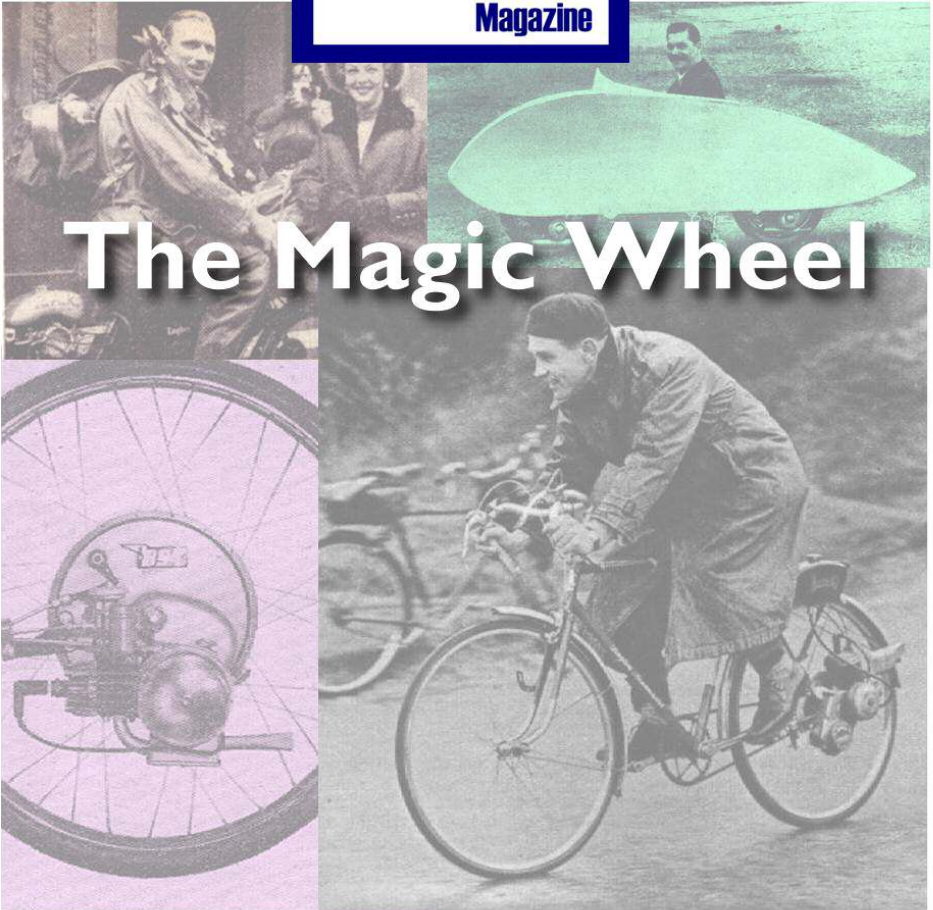
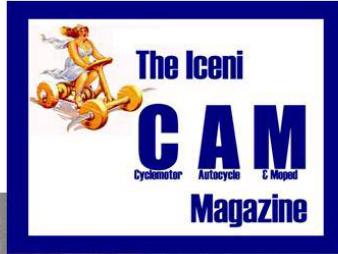


IceniCAM Information Service



The Magic Wheel

The

Magic Wheel

A QUARTERLY MAGAZINE FOR CYCLEMASTER OWNERS



VOL. 1

NO. 4

6^d

JANUARY 1954

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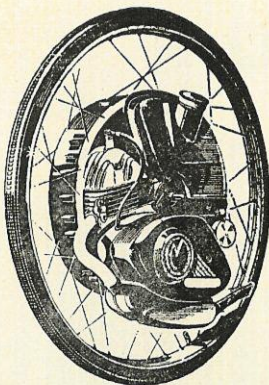
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**VOL. 1
NO. 4**

**J A N
1954**



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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.*

Do You Tinker?

We have recently read, with considerable interest, a number of articles in which the writers discussed to what extent, if any, it is desirable for the owner of a cycle-motor to tinker with the engine.

The general conclusion seemed to be—the less the better, unless the owner really has the necessary mechanical knowledge and aptitude. One writer said that ladies, who seldom tinker at all, get the best results.

But surely so much must depend upon what is meant by “tinkering”? We are all against the practice of taking things to pieces and putting them together again just for the fun of the thing, because that never did anything but harm to any kind of engine. On the other hand, we are all for the conscientious carrying out of ordinary routine maintenance jobs, yet some of those might fall under the general heading of “tinkering”—the adjustment of the contact breaker points is an example which readily comes to mind.

There are very few regular maintenance jobs to be done, especially on the Cyclemaster engine, and such as there are are well within the capa-

bilities of anyone with ordinary intelligence. The methods are fully and simply described in the Instruction Book, and amplified by articles in this magazine. Most owners get a very real kick out of making some small adjustment and noticing the resulting improvement in performance.

It is much the same with those occasional spots of bother which are inevitable with any piece of machinery made (and used!) by human beings. The little things which might cause a stoppage are simply explained in the Instruction Book—together with hints on how to put things right quickly.

With regard to any other kind of work on your engine, our advice is—do not attempt anything unless you are absolutely sure what you are doing, why you are doing it, and how it should be done. No matter how mechanically-minded you may be, do not tinker beyond the Instruction Book stage unless you have by you a copy of the Workshop Manual, which not only tells you how to do everything which could possibly need doing to Cyclemaster, but also describes the special tools and illustrates their uses.

CASH PRIZES for SNAPSHOTS

An invitation to all readers of *The Magic Wheel*



Here's a snapshot from Regent Street, London. The owner of the Mercury Pillion model and his wife both work in the West End, and travel up from the outer suburbs every day. On fine evenings they go for pleasure trips of forty or fifty miles.

The snapshot was taken by a reader who assures us that he is a complete amateur.

We want you to send us your snaps, and will pay a guinea for every one that we publish in "The Magic Wheel." If, in the opinion of the Editor, any photograph is outstanding, a higher fee than one guinea may be paid.

Generally speaking, we like to see a Cyclemaster being used in an unusual way, or against an interesting background, but that is by no means essential if the picture is good. Please send only snaps which you yourself have taken, and if other individuals

appear in them, do get them to write on the back of the print, "This picture may be used for general publicity purposes," and sign it.

Y.H.A. HOSTELS

We published in our last number a statement by the Youth Hostels Association explaining why members riding power-assisted cycles are not allowed to use the hostels. It was pointed out that the rule is "under your own steam," and that this policy is laid down by the members themselves.

This matter was brought up again at the annual meeting of the Lakeland Regional Group on November 29th last, when a specific proposal that cyclemotorists should be allowed to use the hostels was rejected. The voting was, however, very close, the figures being 54 for the proposal and 61 against it.

