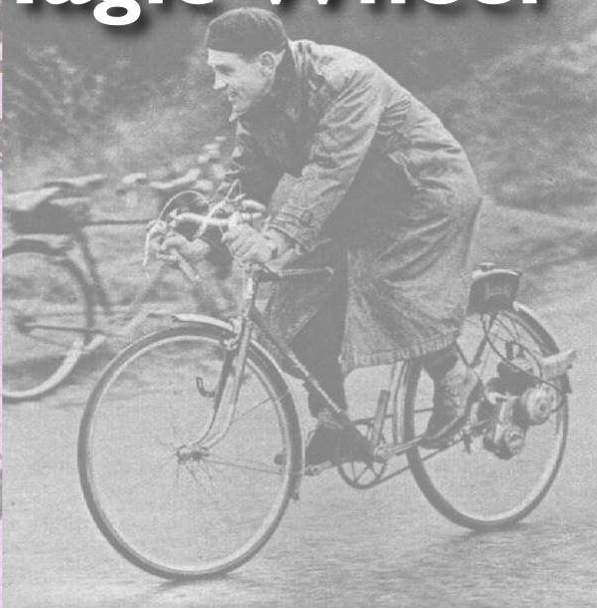
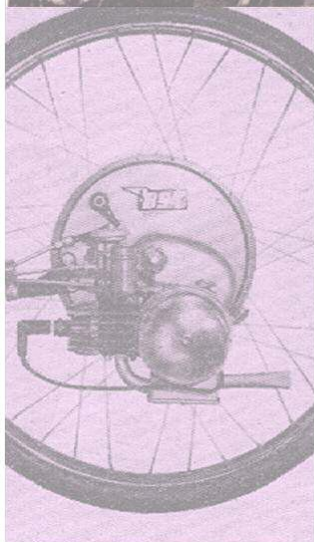


# IceniCAM Information Service



## The Magic Wheel



The

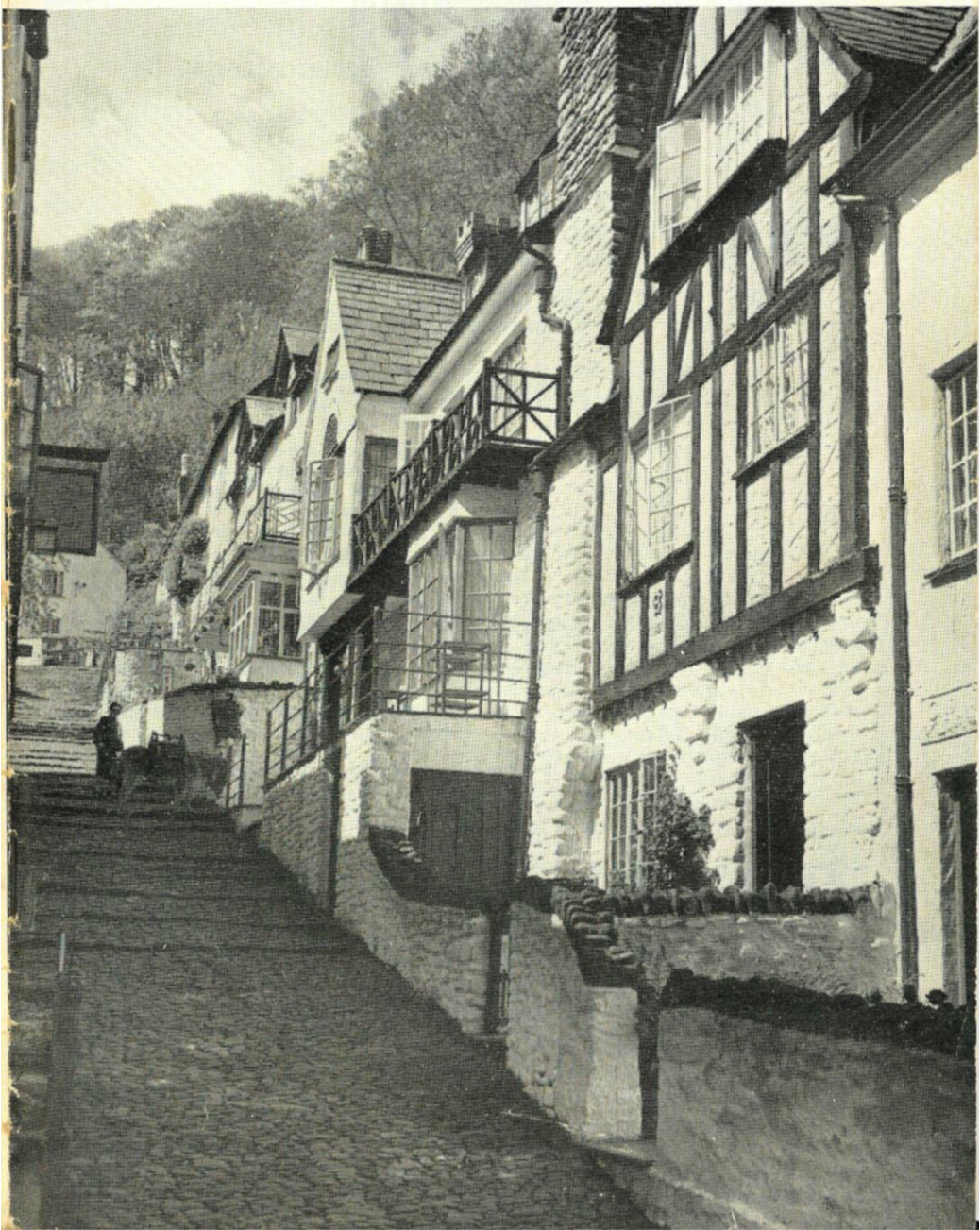
# *Magic Wheel*

A QUARTERLY MAGAZINE FOR CYCLEMASTER AND CYCLEMATE OWNERS

Vol. 3. No. 2.

JULY, 1955

Sixpence



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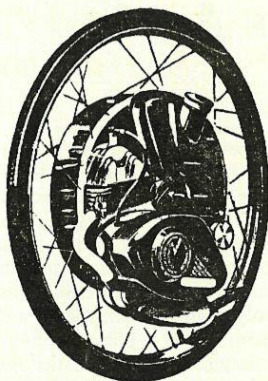
*Cyclemaster Dealers' and Traders' enquiries for agencies welcomed*

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VOL. 3  
NO. 2

JULY  
1955



PRICE  
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Annual  
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Great Britain  
and Abroad  
2/6  
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# THE MAGIC WHEEL

A QUARTERLY MAGAZINE FOR CYCLEMASTER AND CYCLEMATE OWNERS

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

## The Code

AS READERS will know by now, either because of the wide publicity it received at the time or because of the Government's advertising since, a new Highway Code was introduced recently. Although there is nothing radically new in it for the cyclist, this is an opportune moment to point out just how important it is to have a thorough working knowledge of "the little book."

At a penny a copy it would be difficult to find better value for money because the Code contains all the basic rules for road behaviour, and as has been pointed out in these columns before, good road behaviour, which involves courtesy and consideration for other road users, is the quickest way to reduce road accidents.

The fact is that although everyone signs their applications for a renewed driving licence with a clear conscience, including the answer to the question "Have you studied the Highway Code?" there are lots of detail points about the highway law that many road

users do not know, the answers to which are to be found in the Code.

For example, could you answer immediately what shape a "Halt" sign is and whether it is any different from an ordinary "Slow" sign? Can you say what sign a motor-cyclist should give to a policeman on point duty if he wishes to turn left? Should he extend his left arm or extend his right arm and give the motorist's "I am going to turn left" sign or should he fold his right arm across his body towards the left?

These and many other similar points are elaborated in the Highway Code and each of them is worthy of careful study by all conscientious road users. We have often exhorted our readers to do various things in the interests of road safety, but we would willingly wish all those things unsaid if we thought that it would encourage our readers to listen to this particular plea. Do read The Highway Code!

# Impressions Again

By Aries

HAVING SUNG my paean of praise about the Cyclemate, I return to my old theme and say a little more about Cyclemastering in general.

Summer is with us again and no doubt owners of Cyclemasters and Cyclemates all over the country are planning to take or are actually taking holidays in districts away from those where they normally ride. It may seem quite a simple affair at first, but there are apt to be considerations. Not that I want to discourage anyone from taking their machine with them when they go away—far from it. I just want to remind them that there are points to remember.

For example, if you live in a fairly flat area and normally only use your Cyclemaster for short trips, you mustn't expect to cover vast distances over hilly terrain in quite the same easy way that you do at home. Hills mean heavier loads for the engine to bear and, willing though it is, it does need some assistance on gradients, so bear in mind that an accumulation of hills will mean an accumulation of efforts on your part and try not to make too generous an allowance for any one day's riding. There is no fun in fighting against time all the while and it may turn out that the very place you wanted to see most will have to be ignored if you set yourself too hectic a schedule.

After all, the principal joy of having your own means of transportation is to be able to go where you like and to stop and stare when you want to. What was it the poet said?

What is this life if, full of care,

We have no time to stand and stare?

