off point could you wish for?

* * *

In our last issue we showed you a sailor on his Cyclemaster. Now we have heard from a cobbler who uses one for delivering his goods in London. We shall soon have a complete set of trades, I'm thinking. Our shoe repairer friend is Mr. Johnston, of Grove Park,

who says that the Cyclemaster unit has made his delivery round "one complete pleasure." He has it fitted to the normal type of trade delivery cycle, with a huge basket at the front for the shoes. Apparently it has caused a good deal of interest among his customers and friends.

* * *

Cyclemaster clubs are in the news again. A letter from Mr. Hodgson, of Barnsley, tells me that he has started a club for the Barnsley district which is organising runs through the country and helping beginners to prepare for their driving test. I expect most of the Cyclemaster users in the Barnsley district have seen the article which appeared in *The Barnsley Chronicle* about the club and its aims, but in case they haven't let me just say that it looks like being a pleasant friendly group to join, and if they want to, Mr. Hodgson, of 28 Wilthorpe Avenue, Barnsley will be able to give them all the details. Then up in Scotland we have Mr. Wilson, of "The Wilkins," Kirkgunzeon, Dumfries, starting "The Scottish Cyclemaster Club." He is principally interested in those owners of Cyclemasters who live in Dumfries and Galloway but no doubt he would be pleased to hear from others throughout the country who are interested in the project.

* * *

I always think it is one of the most interesting things about travelling the roads at autumn time to keep a watch out for the most recently introduced cars or motor cycles. Just after the Motor Show one gets one's first glimpse of a new Austin Cambridge or perhaps the latest Wolseley. Well, of course, just after the introduction of the Cyclemate I was keeping both eyes skinned looking for the first one. And when I saw it what a pleasant picture it made! A young chap sailing up a fairly

steep hill, very much the proud owner and with a look on his face that would make one think he wished for nothing better than his new mount. I wanted to stop and speak to him but it happened at one of those awkward times when I just hadn't a moment to spare. Have you seen your first yet?

* * *

An interesting tip has been sent to me by Mr. Leslie Clarke of Chelmsford. He tells me that when riding the Cyclemaster he used to become rather tired in the legs through concentrating on maintaining the right pedal position (as described in the instruction book) and at the same time making sure that he did not back-pedal and therefore inadvertently apply the brake. Quite by accident he discovered that when his raincoat was strapped over the crossbar of the machine it gave his knees something to grip and relieved the strain considerably. If anyone else has this trouble they might try carrying something on the crossbar and see if it helps them. Mr. Clarke says it makes a world of difference to him. Our test riders' opinion is that it definitely helps on a long level "no-pedal" trip but may get in the way when you have to help the motor along a little. It seems to depend therefore on what your regular run is.

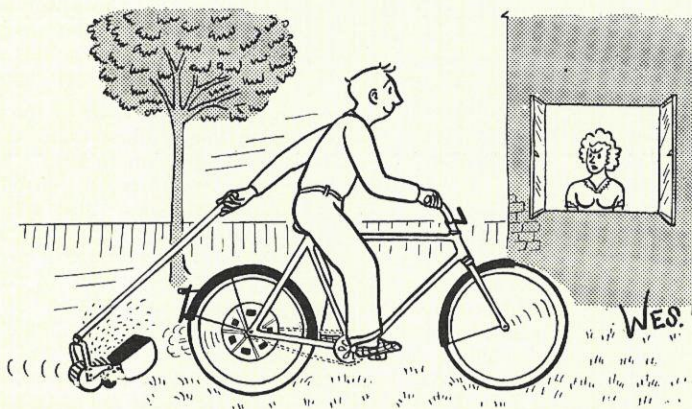
* * *

There is a reference in the Editor's leader to a new club for cyclemotor owners which is planning to hold

weekend runs into the country and organise races. Well, we have had our say about the racing part of it, but if there are any of our readers in London who are interested in the tours and would like to know more about the club, they should get in touch with Mr. J. Smith who is the Secretary. The club is called The Half Hundred Club and it is open to owners of machines of any type which have an engine capacity up to 50 c.c. Mr. R. Banfield, who is the Vice-Captain, is a Cyclemaster owner and he tells us that he would very much like to welcome some more into the organisation. The address is 193 King's Cross Road, London, W.C.1.