Putting us on the MAP

By Laurence Burge

Photographs reproduced by permission of The Ordnance Survey. Crown copyright reserved.

Accurate map-making depends almost entirely upon the simple geometrical fact that you cannot alter the shape of a triangle.

Look at any girder bridge, or the skeleton steelwork for any new building, and see how engineers rely upon the rigidity of the triangle.

Tell a hundred draughtsmen to draw a triangle with a base of four inches and base angles of 40 degrees and 60 degrees, and you will get a hundred identical triangles. If they all follow instructions, not one of those draughtsmen can alter the lengths of the two sides, or the angle at the top.

Locating a Tree

The cartographer of old used triangles, but did not work quite so scientifically as do the experts today.

Imagine—to take a very simple example—that he had to fix the position of a tree in a square field. First, he would measure one side of the field. Then he would measure the distance from one corner to the tree. He would then go along to the next corner, and measure the distance to the tree from that point. Those measurements would give him a triangle, and when he plotted the field on paper, the apex of the triangle (drawn to scale, of course) would give him the location of the tree.

Modern map-makers rely more upon calculations than measurements, but they have to start with a base-line for their first triangle, and that base is actually measured. A measuring tape of invar is used, invar being a metallic alloy which is little affected by heat or cold. In spite of this, they are rather careful when



One of the towers erected for triangulation when there are no hills or mountains about.

measuring that base-line, because so much depends upon it, and the readings are scientifically corrected for (1) manufacturing error in the tape, (2) sag due to the weight of the metal, (3) the exact temperature at the precise moment when each section of the line is measured, (4) height above sea-level.

The result of this extreme care is such accuracy that if the distance



between two points be shown at 2,000,000 metres, the actual distance will be between 1,999,999 and 2,000,001 metres. (All map-making is done in metres, because the metric system is easier for long and involved calculations.)

What is sea-level?

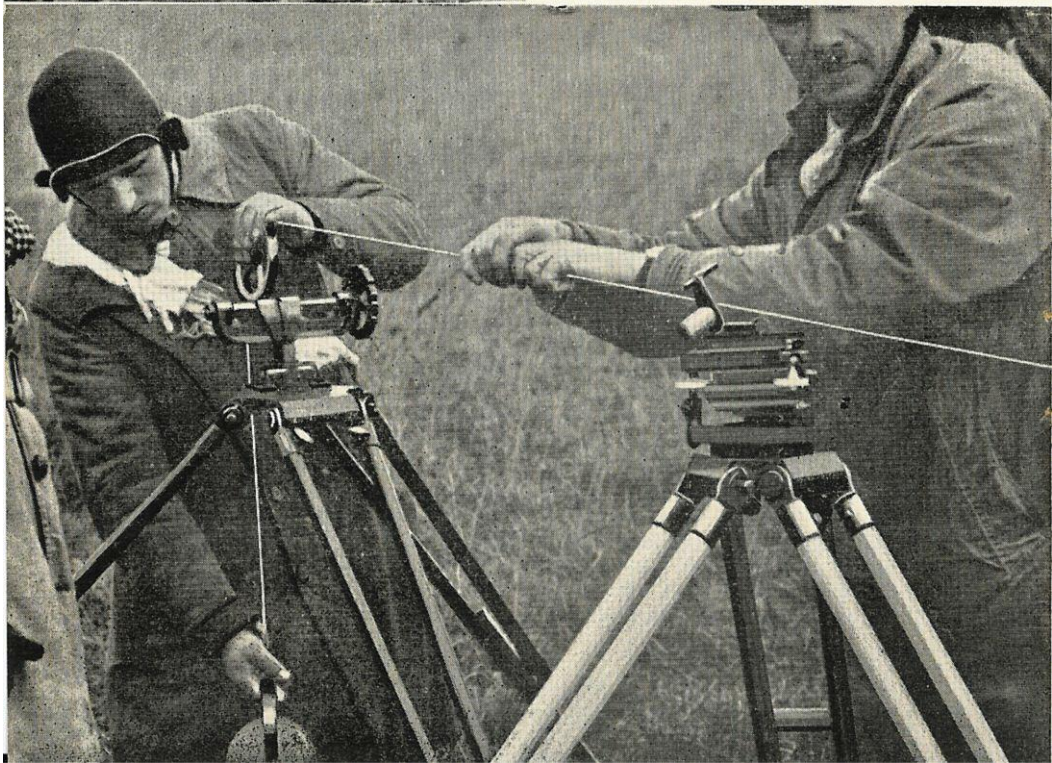
To you and me, sea-level means, simply, the level of the sea, a sort of zero, or starting-point, where waves meet sand. But that level may vary by anything from eight to twenty feet between high and low tides, depending on local conditions, twice a day. Round the Isle of Wight there are four high, and four low, tides every day.

In the early days, official sea level was rather a rough-and-ready business. Observations were kept at Liverpool for two weeks, and a mean struck between high and low tides during that period.

Some years ago it was decided that this was not good enough, and a tidal

Right: An observer at work at a "trig. point".

Below: Measuring a base line; there's one on Salisbury Plain and one in Scotland.



has been constructed, calculations give the exact length of each side. Then these sides, are, in turn, used as base-lines, and further triangles thrown out to other landmarks. These provide other sides to be used as bases, and so it goes on until the whole country is covered with a network of major triangles, every corner of every one locating some feature of the landscape. From this main network more and yet more triangles are thrown out, and gradually the "flesh" of the map is added to the bones.

The actual triangulation of Great Britain is built up upon two base-lines—one on Salisbury Plain, the other in Scotland.

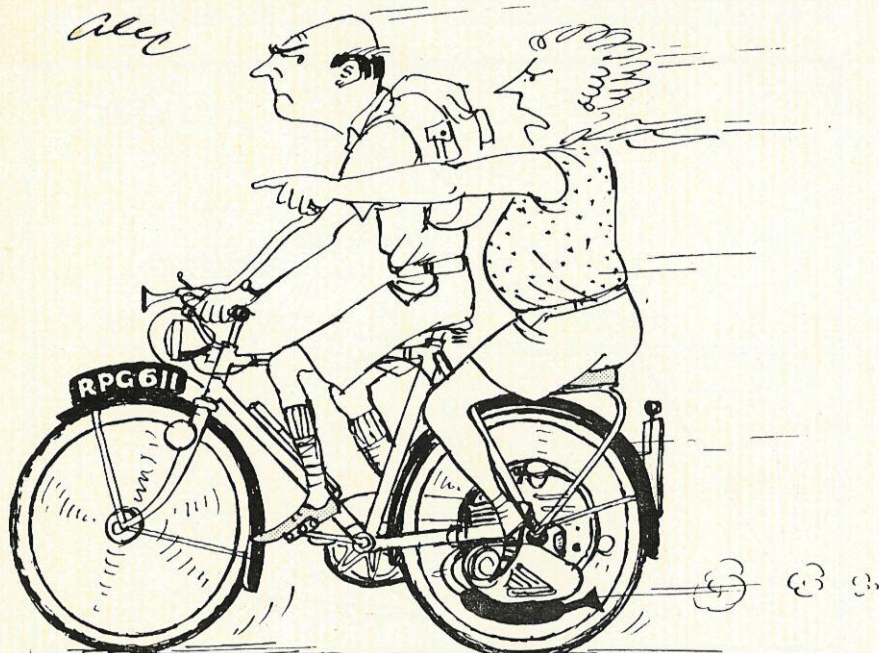
If you have one of the famous inch-to-the-mile Ordnance Survey maps, you will see the corners of the main network of triangles marked. Each is known as a "trig. point," and the map symbol is a tiny triangle with a dot inside it. There are over 10,000 of them altogether.

