CONTACT

November 1972

First Car Prizewinner
(see page 219)

Some of the many guests—and some of the MANWEB demonstrators who helped make the occasion such a success—at the teachers' conference. *Top right:* **Mr. Cowan welcomes the visitors.**

TEACHERS' CONFERENCE

Over 400 home economy teachers attended a conference held by MANWEB at Head Office on Saturday, 14th October. The delegates were drawn from schools spread over the Merseyside and North Wales area.

Mr. Matt Cowan, the Board's Chief Commercial Officer, chaired the conference and welcomed the delegates. He introduced each of the five speakers, three in the morning session and two after lunch.

Mr. David Mellor, the District Commercial Engineer of the MANWEB Clwyd District, was first to speak and his paper was entitled '*Hot water by wire.*' Miss Joan Thorpe, senior demonstrator with Belling and Co. Ltd., a leading cooking manufacturer, told delegates of the latest developments in electric cooking.

The morning session closed with Miss Barbara Strange, a MANWEB energy sales demonstrator, recounting her recent experiences in Finland, where she attended the XIIth International Congress on Home Economics in Helsinki.

Writer, broadcaster, cookery editor, consultant home economist, and National chairman of the Association of Home Economists, Mrs. Evelyn Rose, opened the afternoon session with her talk on '*Growing up with electricity.*'

The final speaker of the day, Mr. Roy Stewart, MANWEB Energy Sales Manager, explained to delegates just what aid MANWEB could give to the teacher. The conference was open to the floor of the hall and delegates were able to put questions to a panel of the speakers.

Manweb

THE STAFF MAGAZINE OF THE MERSEYSIDE AND NORTH WALES ELECTRICITY BOARD

CONTACT

Vol. 24 No. 11 November 1972

On other pages

Editorial Staff
Keith Baldwin
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Sam Doughty

A Hard-Won Record

EVER since our local electricity supply systems struggled into existence in the closing years of the last century, maintaining and improving the reliability of supply has been one of the major objectives of everyone connected with the industry.

Over the decades the networks have been extended and strengthened, linked and amalgamated, covered with the compensating umbrella of the grid and supergrid, and fitted with every kind of protective device which engineering ingenuity could produce.

Our engineering and mains colleagues have learned to deal with equanimity—if not contentment—with every kind of hazard created both by man and nature, ranging from aerial bombardment, vandalism, strikes and careless pickaxes, to flood, gale, lightning, blizzard, and low-flying swans.

It is against this background of unceasing effort that Britain's electricity supply has established itself as the most reliable in the world, and the forced disconnections brought about by industrial action in the last two winters left unhappy stains on a proud and hard-won reputation. For this reason we all have cause for relief that we can face the coming winter as a united team, with the possibility of another dose of the same unpleasant medicine much diminished.

But harmonious labour relations alone are, unfortunately, not enough to guarantee that we shall have no supply problems and this number of *Contact* tells something of the story of the back-room boys who man the Reporting Centre at Head Office, ever on the watch for signs of trouble. After all, it may be some little time before we can get the gods of thunder and lightning—to say nothing of the swans—to hammer out an agreement round the conference table!

OUR COVER PICTURE

First of six weekly winners of a new "1300" car in a MANWEB/NORWEB competition open to purchasers of new electric cookers was Mr. Larry Sullivan, of Maghull. The win came at a timely moment—Mr. Sullivan was off work with a broken leg, and one of the two "minis" owned by his wife and himself was a 10-year-old model with a doubtful future in a pending MOT test!

Our picture shows Mr. Tom Saladine (District Sales Supervisor), handing over the keys to Mr. and Mrs. Sullivan.

For all the world like a couple of mechanical ducks searching for tit-bits, the two huge excavators are pictured hard at work digging out a trench in the river bed to make the cable's final resting place.

33kV ACROSS THE CLWYD

The constantly-increasing demand for electricity in MANWEB's Clwyd District meant that the reinforcement of the 33,000-Volt network between substations at Rhyl and Kinmel Bay became a matter of ever-growing urgency . . . . .

But the cable had to cross the River Clwyd near Foryd Bridge—and here the weather took a hand.

First of all the possibility of crossing under the road bridge was looked into, but it was soon discovered that the bridge already had its share of 'passengers'—in the form of one 11,000-volt cable, pilot lines and telephone cables, a gas main and water pipes—making the task of adding another 33,000-Volt cable out of the question!

That left only the river bed as a route for the new cable, and faced the MANWEB engineers with the task of playing a waiting game with the weather.

First of all they needed a long dry spell, so that the usual torrent feeding the river from the Denbighshire uplands would dry away to a comparative trickle. Then they needed an extra low tide, so that water from the sea would not fill the river mouth, and finally they had to wait for an occasion when the low tide would come during the daytime, so they could get on with the job with the benefit of good lighting.

Perhaps they might have been forgiven for thinking that the unpredictable British climate would never provide these favourable conditions, but patience brought its reward on September 19th, when it became possible to give the word "Go!"

A Big Pull!

More than 300 metres of special, submarine 33,000-Volt cable was run from the jointing point on one side of the obligingly-placid river down the river bank. From the opposite shore a hauling cable from a winch was ferried across, then connected to the electricity cable, and the big haul began—via a raft anchored in mid-stream.

A long steady pull took the 33,000-Volt cable across the gap, and along a trench to the second jointing point on the farther shore, and the cable spanning operation was at once followed up by two

A human chain loads sandbags on to the raft, for transfer to the trench to lock the cable safely in position.

HEAVE

Despite every kind of modern mechanical aid, there are times in most cable-laying jobs when only muscle-power will do the job properly. 33,000-Volt cable is heavy stuff, and even with winches providing most of the power there is still a call for many bent backs and straining sinews during a job of this kind!