* * *

YET another letter from someone interested in starting a Cyclemaster club has arrived on my desk. It is from Mr. Cecil Davey of 8 Afghan Place, St. Clement's Hill, Norwich. He would be glad to hear from any owners in the Norwich district who are interested. The Power Assisted Cycle Club of London (3 Clack Street, S.E.16) have also written to tell me that as many of their prospective members will not be requiring their touring service they have decided to lower their fee to five shillings a year with a small charge for any members who do wish to avail themselves of the service. This club is now an established organisation with quite a following. They will give a warm



welcome to any Cyclenaster owners in the London area.

* * *

When a journalist pays a compliment, it is usually well thought out first, because he knows that what he writes will be seen by thousands, a good proportion of those thousands being ready to jump on his neck if he makes a fool of himself. When a technical journalist does the same thing, it is likely to be all the more carefully considered because he knows that his readership is an enthusiastic one which will respect the words of one who has wide experience. Thus it is particularly gratifying for us of Cyclenaster to read the following passage from *The Motor Cycle*.

"I am mildly surprised at the performance of some motorised cyclists. For over three years a friend who owns a Cyclenaster has cycle-motored 37 miles a day for five and, occasionally, six days a week. The total distance is thus in the region of 30,000 miles. His first engine was pensioned off at 20,000 miles to be replaced by another of the same type. Time for each 18½-mile trip is approximately 65 minutes. Rear-tyre mileage is usually about 10,000, which relatively short life may be the result of the tube being slightly under-inflated to provide a greater measure of comfort. At the recommended pressure of 40 lb./sq. in., the ride is somewhat uncomfortable. Fuel consumption averages a genuine 200 m.p.g. No replacements have been made to the bicycle to which the unit is fitted. The first engine required only a new final drive chain, new rubbers in the cush hub, new magneto points and new piston rings during its working life. Cost of the replacements, plus one new front tyre, one new rear tyre (each new wheel unit includes a tyre) and the replacement engine totals almost exactly £30. Total cost of fuel and oil works out about £40 9s. 6d., for the three years. Tax and insurance for the period totals £4 13s. All-in running costs, therefore, work out at 0.6d. per mile. When I travel to and from the office by bus and train, the return fare is 4s. 8d.—or 1.75d. per mile of the 32 miles covered. In other words cyclenastoring need cost only about a third of the

expenditure on fares. And, of course, the convenience of having personal transport can hardly be calculated in monetary terms."

* * *

There seems to be quite a divergence of thought about how fast a power-assisted cycle should go and what power it should be made to develop. The line we take has been outlined in the editorial of this issue but we thought our readers would probably be interested to see what other people are thinking and doing about it. The following passage appeared in *Power and Pedal*.

"The news that the German cyclenastor industry has taken a stand against what their trade paper teutonically describes as 'The undisciplined development of the Moped' is interesting to all cyclenastorists as a pointer to the necessities of present-day conditions on the roads of all civilised countries.

"The Technical Committee of the industry's national organisation has decided to order all members of the association to so modify their autocycle and cyclenastor engines as to establish a designed maximum speed of 25 m.p.h. and recommends also that advertising should exclude references to speed and power output. With this line I am in entire agreement as I believe that the best interests of the cyclenastorists themselves are to be served by the production of units with modest maximum speeds for comfort and safety; modest maximum power outputs, for long life and economical maintenance; and reasonable gearing, for good hill climbing and load pulling.

"What is particularly interesting, however, is the fact that the expressly stated reasons for this action on the part of the German manufacturers' union are firstly, that unrestricted development toward high speeds will sooner or later force adverse legislation, which in that country would mean a very serious loss of privilege, and secondly, that high performance must bring about higher production, spares and repair costs which will be going against the very things that made the cyclenastor an economic proposition and founded its popularity."