As you will see from the section

of the triangulation diagram reproduced, each trig. point forms a common corner for several triangles. So that while a map-making party is on any particular summit, the angles to all the related trig. points are read. Each angle is read thirty-two times, and then the mean is taken—thoroughness again.

Just as by reading angles, it is possible to fix the position of a landmark, so, by working in a vertical instead of a horizontal plane, it is possible to ascertain heights. Starting from their fixed point, the experts measure first one neighbouring high point, then another, and so on. They run what they call "lines of levels" in all directions, gradually working inwards. They correct all errors as they go, and set up what are known as "bench marks," indicating height above sea-level at those points.

So next time you stand on Snowdon summit, and wonder how the 3,560 feet were measured, remember that, beginning at Newlyn, the map-makers worked their way to it.



"Mind what you're doing! Be careful! Watch that lorry!"

“MAKE and BREAK”

By
The
Engineering
Manager

I'm not going to say a word in this article about how to clean and adjust the “make and break,” or contact breaker, points of your ignition system. That is fully described in the Instruction Book.

What I do want to do is explain why this piece of tiny mechanism is so important and so—if you haven't taken much interest in it in the past) perhaps encourage you to do so in the future.

The power which propels your Cyclemaster along the road is the result of a series of very rapid explosions. A mixture of petrol and air is drawn into the combustion chamber and fired by a spark which jumps across the points of the sparking plug. When this mixture burns it expands, and pushes the piston down. When you are going at around twenty miles an hour these explosions occur thousands of times a minute.

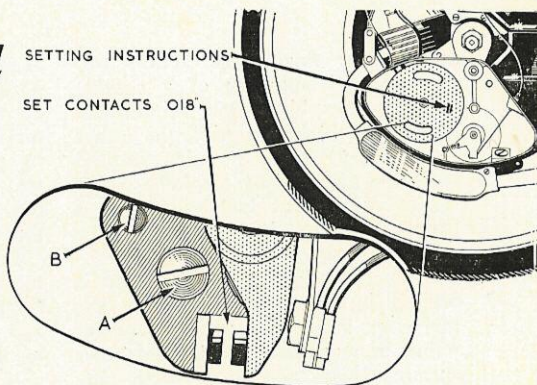
What causes the sparks to jump, and jump at the exact moment? Obviously, they wouldn't do much good if they jumped every time the piston was at the bottom of the cylinder.

How it All Happens

Let's take the generation of the spark first, and leave the timing of it until later.

Your magneto consists of two main parts. One remains still; the other revolves. This revolving one has embodied in it powerful electro magnets; and because it revolves it is known as the “rotor.”

On the stationary part—the stator



What the contact breaker assembly looks like on the latest magnetos.

—is the ignition “coil,” which, in fact, contains *TWO* coils of tightly-wound fine wire, known as the primary and secondary coils. They are not connected in any way except that they both run to the same earth.

12 to 10,000 Volts

As the magnets of the rotor whirl around the primary coil, they set up in it an electric current. No one can explain simply why they should do this, but they do. This current is of quite low voltage, or pressure—far too low even to make the attempt to jump across the gap of a sparking plug. Therefore, in some way, the voltage has to be stepped up very considerably, and this is where the secondary coil comes in. It was discovered, long ago, that if you have two coils of wire around a metal core, with a low voltage current passing through one of them, and suddenly cut off that supply, a secondary current is set up (“induced” is the technical word) in the adjoining coil, even though they are not connected in any way. The voltage of this induced current depends upon the thickness and length of the wire in the secondary coil in relation to that in the primary. Believe it or not, a current of twelve volts can be increased to one of ten thousand volts—enough to jump those spark plug points!

Now you see where the contact breaker comes in. It does just what its name says. If you hold your forefinger and thumb together and keep

moving the finger, the action will give a good imitation of a contact breaker assembly. One arm of it (your thumb) stays still; the other (your finger) keeps hopping to and fro. It is operated by a spindle which is not round, but has bumps on it (cams). These bumps cause the movable arm to rock on a pivot.

Right. The low pressure current is set up in the primary coil by the magnets. When the contact breaker points are together, that current flows through them, and so to earth (any handy metal part of the engine).

Forced to Jump

When the contact breaker points are open, the circuit is broken, and the low current finds its easy way to earth barred. The immediate result is that terrifically high current in the secondary coil, which, very cunningly, is connected to the sparking plug. The only way that current can get to earth is across the points of the plug, and that is the way it is forced to take; it jumps them, as a spark, and in so doing fires the mixture.

There is nothing you have to do, or could do, about either coil. If one breaks down, that is that—but in a fairly long engineering life I have known only a few instances of coil failure.

Apart from keeping all connections tight, there is very little else you have to do to the magneto, with the exception of the contact breaker. Where that is concerned, your personal attention can mean a lot.

Gap must be Right

The most important thing is to make sure that the gap, when the contact breaker points are open, is exactly right. This is a job well within the capabilities of most people, and fully described in the Instruction Book. Please check this adjustment at the stated intervals, or whenever the engine is being a little difficult, either in starting or pulling.

Let's look at it logically for a moment. If those points hardly open

at all, the low current may tend to jump across them (electricity is notoriously lazy, and will always take the easiest path to earth). If that happens, you will get a spark where you don't want it, which will cause burning and pitting of the points and throw things into utter confusion.

If, on the other hand, they open too far, there will be two evil results. First, they may never close properly, and the low current will not be able to flow when it should be flowing.

