

CONTACT

June 1973

A black and white photograph of a man with glasses and a beard, wearing a light-colored jacket, kneeling in a field. He is focused on adjusting a large, complex piece of equipment mounted on a tripod. The equipment has a long, cylindrical component extending upwards, which appears to be a rocket or missile. The background shows a grassy field and a distant mountain range under a clear sky. The overall scene suggests a field experiment or a military exercise.

Ready for Firing
(see page 133)

FIRST AID TRAINING SESSIONS AT HEAD OFFICE



There were quite a few volunteers to take the place of the dummy as receptionist Susan Holmes practised mouth-to-mouth resuscitation, watched by (l to r) Messrs. J. R. Boden, J. Shallcross, K. Wynne.



◁ The blanket-lift onto a stretcher, executed by Messrs. G. Lloyd and G. Evans, left, and R. Greenwood and H. Longdon, right, watched by Mrs. Cooper, centre. The patient is Miss J. Cadwallender.

Our pictures show one of the eight practical and nine theoretical sessions for first-aiders held at Head Office. The course, organised by Nurse Dorothy Davies and assisted by experienced first-aiders Mrs. Sybil Cooper, culminated in examinations.

Six of the fourteen trainees were themselves experienced and re-taking their certificates. For the remaining eight it was their introduction to first aid. Despite this, when the exam results were known all fourteen had passed—a 100% record.



△ Telephonist Miss Irene Mathewson fixes in place a large arm sling on 'arm injury victim' Miss Stephanie Peel.



▷ The high-arm-sling on Miss Pauline Walker, for hand and lower arm injuries, was done by Miss June Cadwallender, centre, watched by Nurse Davies.



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Editorial Staff
 Keith Baldwin
 John F. Perry
 Sam Doughty

EDITORIAL

Natural Adversary

WHILE economic and geographical factors dictate that overhead lines are the only practical means of transmitting electricity over long distances and difficult terrain, so long will Nature have the whip hand over the electrical engineer.

During the course of half an hour's fireworks, she can put tens of thousands of people 'off supply,' blowing fuses and operating system protection equipment, as she batters lines and poles with her celestial artillery.

Already this year our engineer, jointer and linesmen colleagues have had a taste of the inconvenience caused by intense electrical storms which have swept the MANWEB area, and they have had to put up with the rigours of all-night working in order to restore supplies to thousands of people unceremoniously plunged into darkness.

The research at present being carried out in several parts of the world into the phenomenon of lightning will be more than justified if, as a result, we can hope for even a modest reduction in the trouble which it causes, and the time and energy occupied in repairing its ravages.

The good wishes, therefore, of the staffs of electricity distribution undertakings everywhere will attend the efforts of our friends from Capenhurst, reported elsewhere in this number of *Contact*, to induce lightning to order so as to learn more about its behaviour patterns. Let us hope that next time they pitch their caravan on the hillside, and hopefully fly their balloon towards the thunderclouds, they will be treated to a veritable feast of bangs and flashes!

The national finals of the Electricity Council's 1973 Public Speaking competition, held in London in May, were both won by the representatives of the London Electricity Board.



The Gwynedd District recipients, and some of their ladies, who made the journey from Anglesey and Caernarvonshire.

North Wales Districts Long-Service Awards

Long Service Awards presented to MANWEB people in the former Area 4, and more recently in the four North Wales Districts of Clwyd, Gwynedd, Dee Valley and Aberystwyth, recently reached an overall total of 984—representing a staggering total of 28,464 years of service to the industry!

These impressive statistics were mentioned by Mr. K. Helliwell, Group Manager, when he presided over the presentation of the most recent awards at a pleasant ceremony and social gathering at Dee Valley District office, Rhostyllen.

The 'honours list' included 42 MANWEB stalwarts from the four districts, and most of them arrived, many accompanied by their wives, to receive their awards from Mr. Denis Dodds (Chairman) whose dark-glasses 'disguise' was explained by the fact that he was still recovering from a minor bout of eye trouble.

Family affairs

Welcoming the guests, the Chairman told them that he was particularly happy to see so many wives present. During an employee's long years of service, his wife often had to make many adjustments and allowances to fit in with the demands of his work, and although, in theory, the awards were made to an individual, in practice they were something of a joint testimonial.

Mr. Dodds added that society today was in a curious state, with many long-established values and

standards of conduct under attack. In such circumstances the continuity given to our industry—and indirectly to society as a whole—by the long and conscientious service of individuals, did much to contribute much-needed stability.

On behalf of the award recipients, Mr. F. Hannath (District Administrative Officer, Gwynedd) proposed a vote of thanks to the Chairman, and to those who organised the occasion.

Awards were gained as follows, and most of the recipients were present in person:

Dee Valley District

45 Years: Mr. F. Mealing (*linesman foreman*).

35 Years: Messrs. F. Hodson (*shift engineer*) and L. Sewell (*higher clerical assistant*).

25 Years: Mrs. H. D. Gregory (*cashier*), Miss M. Evans (*typist*), Messrs. D. S. Hopwood (*driver*), O. Booth (*linesman's mate*), G. Davies (*meter reader*), W. H. Davies (*meter reader*), B. Dawson (*installation inspector*), T. P. Jones (*production engineer*), J. W. Forrester (*installation engineer*) and W. H. Hughes (*retired electrician*).