SOME OF THE 1,400 POINTS WHERE YOU CAN GET GOOD CYCLEMASTER & CYCLEMATE SERVICE

Many readers have asked us to publish a list of all dealers from whom they can obtain service and parts: that we are afraid, would occupy too many pages. On the other hand, there are many dealers who wish to adverti se such service, and here is a list. Dealers who wish to be included can obtain full details from Cyclemaster Ltd.

| | Telephone | | Telephone |
|--|------------------------|--|-----------|
| BEDFORDSHIRE | | | |
| BEDFORD. J. P. Simmons & Sons Ltd., 43-49 Tavistock Street. | 2984 | | |
| LUTON. Dickinson & Adams (Luton) Ltd., Bridge Street. | 3535 | | |
| BERKSHIRE | | | |
| READING. Great Western Motors (A City Motors, Oxford, Branch), 12-14 Station Road. | 3036 | | |
| CORNWALL | | | |
| ST. AUSTELL. R. S. Damerell & Son, Whitemoor and High Street, Nr. St. Austell. | — | | |
| DERBYSHIRE | | | |
| DERBY. Kennings Ltd., Queen Street. | 40211 | | |
| DEVONSHIRE | | | |
| PLYMOUTH. P. Pike & Co. Ltd., 88 Union Street. | 3108 | | |
| EXETER. B. R. Warne, Bottom of South Street | 55108 | | |
| DURHAM | | | |
| DARLINGTON. White Bros. (Darlington) Ltd., 205-209 Northgate. | 2379 | | |
| ESSEX | | | |
| CHELMSFORD. County Motor Works (Chelmsford) Ltd., Duke Street, (Opposite Station). | 3674/5 | | |
| ROMFORD. Kenistons, Victoria Road. | 6283 | | |
| HAMPSHIRE | | | |
| ANDOVER. Anna Valley Motors, (Andover) Ltd., Bridge Street. | 2344/5 | | |
| ROMSEY. Davidson's, Bell Street. | 2109 | | |
| HERTFORDSHIRE | | | |
| HODDESDON. Norris's, 16 Amwell Street. | 3266 | | |
| NEW BARNET. Lawson Pigott Motors Ltd., 181/6 East Barnet Road. | BAR 2353 | | |
| ST. ALBANS. Grimaldi Bros. Ltd., 188 Hatfield Road. | 5595/6 | | |
| WELWYN GARDEN CITY. Dickinson & Adams Ltd., Bridge Road. | 32623 | | |
| KENT | | | |
| ASHFORD. C. Hayward & Son, 20-46 New Street. | 334 | | |
| BROMLEY. Davis & Hill Ltd., Ravensbourne 101 Bromley Common | 2634/5 and 30.0 | | |
| BROMLEY. H. E. Hills & Son, 481 Bromley Road, Downham. | HIT 4197 | | |
| CHATHAM. The Chatham Motor Co. Ltd., Railway Street. | 3413/4 and 45865 | | |
| DARTFORD. E. C. Bate, 62 West Hill and 32 Lowfield Street. | 2748 and 3548 | | |
| FOLKESTONE. Martin Walter Ltd., 235-241 Cheriton Road. | 3103 | | |
| SEVENOAKS. Angus Motor Cycles, (A. S. Herbert), 4-7 Station Parade. | 3338 | | |
| LANCASHIRE | | | |
| BOLTON. Bradburys, 55 Bridge Street. | 5781 | | |
| LIVERPOOL. 1. J. Blake & Co. Ltd., 110 Bold Street. | Royal 6622 | | |
| LANCASHIRE (cont.) | | | |
| LIVERPOOL. 2. Bob Sergent Ltd., Moorfields. | Central 7398 | | |
| MANCHESTER. Graham Bros. (Motors) Ltd., 7-15 Peter Street. | Blackfriars 9887/8/9 | | |
| MANCHESTER. Tom Mellor Ltd., 274 Deansgate. | Deansgate 6181/2 | | |
| MANCHESTER, 20. Saxon Jefferis Ltd., 674 Wilmslow Road, Didsbury. | Didsbury 3446 and 5340 | | |
| PRESTON. Barton Motors (Preston) Ltd., Corporation Street. | 3203 | | |
| URMSTON. Jack Bamford, 114 Flixton Road. | 2388 | | |
| LEICESTERSHIRE | | | |
| LEICESTER. A. & P. Radio & Cycle Stores, 15-17 Knighton Fields Road West. | 32731 | | |
| LEICESTER. Batchelor Bowles & Co. Ltd., 60 London Road. | 60268 | | |
| LEICESTER. Reader's, 61/63 Aylestone Road. | 59554 | | |
| LEICESTER. Smith & Parker, 75½ Narborough Road. | 65360 | | |
| LINCOLNSHIRE | | | |
| GRANTHAM. Grantham & District Motor Cycle Centre, 6 London Road. | 789 | | |
| LONDON | | | |
| EAST DULWICH. Bellamy's, 3 Lordship Lane, S.E.22. | New Cross 0666 | | |
| HAMMERSMITH. Lawson Pigott Motors Ltd., 320/22 King Street, W.6 | RIV 4111 | | |
| LEE GREEN. Penfold Motors, 2-22 Burnt Ash Road, S.E.12 | 1202/3/4/5/6 | | |
| WALTHAMSTOW. Jack Nice, 129 Grove Road, E.17. | Coppermill 1920 | | |
| MIDDLESEX | | | |
| NORTHWOOD. Colliver Fisher at Northwood Ltd., 14 Station Parade. | 777 | | |
| POTTERS BAR. F. W. Andrews, 6 Hatfield Road. | 4410 | | |
| NORTHAMPTONSHIRE | | | |
| NORTHAMPTON. Grose Ltd., Marefair. | 31682 | | |
| NORTHUMBERLAND | | | |
| NEWCASTLE-ON-TYNE. George & Jobling, Forth Street. | 23105 | | |
| NOTTINGHAMSHIRE | | | |
| MANSFIELD. W. S. Humphry Ltd., Albert Street. | 1205 | | |
| OXFORDSHIRE | | | |
| HENLEY-ON-THAMES. City Motors Ltd., Reading Road. | 1115 | | |
| COWLEY. Oxford. P. Church, Hollow Way. | Oxford 77094 | | |
| OXFORD. City Motors, Gloucester Green. | 2231/2/3 | | |
| STAFFORDSHIRE | | | |
| BILSTON. Hines of Bilston, 29 High Street. | 42200 | | |
| SURREY | | | |
| CROYDON. Westbrook & Marley Ltd., 14-16 Park Street. | 2061 | | |