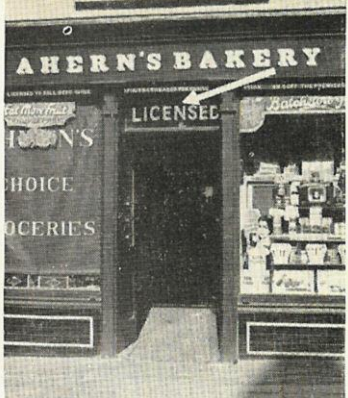
If they open too far, it stands to reason that they will remain open too long. This alone will upset the timing of the sparking arrangements. Worse still, however, too wide a gap means that the moving arm will bounce at high speed—and then your timing will really be all out.

Keep the Points Clean

The other thing to remember is that the contact breaker points must be kept absolutely clean. If they have oil or water or dirt on them, they may be insulated from one another so that they never make contact. The best way to clean them (if it is merely a matter of cleaning) is to put a piece of stiffish paper between them, press the points together, and pull the paper through. If they are burnt or pitted I wouldn't advise you to try to do anything about it unless you are an electrician.

There is one other part of the magneto which I have not yet mentioned—the condenser. This consists of strips of conducting material alternating with strips of insulation, all tightly wrapped together and fitted into a cylinder about the size of a lipstick holder. When the contact breaker points are open and the primary coil is "empty" as it were, the condenser retains just enough electricity to prime the pump for next time.

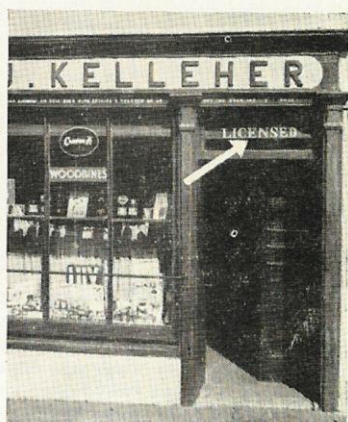
As with the coils, there is nothing you can do if a condenser packs up except fit a new one—but I can assure you that in all my experience I have known very few condensers to fail.



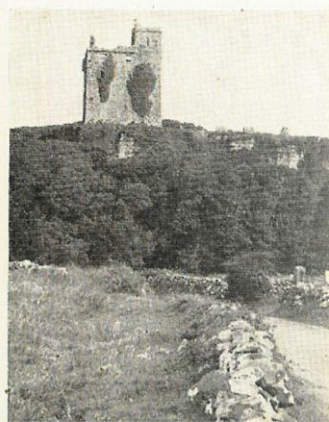
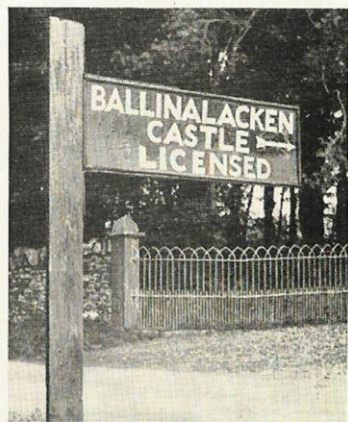
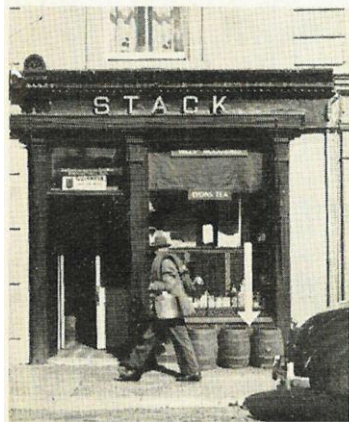
Hairdressers Bakers Cafes

“A PERM *and* A PINT, PLEASE”

There's no difficulty about getting a drink in the Irish Republic, for every conceivable kind of shop seems to have it's bar. Sure, it's a grand country in every other way, too, and if you want to go abroad without going too far, Eire is just the spot. You'll find first-class CyclMASTER service everywhere.



**. . . Outfitters Grocers General Stores
. . . Hardwaremen and even the Castles are Licensed.**



Cyclemaster Clubs.

EDINBURGH GIVES THE LEAD

A brand new club has been formed—and is beginning to grow.

It is the Edinburgh and District Cyclemaster Club, and its purpose is to promote social and educational activities among the many owners in and around Edinburgh.

Anyone who would like to join and participate in the many enjoyable events planned by the Committee should apply either personally, or by letter (enclosing a stamped, addressed envelope) to the Secretary, Mrs. Gertrude Bain, 19 Smithfield Road East, Portobello, Edinburgh.

Apart from a few simple club rules, there are no conditions, except the

obvious one that members must be Cyclemaster owners. Membership costs only 2/6 entrance fee and a yearly subscription of 5/-.

Which very interesting and important item of news leads us on to the subject of Cyclemaster Clubs generally.

Over the past three years or so, many owners have written asking us if we had considered the idea of starting such clubs.

The answer, every time, was "Yes."

As with this magazine, the club idea has been at the back of our minds from the earliest days, but timing is all-important in these things, and we felt it wise to wait until there were sufficient Magic Wheels in use to ensure a healthy membership.

Now that there are over 90,000 owners in this country alone, the time has come. The response to this article will soon show if we are right or not.

Where do we go from here?

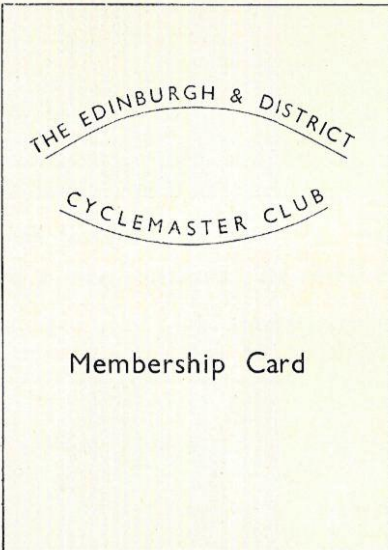
We could, of course, produce a membership card, a book of rules, and a badge, and offer them to anyone who cared to fill in a form. In that way we could get many thousands of members in a few days—and the club wouldn't mean a thing. No club means anything unless the members—each and every one of them—take an active part in forming it, running it, and making a success of it.

That can hardly be done, at first anyway, on a nation-wide scale. But it most certainly can be done in a small way, locally, in all parts of the country—and Edinburgh has shown the way.

What You Can Do

Does the idea interest you? If so, would you like to meet other enthusiasts in your own district with the object of discussing plans, setting up a committee, electing officers, and then going out to get members?

If you'd like to do this, then will you take the first step—and write to us and say so? If you have already sounded some of your friends, and they like the idea, perhaps you'll tell



The membership card—reduced in size—of the new Club, which is going ahead in great style.

This joke appeared in a recent issue of *The Glasgow Bulletin* and is reproduced by kind permission of the Editor.



us roughly how many there are (there is no need to tell us their names yet).