And, you know, there is such a lot to be learnt by stopping and staring. I was on a run through the Midlands not so long ago and I came, one sunny afternoon, to the old ruined castle at Kenilworth. Now ruined castles are sometimes considered to be all much of a muchness and if you have seen one you have seen the lot. But I found that by

buying a small leaflet (only threepence) and walking round the ruins as I read, I could recapture much of the romantic atmosphere of the old place. It was thrilling to see the shell of the old banqueting hall where the Earl of Leicester entertained the first Queen Elizabeth, and fascinating to find the part that had once been the kitchens of the castle and to see the remains of their open fires where the roasts turned on a spit.

Then too there were interesting connections with more modern times. One part of the castle was used as a sort of mill in the days when the Industrial Revolution was just beginning in our fair country and there were no real factories. In those days any large building was utilised to house weaving machinery and I was intrigued to see that the walls of the ruins had been spotted with holes which had held some beam or arm of a primitive machine in place.

There are many places of amazing interest throughout the length and breadth of the land and very often they are to be found in the districts where the best scenery is too. Think of Tintagel on the rugged northern coast of Cornwall, for example.

So when you are touring, allow yourself time to see everything at leisure. If a holiday is really going to fortify you mentally and physically, for another fifty weeks of hard work, enjoy it to the full and don't tire yourself out trying to go too far and see too much in too little time.

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## ON THE COVER

Clovelly—one of the best-known scenes in the whole of Devon, which is the theme of our touring article by The Wanderer on pages 36-38. Other favourite touring districts will be described in later issues.

# 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.

## Tips for long Rides

Dear Sir,

Last year I rode from my home in Lower Kingswood, Surrey to Stanley, Yorkshire—220 miles non-stop. I set off at 5.30 a.m. and arrived at 8.55 p.m. five minutes ahead of my scheduled time. The weather? Just the usual English variety—dull, dark and dirty, with a very strong head wind—quite charming.

On the return trip a week later I spent a good night's sleep and had a really lovely breakfast, all for 12s. 6d. The address of this earthly paradise is 42 Coventry Road, Market Harborough.

A word of advice to would-be long-distance riders. Join the A.A. or R.A.C.; plan your route and write it on postcards to attach to your handlebars; have plenty of tools, a good lighting set and waterproof clothing. I found fruit the best food to take—stick to something moist if you take sandwiches. Most important—do not overload your machine.

Lower Kingswood. I. L. S.

*(I am sure many people will find these tips very useful. I am also sure we would all like to congratulate Mr. I.L.S. on his marathon ride.—Ed.)*

## Humorous Number Plates

Dear Sir,

I was interested to see the letter in the last issue which asked if any readers had seen vehicles with strange number plates. I do not know of any Cycle-master owners who have memorable number plates but living in the Birmingham area I see a wonderful variety of what I call variations on the "OO" theme.

In Warwickshire just now most of the new cars and motor cycles which are being registered have two capital O's

for the first two letters. The different combinations that this brings about are very humorous. For example, we have OOF, OOG, OOM, OOK and so on. But the one I like the best is OOH. It always seems to me that when a car has the type of modern styling which is so prevalent these days, the two lamps look like eyes mounted over a broad snout represented by the radiator. These factors, combined with the amusing number plate always makes me think that the car has a look of quaint surprise.

Solihull.

B. J.

*(Thank you, sir, There must be others of our readers who have imagined that cars have faces. It certainly seems to be a favourite humorous line among cartoonists.—Ed.)*

## Odd Number Plates

Dear Sir,

I thought perhaps you would be interested to know of my number plate, which seems to catch the eye. Often as I ride along I hear from the kerbside the remark "Oh, Ma!" You see, my number is OMA 43.

Hyde.

W. C. W.

Dear Sir,

My Cyclemaster number plate is JAM 323 and I can assure H.R.H. that this plate does cause some various remarks.

Needless to say that in spite of my 15 stone weight my Cyclemaster carries me where I want to go with very little effort on my part.

Marlborough.

C. H. G.

*(These are two of many letters which we received on the subject of odd number plates. I should like to thank all those who have written in.—Ed.)*

## Good Maintenance Helps

Dear Sir,

I cannot find words to express my satisfaction with the Cyclmaster's performance. In all my thirty years as a vacuum cleaner salesman I have had four different makes of car and another type of cyclomotor, but I have never been so pleased and so satisfied as I am with the Cyclmaster.



Mr. G.W.M. on his carrier-equipped Cyclmaster ready to go about his business

I look after it and keep it clean, oiled and greased as laid down in the instruction book supplied. I have been several times from Whitstable to London to buy stock and have come back with quite a load of spare parts on my carrier. I think you will agree that that is not bad going for a man turned 72.

The Cyclmaster was one of the very best investments I have made. I would not part with it for £100.

Whitstable.

G. W. M.

*(Whitstable to London and back is over 100 miles. For a 72-year-old I think "not bad going" is a very conservative judgment. Good luck to you sir. And may you have many more years of happy and prosperous Cyclmastering.—Ed.)*

## Good on Ice

Dear Sir,

First a few kind words. During the recent appalling weather, I continued riding my Cyclmaster on the ice-bound roads. Never, in over thirty years of motor-cycling, have I encountered such stability. The cycle just *kept* going and felt secure.

On one occasion I used a motor-cycle (one which normally is an excellent road-holder), but on this type of going it felt like a jelly-fish! I was glad to get back on the Cyclmaster. Full marks for this.

Small point—how did motor attachments fitted on the carrier cope? Centre of gravity very high in comparison with the Cyclmaster's low-slung weight.

Farnham.

L. A. N. M.

*(Thank you, sir, for your "few kind words." Though the bad weather you speak of is gone for the present, it is pleasant to remember that the Cyclmaster is not just "a fair weather friend" but a trusty companion no matter what the conditions.—Ed.)*

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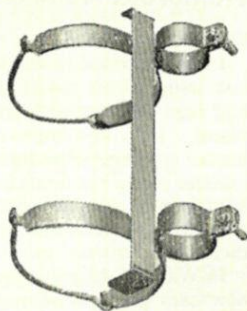
## Cyclmaster Spare Fuel (Petrol) CARRIER

Due to the reluctance of some Petrol Station Attendants to serve small quantities of petrol and oil there has arisen a strong demand by Cyclmaster owners for some simple means of carrying a spare supply of petrol. To meet this we have designed a simple and inexpensive device to hold a Quart Tin which can be easily fitted to any part of the bicycle frame. It is made of strong strip steel with grey coloured finish. Price (without tin) 3/8 (4/2 post free) Container Tin (1 Quart) to fit Carrier 1/6

Available from all Cyclmaster Dealers

or from Cyclmaster Ltd.,

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



# The Adventures of Madam and Moddom

By Anne D. Bagley

It is a curious, and deplorable fact, noticed by all observant folk, that one's family and friends find keen enjoyment in witnessing the minor misfortunes and discomforts befalling their fellows. This being so, my first experience as a rider of what the Licensing Authorities designate as "a motor propelled vehicle," but which I prefer to call my "motor bike," provided great glee and enjoyment to my neighbours, plus a certain amount of unseemly derision—due, of course, to envy and jealousy. But let me begin at the beginning. I am an energetic female, no longer, alas! in the first flush of youth, but sound in wind and limb and active as an ambitious flea. My chief interest in life is, and always has been, horses, hunting and riding, but the village in which I have the misfortune to live, is not horse-minded. Unable to obtain fodder, pastureage, or even grazing from local farmers, feather-bedded and otherwise, I was compelled to part with my two beloved horses, and found myself cut off from civilisation, hemmed in on all sides by the long, steep and beautiful hills of the Cotswolds.

Car driving I detest, in fact I have always regarded the combustion engine and its entire family, with repugnance. As for motor-cycles—they were the invention of the devil—raucous, stinking abominations, bent upon shaving the tails off nervous horses, and defining that Biblical reference to "The Quick and the Dead." It must be one or the other, for if you are not quick you are certainly dead, where motor-cycles are concerned. Never, in those happy horse-riding days, could I have imagined myself, one day, becoming the possessor of even a distant cousin of a motor-cycle. But—one day, my husband, helpful creature, read out an advertisement in a magazine. A nearly new Cyclemaster and bicycle were for sale.

After much correspondence and doubts about my ability to master the strange thing, I sent my cheque, and in due course the little outfit arrived. I was not enthusiastic, but my somewhat hostile reception was softened by the pleasant sight of a huge motor horse-box backing into our stable yard. The ramp at the rear was let down by two nicely bandy-legged, horsey-looking men, and I peered inside. There she was, my new little mount, comfortably bedded down in deep straw. With a slightly supercilious expression Man No. 1 grabbed her by the head, (pardon, handle bars) and led her down the ramp. "So," said he, "you've taken to one of them things, have you? think you'll like it?" I paid him off—and felt extremely depressed as the nice-smelling horse-box moved away, leaving me with a small, unresponsive machine, whose saddle, the size of a lettuce leaf, was not of shining pigskin, and whose body was not warm and soft.