Right, and below: **Various aspects of the need for many willing hands during the hauling and location of the cable.**

powerful "Hymac" excavators, which trundled out to the centre of the river and began the urgent job of gouging out a deep trench in the river bed.

When the trench was six feet deep the cable was dropped in, followed by layers of sandbags and concrete slabs to ensure that the action of tide and current would be unable to dig it up from its watery grave!

From sea wall to sea wall the new river crossing covers about 150 yards, and the contractors, the Midland Electrical Construction Co. Ltd., had the benefit of the expert knowledge and advice of Mr. John Povah, a local deep sea fisherman, whose detailed knowledge of the river bed proved to be invaluable. After the work was finished Mr. Povah donned his "wet suit," and went down beneath the water to check up that the cable had been well and truly laid!

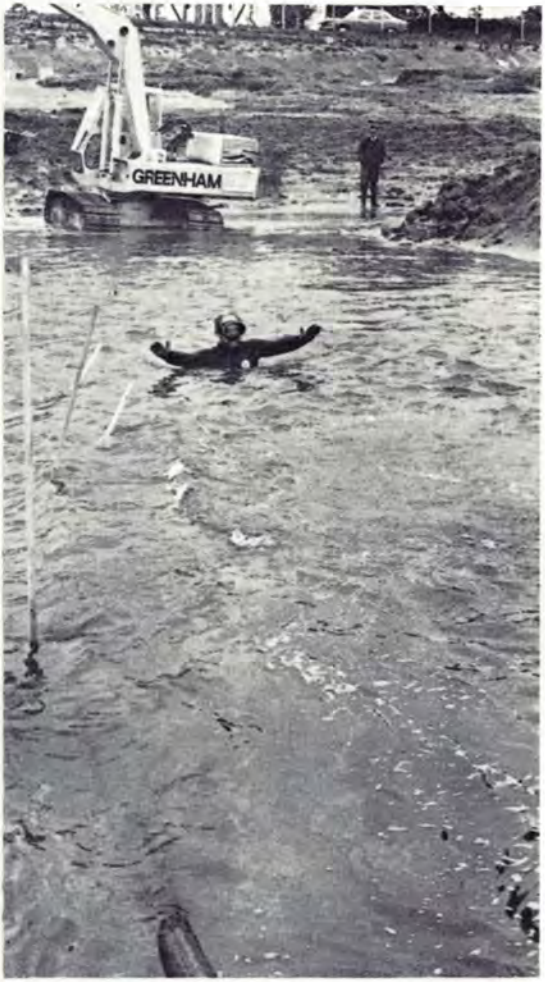
Jobs of this kind rarely pass by without unexpected problems cropping up, and one of the snags in this particular case was the necessity to cut a hole in the two-feet-thick concrete sea wall, and to burn a way through a a three-quarter-inch steel plate.

Fortunately, at this point, the river had a hard base, in contrast with the slimy mud so often encountered in river crossings, and the excavators were able to work quickly and easily.

The timing of the whole operation was perfect, and the cable was finally laid "on line," practically to the inch!

Cutting this hole in the steel-and-concrete sea wall was just one of the obstacles which had to be overcome during the process of crossing the river.

The only man who could give the final "All's well"—Mr. John Povah, a local fisherman, surfaces to give the all-clear on the final location of the cable.



GROW ELECTRIC

Choosing and running the
ALL-ELECTRIC GREENHOUSE

By a GARDENING CORRESPONDENT

IF YOU have the desire to own a greenhouse now is the time to shop around, decide what kind of house you want, place the order, and have it erected ready in time to start sowing seeds for next year.

Whether you buy a wooden or an aluminium house, buy one at least eight feet wide, preferably ten feet. The reason is that in any house you have to have a two foot path down the middle. Thus, if you have a ten foot by six foot house you only have a growing area, after allowing for the path, of 40 square feet. But with a ten foot by eight foot house you have 60 square feet. Before deciding, work out the cost per square foot of growing area provided by the different types and sizes of greenhouse.

Next, the type of greenhouse. If you are only going to have one house, choose a make with glass to the ground. Then you can grow three layers of plants—one on the bench, one underneath, and some more on a shelf above the bench. At today's cost of heating it makes sense to squeeze as big a dividend from the house as possible.

The Right Site

Site the greenhouse as near to your house as possible. If you intend to heat the greenhouse by electricity which is, of course, the most convenient and efficient method, the nearer the greenhouse is to the source of supply, the lower will be the cost of installing the cable.

If you decide to use electricity, do take advice. Obtain the booklet "*Electricity in Your Garden*," free from electricity board shops. Study it. There are various methods of heating a greenhouse by electricity, but tubular heaters are very popular. They are slightly more expensive to install than a fan assisted heater, which only requires a single socket. If the element in one of a bank of tubes should fail, it is easily replaced, and the remaining tubes should in most circumstances maintain a safe temperature until the replacement is made.

Some people say that it is expensive to heat a greenhouse by electricity. But the secret of economic electric heating is to combine soil warming with space heating. Most plants need a root temperature of 10°C (50°F) to grow in winter and spring. To heat the soil, either in a border or in pots on a bench, to this temperature by heating the air to 10°C is fairly expensive—it costs twice as much to keep the air temperature at 10°C as at 7°C.

Fortunately most of the plants the amateur wants to grow, the cuttings he wants to root, and the seeds he wants to raise, are perfectly happy with a root temperature of 10°C and an air temperature of 7°C. By using soil warming cables in the benches or in the border one can maintain a soil temperature of 10°C very economically, and run the air temperature at 7°C.