There are right and wrong ways of starting a club. Most people know that as well as we do—but it is surprising how few people know how easy it is if only you go to work the right way. If a sufficient number of owners are interested, we may be able to produce a little leaflet explaining in very simple, everyday language just what has to be done.

You can be quite sure that you will get the fullest support and help from your local Cyclemaster dealer. And behind him, always, will be us. We shall do everything in our power to foster and develop the club. We have already prepared designs for a badge, to be available in two sizes—one for the machine, another as a lapel badge. We will draft the few necessary rules, and will provide membership cards which embody those rules.

We are already looking into all

sorts of interesting possibilities with the object of enabling members to get some tangible material benefits out of the club—in addition to lots of fun.

So far as the fun is concerned, there are club runs to be organised; rallies, with competitions of all kinds; perhaps hill climbs and rough-riding contests for the younger members. There are winter runs, finishing up with a social and informal dance.

And, of course, there is the club holiday. What a grand idea for twenty or thirty enthusiasts to set off on a Continental tour—with every detail arranged beforehand!

It should be pretty apparent that we've a lot of ideas simmering.

But—we alone can do very little without the full and active support of Cyclemaster owners.

Are you ready to make the first move in your district? If so, please write and tell us. We are looking forward to hearing from you.

"The petrol companies are still quite worried about the supply of 'petrol' to the growing army of autocycle and auxiliary users. Some of the little power-assisted bicycles only take about a quart of petrol and oil mixtures, and some filling station salesmen, forgetting that the cyclist of to-day is the motorist of to-morrow, refuse service."—L. H. Cade in "The Star."



THE MAN WITH TWO OF EVERYTHING!

Bill Greaves comes from Leeds, but this picture shows him on his bicycle, but at the age of 60 decided that he needed a trailer to carry camping gear, pots and pans, a trailer, brakes (one for the trailer) and two lighting systems. Two of them will take him almost anywhere a



ture was taken in New Zealand, while he was on his fourth visit to that country. He used to ride on an ordinary bicycle, but he needed assistance. So he equipped a cycle with two Cyclomaster wheels—back and front—and hitched on to it a light trailer for food, clothing and so on; the tent goes on the front. He has to manage two clutches, two throttle controls, three gears. As will be seen, he has two headlights. He uses only one Cyclomaster in towns, but in the open country the other enables him to climb most hills without pedalling. He had already covered 12,000 miles with his outfit (including tours in Jamaica and Australia) when this photograph was taken.

CYCLE-MOTORISTS in RALLY TESTS



This report, and the photograph above, are reproduced by courtesy of the Dublin Evening Mail.

Fifty followers of the fast-growing cult of the cycle motor competed on October 5th in a test-run sponsored by Messrs. Lincoln and Nolan Limited. Beginning at the Phoenix Monument, in Phoenix Park, they covered a 15-mile route through Castleknock, Blanchardstown, Clonsilla and the Strawberry Beds, back to the Monument.

Awards were made to the driver-cyclists who lost fewest marks on starting, braking and hill-climbing tests, and maintained the prescribed cruising speed of 15 m.p.h.

Competitors ranged in age and style from girls of seventeen, wearing semi-racing kit, to men nearing their seventies, in workaday trilbies and overcoats. A remarkably high standard of performance was achieved by the majority over the wide roads and narrow, hilly lanes.

Mr. A. F. Palmer Phillips, director of Cyclemaster Ltd., who had crossed from London, and Mr. H. Martin Brierley, managing director, Messrs. Lincoln and Nolan Ltd. (Irish assemblers of the Cyclemaster) were among interested spectators of the novel event.

Cycle motors in the Republic two years ago were numbered in a few hundred, but today there are 2,100 of them registered. Giving 200 m.p.g. and speeds up to 25 m.p.h., they have replaced bus-travelling by most of their owners, especially in Dublin.

First Class Awards went to the following: N. P. O. Siochain, P. Robinson, Miss Audrey Bonham, G. Henry, P. O'Brien, W. Coyle, P. Kearney, J. Furlong, P. McGrath, C. Robertson, P. O'Brien.

Surprise Awards of £5 each went to Messrs. G. Henry and W. Coyle.

THE THINGS YOU SAY!

We receive many letters every week, and they are all replied to 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 will be set aside for publication in this feature.

Underground Activity

Dear Sir,

When I read the reference to the ancient Roman iron workings in the Forest of Dean in your article "Digging Up History," I was taken back to the days before I owned a Cyclemaster, and was touring that district on an ordinary bicycle. A local boy, about fourteen, told me that in addition to the canyons, which you describe, there were underground passages, which he knew thoroughly. He offered to guide me through some, and, like a fool, I consented. He produced a candle, and led me into a very rough tunnel, which was not high enough to enable us to stand upright. We had hardly gone half a dozen yards when he and the candle disappeared. He had fallen into a pit about five feet deep. I had to lay full length and haul him up. Fortunately, he was not hurt, but only very, very frightened, and he promised me he'd never do such a silly thing again. The end of the story was that when we got back to the opening again my bicycle had gone, and I haven't till this day decided whether the whole scheme—except the disappearance!—was a carefully hatched plot.

London.

L.S.

(When you come to think of it, perhaps it was just as well your bicycle didn't have a Cyclemaster!—Ed.)

We Blush

Dear Sir,

Again the appearance of the excellent *Magic Wheel* prompts me to write. Also, remembering that one is so prone only to complain, I wish to congratulate. The extract from my last letter (about better performance on branded petrol—Ed.) is still correct; since the middle of May the plug has not been changed or removed. An agent recently came to sell me insur-

ance. He succeeded, but I also succeeded in selling him the idea of a Cyclemaster, and he bought one—outright. . . .

Cheltenham.

J.W.

(Thank you, sir, for a very kind letter, and for a first-class piece of salesmanship!—Ed.)

Boots, Boots, Boots

Dear Sir,

A pair of boots under test for the Army, etc., is said to require soling after each three hundred miles. At the present day I pay 13/6 for having a pair of shoes soled. A gallon of petrol with the proper amount of oil costs 5/5. Therefore, to cover three hundred miles on a Cyclemaster you would spend only 8/1½d. (one and a half gallons) which is a saving of 5/4½d. on shoe leather. A very big item! This is one of my pet proofs.

Wigan.

R.R.

(That's something of which you would never have thought. Thank you very much, R.R., for working it all out.—Ed.)