## Called her "Moddom"

The hieroglyphics on the number plate were MOD 991, evidently short for Moddom. That was how I knew she was a mare—a female. I led her into the—alas! empty—loose box that was to be her home, and stood her up against the manger, where, in due course, she was inspected, vetted and prodded by my husband and our critical chauffeur—both were slightly amused, and I disliked the lot—wished I hadn't bought the one, or acquired the two. Bad news, they say, travels fast and by next day, everyone seemed to know the exact time of my first try-out. At 3 p.m. to the dot, I led Moddom forth—to be met by what looked like, and in fact was, the Meet of the Season. Some were on push bikes, some on foot, some in cars, and one or two in their proper place—on horse-back. Rather



nervously I mounted Moddom, having spent hours the night before, studying directions and pictures, all about throttles, chokes and letting in the clutch, which really means letting it out, for, as in a car, directions, I find, usually mean do-the-opposite, so I did it. Nothing happened and a spate of shrieks and advice descended upon me—"Flog her!" "Use your legs!" "Let 'er 'ave 'er 'ead," and such like rudeness. I'd very wisely taken the Book of Words for Beginners with me—nay, more—I'd put it on the floor of the carrier basket strapped to the handle bars, propped open at the First-of-all page. Ah! yes to be sure—"—for the first few yards, pedal." So I pedalled, let in-out the clutch, but as the brake lever adjoins the clutch lever I forgot which was which so tried both, alternately. This caused a curious bucking action and much hilarity from the following Field. Persevering, I turned on the pretty little silver tap thing which I found, surprisingly, right under my thumb, and was astonished to find something had taken hold, and I was off! I sailed down the village street, well ahead of the pursuing "field," but very soon only husband, in our little car, a golden retriever, and two terriers were within a dozen lengths, and all were yapping merrily. . . . Wishing to

slow down, I thumbed the silver tap thing inwards, which I supposed, would turn off the juice, but no—Moddom, straining against the brakes which I'd applied, plunged and flew faster and faster. I craned my neck, elongating it to its fullest extent, like a browsing giraffe, trying to get my face into the basket to read how to stop. But the speed we were going was terrific—the pages of the book had got loose from beneath the pebble I'd put on them to keep the book open, and were all of a flutter. My vision was blurred by the wind whipping tears out of my eyes—no doubt they were starting from their sockets for I was frightened to death. Frantically I tried to see some helpful hint in the Book of Directions—but as the pages flipped and fluttered, now shut, now open, I could catch only fleeting glimpses of advertisements telling how to rid puppies of worms; how to spray plum trees; and how to renovate the sitting room curtains.

### The field reduced

The "field" had now been reduced to an agitated husband in the car, bellowing instructions—each and all gone with the wind, as uttered. Somewhere behind was a galloping horse on the road side verge—also an unknown



*This was the scene at the premises of Westbrook and Marley Ltd., Cyclemaster agents in Croydon, when Cyclemaster's service engineer, Mr. J. B. E. Crosbie, gave a lecture on maintenance to over 40 owners recently*

young man on a full blown motor-cycle, who'd joined in and thought I was doing it for fun! By now, Moddom had got the bit between her teeth, good and proper, and nothing would stop her, haul away at the handles as I might. By the position of the sun we appeared to be heading for the horizon, South West and I remembered, as one does remember odd things at such times, Moddom's previous owner had given me a kind invitation to visit them in Devon, should I ever find myself in that vicinity. Well, it seemed likely I should, and tried to remember the name of their house. All very well, but I should have to pass through many towns, on route—in fact the first one was already looming up ahead, and stop or slow down I could not. By the purple hue of my husband's countenance, on the infrequent occasions I caught a momentary glimpse of it, I gathered conditions were serious. I remembered, within a mile or so, there was a delightful, but extremely muddy, rutty, boggy, watery bridle path, branching sharply at right angles from the road, through a field gate, leading steeply up into the hills. *That*, I felt sure, would stop Moddom—if only the gate was open. It was. By a terrifying and mighty effort I pulled her head round sharp—skidded, nearly fell off, but didn't quite—and into the ruts of deep, soft mud we plunged. Moddom heaved and spat and then, thank heaven, gave up the ghost. With a sigh she sank, pedal deep, into the quelch, spent and beaten. In due course the stragglers assembled, to be in at the death, they said—but whose death they did not explain. Someone tootled on a cracked hunting horn. It sounded like the Last Post to me—but it didn't matter. Nothing mattered. I was borne home in the car, and later Moddom followed in our coal-man's lorry, plastered in mud. I did not enjoy "doing her down" as I should have done, had she been a horse, after a day's hunting. So was my first run on Moddom, a year ago. And now? the nicest, handiest, most useful little beggar that ever I bestrode. Except for my horses (which, of course, nothing can ever hope to replace) Moddom has given

me more fun than anything I have ever had. Apparently foolproof (necessary in my ownership), she just goes and goes, and with the minimum attention. She takes me shopping; she carries a large dog, squeezed well down in the carrier basket, for an outing; she carries my friend's grooming tack and all various equipment, and picnic hampers, to local horse shows and gymkhanas. Up hill and down dale we go, in all weathers. In spite of good excuses, she has never once let me down. No machine-made mount could be kinder, more willing, or trustworthy than the little bit of a thing that came out of the huge horse-box a year ago. If I had the heart to criticise her (which I have not) I should say a bit more horse power to get us up these long, stiff hills, would be an advantage to my not-so-young legs, which is like pedalling the last lap. But even so, Moddom does not give up, or cease trying hard to reach the summit, and only asks most reluctantly, for my slight assistance. I admit our local hills are unusual in their severity, and it is a marvel that little Moddom—only 25 c.c.—can climb them at all. Perhaps some day, the clever inventors of the Cyclemaster will gladden our hearts by offering us some sort of contraption capable of taking along in comfort, a non-working passenger, without the mechanical skill required to drive a silly, complicated motor car, something really simple to operate, especially invented for the nit-wits and non-mechanically minded people like me. In the meantime, here's to the thousands of little Moddoms, giving joy and satisfaction to their thousands of riders.

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### WHAT'S YOUR LINE?

Tinker, tailor, soldier, sailor. Our list of people with strange professions who use Cyclemasters is good enough to get the television experts guessing. But there must be some more. If you have an unusual job, why not tell us about it—or better still, send us a picture of you with your machine. We will be glad to publish it (if it's clear enough) and our readers will be interested to see it.

# The Rotary Valve

THE MOST IMPORTANT design feature of the Cyclmaster engine is its Rotary Induction Valve. A Rotary Valve is not an essential part of a two-stroke engine, but is specially incorporated in the Cyclmaster to give a performance far better than would be possible without it. It is this valve which enables the 32 c.c. capacity of your Cyclmaster to hold its own with, and often beat, the conventional engine of greater capacity of other cyclomotors.

The improved performance is most marked at lower engine speeds. Good "bottom end" performance is a quality which is desirable in the engine of any road vehicle, but it is essential in single-speed vehicles. By reason of their compact design, most engines for motor-assisted cycles are single-speed, and therefore need good pulling power over a very wide range of engine speeds. It is accepted that the power of a conventional two-stroke engine is poor until its speed rises to about half its maximum, equivalent to ten to twelve miles per hour in a cyclomotor. Below this speed, a cyclomotor with an ordinary engine is sluggish, making acceleration slow. If the throttle is opened fully when riding slowly, the engine will feel as though it is gasping for air, and will accelerate as if it is not really trying. On a hill too, this poor low speed performance shows itself. When climbing a hill, the engine speed will drop down gradually to about ten miles per hour and then the power will fall-off suddenly, leaving the poor rider to pedal or push up the rest of the hill.

Now try these tests on a Cyclmaster. First, open the throttle suddenly, when riding at 5 m.p.h., and feel the strong, steady acceleration right from this speed up to the maximum. On a long hill, the Cyclmaster speed will drop gradually to about 12 m.p.h., and at that speed will appear to get its second wind, and will keep on pulling. The results of these tests will convince you that the designer of the Cyclmaster was right when he specified that his engine must

incorporate a Rotary Induction Valve, in spite of the additional machining required.

So far we have seen what the Rotary Valve does, now let us see how it does it. One or two illustrations will help us to understand the cycle of operations of a two-stroke engine, and to follow the passage of the fuel and air mixture for the first part of its journey through the engine, that is, from the carburettor as far as the combustion chamber in which the gas is burnt—we are not concerned here with what happens to it after that. First of all, the mixture of fuel and air must be drawn into the sealed crankcase through a hole or port, which is opened and shut automatically. As the piston rises, the volume of the sealed crankcase increases, so that the mixture is drawn in through the open induction port. As the piston starts to come down, the induction port must be closed so that the mixture cannot be blown back through the carburettor. It will then be compressed in the crankcase by the descending piston. When the piston nears the bottom of its stroke, its upper edge clears the transfer port in the cylinder wall enabling the com-

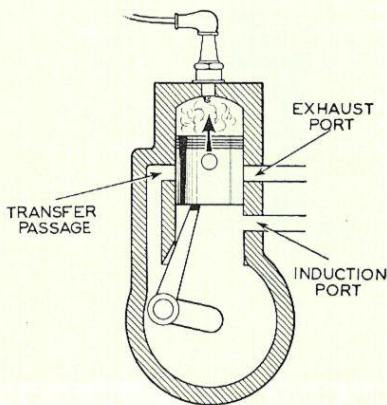


Illustration No.1

pressed mixture in the crankcase to rush through the transfer passage into the combustion chamber above the piston.