Next to heating, ventilation is a problem, especially for the gardener who is away all day. Thermostat-controlled fans are most effective. To obtain best results, set the thermostat to switch the fan on when the temperature in the greenhouse reaches 10°C in summer. In winter, when the heating is in use, adjust the fan thermostat to begin extraction at 16°C.

To germinate seeds more quickly, a small propagating case can be rigged up on a soil-warmed bench, or there are available various types of thermostat-controlled propagators. For anyone really keen on propagating plants by cuttings, a small mist propagating unit is worth consideration. If, say, you have an empty garden and want to fill it cheaply with shrubs and other plants, a mist unit would soon pay for itself.

Long-term Planning

One important point. Think carefully and look ahead before embarking on the installation of the electricity supply for your greenhouse. You will be so delighted with it that you will almost certainly wish to extend it, add more electrical accessories, and soil-warmed or air-warmed frames. Make sure you install a cable and switch gear large enough to take the extra load of any equipment you may wish to install in the forseeable future. So many people say "*I only want to keep the frost out*," and lay in a cable capable of carrying a load to do only just that. Then, when they want to add to the installation, a new cable is required.

WATERING EQUIPMENT

It is surprising how important water is to the gardener—especially if he has a greenhouse. Watering under glass can be quite a problem as many gardeners know—particularly at holiday time when there is no kind neighbour to lend a hand!

Temperatures rise rapidly inside a greenhouse and increase the rate of plant growth, which creates a demand for more water at frequent intervals. These high internal temperatures also produce a much drier atmosphere. Soil in greenhouse borders dries out quickly and compost in the pots and boxes also becomes dry at an alarming rate. The number one holiday problem is how to keep all the plants watered efficiently during your absence. Fortunately, several automatic watering devices are now available which go a long way to solving this ever-present problem.

The ideal watering device is one which can 'think' for the gardener and virtually take his place during his absence either at work or on holiday. This is where electricity really comes into its own as a valuable gardening aid.

A solar-controlled watering system is available which is very easy to install. Its solar control is based on a transistorised light-sensitive cell. This reacts to daylight or light intensity which, of course, has a direct relationship to the rate at which moisture is lost from the greenhouse soil. The brighter and more intense the light, the higher the temperature inside the greenhouse and the more rapid the drying out of the soil. During these conditions water is applied more frequently—just when it is required!

In dull weather less water is necessary, and the solar-control makes sure that this is so. At night there is no watering at all. This apparatus gives much more attention to watering than the average gardener and provides a much more accurate application over a period of time.

Safe and Economical

There is much more to this equipment than that. It works off a 24 volt supply and is completely safe even in damp greenhouse conditions. The consumption of electricity is very economical, about the same as a 40 watt lamp.

Five different water applicators can be used with this electrically operated system and all the necessary pieces of equipment including small-bore plastic

△ **The temperature in this greenhouse is maintained automatically at the optimum growing temperature by two aspirated thermostats (*top right*). One controls an extractor fan (*top left*) which removes warm air in summer and the other controls the heating.**

Cuttings can be rooted quickly under mist with a high percentage of takes. The frequency with which the mist spray operates is determined by the rate of evaporation from an electrical sensing element (*left*). As long as a gap between two carbon electrodes is bridged by a drop of water, a solenoid operated valve shuts off the water supply. ▷

A propagating case with removeable glass sides in which exotic plants can be grown in stove house conditions. Costing about £50 it has thermostatically controlled soil and air warming cables.

pipes are supplied. Special watering heads can be fixed to the staging to supply an overhead coarse spray for seedlings in pots and boxes. A finer spray is provided by a mist propagator head so that even more success is assured with plant and seed propagation.

Plants in pots on a sand bench can be supplied with water by capillary action. A length of trickle irrigation pipe fitted with adjustable nozzles allows water to drip on the sand bed and keep it constantly moist. The same length of pipe can be arranged along the tops of seed boxes or pots to keep them nicely moist. The pipe can also be laid on top of soil beds and between tomato or cucumber plants.

A small nozzle which emits a fine mist spray can be attached to the greenhouse roof to provide ideal humidification.

Regulated Moisture

All these devices are part of this watering system which can be set up in a few hours. The bursts of water are regulated to last about five seconds. The solar controller can be regulated to extend or decrease the frequency of these water applications.

Electricity can certainly improve the standard of our gardening under glass and will do much to enhance success with plant propagation—one of the most fascinating parts of our gardening activities.

Simple and Effective

Mist propagation, powered by electricity and controlled by a special sensor, prevents the foilage of cuttings from drying out and wilting during the initial rooting stages. Mist also maintains the rooting medium at an ideal moisture content level. The sensor can be one which activates a micro-switch when it dries out or it can be in the form of a balance with an absorbent pad at one end. When moistened by mist, the applicator becomes heavy and forces the arm to drop. This breaks an electrical contact and turns the water off. When the pad dries out, it becomes lighter and the arm is raised, switching on the water once again. It is very simple and effective. Mist propagation combined with soil warming cables, of course, provides a highly efficient propagating bench.

Separate solenoid water valves (electrically operated which shut the water supply on or off) and sensors can be used to make up quite a range of watering systems to suit individual requirements.

Above: **A cross section of the turnout at the Rhyl conference.**

Left: **A feature of the evening—presentation of First Aid Certificates by Mr. K. Helliwell (*Group Manager*).**

STAFF CONFERENCES

at Clwyd . . . . .

A good turn-out of Clwyd District staff, including many pensioners, attended the District staff conference held recently at a Rhyl hotel, and organised by No. 7 Local Advisory Committee.