Continued opposite

SOME OF THE 1,400 POINTS WHERE YOU CAN GET GOOD CYCLEMASTER & CYCLEMATE SERVICE

(Continued from opposite page)

| | Telephone | | Telephone |
|--|--------------------|---|-----------------|
| SURREY (cont.) | | YORKSHIRE (East) | |
| FARNHAM. Heath Bros., 119-120 East Street. | 6477 | HULL. Jordan & Co. (Hull) Ltd., Story Street. | 36809 |
| GUILDFORD. Stanley Godfrey & Co., Onslow Street and Bridge Street. | 2212 | YORKSHIRE (North) | |
| REDHILL. W. & L. Wheeler Ltd., 17-19 Cromwell Road. | 938 | YORK. Bensons for Bikes, 45 Goodramgate. | 2702 |
| RICHMOND. Grand Garages (Richmond) Ltd., The Circus, Kew Road. | 3833 | YORK. North Riding Motors Ltd., Clarence Street. | 3220 |
| WARWICKSHIRE | | YORKSHIRE (West) | |
| BIRMINGHAM, 6. Aston-Auto-Motors, 173/177 Aston Road. | ASTON Cross 3201/2 | LEEDS. Rowland Winn Ltd., County Garage, Woodhouse Lane. | 32221 (6 lines) |
| BIRMINGHAM, 14. H. Jones, 1052 Yardley Wood Road. | War. 2554 | SHEFFIELD. Frank B. Roper Ltd., 158 London Road. | 51011/2 |
| BIRMINGHAM, 27. Smith's Garage, (Acocks Green) Ltd., 164/6 Yardley Road, Acocks Green. | 1079 | WAKEFIELD. J. B. Smith, 26 Wood Street | 3146 |
| BIRMINGHAM, 4. Whitworth's, 145 Corporation Street. | Central 3965 | SCOTLAND | |
| COVENTRY. Frettons of Coventry, 4 Fretton Street, Off Corporation Street. | 62919 | S.M.T. Sales & Service Co. Ltd., All Branches. | |
| LEAMINGTON. Frettons of Leamington, 15 Clemens Street. | 338 | GLASGOW. John MacLean, 378, Cathcart Road. | Pollock 2823 |
| WARWICK. J. L. Vaughan, 9 Old Square. (Also at Leamington and Kenilworth). | Warwick 621 | WALES—DENBIGHSHIRE | |
| WORCESTERSHIRE | | GLAMORGAN | |
| WORCESTER. H. A. Saunders Ltd., 34 Foregate Street. | 2495 | CARDIFF. Glanfield Lawrence (Cardiff) Ltd., 2-10 City Road. | 20531 |

A NEW ENGINE OIL

FOR YOUR CYCLEMASTER

Our engineers have put an entirely new oil to severe and lengthy testing on road and bench and have found results so consistently outstanding, that we have arranged to market it. Our tests have proved that it not only possesses the highest lubricating qualities, but also gives maximum power minimum carbon deposit in cylinder head and clogging of exhaust ports and silencer.