Clwyd District

45 Years: Mr. W. O. Jones (*retired electrical fitter*).

35 Years: Messrs. S. L. Hislop (*commercial supply engineer*) and R. G. Roberts (*foreman electrician*).



The Dee Valley District contingent.

Clwyd District (continued)

25 Years: Messrs. T. Field (*installation inspector*), L. Pinder (*chargehand linesman*), R. Roberts (*driver*), A. D. Stewart (*switchboard attendant*) and D. V. Edwards (*electrician*).

Gwynedd District

35 Years: Messrs. F. Hannath (*D.A.O.*), E. W. Williams (*system engineer*), E. Jones (*salesman*), J. T. Jones (*retired foreman*) and N. Jones (*sales representative*).

Representatives of Clwyd and Aberystwyth Districts. Among them (bearded), is Mr. T. Field, who, as recently reported in *Contact*, is the new Mayor of Ruthin.





Mr. Helliwell and Mr. and Mrs. Dodds, with the 75-year men.

Gwynedd District (continued)

25 Years: Miss J. Davies (*cleaner*), Messrs. R. M. Jones (*installation engineer*), J. G. Roberts (*linesman*), E. D. White (*assistant production engineer*), R. H. Owen (*retired linesman*), W. Ll. Edwards (*clerk*), J. A. Jeffrey (*linesman*), I. James (*linesman*), A. R. Shaw (*District Engineer*), R. G. Ward (*lines-*

man), M. Jones (*linesman*) and T. S. Pritchard (*senior clerical assistant*).

Aberystwyth District

35 Years: Mr. H. D. Williams (*installation inspector*).

25 Years: Messrs. W. R. King (*fitter's mate*) and J. Cowley (*installation inspector*).

LIGHTING AWARDS

Three trophies by Hector Miller, the 27 year-old London designer, have been selected for the 1975 Outdoor Lighting Awards. These are to be made for imaginatively lit outdoor areas—built, landscaped or natural—which add to the enjoyment of the local community and visitors.

Standing about twelve inches high, the trophies are of silver on a wooden plinth. The tops are castellated to suggest rays of light and point inwards at separate abstract motifs representing the nature of each award. Below the castellations the motifs are of dark oxidised silver, representing shadow, while above them the silver is very brightly gilded to give the feeling of floodlighting.

The awards celebrate the meeting in this country of the International Commission on Illumination for the first time since 1951. To qualify, lighting installations may be of any size but must be substantially out of doors. They may be built, landscaped or natural environments and the lighting must be switched on for the first time between July 1972 and December 1974. They will of course, have to be switched on at all appropriate periods in 1975.

Entry for the 1975 Outdoor Lighting Awards is open to national and local authorities, local voluntary organisations, private and public commercial interests and private individuals. More than 60 applications for entry forms have already been re-

ceived. Intention to enter for the Awards must be notified no later than 31st May 1974 and the completed entry submitted by the end of that year.



Mr. Helliwell and 30-year-man Mr. John Rees Davies, surrounded by colleagues at Aberystwyth.



Safe Drivers at Aberystwyth and Machynlleth

Staff from all parts of the far-flung Aberystwyth District gathered together recently for two Safe Driving Award presentation ceremonies, held at the District office at Aberystwyth, and also at Machynlleth.

The awards were presented by Mr. K. Helliwell (*Group Manager*), and the outstanding award was the presentation of the 30-Year Silver Cross with Brooch to Mr. John Rees Davies, a driver based at Aberystwyth.

The presentation of this rare distinction marked something like 300,000 miles of safe driving, involving vehicles of all kinds, including buses during Mr. Davies' service with Crosville before joining MANWEB. Only one higher award exists—the 40-Year Gold Cross—but as Mr. Davies pointed out he hasn't got enough 'years of service' left to give him a chance of getting that one!

Awards were gained as follows:

Diplomas: Messrs. P. Cheshire (*retired electrician*), R. E. Clarke (*installation inspector*), J. H. D. Colley (*foreman*), J. W. Connor (*chargehand*), J. Cowley (*installation inspector*), W. J. Davies (*retired public lighting attendant*), R. M. Howells (*joiner*), G. Hughes (*electrician*), M. W. Jones (*electrician*), R. D. Meredith (*mate*), E. C. J. Parrot (*chargehand*) and W. C. Sadler (*joiner*).

Bar to 5-Year Medal: Messrs. B. W. Davies (*driver*), G. Fraser (*joiner*), W. T. Jones (*electrician*), D. J. Powell (*foreman*), K. Reiter (*driver*) and H. D. H. Williams (*installation inspector*).

10-Year Medal: Messrs. H. C. Bates (*electrician*), R. Bright (*supervisor*) and I. Edwards (*electrician*).

Oak Leaf Bar on 10-Year Medal: Mr. E. W. R. Davies (*driver*).

30-Year Silver Cross: Mr. J. R. Davies (*driver*).

Award winners at Machynlleth. (They weren't all here—someone was off supply somewhere, and the job had to come first).





BIRKENHEAD CUP-WINNERS

GOALS FOR—22; Goals against—two! was the striking scoring record of the **MANWEB (North Wirral)** soccer team in the various rounds of the 1973 Cherry Cup—a Birkenhead public authorities' invitation competition.

Such a record could, of course, only have one outcome, and the issue was finally clinched when the MANWEB team defeated Birkenhead Police by two goals to one in the final, capturing the cup from the 'bobbies,' who have virtually monopolised it since the inception of the competition.

The achievement was all the more outstanding because the MANWEB team had not played at all prior to

the competition, and on their way to the final they knocked out a number of experienced sides.