Guest speaker for the evening was Mr. John Cain, deputy chairman and director of Hobson Bates and Partners, the industry's advertising agents at national level, whose talk entitled "*Does anyone watch the ads?—selling electricity on TV*" was backed up with a fund of anecdotes and a selection of TV and cinema commercials covering various aspects of national appliance and electricity sales campaigns over the years.

"Many people think of advertising as being rather disreputable and 'spivvy,' but that is not so." said Mr. Cain.

"Persuading people to buy the things our industry makes is an honest and important job, even though we do have to exaggerate in some ways in the course of what we do."

Advertising, said Mr. Cain, played an important role in preserving the customer's freedom of choice. As far as electricity advertising was concerned, many people felt that the industry should advertise electricity itself, and tell people how good it was, but that was not how the busy housewife thought about electricity.

"She cannot go out and buy it by the quart or the packet. The benefits she is interested in are those which come from the various domestic appliances, and from lighting and heating." he added.

Mr. Cain's talk was backed up by the screening of commercials featuring such well-known characters as "Poor Cold Fred" and "Gran," and ranging from central heating campaigns to sales of cookers, refrigerators, and other appliances.

The evening began with an enjoyable meal, and the LAC's proceedings were opened by a report on the year by Mr. Keith Griffiths, committee secretary.

An open forum session, dealing with such subjects as sports and social club facilities, the performance of MANWEB shops compared with privately-owned shops in the appliance sales field, and appliance repairs, rounded off an enjoyable evening.

Just a few of the management, retired employees, guests and staff who attended the Warrington meeting.

. . . and South Lancs

The South Lancashire District employees' meeting was held in the smart setting of the Wilderspool Leisure Centre Restaurant next to the District Office at Warrington.

With an attendance of 260, including more than 50 retired members, a new record was set for numbers—and probably for the length of meeting, for it continued into the early hours of the morning.

After an excellent meal, Mr. J. W. Trimble, the Group Manager, who was the chairman of the proceedings, welcomed delegates and representatives from Head Office, and then reviewed the year's trading.

It had been a disappointing year for the industry, he said. Our national costs had increased by some £50 millions, but we had been prevented from recouping all of this owing to restrictions on raising our tariffs. This had been the main cause of the £23 million deficit nationally and the MANWEB share, which was £1.57 millions.

South Lancs had reflected the MANWEB pattern in it's returns for the year, with appliance sales and contracting work bringing the only real bright spots.

The Secretary of the L.A.C., Mr. J. Sherwen, reported on the work of the committee which covered matters dealing with the health, welfare, efficiency and safety of Board staff.

The main speaker of the evening, Mr. D. W. Maddox, followed Mr. Sherwen with a talk on "*The future of Joint Consultation.*" Mr. Maddox, Personnel Manager for the N.W. Region of the CEGB, was a member of several joint consultative committees.

He told his audience that the machinery for joint consultation was the envy of many other industries, who were under pressure to adopt similar methods.

Consultation took time, and often the implementation of recommendations took time to come into practice. Criticism of consultation was mainly owing to this delay, but it was important to use time wisely, he added.

Looking to the future, Mr. Maddox suggested areas that might be improved were attending to the newcomer (especially on the first day), informal shop floor consultation, small discussion groups and ensuring that information flowed.

Finally he emphasised the need for teamwork and an effort by all parties to see the other fellow's point of view.

Following several written questions from the floor, Mr. R. Monk, District Commercial Engineer, proposed a vote of thanks to the guest speaker.

That concluded the business side of the evening, and with the aid of Mr. J. Drew, and his disco-style music, those present danced the rest of the night away.

The 23rd ANNUAL GENERAL MEETING of the ELECTRICITY SUPPLY (STAFF) SUPERANNUATION SCHEME will be held at the Electricity Council Offices, Millbank, London, on Tuesday, 12th, December, 1972.

The first of Gwyn Williams' vintage collection—the Raleigh single-cylinder, with some of the trophies which his enthusiasm has earned over the years.

Restoring Former Glories—

A MANWEB MAN'S ABSORBING HOBBY

Gwyn Williams, a service electrician based at Corwen in our Dee Valley District, has always been interested in anything antique or "vintage"—but it was a service call to a local farm 11 years ago which started him on a new and fascinating hobby.

Sticking out from the door of a lean-to was the back end of what he recognised as a vintage motor cycle. Gwyn offered the farmer a modest sum—and became the owner of the bike for half of his offer when the farmer said that would be enough from a man decent enough not to ask for the old wreck for nothing!

Since then Gwyn has spent thousands of hours on his hobby of renovating and exhibiting vintage motor-cycles, and quite a few heaps of rusting scrap iron have been painstakibgly restored to their former glory.