If the flow of mixture from the carburettor into the engine is restricted in any way, only a partial charge of mixture will be drawn into the combustion chamber to be burnt, and therefore, the engine will not give full power. This is exactly what the carburettor "throttle" does—it restricts the flow of air and petrol from the carburettor into the crankcase. Now, if this flow is restricted in any other way, so that the engine does not get a full breath of mixture each stroke, the engine will not give its full power, just as if the throttle were only partially open, or rather like a man trying to run a mile wearing a gas-mask.

In a conventional two-stroke engine (See Illustration No. 1), the induction port consists of a hole or port in the cylinder wall which is uncovered as the bottom of the piston rises above it. Mixture is drawn into the crankcase through the induction port and carburettor as the piston rises, but as it descends some of the mixture is forced back through the port causing loss of mixture and therefore of efficiency. You will see that the designer of an ordinary two-stroke engine is here faced with a most difficult problem—he wants the induction port to be low in the cylinder wall so that it can be open for as long as possible while the piston is rising, so that as much as possible of the fuel mixture is drawn into the crankcase. On the other hand, he wants to make the port high in the cylinder wall so that the mixture will not be pumped back through the port as the piston descends. Ideally, this port should be open only while the piston is rising and should shut as soon as or very shortly after the piston has reached its highest point, but this arrangement is impossible with an ordinary engine, as the induction port must be open for as long when the piston is on its way down, as it is when the piston is rising. This means that the designer must compromise, and place the induction port relatively high in the cylinder wall to prevent too much mixture being blown

back through the induction port. The disadvantages of this compromise arrangement, though present at any engine speed, are most marked in the lower half of the engine speed range.

Many ingenious methods have been designed to overcome this major cause of inefficiency of the two-stroke engine, but most of these methods are complicated and involve introducing many additional moving parts, all of which are liable to wear and to cause faults. The Cyclemaster method, however, is very simple, and enables the induction port timing to be made exactly to the theoretical ideal. This method involves one additional moving part, the Rotary Valve itself. It is a thin steel disc about  $2\frac{1}{2}$  in. diameter which rotates with, and is driven by, the crankshaft. (See Illustration No. 2). This disc has a small hole cut in it near its rim. The valve is lightly held against the face of

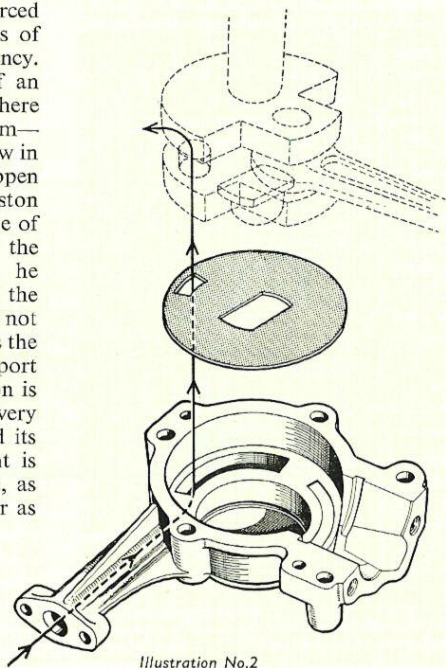


Illustration No.2

the engine casting which makes up one side of the sealed crankcase. In this casting is cut an arc-shaped groove which connects with the induction pipe from the carburettor. As the valve is driven round by the crankshaft, the hole in the valve lines up with the slot in the casting for part of each revolution so that the mixture from the carburettor can be drawn through them both into the crankcase. For the remainder of the valve revolution, the groove in the casting is covered by the valve disc so that no mixture can pass it in either direction until the hole in the valve engages with the groove again on its next time round. This groove and the hole in the valve are made to exactly the right dimensions so that they engage with one another for just long enough to enable the maximum breath of mixture to be drawn into the crankcase while the piston is rising, and to prevent any from being blown back the same way, as the piston descends.

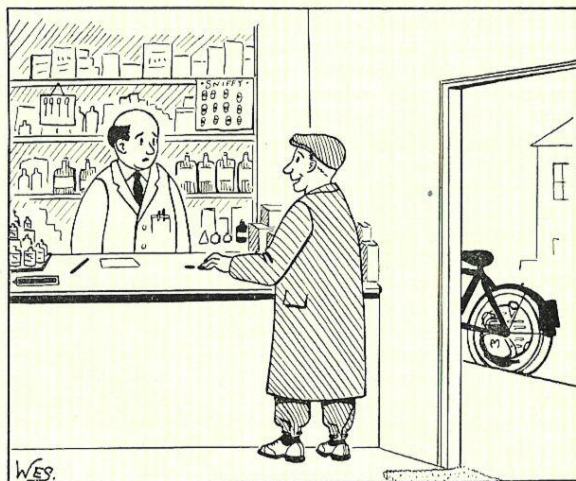
For those who like more detail, the Cyclmaster Induction Port opens 93 degrees before top dead centre, and closes 33 degrees after it. Compare these figures with the necessarily equal figures of a conventional two-stroke engine—80 degrees (approximately), before and after top dead centre.

Both the valve and its seating must be absolutely flat and in contact so that no gas can leak back between them when the pressure in the crankcase increases as the piston descends. Any leakage will mean that the engine will lose power—in an extreme case, its performance would be no better than that of an ordinary two-stroke engine. The rotary valve disc must therefore be made carefully and each face of the disc is finely ground to a very flat and smooth surface. A particular point

of interest is that during grinding, the disc is held only by a magnetic chuck. Any mechanical method of gripping the valve during grinding would distort the steel, which would spring slightly as soon as the grip was released, nullifying the effect of the careful grinding. Each face of the disc must be flat to within 4/10,000th part of an inch over its whole surface.

The valve is mounted on the crankshaft so that it is free to move very slightly both along and round the shaft. This is to ensure that it cannot bind or stick on the shaft, and can be held in close surface contact with the valve seating which is machined on the inner face of the induction casting. Three light springs hold the valve in contact with this seating. Wear on the valve and the aluminium casting is minute, as the surfaces are most effectively lubricated by the oil in the petrol mixture which is carried through the valve. In fact, the very slight wear which takes place improves the efficiency of the valve, in that the surfaces tend to mate even more accurately as they bed in.

We hope that this brief description of the Cyclmaster Rotary Valve will show why the Cyclmaster engine always breathes easily and efficiently and never suffers from "two-stroke asthma."



"A twopenny tube of petrol and a capsule of cod liver oil please."



# Rural Rides—Devon

By the Wanderer

OBVIOUSLY, NOT EVERY Cyclemaster owner is a country dweller. In fact, it is a safe assumption, since the majority of the population of this island lives in the towns, and the distribution of Cyclemasters seems to be pretty general throughout the length and breadth of the country, to say that a large proportion of them are not very familiar with the countryside and all the little details of country life that make it so interesting.

That being so we have decided to describe, from time to time, rides through our "green and pleasant land" which will include beauty spots both well known and not so well known and cover quite a wide area, so that short or long tours can be arranged, according to whether the prospective country-viewer is the young and impatient type who wants to cover a lot of ground and see it all at one go, or the more leisurely type who prefers to take his time and drink his fill of the pleasures the countryside has to offer.

## A Second Eden

Well now, as this is our summer issue and many people like to spend their summer holidays in the south of England, where better to start than in glorious Devon, which Devonians proudly claim is second best only to the Garden of Eden.

Exeter is the centre of everything in Devon. Not only is it the county town but it also makes a convenient setting-out point for all the most beautiful spots in the county, for all roads lead to Exeter.

The city itself has some interesting sights. Nobody who has seen it will ever forget the calm serenity of the Cathedral Close, so near to the bustling main street and yet so peaceful and quiet. Then there are some most interesting buildings. The Cathedral is a magnificent spectacle, standing today as it did 600 years ago, despite a direct

hit suffered during the last war. Points which should not be missed here are the stone roof to the nave, which weighs 5,000 tons and is supported by Purbeck marble pillars; a most unusual clock in the North tower, which shows not only the hour of the day but also the phase of the moon, the curfew which is still sounded at the close of each day and the Exeter Book of Early English Poetry, written in the ninth century, which is one of the very few sources of knowledge of the culture of English people between the departure of the Romans in the fifth century and the Norman invasion in the eleventh.

Then there are also the lovely Elizabethan Mol's Coffe House, the fourteenth century Guildhall, the city walls, which can be traced almost right round even today, the Rougement Castle, which is mentioned in Shakespeare's Richard III, and, among the many other places of interest, the fine new buildings of the University College of the South West.

However, our aim is to see the countryside and, interesting though it is, Exeter does not really come into that category.

Travelling north from the city, the best route to take is that which leads to Tiverton, for the scenery on that road is very pretty indeed. The Exe runs near the road to the left and very soon there is a road off to the left which leads to a little village known as Cadbury, where there is a hill that is thought to be the Camelot of the famous Arthurian legend.