The final itself was a closely-fought affair. The police scored an early goal, but with a fine display of fighting spirit our boys got an equaliser just before half-time, and settled the issue with a winner early in the second half.

Now, flushed with success, the MANWEB team throw out a general challenge to soccer teams from any part of the Board's organisation!

Boffins Foiled

On a bleak Welsh hillside near Trawsfynydd nuclear power station the nation's pressmen were assembled, binoculars trained, cameras at the ready.

A biting wind howled across the rain-swept hills. The stage was perfectly set for what was hoped to be the first-ever display of man-made lightning over land.

But Mother Nature was having none of man's impertinent attempts to interfere with her affairs. The racing clouds might have contained plenty of rainwater, but the electrically-charged variety, necessary for lightning production, were conspicuously absent.

For several weeks scientists from the Electricity Council's Research Centre at Capenhurst had been camping out at the site in a caravan,

North Wirral's Cherry Cup winners. *Left to right, standing:* Messrs. J. McAdam (selector), T. Winterton, G. Bevan, J. Egan, G. Hogarth, P. Wycherley, L. Brown, P. Rosenberg (selector) and A. Hall (selector), *Kneeling:* Messrs. B. Thomas, R. Traynor, K. Palmer, M. Lavelle, A. Davies and G. Mayes.



hoping for the right conditions to trigger-off artificial lightning. Although unsuccessful this year, they still believe they will be the first to induce lightning over land (it has already been done over the sea.)

Lightning is the largest single cause of failures of electricity supply in Britain, and costs the industry up to £3 million a year, apart from the inconvenience to the public. The object of the Trawsfynydd experiments was to create lightning to order, so that its characteristics could be more closely examined. Russia, France, Germany and America are engaged in similar experiments.

But **Dr. Mike Stringfellow**, leader of the Capenhurst three-man team, said "We think our methods are more advanced than theirs."

The team had hoped to fly a barrage balloon to 2,000 feet. From this a weighted wire was to be dropped, to act as an earth, while a rocket fired from the balloon would, it was hoped, induce the lightning discharge. Unfortunately the high winds made this procedure out of the question, and rockets fired from the ground disappeared into the rain-clouds with no result.

Using sophisticated equipment, the scientists can plot the location of lightning storms over very large distances, but they still hope their experiments will enable them to study lightning, to order, in close-up.

OUR COVER PICTURE

shows Mr. Peter Wrigley, a technician from Capenhurst, checking out a rocket prior to 'blast-off' in an attempt to trigger off a lightning flash.

Llangefni Vandal

Who was responsible for the senseless vandalism to cars and lorries parked at our depot at Llangefni, Anglesey

Driving mirrors had been repeatedly broken. Windscreen wiper blades had been torn off. It was most puzzling and disturbing.

So, in desperation, the staff organised a watching vigil—and the criminal was unmasked. High up in a tree in the yard was a crow's nest—and the villain of the piece was one of the residents!

The wing mirror of one lorry, in particular, held a permanent fascination for **Joe Crow**. Regularly he would perch in front of it, and engage in violent battle with the enemy on

the other side. Result—a broken wing mirror—not once, but a dozen times!

Wiper blades, too, fascinated the crew, and chargehand mechanic **Matthew Jones** has had to order quite a few replacements.

"He must have done at least £40-worth of damage" said our storeman, **Gordon Barlow**.

Obviously these capers had to be put a stop to, so an appeal for help went to **Constable Ken Williams**, director of the Penrhos Nature Reserve, 15 miles away at Holyhead, to come along to make an arrest and remove the criminal to a place of safety.

Darts Tourney

Challenges seem to be in the air. A darts tournament is to be held at Head Office, and Districts are invited to enter teams of four players, who must all be Board employees (no sneaking in the village pub's three-in-a-bed specialist in disguise!)

The competition will be held on a week-night at Sealand Road, and will take the form of a knock-out. Please let Head Office welfare department know how many teams will be entered from your District, and they will keep you informed on detailed arrangements.

New Chairman

Mrs. Gwen Conacher, the Electricity Council Home Economist, has been elected chairman of the Association of Home Economists, the professional association for advisers on home management and education related to the home and the community.

A founder member of the Association, Mrs. Conacher has been an active member of the London Branch since its inception. During the past seven years she has been a member of the Council of Management, and has held office as Newsletter editor, treasurer and vice-chairman. She is one of two representatives of the electricity supply industry on the UK Federation for Education in Home Economics. Last year she was a member of the British Delegation to the International Congress on Home Economics at Helsinki. Mrs. Conacher is also UK membership secretary of the International Federation of Home Economics.

Mrs. Conacher joined the Electricity Council seven years ago when little was known in this country about domestic food freezing. Her best selling book, "Food Freezing at Home," which has topped 800,000 copies, has done much to pioneer and popularise this new kitchen craft.

Moves to Shire Hall

Mr. Leonard C. George, senior clerical assistant at Clwyd District office, Rhuddlan, said goodbye to his friends and colleagues recently when leaving to take up a post on the staff of the County surveyor at the Shire Hall at Mold.

Mr. George began work with the electricity industry in 1935 with Mold U.D.C., and after nationalisation was employed as sub-District clerk at Mold and Connah's Quay offices, spending the past two years at Rhuddlan.

During the second world war he served as a petty officer in the navy.