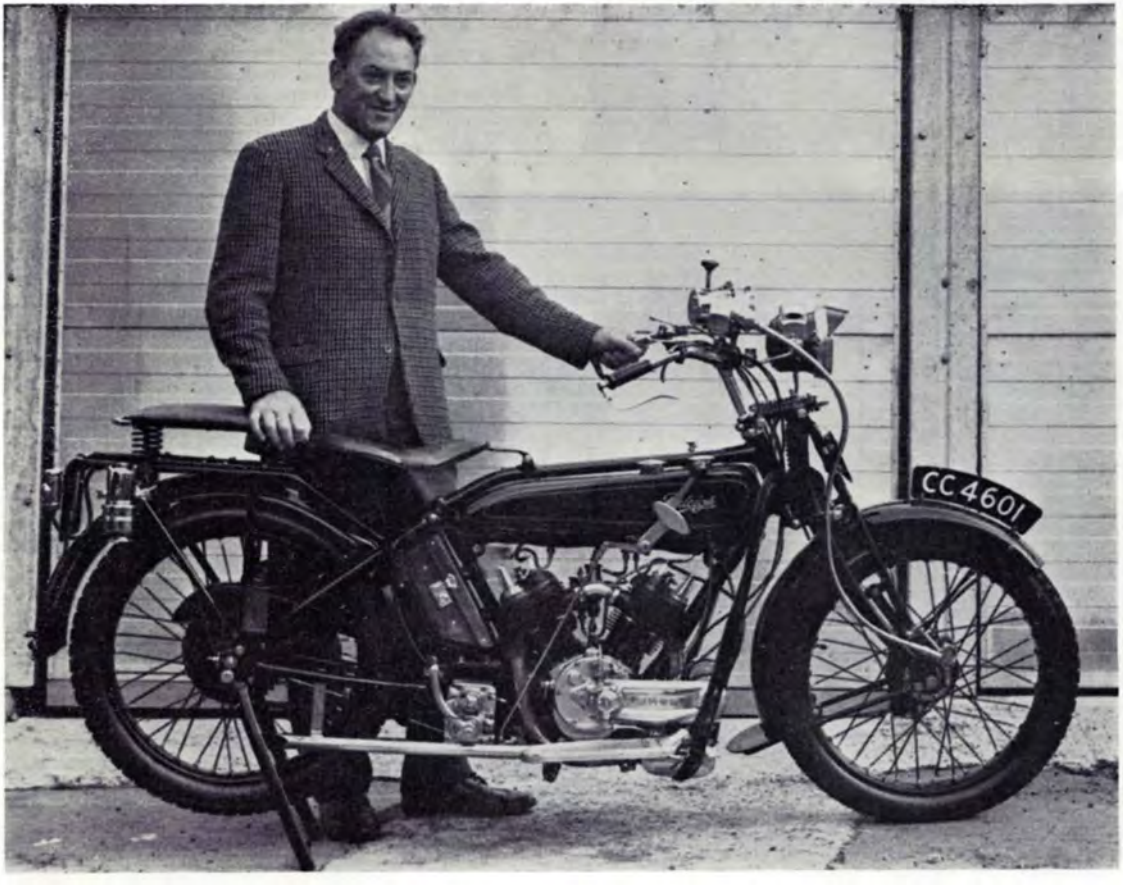
That first farmyard bargain turned out to be a 1924, two and three quarter horse-power, belt-driven Raleigh. At once he set to work, cleaning, oiling, painting, and making his own spare parts when necessary. Through the Vintage Motor Cycle club he laid hands on another model, which came in useful for spares, and soon the former wreck, given a completely new lease of life, was spick and span and in running order.

Gwyn decided to start rallying the machine, and entered for reliability trials, involving maintaining a set average speed through check points over long distances. His bike gained many awards in the *Concours d'Elegance* sections, being always the most immaculate in the field.

By now Gwyn was thoroughly caught up with his new interest, and the *Contact* of December 1967

Perhaps you wouldn't believe that these are the same machine (the Raleigh Vee-twin)—but remember those 570 hours of work.

Before and After . . . .



carried the following advertisement:

"*Wanted, by vintage enthusiast, the whereabouts of any old motor-cycle, pre-*1925. *Any condition.*"

The ad was spotted by Mr. H. Williams, then a section engineer at Colwyn Bay (now based at Rhuddlan), who had seen an old bike at Abergele, and passed the tip-off to Gwyn.

Gwyn wasted no time, and found another 1924 Raleigh—this time a more potent seven horse-power Vee-twin. Once again he made an offer—and became the owner of his second vintage Raleigh.

After going home for a trailer, Gwyn returned to Abergele, and was surprised to meet at the house a lady he recognised as Mrs. Margaret Haskey, a sales woman from our Wrexham shop. It turned out that he had bought the bike from Margaret's father!

Enormous Job!

The renovation of the new acquisition turned out to be a monster task. First he tried to get hold of another model, to be cannibalised for spares, but his search was fruitless—probably because there were only seven of these bikes left, three of which had been restored.

Nothing daunted, Gwyn began a job which would have frightened Hercules! Mechanical parts had to be specially made—many by Gwyn himself. He did all his own nickel-plating of the brightwork (chromium plating did not become common until 1930), except for the handlebars and exhaust, which were done professionally because they were too big for Gwyn's vat. He coach-enamelled the whole machine, except for the tank which is coach-lined and bears the trade monogram.

But before you think of catching the renovation bug, bear in mind that Gwyn put in 570 hours of work, spread over three years, on this machine alone!

As time has gone by, Gwyn has found himself acquiring earlier and earlier machines, and one which pre-dates the Raleighs by quite a few years is a 1915 Ever Ready Auto-ped scooter, with a motorised drive to the front wheel. This was made in New Jersey, U.S.A., and has a 115 cc engine and a steering column which, when drawn back, releases the clutch and applies the brake.

This machine was used for personnel transport at the Queensferry munitions factory (later to become the Board's Queensferry stores) and was discovered and bought for Gwyn by a friend at Ruthin.