The main road leads on, still through pretty scenery, to Tiverton, where a twelfth century castle should be seen. This town has strong connections with the famous Devon tale *Lorna Doone*, for its author, R. D. Blackmore was at school here.

After that to Bampton and Dulverton, on the edge of Exmoor. Here there are several interesting things to see. The

ruins of Barlynch Priory, the heronry at Pixton Park and the famous Tarr Steps, a primitive bridge which is considered to be pre-historic.

The road across from Bampton to South Molton and Barnstaple has some very fine scenery and so has the route which goes north.

Altogether, this is a wonderful area for touring, for everywhere there are lovely vistas of rugged countryside and the intrepid explorer who sets off across the moor at random need have no fear of being disappointed. Up on the north coast there is the well-known road along the coast through Porlock, Lynton and Lynmouth. If you haven't ever seen it you should never miss the opportunity, though it is as well to remember that here there are some of the steepest hills in the country and even the gallant Cyclemaster engine will be found to need pedal assistance on occasions.

Further along the coast is Ilfracombe, which is surrounded by beautiful countryside and makes a good centre for those who wish to savour the grandeur of this part to the full.

At Barnstaple you can buy Barum Ware pottery and see the crooked spire on St. Peter's Church, and further along the coast is Bideford where Charles Kingsley wrote *Westward Ho!* Westward Ho! for us leads to the picturesque-cliff village of Clovelly, which is again a good centre for touring, though not even a Cyclemaster is allowed to travel down the amazing stepped street that drops about 400 ft.

The road back towards Exeter leads through Hatherleigh to Okehampton, with the River Torridge running nearby and providing some charming views.

Okehampton, of course, is on the fringe of another moor—the most famous in the whole country (perhaps we had better qualify that to “one of the most famous” or we shall be receiving lots of letters from irate Yorkshiremen who live up Ilkley way!) Dartmoor is not really as good an area for road travel as Exmoor. The countryside around here is not merely rugged, it is mostly impassable for wheeled vehicles, apart from the main roads which lead from Moretonhampstead to Yelverton and from Tavistock to Ashburton.

### Magnificent Views

Nevertheless, that should be no discouragement, for along these routes you will find plenty of magnificent views, with undulating moorland broken in the high places by massive rocks and in the low by flashing streams which cascade down the hillsides over the famous red Devon earth.

To see Princetown prison in the friendly warmth of a summer's afternoon, it is difficult to realise just how grim and forbidding this place can be on a winter's day when the mists are swirling across the moor and the icy rain is glistening dully on the grey tile





roofs and stone walls of the bleak buildings. The last time I passed that way was in mid-winter and I am sure that even if I were a potential felon, the very thought of that dismal scene would keep me on the straight and narrow path.

The roads in this part are certainly narrow at times, but never let it be said that they are straight, for they wind and twist across the countryside in a way that lives up to the famous theory of G. K. Chesterton:—

*The rolling English drunkard made the rolling English road.*

One of the chief charms of the moor is the fact that one very often comes across those charming wild ponies which seem to epitomise the spirit of freedom and self-reliance in the midst of our very civilised world. Few people know that it is actually forbidden to feed these animals, and for two reasons. In the first place one can never be quite sure that they will not exercise their independence to the point of eating a hand instead of the food it offers, and in the second hold-ups in traffic would very soon occur on those narrow winding roads if every car were to stop along the way.

## Uncle Tom Cobley Land

Before leaving the moor there are two more places you should make a point of seeing. The first is Buckfast Abbey, which was founded in the tenth century and has been rebuilt several times since then. The last rebuilding took place in our own century and it was carried out by the Benedictine monks entirely with their own hands. Then, of course, everyone wants to see Widecombe in the Moor, the scene of the immortal ride of Old Uncle Tom Cobley and all his cronies. This little village is also notable for its church, which does not get as much notice as perhaps it should. It is known as the "Cathedral of the Moor".

All along the south coast of the county there are some charming coves and bays, where the cliffs drop sheer to the sea and the white gulls wheeling in the sun make one want to fly too, it seems so easy and effortless. From Torcross, just east of Kingsbridge, you

can ride along right beside the sea by Slapton Sands and up to Dartmouth, where the Dart finally meets the sea after flashing and bubbling its way through the moorland channels from its source far up inland. Further up the coast at Torquay, there is one of the most typical Devon coves, Anstey's, just outside the town.

There are some fine beaches in this part of the world too, a particularly fine stretch is to be found at Dawlish Warren, just where the Exe comes down to the sea from Exeter.

To the East of the city there is again some fine scenery. The spots along the coast are justly famous, Lyme Regis being perhaps the best known. But for the inland explorer the road from Sidmouth up to Honiton is rewarding, as also is the minor road which leads from that town up towards the Somerset border and the Blackdown hills through the village of Dunkeswell.

Indeed it is difficult to travel anywhere in Devon without coming upon magnificent views, and no doubt there are some of my readers who have their own favourite spots which I have not mentioned.

If that is so, I must apologise. I have tried to point some of the most interesting spots in a county which is crowded with things to see. If you would seek further, do some exploring for yourself. Take a map with you, and never be afraid to ask the local inhabitants. Devonians are warm-hearted, friendly people and you will pick up many a fascinating detail which is not to be found in guide books (or touring articles).

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## Magic Wheel Back Numbers

WE ARE RECEIVING a number of requests from new subscribers for back copies of this magazine. We can still supply numbers 1, 3, 4, 5 and 6, but number 2 (July, 1953) is out of print.

The price for each issue is 7½d. post free. If any readers wish to dispose of their copies of number 2 we shall be glad to purchase them. They should be sent to Cyclomaster Ltd., 38a St. George's Drive, Victoria, London, S.W.1.

# Norwegian Saga

by Miss Valentine St. John

IN THE JULY ISSUE 1953 of *The Magic Wheel*, Norway was given as a place to visit with the Cyclenmaster. I had already made all my plans to go there. I belong to the Automobile Association, which carried out all formalities and presented me with foreign signs and a booklet containing pictures and parts of a motor in five languages.

I arrived in Bergen, July 27th, in pouring rain, slept on board that night and took the Sognefjord boat, July 28th, sailing all day long up the beautiful fjord in showery weather. I arrived at Hermansverk where the Agents, ignoring my Cyclenmaster, had arranged for me to go by bus to Marifjóra.

The bus had gone and I had thirty miles to go for my hotel!

A Norwegian appeared who spoke English. He tried two places for petrol for me and then filled my tank and put a nut on the plug which had disappeared *en route*. All the village stood round to see me start off! I shook hands and thanked him. He cautioned me to go slowly.

## Very bad roads

The C.M. started straight away but how right he was about going slowly! The roads are very bad, especially for my machine as I only have an ordinary bicycle front wheel which is much too narrow for the rows of potholes and the drifts of loose earth which come from the sort of concrete which they frequently spread on their roads and which the cars plough up at the sides.

My road lay along the fjord, which, in the evening light, appeared a beautiful deep green-blue, no doubt a reflection from the fir-clad mountain sides.

After Sogne I lit up; leaving the fjord I started to climb up, leaving a mighty rushing river below. I was among the pine trees with the rocky mountain on my right-hand going up steeply. No cars passed me so I was quite happy and at home on the right-hand side of

the road, but the potholes were body-shaking and the drifts were practice for dirt-track riding.

Rather weary, I arrived at Marifjóra, on the fjord once again, by 11.15 p.m. The Hotel made me very welcome, took over the Cyclenmaster and brought milk and sandwiches to my room. Here I discovered that in Norway one must arrange one's own bed. The bottom sheet and pillow is set and an eider-down in a clean white cover is folded down the centre of the bed. Sometimes a blanket is provided. One tucks oneself in to one's own fancy. I always slept well.

The next day I joined a party to the Jostedal glacier.

## "the lovely scene"

On Friday 30th I set out for the Sognefjellveien. The rain stopped and I had a beautiful run by the fjord as far as Fortun. Always I rode carefully over the potholes, grit and earth, but I still could feel the thrill of the lovely scene amidst which I travelled. Very few cars passed me and they were very leisurely because the road was not wide enough for cars to pass. They must draw in to certain parts made wider for that purpose.

After Fortun I turned into a road that went up rather steeply and my engine stopped. I knew I was coming to the road going over the Jotunheimen mountains. I sat on a rock and ate my sandwiches and drank my delicious Norwegian milk.

The rest of that day's journey was not really riding at all because I just had to push for most of the rest of the day. A milk lorry took me up three miles to above tree level; then at 6 o'clock I still had 15 kilometres to do! I'd made tea with water from a waterfall by the roadside on my tommy stove at 5 p.m. So I pushed again until nine o'clock, when snow was by the roadside and snowy peaks were nearer.

Then I made more tea and ate bread and chocolate.