Failing the Test

Dear Sir,

I was most interested to read, in your last issue, the letter from a reader who has been cycling for nearly fifty years and yet was failed on the grounds of "alertness." I read the other day of a lady who was failed because, when asked in what period an accident had to be reported, replied, "Immediately." The trouble was, apparently, that she could not give the exact legal period in hours. There may have been more in it than this—only the examiner can know—but how absurd the whole business is! The potential number of accidents is not reduced in the least. All that failure means is that the individual who is failed has to pay more to the authorities by taking out provisional

licences for successive periods. It is surely high time that the whole farce of "testing" people for their ability to ride cycles that happen to have tiny engines attached was dropped.

Luton.

G.J.S.

(We couldn't agree more. In practically every other country in the world a bicycle is still a bicycle even if it power-assisted, so long as the engine is 50 c.c. or less.—Ed.)

Business Builder

Dear Sir,

I have covered many thousands of miles on my Cyclomaster, in all sorts of weather and on all sorts of roads. Most of these miles were covered in search of business, and it is about this that I am thanking you. The fact that I was using a power-assisted cycle has helped me to get well acquainted with managers, for when the business talk was over they always came out and asked the usual questions about speed, tax, m.p.g., and so on. The only trouble is that business has increased so much that I will not be able to carry a full range of samples,

and must get a car. I shall miss the cheerful throb of the Cyclomaster engine pushing me along the roads.

Belfast.

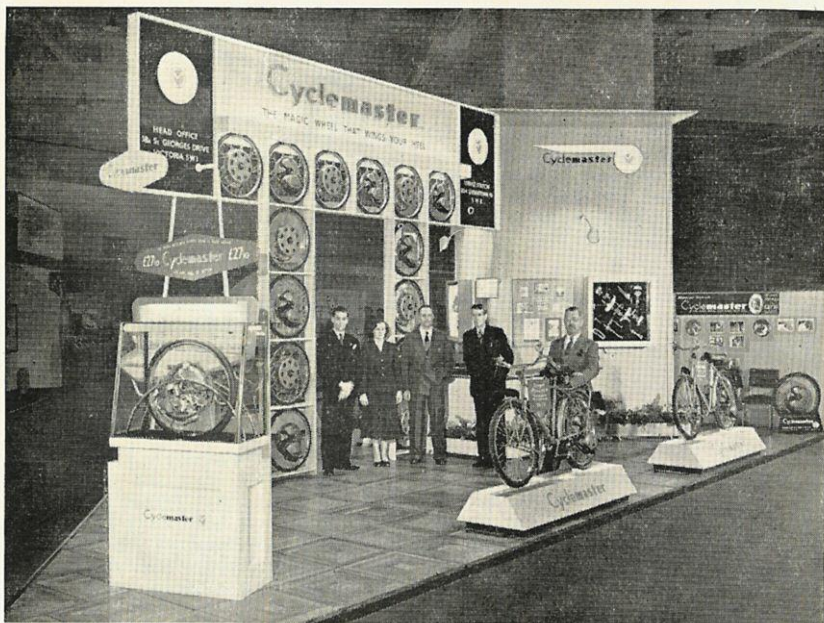
G.S.A.

(While we are as sorry as you are that you will have to part with your Cyclomaster, we are most sincerely glad to know the reason. Thank you for telling us.—Ed.)

Carrying Fuel

Dear Sir,

I agree with those of your readers who say that the petrol problem is a very real one. As I like touring, I get over the difficulty in my own way. First I secured a one-gallon can, removed the handle and also the filler hole on the end, reimposing this on the side. This then became the top, and in a bottom corner I soldered a petrol tap. I then made a box which would take the tank, together with a pint can of engine oil and my tool holdall. When I am out on a long run I get any garage to put in half a gallon of petrol; I then add the right proportion of oil, and the vibration of the road does the mixing. I drain the oil through a small tube into the tank



This photograph was taken early one morning—before the Cycle and Motor Cycle Show had opened. Once the public were admitted, it was difficult to see the Cyclomaster Stand for visitors. Interest in "The Magic Wheel" was greater this year than ever before.

as required. I can now travel all over the country without the feeling of having to ask favours of busy petrol pump attendants.

Colchester.

H.S.

(Isn't there some saying about necessity being the mother of something or other?—Ed.)

What's Your Line?

Dear Sir,

I am highly delighted with my Cyclomaster, which is a real pleasure to ride. I use it every day. I am a pianoforte tuner by trade, and it certainly makes the day a lot easier.

Eastbourne.

N.E.L.

(We are always interested to hear of the many uses to which Cyclomasters are put.—Ed.)

Jet Propelled

Dear Sir,

I had one day covered five miles of a twenty-mile trip when the engine cut out. "Ah," says I, "this is easy—petrol blockage." Removing the jet assembly, I had the jet blown out at a garage, and reassembled the parts myself. Imagine my surprise when, as

I pedalled away, I saw a fine jet of petrol coming through the exhaust pipe! I made my way home under my own power, and as I crouched on my knees, second thoughts jumped in. "You fool!" I said to myself. "You pushed the jet needle housing up instead of screwing it up! Now do it properly." That was the answer.

Wallasey.

J.E.D.

(What a pity those second thoughts didn't jump in a little earlier.—Ed.)

Eternal Triangle?

Dear Sir,

I should like to tell you how pleased I am with my machine. I am a meter inspector with the North-West Electricity Board and doing approximately two hundred miles a week. I also use it for fishing trips at the week-end, but I make sure she has her weekly maintenance every Saturday morning. As a matter of fact, my wife has accused me of thinking more of my Cyclomaster than I do of her!

Manchester.

S. H.

(No comment!—Ed.)

A NEW ENGINE OIL

FOR YOUR CYCLEMASTER

For many months, CYCLEMASTER engineers have been subjecting an entirely new oil to severe testing on road and bench. Results were so consistently outstanding that it is now to be sold by all CYCLEMASTER dealers under the name "Cyclemaster Superfine Oil." Our tests proved that it not only possesses the highest lubricating qualities, but also gives

MAXIMUM POWER

Your engine will maintain highest output over long periods.

MINIMUM CARBON

Less deposit in the head and less clogging of exhaust ports and silencer.

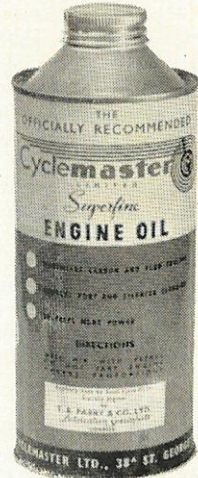
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Cyclemaster

SUPERFINE OIL

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

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



3/10

IN QUART TINS

JUST TICKING OVER . . . By The Idler

This will surprise you. I have very distinguished literary associations—or so a reader tells me. He wasn't too sure whether "The Idler" was the title of a magazine, or of a feature in a magazine, or the nom-de-plume of a contributor to a magazine. All he was sure of was that, fifty or so years ago, those two words meant all that was best in the literary world of London at that time.