Seen this picture before?—No you haven't! Believe it or not, this is a **CAKE**, a 'perfection in confection' made by a Chester firm in connection with a Head Office dance to mark the Board's 25th anniversary!





District Administrative Officer Mr. George Shoesmith, *right*, explains the teleprinter link to Board Chairman Mr. Denis Dodds and the Mayor of Bootle, Councillor J. Marray, who recently led a civic party on a visit to the new building. The young ladies are (*standing*) — Susan Wilson, (*Head Office*), and (*at the machine*) Lesley Hurst, (*District Office*).

MOVING HOUSE AT BOOTLE

From cramped and inadequate accommodation at Marsh Lane, Bootle, the men and women who run MANWEB's North Mersey District have just completed their move into new, designed-for-the-job premises on Bootle's industrial estate at Bridle Road.

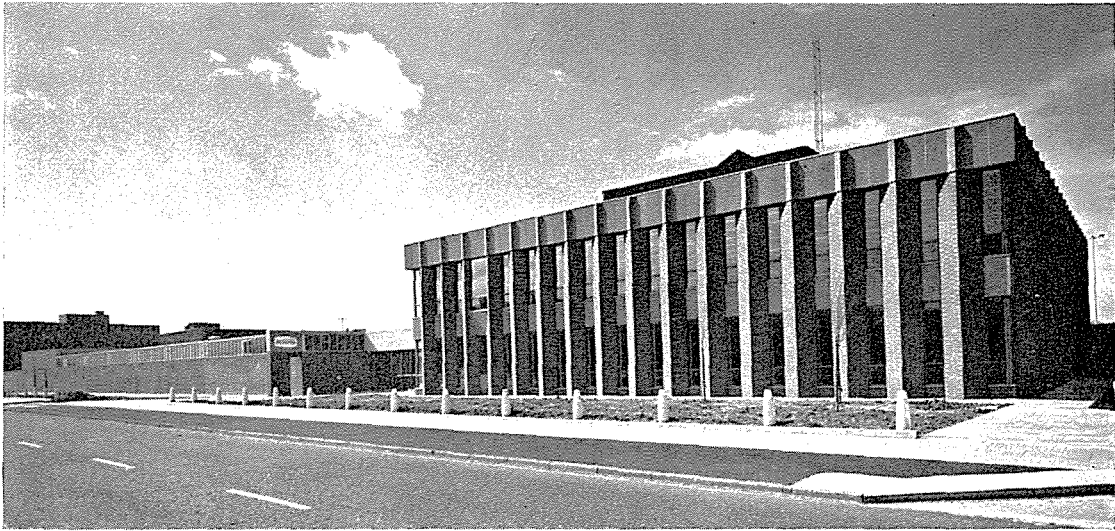
The North Mersey District is responsible for electricity supplies to more than 500,000 people,

in a wide area including Bootle, Crosby, Southport, Formby, Maghull, Kirkby, and the Northern part of Liverpool.

The new building is designed and constructed on the "integrated environment" principle, pioneered at MANWEB's Head Office at Chester more than three years ago, and since accepted as the ideal system for many new buildings all over Britain.



Inside the staff restaurant.



An exterior picture of the new building with, *left*, the stores and workshop block.

It consists of office and workshop blocks, where equable conditions will be maintained by the precise control of temperature and air-conditioning, including the use of recovered heat to warm fresh, conditioned, air supplies. The new Bridle Road building illustrates that these ideal conditions can be achieved in buildings of moderate size, and will set new standards in the design and construction of such buildings.

At the rear of the block are open-air storage compounds, fuel stores, vehicle maintenance workshops, (which also afford much better facilities than those at Marsh Lane), and car parking areas.

A small number of administrative staff, who until recently worked at Southport, have been transferred to Bootle. A depot, from which industrial staff will provide service in the Southport area, is still in existence, at Southport.

The spacious, air-conditioned, general office. What a change from Marsh Lane!





A DELICATE engineering operation took place at Warrington a short time ago when 19 cables, including two at 33,000-volt, were sunk across a 70 yard stretch of the River Mersey.

The job came about when Thames Board Mills, one of our big industrial consumers in the South Lancashire District, asked the Board for a 3MVA supply. Previously they had generated their own electric power, supplemented by a small stand-by supply from the Board. However, Thames had a programme for the considerable expansion of their works and they needed more power.

A 33,000/6,000-volt substation was established on

their site, but the cables carrying the necessary power to supply it were on the opposite side of the river. So, the waters had to be crossed.

The usual way to lay the cables would have been in two separate trenches dug out of the river bed. In this instance however, it was decided to use a single trench but large enough to take 16 eight-inch diameter tubes which would carry the 19 cables. This method provided spare tube space for future cable work as well as saving some £5,000 in cash.

Having established how the cables were to be laid, the next job was to see where they were to be laid. Discussions took place with Mr. W. G. Martin, the Chief Engineer for the Manchester Ship Canal Company, the body responsible for the River Mersey at this point. Arrangements were made for surveys to be taken of the river bed to find a suitable spot for the tube unit.

The right spot was found, but here the bed of the river was covered with a five-foot layer of silt. This meant that a channel some ten feet deep had to be gouged out of the river bed before the tubes could be laid to rest.

The tubes themselves were made of p.v.c., this material being chosen because of its flexibility in jointed lengths, its lightness in weight and its ability to bend

The 16 eight-inch diameter tubes, complete with end stoppers, assembled in the lifting cradle on the river bank.



An air-lift suction system being used from the cranes to throw out the silt from the excavated trench.