Sometimes, when I passed a lake, the wind blew very cold across it and about 10.30 p.m. it started to rain. I arrived at the Sognefjell Turisthytte at 11.15 p.m. It was built of wood, and candles lighted me to my room. The young woman, who spoke English fluently, brought an oil stove to warm me. While I undressed she went for hot milk for me which I drank snug in my bed to the sound of rain and the stream running into the lake at the back of the hut. It was a breath-taking sight next morning to see the snow-clad peaks around, sometimes dazzling in the sun, sometimes covered with clouds when the rain came down.

I set off between showers to descend from these giants. The grit and dust was wet and I lost my balance and fell off but came to no harm. Soon I was amongst the green grass and trees once again and the sun shone now and then. The bike went well and I arrived at Lom in the Gudbrandsdal Valley in the afternoon.

I had obtained a pamphlet from Norway House called " Hotel I Norge " which gives all hotels in Norway, their prices and other details. With this I was able to ask the proprietor of each

hotel to 'phone to my next stopping place for a room so that I had no anxiety about accommodation at all.

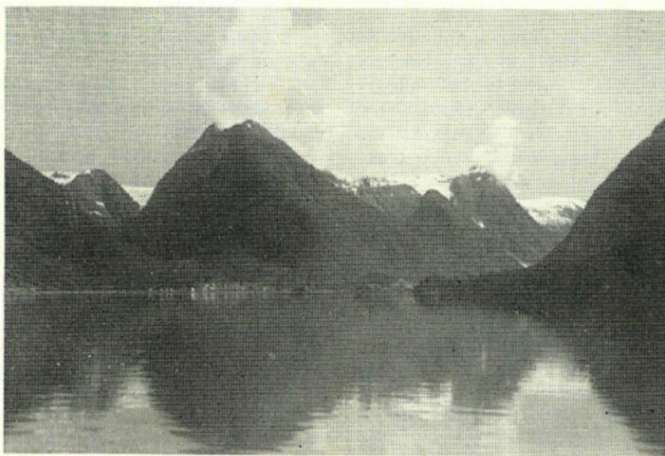
Fossheim Turisthotell is charming. Built in 1950 entirely of unpainted wood, with very simple carving on the beams, it is very well run by a doctor and his wife who cater for all kinds.

Between showers, and on a road which often worried me by its roughness, I travelled to Otta, mostly beside a tumbling torrent. Once a beautiful rainbow shone on the river and again on the mountain side. Children sold little baskets of strawberries, which added considerably to the enjoyment of my milk and sandwiches.

### Nocturnal Visitors

I had to stay in a pensjonat at Otta. The proprietress spoke no English but we managed quite well with a phrase book. At three in the morning campers by the lakeside strolled in the garden and chatted!

On Monday, August 2nd, I rode 77 miles, and, by a stroke of luck, had my only puncture just outside a garage, where they very quickly repaired it. Lillehammer is a charming town by the Lake Mjøsa. The wonderful museum of Maihaugan kept me a whole day there it was so interesting.



*A view taken near Sognefjellveien, which the writer visited during her journey*

I was warned Oslo would be difficult for hotel accommodation so I only rode forty miles to Hamar and stayed the night, arriving in Oslo early Thursday, August 5th, on quite a warm afternoon. The Artic road I travelled was in the best condition.

The ride through the town was rather a nightmare for me. The streets are all cobbled and trams often run on the right-hand side of the road, not leaving enough room for a bicycle. One must ride at a fair speed in the middle of the track. It was a bit difficult to watch everything and find my way, but a policeman directed me in English and, hot and breathless, I found the Carlton Hotel.

The receptionist had promised to help, and after telephoning quite a lot I was fixed up at Holmenkollen hotel. This is quite a distance out of Oslo and very high up. The Cyclenmaster went up the steep, winding road like a bird right to the very door and the last part of the drive is quite steep. At the back of the hotel is the famous ski jump and the view of the Oslo fjord far below is wonderful.

I spent the next day seeing the Fram, Kon-Tiki and Viking ships. I also went to the folk museum where I made a friend of an Oslo school teacher who was in charge of the Stave Kirke.

## In pouring rain

Saturday 7th I left Oslo in pouring rain. It was essential to leave because I had so many miles to do in order to get to Stavanger by August 12th to take the boat home. At the Automobile Forbunde a charming Norwegian had planned my trip for me, even marking hotels that were good to stay in.

I set off along the Drammensveien, a good wide road, but often being repaired. At one point I saw a warning and the state of the road was just as if it had been combed. But I couldn't stop the engine in time and went down in the wet mess. I was soon up and on again with no bruises. All day long I rode in pouring rain to Drammen and Kongsberg and finally to Bolkesjo

in Telemark, a lake district very beautiful even in the awful wet.

Everybody was very kind at Uppigarde, getting my clothes and belongings dried and making me comfortable.

The next day the Cyclenmaster was a picture to behold encased completely in fine clay or concrete, I don't know which. I went to the kitchen region and borrowed a hearth brush, and for an hour I brushed and wiped, removing it as best I could. Not being very mechanically-minded, I wondered about the plug; the top of it was caked with this stuff. I tried to get it cleared before removing it to clean it. But I guess some of it must have gone into the cylinder head.

## Dry, though unpressed

In finer weather and among flattering comments from all the guests at Uppigarde, I set off in dry though unpressed clothes the next day. The scenery was so beautiful and I was so breathless with admiration that I forgot to watch the road and slithered along in the earth, coming down with a crash. The handlebars were twisted and my handbag made shapeless.

My glasses fell off too. Happily, the lenses were safe. Straightening all things, I continued to Morgedal enjoying the warm sunshine but keeping a wary eye on the road, dismounting when I wanted to admire the view.

From Morgedal next day I was riding to Haukeliseter which meant a mountain climb again. The sprocket broke at Vinje and an excellent mechanic took the Cyclenmaster to pieces and made another, setting me on the road again in an hour. He only asked eight kroner, but I knew all was not well. The engine was not pulling; the throttle did not seem to work.

I climbed fairly high and pushed the last mile above tree level, after passing herds of goats. August 10th I had to push up for a mile or two, then had a wonderful run down to Roldal. Here I found a mechanic but he could not locate the trouble. When I arrived home my brother unscrewed the exhaust

and it was completely blocked with carbon!

I push-biked from Røidal to Nesflaten amidst most beautiful scenery of lake and mountain, waterfall and river. I had a hotel booked at Sand, which was about 12 miles, but I had only struggled three or four in the dark when some kind Norwegians advised me to stay the night in their village.

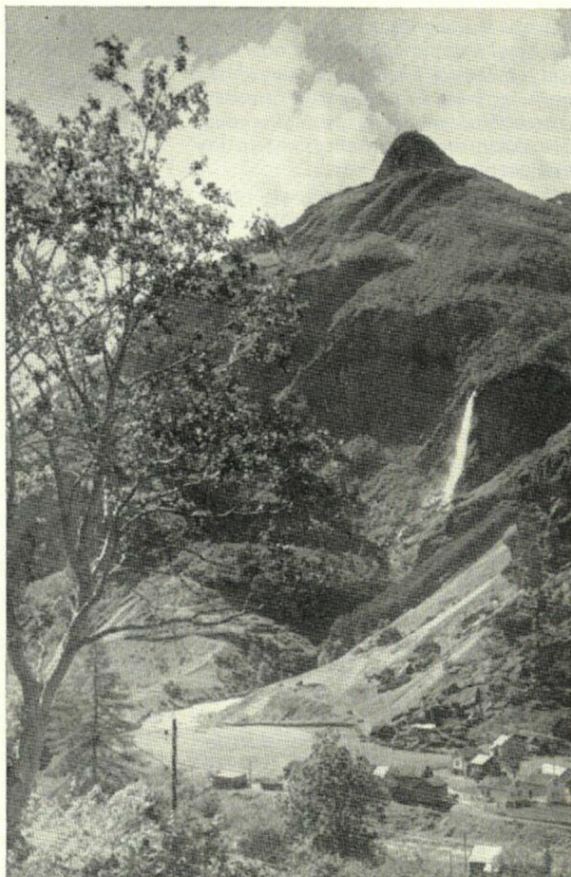
They told me the *bus* would take the bike next morning at seven o'clock for Sand to catch the next boat to Stavanger.

### **Wonderful drivers**

Sure enough, on the front of the bus, over the radiator, is a special grid on which they hang the bikes, and the driver made no demur about the motor. They put as many as four bicycles on sometimes.

And wonderful drivers they are too, on these narrow, winding mountain roads. So I caught my ferry and had a pleasant day in Stavanger feeling a bit of a tramp in my unpressed clothes.

It was too damp and chilly to change to a cotton frock but no one seemed to mind. The Norwegians are the kindest people I have met in the world and I have travelled in France, Switzerland, Egypt, America and Portugal.



*Another example of the beautiful Norwegian scenery; this time at Jotunheimen*

They don't take advantage of the tourist. They all go for holidays themselves and English people are treated as one of themselves. They are very modest about speaking English but do so exceedingly well.

I did 600 miles altogether on two and a half gallons, and in spite of mishaps I am looking forward to going again this year.

# JUST TICKING OVER... By The Idler

I WAS INTERESTED to see the article in the April 21st issue of *Motor-Cycling* which described how four members of the staff travelled from London to Brighton and back on under-50 c.c. built-in cyclemotors and compared impressions and performance figures. One of the machines used was a Cyclemate, which was ridden by John Griffith. He said at the end of the trip that he liked it for its "utter simplicity and reliability."

