

january 1979

bush

telegraph



BUSH

vol. **21** no. **2**

TELEGRAPH

the magazine of **R&EL** wood lane

R&EL



Cover

"TELEGRAPH-CABLE"

Editorial Board

- David Green
- Denis Groombridge
- Mike Hagger
- Richard Hammond
- Geoff Holder
- Ann Kirby
- Ted Morrison



Editorial

The recent season of goodwill didn't seem to last very long, in fact on some counts it had disappeared before New Year's Day. It all started with Jack Scott, Michael Fish and Co. letting that Siberian weather into the country, giving the South-East its longest continuous spell of snow, ice and sub-zero temperatures since the big freeze of 1963. Almost before we had finished demonstrating our national incompetence for dealing with such episodes, and certainly before the Minister for Climatic Irregularities and Excess Weather had done his ritual dance for the media, supplies of petrol, heating oil and food were being disrupted by the essentially man-made instrument of the strike. "Do not panic" they said, "there is enough to go round". So, in the best traditions of Corporal Jones, we drained the pumps and emptied the shelves with fervour and determination.

As we write there looms the spectre of a national rail strike which, for those who have sold their souls to Southern Region will at least bring the comfort of knowing that everybody must suffer, not just the chosen few.

What has all this to do with Wood Lane? Well you managed to get to work through the snow didn't you? and when petrol was short? and the trains were out? Yes, we know you did and will continue to do so. In case it hasn't already been mentioned, "well done".

Personnel News

Starters

Welcome to:-

M.S. Swerdlow who joins us as an Assistant Technical Officer in the Polymers Department.

Dr. S. Bhattacharya who joins as a Technical Officer in the Product Engineering Department.

R.J. Hazelden who joins us as a Student Apprentice.

Leavers

Farewell to:-

Adrian Bodimeade of the Metallurgy Department who leaves after almost 4 years to take up alternative employment.

Barry Kempster of the Product Engineering Department who leaves after 15 months to take up alternative employment.

Transfers

Walter Mascarenhas of the Corrosion Department has transferred to the Transmission & Energy Department.

MR. H.G. DE VILLE

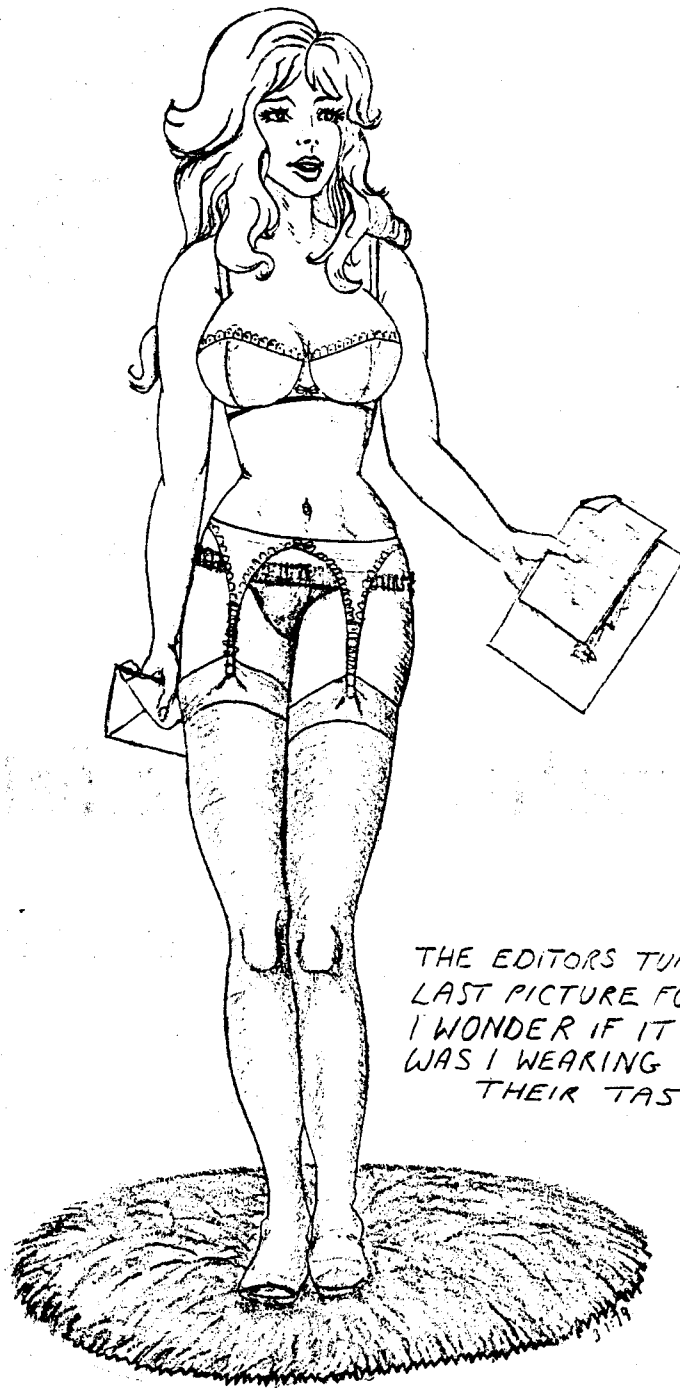
Congratulations to Mr. H.G. "Oscar" de Ville, Executive Vice-Chairman of BICC Ltd with responsibility for BICC Cables Ltd (of which REL is a part) on being awarded the CBE in the New Year Honours List.