Twin cranes lift the tube assembly into the river for floating to the trench at the cable crossing position.



THE RIVER CROSSING





Two cranes operating drag-lines work from opposite banks excavating the deep trench in the river bed.

and readily follow the radius of the trench profile.

The River Mersey is of course tidal and so the timing of the excavations and the laying of the tube unit had to be carefully planned for low tides and ideal water conditions.

Specialists in submarine work were called in—Land and Marine Contractors Ltd., from Bromborough. Their team excavated the trench by using crane-operated drag-lines and an air-lift system, removing 1,200 cubic yards of silt and clay.

The p.v.c. tubes, with draw ropes left in, were assembled on the bank-side in a lift-line cradle. The ends of each tube was sealed before the whole unit was lifted then lowered on to the water and floated into position above the prepared trench.

At this stage, a number of sacks filled with concrete were placed on top of the tube unit to make it

more stable for manoeuvring into position across the river.

When this was achieved, the seals at the end of some of the tubes were removed and water was pumped in causing the whole unit to sink slowly into the trench in the river bed. Then, more concrete-filled sacks, some 1,200 in all, were placed on top of the tube unit to hold it in position. After an inspection by a diver, natural silting began almost immediately.

At low tide, both ends of the tube system were exposed and extension lengths were then fitted, leading to huge concrete blocks built high in the banks on each side of the river.

The banks were reinstated to the River Authority's requirements which meant installing stones and clay held together by means of hawthorn bushes to consolidate the banks and prevent erosion.

Some time later, the two 33kV, one MV, six 6kV and ten control cables were drawn through the tubes by means of the polypropylene ropes which had been left in the tubes. The ends of the tubes carrying the cables were then fitted with filters to prevent silt from entering. The spare tubes, not being used at this time, have complete seals fitted at each end.

To complete the excellent job, four marker posts—two on each side of the river—now warn river traffic that cables are laid across the river and anchors should not be used in that area.

This work could not have been so smoothly and successfully achieved without the harmonious co-operation of all the parties concerned . . . MANWEB, The Manchester Ship Canal Company, and Land and Marine Engineering Ltd.

Our own engineers from Head Office, designed, planned and supervised the whole project.

THAMES BOARD MILLS

The imposing complex of Thames Board Mills Limited at Warrington is situated just on the outskirts of town. Despite the fact that the main structure of the mill was built over thirty years ago, it still presents a very modern and impressive air of efficiency.

This key board-making plant is, in fact, one of three established by Thames Board Mills Ltd., over the years. Between them, these three mills produce the largest output of board in Europe, and have established Thames Board Mills in the forefront of a growing industry of boardmaking for the most advanced packaging requirements.

QUESTIONS IN THE HOUSE

Domestic Electricity Supplies (Disconnection)

Mr. David Steel asked the Secretary of State for Scotland whether he will give a general direction to the electricity boards that where they cut off the supply of electricity to any house inhabited by children below the age of 16 years they must report the matter to the appropriate local authority social work department.

Mr. Younger: Following consultations which my right hon. Friend initiated through his Social Work Services Group, comprehensive guidance will shortly be sent to local officials of the electricity boards and the social services with the aim of identifying and dealing with problems before and not after a household is disconnected. I consider that this is the best way to proceed.

Mr. Steel: Will the hon. Gentleman accept that his answer will be warmly received throughout Scotland and that this is a significant step forward? Is he aware that I have had recent complaints from social workers in my constituency about practices adopted by electricity boards and that I have investigated individual cases, including one where a young child was burned with water from a boiling kettle which was being used to pour water into a tin bath? Does he agree that these are not the Dickensian methods which we should be encouraging through public authorities in Scotland?

Mr. Younger: I am grateful to the hon. Gentleman for drawing attention to this matter and I

very much agree with what he has said. The electricity boards are extremely anxious to be as careful and as humane as they can in this matter and they have co-operated willingly in this initiative.

Mr. Edward Taylor: In view of the welcome action taken by my hon. Friend, will he now invite boards to reconsider the installation of prepayment meters since the existence of such meters may prevent many families from getting into substantial arrears?

Mr. Younger: The boards are conscious of the difficulties that this can cause and I will draw my hon. Friends suggestion to their attention.

Mr. John Smith: Can guidance be given to the boards to stop the practice of large deposits being required before electricity is re-connected? Is the hon. Gentleman aware that for many poorer families the requirement of a large deposit means that they will never get the supply reconnected?

Mr. Younger: As the hon. Gentleman knows, the electricity boards conducted a careful study of this problem a few months ago. I understand that they have now resolved this matter to the satisfaction of the consultative council which discussed it with them.

Electric Lamps (Life Hours)

Mr. Skeet asked the Secretary of State for Trade and Industry in view of the need to protect consumers, whether he will publish the effect of voltage reductions on the life of electric lamps; and whether he is satisfied that the declaration of life hours being given on lamps at present is materially correct.

Mr. Anthony Grant: One of the effects of reducing the supply voltage to an electric lamp is to increase its life. Most electric lamps of conventional type are manufactured in accordance with

British Standard specifications as stated in manufacturers' literature. I have no evidence which would suggest these specifications are not being met.

Improvement Grants

Mr. Albert Roberts asked the Secretary of State for the Environment if he will introduce legislation to enable standard grants to be paid for the electrical re-wiring of houses where this is considered desirable.