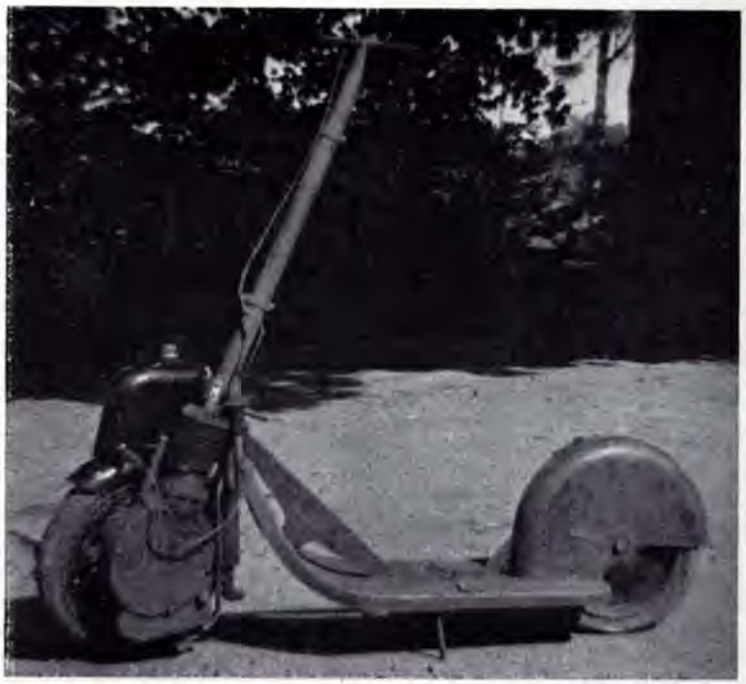
He also has another bike in the scooter line—a 1948, 98 cc Brockhouse Corgi, a little folding machine originally designed to be dropped with para-troops.

Next on the list for restoration is an even older and more rare specimen, which fell into Gwyn's hands by accident.

One of Only Three!

Returning home from a rally in Stafford last year—with the first Raleigh in his trailer—he stopped for petrol at a garage at Gobowen. The pump attendant, noticing the Raleigh, told Gwyn of another very ancient machine which had lain in a local workshop since its owner failed to return from the first World War! When Gwyn went to the house he found it had been sold, but tracked down the buyer, made an offer and became the owner of a 1906 211 cc Motosacoche.

This bike was made in Geneva by H. and A. Dufaux, a single-speed model with automatic inlet-valve and accumulator coil ignition, and is only one of three of this particular early model known to be in existence, the other two being in Scotland and Australia!



The American-made auto-ped which began life at Queensferry during the first world war.

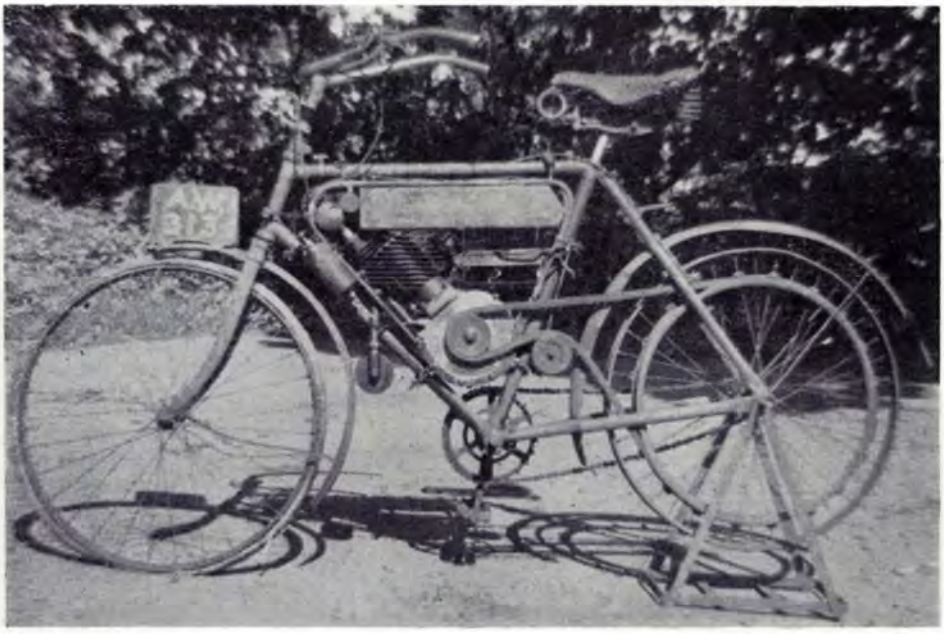
Gwyn's enthusiasm has brought him many awards and trophies, the most important being the Birmingham Industries Trophy and the Feridax Trophy—the premier award of the Vintage Motor Cycle Club, awarded annualy at the Banbury Run for the best restored machine, having special regard to the original specification. Gwyn won this award this year with the Raleigh twin—from 360 entries!

He is a member of the Vintage Motor Cycle Club and enters for about a dozen rallies, staged in al parts of the country, every year.

He is reticent about how much he pays for his machines, for a real enthusiast's reason—"You shouldn't talk about sordid stuff like money and vintage bikes in the same breath!" We can reveal, however, that the sums which have changed hands have been very modest—but the thought of those hundreds of hours of labour (at overtime rates!) makes us wonder what the real market value of the restored products should be .... or perhaps you can't put a price on a labour of love!

Gwyn served his apprenticeship with a local contractor, and joined MANWEB at Llangollen in 1950. He is married, and lives at Corwen with his wife Eirlys and their two sons—Ifor, aged eight, and Huw, aged five. The boys look like sharing father's enthusiasm, as Ifor already rides the Corgi scooter when he attends rallies with his father.

Ifor with the Corgi scooter.



The daddy of them all—the 1906 Motosacoche—with plenty of work ahead!

Mr. Cyril Gibson adjusts information symbols on the Reporting Centre's 33kV system diagram to show the current operating condition of the MANWEB 33kV network.

NERVE-CENTRE OF THE MANWEB-NETWORK

The Reporting Centre at Sealand Road

FOR 24 hours a day, seven days a week, surrounded by a floor-to-ceiling diagram of MANWEB's 33,000-Volt network in a quiet lower-ground-floor room at our Head Office at Chester, a team of the Board's engineers, working on a rota system, keep a watchful finger on the pulse of our electricity distribution system throughout Merseyside and North Wales.