A user writes "Since using Cyclemaster oil my mileage between decarbonising has gone up enormously. When using ordinary oil I decoked about every 1,000 miles. With your oil my unit maintains its top performance up to and over the 2,000 mark. When stripping my engine down after 2,150 miles, I found very little carbon in inlet ports, the rings quite free and the carbon on piston much softer."

E. J. Frodsham



3/10
QUART TIN

CYCLEMASTER SUPERFINE OIL

(Manufactured by T. PARRY & CO. LTD.)

Obtainable from all Cyclemaster Dealers

CYCLEMASTER LTD., 38a St. George's Drive, Victoria, London, S.W.1

TIPS *worth* REMEMBERING

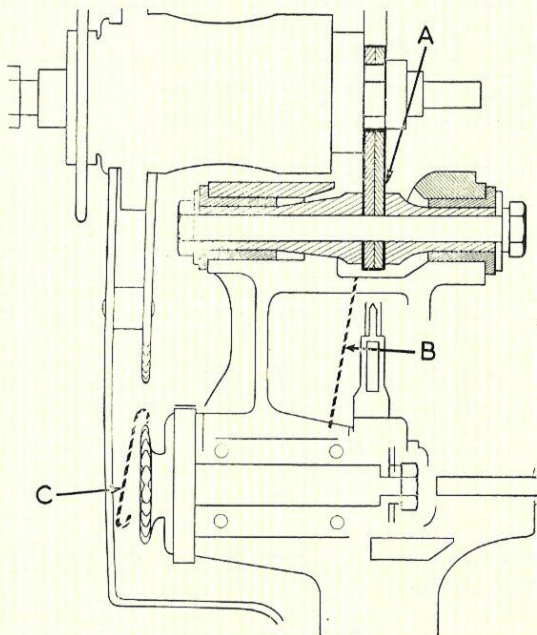
By
The Engineering Manager

Adjusting the Secondary Chain

In the owners' instruction book, we emphasise the importance of correct secondary chain adjustment, and we again bring this to your notice, at the same time pointing out that a tight chain is more much serious than a slack one. When carrying out the chain adjustment, it is important to allow for the chain tightening, as the wheel spindle locking nut and hub nuts are tightened on to the forks. During tightening of the spindle nut, a constant check should be made on the chain tension, and if there is any sign of the chain becoming much too tight, the eccentric should be rotated a little to slacken the chain before finally tightening the spindle nut. The illustration shows what happens when the chain is too tight. It lifts the clutch shaft sprocket towards the chain wheel and consequently brings this sprocket nearer to the inside of the drum. "A" shows the engine suspension bracket, the face of which should be square to the wheel spindle. "B" shows the misalignment which can occur and "C" indicates the new position taken up by the clutch shaft sprocket. If the chain is too tight, it is possible

for the engine mounting bracket to become permanently distorted, and this in turn, puts the chain sprockets out of line.

It will also be seen from the illustration that any slackness of the main engine mounting bolt will cause the engine to rock over and again put the chain out of line. If there are any signs of engine looseness or chain misalignment, the first thing is to check that the main engine mounting bolt is tight. If it is loose, keep a careful check on the chain tension when you are tightening the main bolt. Again, if the chain becomes too tight, slacken it by rotating



This illustration shows how a bent suspension bracket (A) or loose engine mounting bolt can cause a slack secondary chain; on the other hand, a tight chain pulls the engine to the left.

Are you a

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The control lever is mounted on front end of cross bar or in the case of an open frame bicycle at the top of the down tube and registers by lever in three positions—left, centre (neutral) and right. The lighting is arranged for connection to the 6-volt supply generated by the motor unit.

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the eccentric before any damage can be caused by too tight a chain. When all is tightened up, make a final check on chain adjustment and wheel bearings, and if further small adjustments are required, these should be carried out before taking your machine on the road.