Mr. Channon: I will take these proposals into account in the course of my current review of policy affecting older housing, but I doubt whether grants should be made available as of right for this kind of work.

Nationalised Industries (Pricing Policies)

Mr. Donald Stewart asked the Secretary of State for Trade and Industry if he will give general directions to nationalised industries to adopt uniform pricing policies in England and Scotland.

Mr. Tom Boardman: No. The structure of prices is a matter for the boards, and the same general principles are applied throughout the country.

GOING ON
HOLIDAY?

DON'T FORGET
THE 'CONTACT'
PHOTOGRAPHIC
COMPETITION!

APRIL'S CAPTION COMPETITION



From pensioner Mr. W. H. Long, of 37 Daffodil Road, Birkenhead, comes, *above left*, an ingenious winner of the caption competition. His caption—"Drat it—there goes another of those fiddling half-pence."
The other prize goes to Mr. H. Jones, work control section, Clwyd District office, with "So this is what they meant by 'Fleet Transport'."

It is obvious that many of you thoroughly enjoy sharpening your wits on our Caption Competitions—but some of you are a really naughty lot! The Editor (unfortunately) has to steer clear of the laws of libel and—well—if we printed some of your suggestions the morning mail would consist mostly of writs!

However, he has managed to sort out a couple of entries which he regards as funny, and which are not likely to land us all in the dock. Mr. Long's idea

may not be new, but we had never seen it before, and we have allowed him a bit of artistic licence in adding a couple of feet to 'Old Lady Web.'

The other winner also features a picture which attracted a large number of entries. Keep up the good work. We shall run similar competitions in the future (but please note that artistic licence is usually ruled out. After all, we cannot have pictures of eminent people sporting large handlebar moustaches—or even . . . perish such thoughts!)

WEDDINGS

GARNER—JONES

Congratulations to Head Office typist Miss Pamela Jones and Mr. John Garner, B.I.C.C. cable worker, on their recent marriage. Pam, who is 19, has been em-

Mr. and Mrs. Garner



ployed at Sealand Road for four years, starting with the old Area 2/3.

After the ceremony at St. Paul's Church, Helsby the happy couple left for a honeymoon in New Quay, South Wales.

FARREN—HUMPHREYS

It was an Easter wedding for Miss Gillian Humphreys and Mr. Brian Farren. Our congratulations and best wishes to them both. Twenty-years old Gill is a member of the Head Office Personnel section, and Brian, aged 25, is a technical service engineer with the Firestone Tyre Company.

Following the marriage service

in Farndon, the newly-weds, (Gill sporting her Easter bonnet), flew off on a Paris honeymoon.

Mr. and Mrs. Farren

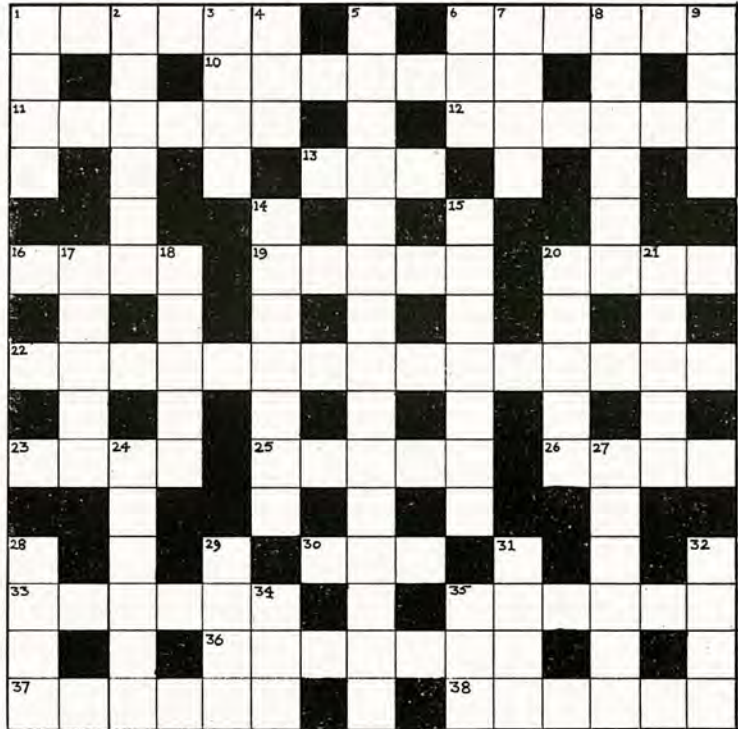


PRIZE CROSSWORD

Some of our more popular crossword puzzles have sprung from the inventive brain of Mr. C. S. Shimmin, of our North Mersey District, and this month's competition comes from the same source.

Two prizes of £2 will be presented to the first all-correct entries drawn out of the bag on July 11th. Entry is open to all MANWEB employees, pensioners, and their families. Only one entry per person, please!

Mark your entry 'Crossword,' and send it to *The Editor, Contact, MANWEB, Sealand Road, Chester, CH1 4LR*. (Plain paper entries will be accepted).