Unfortunately, though, Mr. Griffith did not really try the Cyclemate at its best, for he only averaged 136 miles to the gallon. Any Cyclemate user will tell you that there must have been something wrong there—and so there was. It seems that between leaving the company's factory at Weybridge and being delivered to the office of *Motor-Cycling*, the machine must have had a bit of shaking up, because on return it was found the carburettor float was not vertical. Obviously this would have considerable effect upon the economical running of the engine. However, it's pleasing to hear that an expert was so impressed with our machine.

\* \* \*

Now another expert is giving the Cyclemate a test. The Editor of *Power and Pedal*, Mr. Frank L. Farr, recently visited the Cyclemaster factory at Byfleet and chose for himself a machine to have on test from the many that were going through the production line at the time.

Cyclemaster Ltd. gave him the opportunity to do this to show that they have absolute faith in their products and no fear that unless a special machine were handed over for the test, it might not turn out as well as they would like.

At the time of writing Mr. Farr is still putting the machine through its paces and now it only remains to wait for the report to appear in *Power and Pedal*, which, I had better explain for those who are not familiar with it, is a

journal exclusively devoted to cyclemotors, autocycles and scooters.

\* \* \*

Here's a lively little controversy about to start, I'll be bound. I have had a letter from Mr. F. H. Simmons, a cycle dealer of London Road, Romford, Essex, who tells me that one of his customers bought a Cyclemaster from him some time ago and has now covered a genuine mileage of 48,000 miles. Just think of it—from London to San Francisco and back four times over. It's absolutely staggering! And all the time the machine has been maintained by Mr. Simmons' staff. The question is, (and this is where I can foresee some arguments starting) is this a record?

\* \* \*

Have you ever felt sorry for an animal that cannot get about as well as it should? I am rather soft-hearted myself and I think there's nothing quite so sad as a pet whose movements are restricted because it hasn't the ability to run about and enjoy itself as animals normally do. It was because of this weakness of mine that I was particularly glad to have a letter from Miss A. W. Riley, who lives at Heighington, Darlington. She has a lovely eight-year-old sheep dog called Ida, but unfortunately poor Ida cannot walk too well.

But she doesn't mind, for Miss Riley has a comfortable little trailer attached to her Cyclemaster on which Ida sits in state while they tour the district together. In fact, Ida has become a local "character." People for miles around know her well and wait for her coming so that they can feed her on tit-bits. Ida's moment of glory came not so very long ago when an American tourist came along behind and started taking moving pictures of her as she rode along.

# 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 advertise such service, and here is a list. Dealers who wish to be included can obtain full details from Cyclemaster Ltd.

	Telephone		Telephone
<b>BEDFORDSHIRE</b>		<b>LANCASHIRE (cont.)</b>	
BEDFORD. J. P. Simmons & Sons Ltd., 43-49 Tavistock Street.	67541/2	MANCHESTER, 3. Tom Mellor Ltd., 274 Deansgate.	Deansgate 6181/2/3
LUTON. Dickinson & Adams (Luton) Ltd., Bridge Street.	3535	MANCHESTER, 20. Saxon Jefferis Ltd., 674 Wilmslow Road, Didsbury.	Didsbury 3446 and 3540
<b>BERKSHIRE</b>		SOUTHPORT. Zetland Garage (Southport) Ltd., 91 Zetland Street.	58148
READING. Great Western Motors (A City Motors, Oxford, Branch), 12-14 Station Road.	3036	URMSTON. Jack Bamford, 114 Flixton Road.	2388
<b>CORNWALL</b>		WARRINGTON. Crabtrees (Warrington) Ltd., Bridge Street.	486
ST. AUSTELL. R. S. Damerell & Son, Whitemoor and High Street, Nr. St. Austell.	—	<b>LEICESTERSHIRE</b>	
<b>DERBYSHIRE</b>		LEICESTER. A. & P. Radio & Cycle Stores, 15-17 Knighton Fields Road West.	32731
DERBY. Kennings Ltd., Queen Street.	40211	LEICESTER. Batchelor Bowles & Co. Ltd., 60 London Road.	60268
<b>DEVONSHIRE</b>		LEICESTER. Reader's, 61/63 Aylestone Road.	59554
PLYMOUTH. P. Pike & Co. Ltd., 88 Union Street.	3108	LEICESTER. Smith & Parker, 75½ Narborough Road.	65360
EXETER. B. R. Warne, Bottom of South Street	55108	<b>LINCOLNSHIRE</b>	
<b>DURHAM</b>		BOSTON. Boston Motors Ltd., 56/58 High Street.	3991
DARLINGTON. White Bros. (Darlington) Ltd., 205-209 Northgate.	2379 and 2533	GRANTHAM. Grantham & District Motor Cycle Centre, 6 London Road.	789
<b>ESSEX</b>		<b>LONDON</b>	
CHELMSFORD. County Motor Works (Chelmsford) Ltd., Duke Street, (Opposite Station).	3674/5	EARLSFIELD. A. Gatto, 206/212 Garratt Lane, S.W.18.	Battersea 4364
ROMFORD. Kenistons, Victoria Road.	6283	EAST DULWICH. Bellamy's, 3 Lordship Lane, S.E.22.	New Cross 0666
<b>HAMPSHIRE</b>		HAMMERSMITH. Lawson Pigott Motors Ltd., 320/22 King Street, W.6	RIV 4111
ANDOVER. Anna Valley Motors, (Andover) Ltd., Bridge Street.	2344/5	LEE GREEN. Penfold Motors, 2-22 Burnt Ash Road, S.E.12	1202/3/4/5/6
ROMSEY. Davidson's, Bell Street.	2109	WALTHAMSTOW. Jack Nice, 129 Grove Road, E.17.	Coppermill 1920
<b>HERTFORDSHIRE</b>		<b>MIDDLESEX</b>	
HODDESDON. Norris's, 16 Amwell Street.	3266	NORTHWOOD. Colliver Fisher at Northwood Ltd., 14 Station Parade.	777
NEW BARNET. Lawson Pigott Motors Ltd., 184/6 East Barnet Road.	BAR 2353	POTTERS BAR. F. W. Andrews, 6 Hatfield Road.	4410
ST. ALBANS. Grimaldi Bros. Ltd., 188 Hatfield Road.	5595/6	<b>NORTHAMPTONSHIRE</b>	
WELWYN GARDEN CITY. Dickinson & Adams Ltd., Bridge Road.	32623	NORTHAMPTON. Grose Ltd., Marefair.	31682
<b>KENT</b>		<b>NORTHUMBERLAND</b>	
ASHFORD. C. Hayward & Son, 20-46 New Street.	334	NEWCASTLE-ON-TYNE. George & Jobling, Forth Street.	23105
BROMLEY. Davis & Hill Ltd., Ravensbourne 101 Bromley Common	2634/5 and 3020	<b>NOTTINGHAMSHIRE</b>	
BROMLEY. H. E. Hills & Son, 481 Bromley Road, Downham.	HIT. 4197	MANFIELD. W. S. Humphry Ltd., Albert Street.	1205
CHATHAM. The Chatham Motor Co. Ltd., Railway Street.	3413/4 and 45865	<b>OXFORDSHIRE</b>	
DARTFORD. E. C. Bate, 62 West Hill and 32 Lowfield Street.	2748 and 3548	HENLEY-ON-THAMES. City Motors Ltd., Reading Road.	1115
TUNBRIDGE WELLS. Ashplants Ltd., 11 Camden Road (also at Maidstone).	1869	COWLEY. Oxford. P. Church, Hollow Way.	Oxford 77094
SEVENOAKS. Angus Motor Cycles, (A. S. Herbert), 4-7 Station Parade.	3338	OXFORD. City Motors, Gloucester Green.	2231/2/3
<b>LANCASHIRE</b>		<b>STAFFORDSHIRE</b>	
BOLTON. Bradburys, 55 Bridge Street.	5781	BILSTON. Hines of Bilston, 29 High Street.	42200
LIVERPOOL, 1. J. Blake & Co. Ltd., 110 Bold Street.	Royal 6622	<b>SURREY</b>	
LIVERPOOL, 2. Bob Sergent Ltd., Moorfields.	Central 7398	CROYDON. Westbrook & Marley Ltd., 14-16 Park Street.	2061
MANCHESTER. Graham Bros. (Motors) Ltd., 7-15 Peter Street.	Blackfriers 9887/8/9	Continued opposite	

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

(Continued from opposite page)