The establishment of a central Reporting Centre designed to co-ordinate the operation of the network throughout the Board's area, to liaise with the CEGB over faults and problems of supply, and to provide an advisory service to our District operation engineers, was one of the important developments stemming from our recently-completed re-organisation programme.

When the former MANWEB Areas were phased out of existence it was necessary to establish improved arrangements for 24-hours-a-day liaison with the CEGB's Systems Operation section, and to co-ordinate the operation of our own 33,000-Volt system between the MANWEB Districts.

Under the three-tier organisation, contact with

the Systems Operation section of the CEGB was on a different basis in each Area.

In Area 1 the senior assistant engineer (operation) and his second assistant acted as co-ordinators. In Area 2/3, while the Area Operation section did function to some extent in a similar capacity to that of Area 1, there was also some direct contact between between the CEGB and Districts. In Area 4 co-ordination with the CEGB was handled by the Area Operation Section and the control room at Legacy provided a ready 24-hours-a-day means of consultation.

Central Co-ordination

All these lines of communication meant that the Generating Board could not always be sure, particularly out of hours, of making satisfactory arrangements to cover emergency conditions, and it was decided to establish some central co-ordination, rather than to leave the responsibility with individual District Engineers.

It was therefore agreed that a Reporting Centre would be established at Head Office, manned by staff transferred from Legacy. The main tasks of the new Centre would be:

★ *To receive from the CEGB, and to initiate throughout MANWEB, load reduction and emergency load-shedding instructions.*

★ *To co-ordinate with the CEGB under emergency conditions caused by plant or circuit failure, insufficiency of generation, etc.*

★ *To liaise with the CEGB over planned outages, and to give clearance for such outages immediately prior to work commencing.*

★ *To inform the CEGB of any incident on the MANWEB network which might affect their generation or system loading.*

★ *To advise District operating staff on the restoration of* 33,000-*Volt network after an outage under fault conditions.*

★ *To co-ordinate MANWEB planned* 33,000-*Volt outages, particularly over their effect on adjacent Districts or the CEGB.*

In the new Reporting Centre a 33,000-Volt network board in the form of a hand-dressed diagram, together with a mounted 132,000-Volt system diagram, was installed, enabling actual running conditions of the systems to be indicated.

Once the Reporting Centre had been established the staff also undertook the reporting of major incidents, supply interruptions, dangerous occurrences, and exceptional loading conditions; the preparation of a daily "state of the system" report covering these points, and the up-dating of the 132,000 and 33,000-Volt system diagrams.

Six-man Team

A five-man rota, with a sixth to help out over times of holidays and sickness, mans the Centre on a three-shift basis. On the average about 200 incoming telephone calls are received, with about 40 calls on most Saturdays and Sundays.

Exceptional industrial or weather conditions, however, can transform this picture and turn the Reporting Centre into something of a "madhouse." For example, thunderstorms one Sunday in July resulted in the number of telephone calls leaping to about 150, while in the emergency conditions brought about by the miners' strike traffic was heavy and continuous from early morning to late at night.

Something like 1,200 miles of 33,000-Volt overhead line, and 700 miles of similar underground cable, come under the watchful eye of this busy and responsible team who look over the safety and continuity of our electricity supplies, while we work, play—and sleep!

The other permanent members of the team. *Left to right:* **Messrs. Glyn Bellis, Jim Blease, Joe Bolton and Walter McIlhagga.**

Mr. Warburton (*centre*) **receives his gift from the hands of Mr. Thompson.**

RETIREMENTS

. . . . at Oswestry . . .

Mr. G. WARBURTON

After serving the electricity supply industry for 37 years, Mr. Geoffrey Warburton, District administrative assistant at Oswestry, retired on September 30th.

Over the years Mr. Warburton has given invaluable service not only to the industry as such, but also to his colleagues and their welfare in his work on the Local Advisory Committee—of which he was secretary for a long period.

For the past few years he has not enjoyed the best of health, and his many friends hope that the less exacting times ahead will bring many years of happy retirement to Mr. Warburton and his wife.

At a ceremony at Oswestry he was presented with a VHF radio, on behalf of his colleagues, by Mr. W. J. Thompson, District Administrative Officer.

Mr. T. G. RICHARDS

After 20 years' service to the industry, based at Oswestry, Mr. T. G. (''Griff'') Richards retired recently, and to mark the occasion a social function was arranged at Oswestry Cricket Club pavilion.

Presenting him with the food mixer on behalf of his friends and colleagues, Mr. G. E. Davies (District Engineer) paid tribute to his long and loyal service, and on behalf of all concerned wished him a long and happy retirement.

Mr. Griffiths (*right*) **accepts the good wishes of his Oswestry colleagues, together with his parting gift.**

. . . Head Office . . . .

Mr. W. BUCKLEY

Mr. Bill Buckley, a stockchecker at Head Office and formerly at Rhostyllen, retired recently after over 20 years with the Board. He came to MANWEB after a distinguished army career, mainly with the Royal Army Medical Corps, in which he reached the rank of major.

Wishing Mr. Buckley well in his retirement Mr. R. J. Barraclough (Assistant Chief Accountant) presented him with a pair of binoculars on behalf of his colleagues.

Mr. Buckley said that he would continue with his present hobbies of reading and gardening, but thanks to the gift of binoculars he could add that of birdwatching to them (he was not prepared to say whether or not he meant the feathered variety!).

A farewell handshake for Mr. Buckley (*right*) from Mr. Barraclough.