Clues Across

1. Shining lock-up with high tension at the end (6)
6. Puts off yields (6)
10. The skilled operative alters a strain (7)
11. Truly the sappers are a friend (6)
12. Narrow-minded parts enclose a turn (6)
13. Seed covering a Post Office with 500 (3)
16. The constable walks backwards round American to get to the point of the moon (4)
19. The cricket captain might say this, but the player would hardly use this (5)
20. A star turn in old Russia (4)
22. Which is it (8.7)
23. Made from two fingers in a Midsummer Night's Dream (4)
25. See a pound differently and a girl arrives (5)
26. 25 minus one otherwise (4)
30. The king, for example, produces a work unit (3)
33. Another way of describing 13 (6)
35. Article rhymes to give positive connections (6)
36. Come from a point he consumed (7)
37. Wild enthusiasm from the front round the ancient city (6)
38. This Goddess of Fate comes from one system (6)

Clues Down

1. Graduate seagoing fighter tops a pint of wallop! (4)
2. Not real things, but are identical with the real thing (6)
3. Henry ring a gleaming circle (4)
4. Attempt three points (3)
5. You'd be unlikely to hear this Bach classic at a Strip Club! (3.2.3.1.6)
6. Fish rises in decay (3)
7. Girl with a figure in consequence (4)
8. Former Order of Merit is a sleeveless garment (6)
9. Impudence as in a ship (4)
14. Bound to be satisfied (7)
15. United Nations attempted, but it has not been done (7)
17. A mule for Mohammedan theologians (5)
18. Expensive bi-valve product for a girl (5)
20. Gripping form of verb (5)
21. They gave me the shivers (5)
24. A refreshing drink contains an article which could produce a South African fortification (6)
27. Sparks fly if you touch this container; (but not if you haven't paid for it!) (6)

28. Take a hundred pounds a point with lots of noise and you have this musical character (4)
29. More comes from this Hebrew measure (4)
31. 29 changes a character and is on its own (4)
32. If you confuse a young lady, you could get some distinctive theories! (4)
34. I'm under direction old uncle! (3)
35. Consumed backwards when due (3)

FOR SALE

Roneo manual duplicator, foolscap size, silk screen, suitable for Club.

Two Kenton Storage Heaters—Lowstor design.

Light oak desk, new. Three drawers and pull-out shelf.

Offers to Box No. 1/6, *Contact*, Head Office.

THE 'NON-STAT' STORY

by Harold Greaves

Following nationalisation, MANWEB introduced a rural development programme, which is now completed, with 99.5% of all farms in the area now having mains supply. By adopting a method of transmission and distribution similar to a successful pre-war development in the Dumfries area of Scotland, supplies were made available to sparsely populated parts and family farms.

My story is not concerned with this ambitious project, but with the lesser known "Non-Statutory Undertakings," which had been operating for many years in similar areas, although usually limited to supplies for lighting. It was in the Spring of 1949 shortly after I joined No. 4/5 Sub-Area (as it was then known) that I was instructed by the Manager to undertake a 'survey' of certain of these undertakings where application had been made to be 'taken over' at some future date. My task was to compile reports covering the method and extent of the supply facilities, details of plant, distribution systems, tariffs, etc., in order that a basis may be formed for consideration of compensation.

Dangerous Journey

Although it is over 20 years ago, I well remember my first visit, to Tre'rddol, a village near Aberystwyth, where I had an appointment with the District Commercial Officer to visit the site of the "non-stat." It was a fine day which was just as well, for the power-house (?) was located at the base of a steep mountainous slope, and a steel rope was attached to a convenient tree to assist anyone who wished to make an inspection. It was obvious that inspections would be difficult, if not dangerous, during the Winter months, even with the assistance of the wire rope for the double journey.

Supply was effected by water power, with the water turbine (if that is the correct term) direct coupled to a direct current generator. What was remarkable was the fact that the site was visited by an elderly pensioner at regular intervals for the purpose of oiling the bearings, and 'bedding' the brushes on the generator, for which he was paid 10/- a week! There were no meters. The terms for supply were, I believe, 30/- for one lighting point, 50/- for two points and so on, so it could be said that except for storm damage to overhead lines the operating costs were of the order of £26 a year. I was later informed that the pensioner had found the visits too hazardous and had tendered his resignation! I am sure that if anyone had been told

that it was possible to operate an electricity supply undertaking for under £30 a year, he would be likely to reply—"now pull the other one!" I continued my journey towards Aberystwyth and visited

The recent successful completion of MANWEB's enormous rural electrification programme makes this article especially topical.

The writer, Mr. Harold Greaves, formerly on the staff of the Area 4 commercial department, retired in 1966 and now lives in Southport.

His journey down Memory Lane, and his account of how some of the people in remote parts of North Wales used to get their electricity supplies, will evoke nostalgic memories among quite a few of our long-serving North Wales colleagues, including some who, like Mr. Greaves, still follow MANWEB affairs with interest, even though they are on the retired list.

Talybont, where the plant was housed in relatively modern surroundings with a higher standard of distribution.

My next visit was to Fairbourne on the coast, and here, to the best of my recollection, the prime-mover was an oil engine. As I was discussing matters with the engineer I noticed the ammeter on the switchboard was oscillating quite rapidly so I remarked—"There must be an unusual load on your system at the moment." He laughed, and replied "There is no load whatever. The fact is there is no glass in the ammeter, and the wind is responsible for the needle movement!"

Nature's Poles!

I had a look at the distribution system and noticed that full use was made of conveniently placed trees to reduce the number of poles required, when taking a service to domestic premises. Service cut-outs were considered superfluous, the usual method appeared to be to open a ground-floor or first-floor window, and just pass the two wires into the house over the window frame. Most, if not all, of the smaller undertakings were operating at 100 volts (give or take 10 volts or so) so it was probably considered safe and quite satisfactory to adopt what we would term 'Heath Robinson' methods.