“Drying-up”

The term “drying-up” is given to the sort of engine failure which is caused by shortage of fuel in the carburettor. The symptoms of this sort of fault, are complete engine failure, after a short distance on a wide throttle opening, such as when you are travelling fast or climbing a hill. During this time, consumption is at its highest and if there is any blockage in the petrol supply, it will show up mostly during these conditions. Very simple faults can cause this sort of failure and it is usually easy to rectify when the following routine is adopted:—

- (a) Blockage of the vent hole in the petrol filler cap will cause an air-lock in the tank, which prevents fuel flowing through the tap. This is always very noticeable when the tank is nearly full.
- (b) A kink in the flexible petrol pipe will obviously prevent free flow of the petrol. External examination of the pipe will show quite clearly whether this is the cause of the fault.
- (c) There is a filter in the tank on top of the petrol tap. We cannot imagine this becoming blocked unless dirty fuel has been added to the tank. In any case, a very easy check can be made by pulling the flexible pipe off the tap or carburettor, and then turn on the tap. If the petrol flows easily, there is no blockage inside the tank.
- (d) In the case of the B.E.C. carburettor, the other filter is inside the bolt of the Union Banjo on top of the carburettor. If its location is not known, this filter is often overlooked. Reference to the owners' instruction book,

will show quite clearly how it can be taken out for cleaning.

Exhaust Nut Locking Clip

It has been found that in the case of some Cyclemasters used on bumpy roads, there is a tendency for the exhaust pipe flange nut to work loose from the cylinder. When this happens, the exhaust system falls down, and contact with the road can cause considerable damage to the exhaust pipe itself, and sometimes, the crankcase in the area to which the exhaust system is fastened. To prevent any further possibility of this happening, we have recently introduced on all new machines, a locking clip which clamps on to the front exhaust pipe, and the tongue of this clip projects into one of the notches on the nut. The modification can be carried out on all Cyclemasters from the beginning, simply by the purchasing of a clip—Part No. R.44, price 6d.

To fit the clip, first of all tighten the flange nut securely; then remove the screw and nut from the clip itself; bend out the clip slightly so that it can be pushed over the front pipe, so that the tongue of the clip faces the cylinder. Refit the screw and nut, and then slide the clip up to the cylinder, so that its projection fits into one of the slots in the nut. Finally, tighten the screw so that the clip is locked on to the pipe.

Petrol Tap Position

It is unnecessary to remove the petrol tap from the tank of your Cyclemaster very often but if you do it is important when refitting it to get the operating lever in the centre of the hole in the carburettor cover plate. When refitting the tap place the lever as near as possible to its correct position and then tighten the locking nut. If, after refitting the carburettor cover plate, it is necessary to alter the position of the tap make certain that you slacken the locking nut before attempting to rotate the body of the tap. If you move the tap by force it is more than likely that the seating will be damaged and a petrol leak caused. It is not always possible to rectify this type of leak without replacing some of the parts of the tap union.

Pitman's Motor-Cyclists' Library

THE BOOK OF THE CYCLEMOTOR

By F. LEIGH

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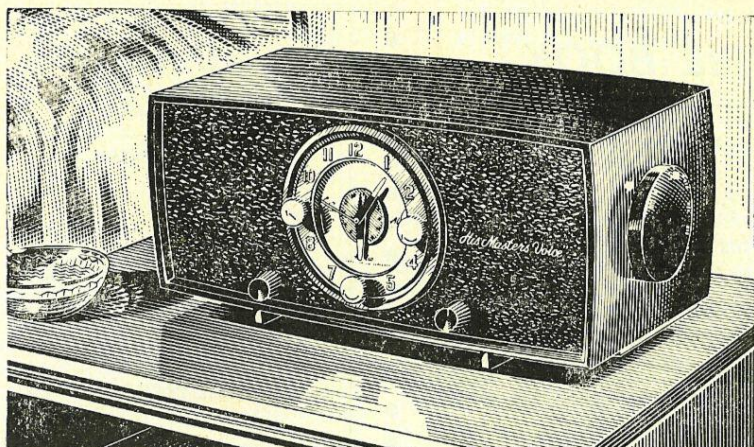
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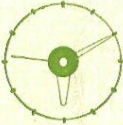
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