Well, well! Believe me, I was not being pretentious when I chose the name. When an engine is ticking over it is idling, and that was all there was to it. But this discovery has made me feel good. Is any reader old enough to provide fuller information about my predecessor—or predecessors?

* * *

Do you know what an imprint is? It is that little note which usually goes at the back of a magazine or newspaper saying who printed it and who published it—and it was missing from No. 3 of *The Magic Wheel*. Several readers wrote to point this out to the Editor, one of them adding that it was a serious offence; he wasn't sure what the penalty was, but believed it was something lingering, with boiling oil in it. I was able to reassure my colleague that that was only a quotation from *The Mikado*, and that anyway he was quite safe because, although not on the back page, the full name and address of the printer was given on page 61, and the full name and address of Cyclemaster Ltd. on the inside of the back cover.

* * *

Pegasus was a character in ancient Greek folklore. He was a war-horse, but, unlike most horses, he did not rely entirely upon his legs for locomotion. He also possessed wings with which he could take the weight off his

legs and proceed with ease and speed to the advantage of all those he carried. . . .

By now, of course, you are wondering what on earth I'm rambling on about. So I'd better explain that I am quoting from the Parish Magazine of South Kirby, near Pontefract. The article continues:—

"The generosity of a parishioner has made it possible for the Vicar to acquire an iron horse, which does not depend on the clerical legs . . . but has the wing-like quality of an engine in the back wheel. It eases the strain of the hills a great deal, and it adds much appreciated speed to the parish business. Father Lindley wishes to express his gratitude for the thought and gift which made Pegasus' entry into the Vicarage stable possible."

The reader who sent the cutting wrote: "You will be pleased to hear that Pegasus is a Cyclemaster." We were. Many thanks, F. C.

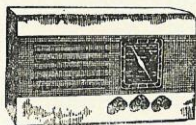
* * *

We know of quite a number of clergymen who use Cyclemasters, and we are constantly hearing of others who have found life much easier, thanks to the real Magic Wheel (not the magazine). For instance, in our "The Things You Say" pages this month you will see letters from a piano-tuner, a meter inspector, and a salesman whose business increased so much through his Cyclemaster that he is now having to buy a car.

We have received enthusiastic letters from insurance agents, policemen, postmen, nurses, chimney sweeps, a veterinary surgeon, a technical college master, a detective, a missionary in the Sudan, a groundsman and a railway signalman—they are just a few which come readily to mind without going through the files.

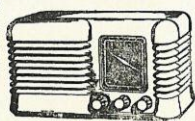
(Continued on page 84)

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£5 . 15 . 0
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PROMPT DESPATCH
MONEY BACK GUARANTEE

**We thought
You Might
like
to Know...**

that your magazine, The Magic Wheel, is printed by Speedee Press Services of London and that the editorial consultants for Cycle-master are the Dale Publishing Company of Wheathampstead, in Hertfordshire. Dale and Speedee are a team well used to working together, and they—and their clients—are generally proud enough of the results to show them to their friends. If you feel that the writing, presentation, or production of your print might perhaps be better, drop us a line. Either Dale or Speedee. We aren't fussy.

DALE

Publishing Company
Wheathampstead Herts.
Kimpton 273

SPEEDEE

Press Services Ltd.,
206 Union Street, London, S.E.1
WATERloo 5733/4670

We know that Cyclemaster is used by many butchers and bakers, but so far we haven't heard from a candlestick maker, or a deep-sea diver!

The Editor is very anxious to know about unusual uses to which Cyclemaster is put, so if your job is a little out of the ordinary, will you drop him a line? If you can send a photograph as well, so much the better.

* * *

A rather interesting case was reported in the *Bury Free Press* in October, and as it is the sort of thing that might happen to anyone, here's the story:—

A Cyclemaster owner was seen riding his machine, and at the same time wheeling an ordinary cycle alongside it. Now if he had been riding an ordinary bicycle, there would have been no trouble, for that is the sort

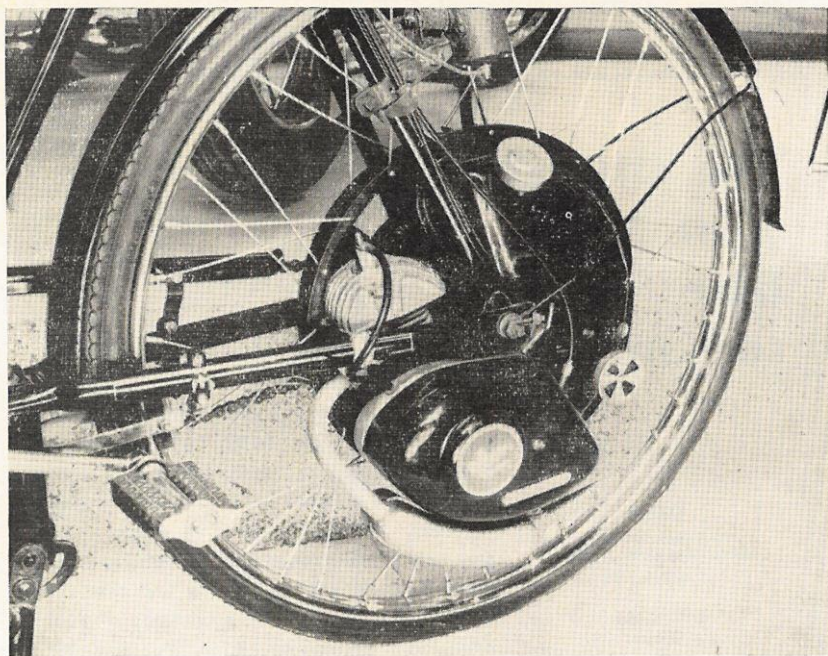
of thing one sees every day almost. But a motor-assisted bicycle is another matter, and the rider was charged with riding it in such a way as not to have full control over it. The magistrates discussed the affair in private, and it took them half an hour to arrive at a decision—but when they did it cost the rider five shillings.

It's just as well to know these things.

* * *

Talking of photographs, don't miss the announcement on page 66. Everyone stands an equal chance of winning one of the prizes offered, and although this is hardly the best weather for *taking* pictures, how about looking through those snaps you took during the summer? You may have a guinea—perhaps more—stowed away amongst them.

“IMITATION IS . . .”



No, it isn't a close-up of *The Magic Wheel*, but a very faithful imitation of it. This wheel was exhibited at the 1953 Leipzig Fair, and it was made in China! The workmanship was rough.