I visited Glyn Ceiriog where a hydro-electric

unit was installed, and here arrangements were also available to accept a bulk supply from MANWEB as and when required. Having visited the undertakings where use was made of water power, I had noticed the nameplates on the water turbines were stamped "Edwards—Llanuwchllyn," and on making enquiries I was informed that Mr. Edwards was a blacksmith who had designed and installed these units. He must have been a remarkable man for his products were first-class examples of mechanical skill.

Power for mills

It should of course be appreciated that in addition to providing motive power for the non-statutory undertakings, the mountain streams falling in the narrowing wooded valleys and rapid waterfalls, had also supplied motive power for the "Pandy" or "Fulling" mills and cornmills. One example was the Pandy Mill at Penmachno, once noted for its flannel quilts, blankets, and later for tweeds.

A later visit was to a larger undertaking at Rhug (pronounced Rrheeg) which is the principle estate of the parish of Corwen. In addition to providing supply to a relatively large area, a 'bulk supply' was given to Corwen, all-in-all quite an ambitious project. I have to rely on memory, but think I am correct in saying that part of the motive power was hydro-electric, with the water supplied from a lake at Carrog, a terraced village. I understand the "assets" of this undertaking included the fishing rights for the lake or dam at Carrog, but I never discovered if any of the enthusiastic angling fraternity of MANWEB ever availed themselves of this privilege. I rather fancy these rights were disposed of.

In addition to the hydro-electric supply the power house had at least one of the portable generating units made available at the end of 1945 to selected industrial concerns to minimize the effects of load shedding by the various Boards.

There was quite an extensive distribution system, installed by one of the major cable companies, and the facilities affected small power usage, although the tariffs were not particularly attractive until a later date, when the new MANWEB standard charges were introduced throughout the area.

My final visits were to Caersws and Llandinam which proved to be quite well-appointed units. In fact, I should make it quite clear that apart from one or two of the smaller undertakings, there was not any question of "Heath Robinson" outfits, although the engineering side was not up to the high MANWEB standards.

A vital service

One example will illustrate my point—this was in a village near Aberystwyth where, having established a supply, MANWEB linesmen were dismantling the previous distribution system. In one or two cases it was found that the distribution system was holding up the poles as the poles (not heavy duty type) had rotted at the base, while it was common practice to slip in a tree here and there where convenient.

It may be thought that the service provided by the Non-Statutory Undertakings was of small importance when it is considered that for the most part they supplied electricity for lighting purposes only, but we have had reminders in recent years that lighting is for many thousands of consumers, a vital necessity in the home and in business premises.

NUCLEAR—THE FUTURE FUEL

The Chairman of the Electricity Council, Sir Peter Menzies, reiterated his conviction that nuclear power will provide the fuel of the future for electricity generation when speaking at the annual luncheon, in London, of the Electrical Association for Women.

He said there had been much talk recently—particularly in the United States—about the likelihood of a world fuel shortage. One way of promoting such a shortage was to keep on talking about it. "But I must say something about it if only to keep the situation in perspective.

"It is indeed probable that the share of the energy market held by oil will be falling by the turn of the century," said Sir Peter. "Further, the Western Europe will not be insulated from world

energy problems by the North Sea discoveries, valuable though they are.

"But coal deposits are adequate, and nuclear fuel resources should not constitute a problem, especially when the fast breeder reactor gets under way."

Sir Peter continued: "One certainty is that we are going to need much more electricity—nor is there any doubt of the ability of the supply industry to meet the demand. We can process all primary fuels efficiently, and our objective is to develop a flexible power system responsive to the relative availabilities and costs of different fuels to the best advantage.

"We are also certain that nuclear is the fuel of the future for electricity generation and our fuel mix will move progressively in that direction," he stressed.



Mr. Collins, centre, with Mr. Telfer and a large gathering of his Lister Drive colleagues.

Mr. A. K. COLLINS

After 43 years' service to the industry Mr. Andrew Keith Collins, higher clerical assistant at our Liverpool District office, retired last month, after working an extra year beyond his normal retirement date.

Mr. Collins started his career at the Pumpfields depot in Vauxhall Road, Liverpool, in 1930, as a

shift storekeeper.

On behalf of his many friends in the Liverpool area he was presented with a refrigerator (and a bouquet for Mrs. Collins) by Mr. H. Telfer, Group Manager.

We have since received a letter from Mr. Collins, asking us to express the thanks of his wife and himself to the friends who contributed to these gifts.

RETIREMENTS

Mr. GWILYM EVANS

The many friends of Mr. Gwilym ('Gwil Bach') Evans, former transport driver at the Central Stores, Caernarvon, hope that his recent retirement will bring him improved health so that he may enjoy it to the full.

Mr. Evans, a popular character who made many friends at depots throughout the north-western parts of the MANWEB area, had been with the Board at Caernarvon for 12 years.

Mr. H. D. BRIGGS

Mr. Horace Daniel Briggs, installation inspector at Warrington, retired recently, he was presented with a toaster and a liquidiser on behalf of his colleagues.

Mr. Briggs began with Warrington Corporation Electricity Department in 1939, was drafted into the coal industry in 1940, and returned to the electricity industry in 1947.

MR. J. W. LOWES

When Mr. James William Lowes, left centre, EHT jointer at St. Helens, retired recently after nearly 40 years' service, he was presented with a clock and a camera on behalf of his many friends by Mr. J. R. Acklam (system engineer).