. . . and Marsh Lane

Mr. J. McCREADIE

A man who has devoted a great deal of time and energy to the welfare of his workmates by his devotion to LAC and works committee matters retired from Liverpool North District staff on October 13th.

Mr. J. McCreadie joined MANWEB some 18 years ago as a mains labourer, after a varied life which included spells at sea, in the building industry and in the docks—and participation in the "hunger marches" of 1932. In his latter years at Marsh Lane he worked in the meters and stores sections.

Noted for his logical thinking and his capacity to go straight to the root of a problem, Mr. McCreadie's sound sense in the consultation field will be missed by both management and his fellow-workers.

His main hobby is reading—particularly biographies, autobiographies, and other works about people. He has daughters living in California, and has already visited them on a couple of occasions.

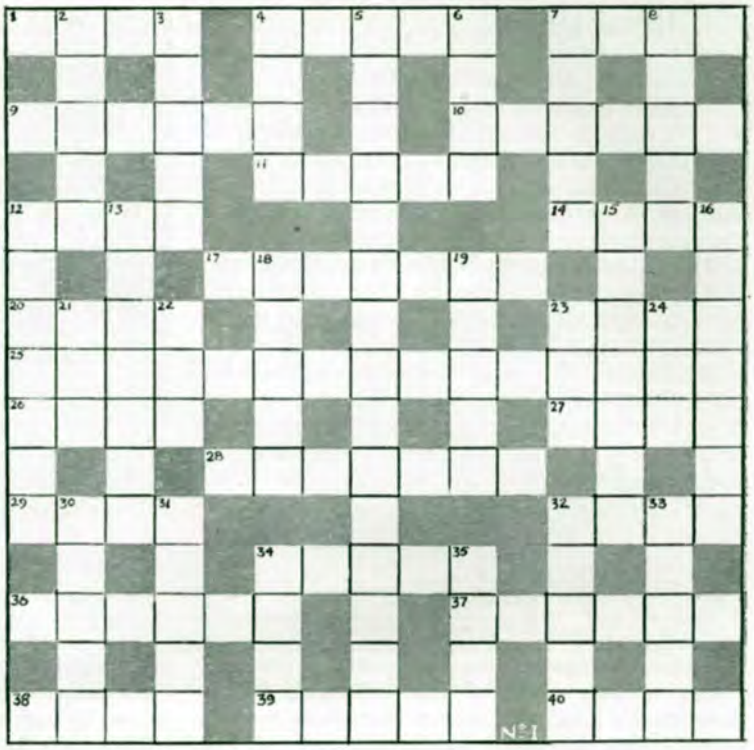
On behalf of his friends he was presented with a radio, cash—and a bouquet for Mrs. McCreadie—by Mr. G. Shoesmith (D.A.O.). Tributes to his work were paid by Mr. A. W. Hawley (District Engineer), and other speakers.

Ample testimony to the popularity of Mr. McCreadie (*centre*), at Marsh Lane.

PRIZE CROSSWORD

Once more our September number crossword attracted a sizeable entry, but as usual there can be only three winners—on this occasion **Mr. C. Chapman** (Drawing Office, Head Office), **Miss V. Henderson** (pensioner), of Oxton, Birkenhead, and **Mrs. Joan Owen** (Admin., Head Office).

For this month's puzzle we are again indebted to Mr. C. S. Shimmin, North Mersey District System Engineer, and as usual there will be three prizes of £2 each for the first three all-correct solutions opened on **December 11th, 1972.**



Clues Across

1 A heartless canine is hemmed in in two directions (4)
4 Sails into the wind—hold the carpet down! (5)
7 An Italian would say "Capital" when more disturbed (4)
9 The film director's comments—the shooting starts! (6)
10 Ring very loud arctic material for this administrative centre (6)
11 The first lady starts this competitive occasion (5)
12 Egyptian Goddess is duplicated (4)
14 Walked in the past (4)
17 Sow some hard metal for this foundry product (3-4)
20 Not with it—sounds like Uncle's wife! (4)
23 I declare! (4)
25 Beethoven classic—astronaut's signature tune? (9.6)
26 Goes out with the Boy's Brigade in two directions (4)
27 Dash! The lane is twisted (4)
28 Stir it up (but don't cause a riot) (7)
29 Football team—all show (4)
32 Head of State in the Middle-East—simple (4)
34 An old fashioned smash—the driver should have trodden on it to stop (5)
36 Ma's old washing day implement; no spin drier! (6)
37 Move quickly two points right to get a skid (or enter for the race) (6)
38 There are literally seven of them (4)
39 Reverse the total, add one hundred and it can be scored (5)
40 Came up scented—not sore! (4)

Clues Down

1 No scores stoops dearie! (5)
3 Prepares a newspaper when the tides turned (5)
4 Sound shade (4)
5 The athlete's breath after a race this (and maybe so does his girl friend) (5.2.3.5)
6 You'll find the Colonel in a small street north of the Border (4)
7 Re-equip the umpire before it (5)
8 This Chinese port has a Scottish head and a ring in its tail (5)
12 Disorder in a military dining room (2.1.4)
13 One should retire here (4.3)
15 Put a pound in a musical setting and get a different price (7)
16 Angered in disorder—mess it up! (7)
18 A hundred follow me before a mixed up drink and get the top of the cake (5)
19 An assault (in the film studio?) (5)
21 A bit of a swell (3)
22 These and outs give details (3)
23 A Scottish one (3)
24 Initially when due (3)
30 A king had a meal and became very angry (5)
31 More than one across (5)
32 The schoolboy sounds as if he has a job (5)
33 Tall grass pipes (5)
34 Support a ray of light (4)
35 Mix rice for this boy—little by little (4)

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