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About **ALL** the cyclemotors

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TIPS *worth* REMEMBERING

By
The Engineering Manager

Over the last few weeks I have seen quite a lot of bicycles parked against the kerb, with the exhaust being used as a prop. When possible, I have waited until the owner came out of the shop, or wherever he'd gone, and then had a word with him. Doing this once or twice might not do any harm (although I don't like the practice at all), but if it becomes a habit, it stands to reason that the exhaust attachment nuts must be affected. They will become loose; the whole assembly will start to rattle, and in bad cases may actually fall off with a regular firework display—which can be quite alarming.

* * *

In the Cyclomaster Instruction Book we strongly advise against coasting downhill with the engine not running and the clutch disengaged. We do this because of the danger of quite a serious accident should the clutch be engaged while the bicycle is still travelling fast. You see, the engine is not moving, and in those circumstances the rider is trying to start it up at full speed. Letting the clutch in after you have pedalled a few yards from a standing start is a very different kettle of fish from doing the same thing when the bicycle is going downhill at, perhaps, thirty miles an hour. Not only does it put a terrific stress on the clutch mechanism, but the shock may even throw the rider over the handlebars. Even the owner who is an old enough hand to wait until the machine has slowed right down to a safe speed may have the bad luck, when travelling fast, to go over a bump and release the clutch by accident. So don't do it, please. It is also very bad to keep the engine running and go downhill "at a real lick." The only safe way to descend any hill is—slowly.

I am sometimes asked whether, in an emergency, it is possible to remove the flywheel (the rotor of the magneto) by using levers carefully. The answer is "yes," but I must say that I cannot imagine the sort of emergency in which such drastic action would be necessary. One does not usually want to remove the flywheel by the roadside, or even in the shed at home. It is a job which calls for workshop tools, if not for a workshop, and the owner who is capable of such work is just the man who would not tackle it without the proper tools for the job. Two pullers are available—CA1 for the Banatmag, CB1 for the series 90 magneto. They cost 6/- and 6/6 respectively.

Hitting the end of the shaft with a hammer, or hammer and drift, or even the wrong use of levers, may damage the end of the shaft; that is trouble which can be seen, but not easily rectified. Worse still, the balance weights which hold the big end pin may be distorted—and that is something which cannot be seen, but will soon show up in the behaviour of the engine.

* * *

A reader has sent me a tip for checking the level of the oil in the clutch chamber. Our method (given in the Instruction Book) is to remove the CM cover plate and the filler plug, and insert a screwdriver three-quarters of an inch below the face of the filler plug hole; when the screwdriver is removed, oil should just show on the tip.

Our reader's advice is to jack up the back wheel, engage the clutch, stand astride the wheel, and, holding the back of it, slowly rotate it upwards. Look carefully down the filler hole and you will see the chain. It should rise with a coating of obviously

(Continued on page 88)

The
CUSTOMER
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Always
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● Usually, policies are only effective whilst the machine is being ridden by the owner, which debars you from the pleasure of letting your friends or a member of your family try out your Cyclenaster. Our policy covers anyone using your machine with your permission.

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fresh oil on it; if it doesn't, the level is too low.

Well, yes, it is a good method of checking, but I still like my screwdriver. You see, this method does not tell you how much oil to add, and an owner might easily pour in too much, especially if the chain looked on the dry side. If you put too much oil into that chamber, you really will be in trouble—but if you follow the screwdriver drill you can't go wrong.

* * *

I am sometimes asked whether there is any way of draining the oil from the clutch chamber, and if not, why not?

We do not make such provision. Exhaustive tests on prototype models showed that it was not necessary, and in all our subsequent experience we have never heard of any undesirable results. It is not like the oil in the sump of a motor car, which gets grit and dirt and carbon and petrol mixed up in it. The clutch chamber is sealed; the oil merely has to be there, as it were, without doing any work (rather like a sentry who stands on guard!) and modern oils are so good that they can go on doing that sort of thing indefinitely.

The only way in which the oil in the clutch chamber can suffer is if the crankshaft oil seal isn't doing its job. We have not heard of many such cases, but if it happens the symptoms are an obvious thinning-down of the lubricant, and the cure a new oil seal—and that, of course, entails dismantling the clutch housing and draining the oil, anyway.

* * *

It is not my job to play the Heavy Father to Cyclenmaster owners, and in looking back through previous issues of this magazine I am happy to say that I have never assumed that rôle. Which gives me, I think, an excuse for doing so now.

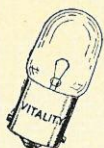
A reader tells me that he and a friend (the latter a qualified engineer) wanted to have a look at the crankcase disc valve and the connecting rod assembly, but found that, with an ordinary screwdriver, they just couldn't move some of the setscrews in the casting, even though they used great force. He asked if they had been machined in, and whether I could give him any "tips worth remembering" on how to get them out.

Curiously enough, there was on my desk at the same time a carbon copy of this month's leading article, "Do You Tinker?" which the Editor had sent down for me to read before printing it. I really am sorry to have to say this, but taking things apart just to have a look at the innards is tinkering at its very worst, and exactly what the Editor had in mind when he wrote that article. No matter how highly skilled the engineer who does the work, I am still against it, *except in an experimental workshop*, where that sort of thing is, inevitably, a part of the daily routine.

To deal with the first part of the query, those setscrews are tightened by pneumatic screwdrivers, which are pre-set to cut out immediately the correct tightness is attained. This means that every such screw is tightened exactly the right amount, and no more. They *can* all be removed with an ordinary hand screwdriver provided shank and blade are adequate, and they are so removed when dismantling has to be done on engines in the Cyclenmaster service station. Having done it myself, many times, I admit it isn't easy. May I admit, also, that I am very glad, because while no harm might have been done in the particular instance we are considering (with an engineer present), think what would be likely to happen if every owner could, if he wished, take the engine to pieces as easily as a child dismantles a mechanical toy!

SERVICE! A man on an old pedal cycle fitted with a small rear wheel motor pulled into a modern service station and imperiously demanded a pint of petrol and two tablespoonfuls of oil. Without the flicker of an eyelid the attendant served him, and then said in a bland manner: "Will there be anything else, sir? May I, perhaps sneeze in your tyres? They appear a little soft." (Birmingham Weekly Post.)

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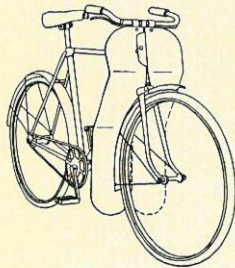
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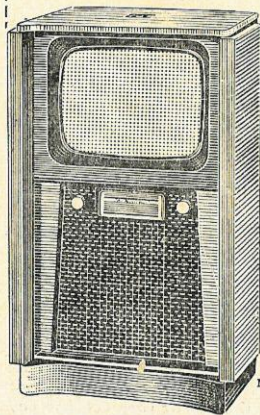
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