	Telephone		Telephone
<b>SURREY (cont.)</b>		<b>WARWICKSHIRE (cont.)</b>	
FARNHAM. Heath Bros., 119-120 East Street.	6477	WARWICK. J. L. Vaughan, 9 Old Square. (Also at Leamington and Kenilworth).	Warwick 621
GUILDFORD. Stanley Godfrey & Co., Onslow Street and Bridge Street.	2212	<b>WORCESTERSHIRE</b>	
REDHILL. W. & L. Wheeler Ltd., 17-19 Cromwell Road.	938	WORCESTER. H. A. Saunders Ltd., 34 Foregate Street.	2495
RICHMOND. Grand Garages (Richmond) Ltd., The Circus, Kew Road.	3833	<b>YORKSHIRE (North)</b>	
<b>SUSSEX</b>		YORK. Bensons for Bikes, 45 Goodramgate.	2702
EASTBOURNE. S. C. Woodhams & Co., 336/8 Seaside.	3558	YORK. North Riding Motors Ltd., Clarence Street.	3220 and 3225
WORTHING. Masons, 151 Montague Street and Tarring Crossing.	1206	<b>YORKSHIRE (West)</b>	
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BIRMINGHAM, 27. Smith's Garage, (Acocks Green) Ltd., 164/6 Yardley Road, Acocks Green.	ACO. 1079	<b>SCOTLAND</b>	
BIRMINGHAM, 4. Whitworth's, 145 Corporation Street.	Central 3965	GLASGOW. John MacLean, 378, Cathcart Road.	Pollock 2823
COVENTRY. Frettons of Coventry, Service Station, 325 Foleshill Road and at Leamington Spa.	62919	<b>WALES</b>	
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# TIPS *worth* REMEMBERING

By  
The Engineering Manager

## THE FRAME BRACKET ASSEMBLY

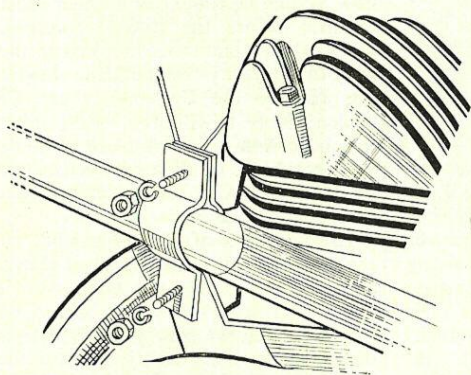
ONE PARTICULAR and important part of the Cyclomaster is usually taken for granted, and is therefore often neglected until the day it gives trouble for want of attention. This is the frame bracket assembly, which connects the suspension bracket to the left-hand chain stay of the bicycle. The bracket consists of two plates which are held securely round the chain stay by two small bolts. The brackets are made in two shapes, one to fit chain stays of circular section and the other to fit "D" shaped tubes. So that the bracket assembly is a tight fit on the chain stay, it is important that the correct assembly is used to suit each particular bicycle.

At some time you may have heard some back-room boy quote the law "action and reaction are equal and opposite," which was worked out by Newton or Einstein or Archimedes, or one of those brainy scientific types. If we apply this undoubtedly true law to the Cyclomaster, we can see that the "action" of the engine to rotate the wheel must have an equal and opposite "reaction." This reaction tries to make the engine rotate in the opposite direction. To stop this happening, the

engine is connected by the frame bracket assembly to the frame of the bicycle. If we disconnect the engine from the bicycle (as happens if one of the frame bracket bolts works loose and falls out) we can see that the suspension bracket will push upwards against the chain stay when the engine is driving.

Cyclomasters fitted with a back-peddalling brake need this bracket assembly even more. When the brake is applied the rubbing of the brake surfaces tends to drag the engine round in the same direction as the wheel, so that the suspension bracket pulls downwards on the frame bracket. If the engine was free, it would rotate with the wheel and the brake would have no effect. The frame bracket, connecting the engine to the bicycle, prevents this happening. If, as we have mentioned earlier, one of the frame bracket bolts is loose when the brake is applied, the engine will turn in the bicycle frame and will stop only when the fuel tank filler neck comes up against the rear of the saddle stay. This may damage the tank.

These examples show why it is important to examine this part of your Cyclomaster regularly, to ensure that at all times the bolts are secure and the clip tight on your cycle frame.



The correct fixing of the engine locating bracket. D & O brackets shown on right



## RADIO INTERFERENCE

In one of the first issues of the *Magic Wheel*, we described how to fit a radio-interference suppressor. Many of our new readers may not have seen this, and we are sure that you would like us to remind other Cyclomaster owners (we know, of course, that

it does not apply to you) of the importance of this small part. Those of you who have television sets, and some with wireless sets, will be well acquainted with the noise and distortion caused by some passing motor vehicles and have, no doubt, cursed the offending drivers. It is to the Cyclemaster owners amongst these offenders that we address this reminder.

The sparking plug of an un-suppressed engine acts as the aerial of a little radio transmitter which sends out signals which are picked-up by wireless and television sets nearby, causing interference. After June, 1953, all vehicles built had to be suitably modified to suppress these unwanted signals. To comply with this regulation, all Cyclemasters after No. 117,074 were fitted with a suppressor—their owners need not have interference on their consciences. Cyclemasters before that number, however, will cause interference unless a suppressor is fitted as an extra. There is, so far, no law which requires earlier models to be suppressed but it is an act of good neighbourliness to do so.

The suppressor, which costs 2s. from Cyclemaster Dealers, is a black cylinder about 2 inches long and  $\frac{1}{8}$ -inch diameter. When fitted in production, it is housed behind the magneto back plate, and so is not visible from the outside. To fit the suppressor to an earlier model, the sparking plug lead should be cut about 3 inches from the plug terminal and the ends of the cut wire screwed firmly onto the brass screw in each end of the suppressor. That is all there is to it. The signals from the sparking plug will now be reduced to well below the legal requirement, and so will not cause interference on wireless or television sets.

### A PUZZLING FAULT

A troubled owner wrote to us not long ago to ask if we could solve his problem. He told us that when he was riding to work one day, his Cyclemaster slowed, spluttered, and stopped, giving all the normal indications of running out of petrol. He took off the filler cap to check how much was in the tank, and found it to be almost full. He looked for any obvious fault, such as a loose fuel pipe, but as he could see none

decided to try to start the engine. It started instantly, and ran another couple of miles before the same thing happened again. He then thought it must be one of the fuel filters, but decided that he could not deal with them then, so ruefully pedalled to work.

In his lunch break he checked the filters, but found them clean. After checking the fuel level once more he set out on a short test run. His engine started immediately, and stopped again after two miles. This time he gave up and wrote to us.

Our Service Department man chortled when he read the letter because he had learned the answer to this one by bitter experience—on his own Cyclemaster one wet night. He wrote back right away to say “the air hole in the filler cap is blocked.” The owner told us a day or two later that, armed with this advice, he had found that the tiny hole in the upper surface of the filler cap was choked with grease and dirt, and that after he had cleared it with a pin, and by blowing through it, the trouble was cured.

This tiny hole, and another in the wall of the oil measure cylinder just under the screwed cap, are passages to allow air to enter the fuel tank as the level of the fuel falls. If either of these holes is blocked, air cannot get into the tank, so a partial vacuum is created in the tank and petrol ceases to flow through the fuel pipe. Each time the owner took off the filler cap to make sure he still had fuel in the tank, air was able to enter the tank and fuel would again flow, so that he could ride another short distance before the trouble recurred. Under these conditions, the higher the level of the fuel in the tank the shorter the distance the Cyclemaster can be ridden before it will stop. Remember this little hole when you are cleaning your machine, or if your Cyclemaster or CYCLEMATE ever suffers from these symptoms.

Early models of CYCLEMATE use the same type of cap as described above. More recent models are fitted with a cap which screws into the tank, and on this type, the air breather hole is drilled in the filler neck just below the seating for the filler cap washer. There is no hole in the filler cap itself.

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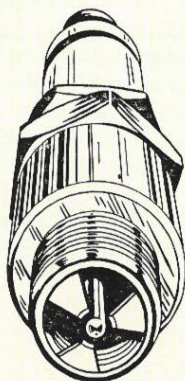


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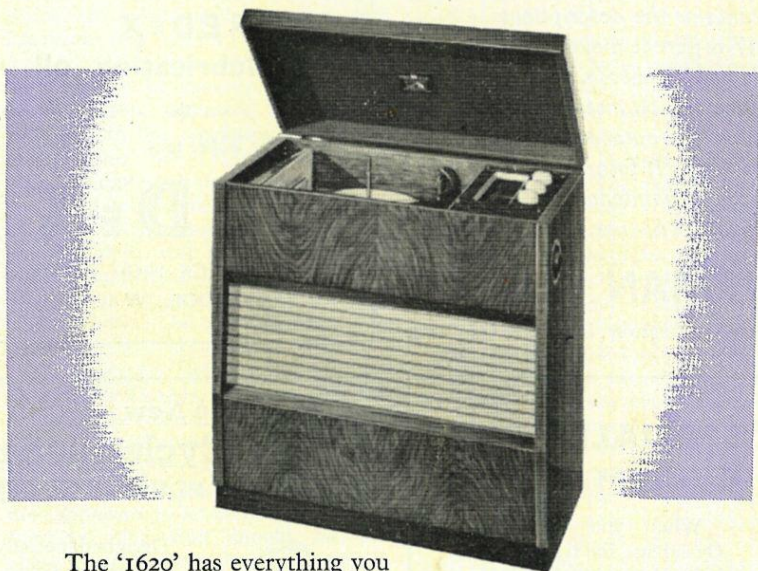
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