Miss C.C. Amor

Ted Morrison writes;

Like, I am sure, all people who knew Clare, I was deeply saddened to hear of her death last month. Whilst not detracting from the sentiments expressed in the obituary in the Bush Telegraph I feel that, as an addition it should be mentioned that Clare gave a great deal of her time after retirement to actively supporting the Social Club. In those days, when the bar was located in the then Lecture Room on the 4th Floor, Clare always came in at least twice a week to serve behind the bar and, in addition, always helped out at Social functions such as film shows and (especially) dances when the bar committee were under great pressure.

Biccarella



THE EDITORS TURNED DOWN MY
LAST PICTURE FOR BEING OBSCURE!
I WONDER IF IT WAS THE JOKE, OR
WAS I WEARING TOO MUCH FOR
THEIR TASTE?

EXECUTIVE COUNCIL

The meeting due to have been held on Thursday 11th January was postponed due to the inability to raise a quorum. It was re-scheduled for the 18th. Report next month.

Diary of Events

Date	Event	For Information
Tues 23rd Jan	Sea Angling Trip	Andy Platt
Wed 24th Jan	Badminton vs St. Albans Mens (Away)	Vic Banks
Tues 6th Feb	Last day for contributions to B.T.	Editorial Board
Wed 14th Feb	Film Show; 6.30 pm Main Hall "Law and Disorder", Rhythmic" and "The Pre Raphaelite Revolt"	Annette Mattock
Tues 20th Feb	Publication Day B.T.	Editorial Board
Wed 21st Feb	Badminton vs St. Albans Mixed (Home)	Vic Banks
Wed 7th March	Badminton vs St. Pauls Mens (Away)	Vic Banks
Wed 14th March	Film Show: 6.30 pm Main Hall "England Made Me", "Futtock's End"	Annette Mattock
<u>Regular Events</u>		
Tuesdays	Badminton	Vic Banks
Thursdays	Badminton	Vic Banks
	Air Pistol Shooting	Denis Groombridge
	Slimming - 1 pm	Yvonne Ferrier or Lindsey Buchan
Weekends	Hot-Air Ballooning	Roger Millward or Denis Groombridge

Health and Safety

HEALTH & SAFETY COMMITTEE MEETING, 3RD JANUARY 1979

Summary of Business

Dr. R.M. Black had resigned from the Committee, and Mr. R.W. Hall had been appointed in his place, also to act as Safety Adviser, Wood Lane. Mr. D.A. Taylor would act as Safety Adviser, Alperton.

The Kalamazoo system of Hazard Reporting had been purchased and would be brought into use as soon as possible.

A special notice would be sent to all Heads of Department regarding certification of items of Lifting Tackle. A similar notice would be published in the B.T. (see below).

Labelling of chemical containers, including those for waste solvents etc., was discussed. A system was being devised which it was hoped would eliminate the hazard of unlabelled containers being allowed to stand on benches etc.

It had been decided not to instal a central Safety Notice Board. Instead, Safety Posters etc. would continue to be displayed in the areas in which they applied. Detailed information (e.g. Acts of Parliament etc.) would be available in the Library. Notices would be posted listing the members of the Safety Committee and their telephone numbers.

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The Fire Regulations and the last Fire Drill (30th October) were discussed. The former required some amendment due to changes in personnel and Mr. Heggie would follow this up. It had been agreed with Management that more frequent Fire Drills were required, in order to familiarise staff with the procedures. The organisation of the Control Centre at the Gatehouse was of particular concern.

Training of Fire Wardens and Hose Reel crews had been carried out by BICC Fire Officers from Erith Works Fire Brigade.

G.F. Holder
(Secretary, H & S Committee)

Lifting Tackle

Our insurers, National Vulcan, insist that all lifting equipment used at BREL be subject to regular inspection and certification.

All such equipment known to be on site at BREL has been listed, tested and certified. Some of this equipment is permanently located at various parts of the site, the rest is held in Works Engineering for general use.

All personnel are asked to ensure that only certified equipment is used in lifting operations and this includes the equipment connecting the lifting device to the load such as harnesses and slings. If there is any doubt please contact Works Engineering before commencing lifting operations.

The Works Engineer is particularly concerned to eliminate any lifting tackle that is not on the current register and which may therefore be unsafe. If you know or think you know of any such equipment, please identify it to your Head of Department and on no account use it until it has been checked.

For Sale

Refrigerator - 7.5 cu. ft. in good condition -

Contact Mrs. K.S. Patel (Typing Office Ext. 233).

Price £48.00

The History of Electric Wires and Cables

By R.M. Black

PART 12. THE EDISON TUBE

By R.M. Black

With the almost universal adoption of alternating current for power supplies for lighting and heating at the present time, it may seem strange that there was a time when the use of high voltage ac was opposed by the proponents of low voltage dc. This resulted in what has been referred to as 'the battle of the systems'. As the use of electric lighting spread during the last two decades of the nineteenth century, distinguished electrical engineers and scientists took sides. Ferranti, Mordey and Gordon favoured high voltage ac with its ease of transmission over quite large distances, while Crompton, Hopkinson and Kennedy favoured low voltage dc because of its inherent safety. Ferranti, as we have seen, was far sighted in his approach and perhaps suffered for being so. His Deptford power station was ahead of its time and its record with respect to an uninterrupted and reliable service to its customers was hardly one which would convince any critics of the superiority of ac.

The 1882 Electric Lighting Act was based upon the principle that every parish should have its own generating station, and the great majority of the electric lighting companies were in agreement with this. If such were to be the case, the principal advantage of the ac system, that of transmission over long distances without loss of voltage, ceased to count in comparison with dc. The fact that dc supply was backed by batteries of accumulators not only gave a continuity of supply in the event of failure of the generating sets but also enabled a more efficient use to be made of the generator. In peak hours with the ac system the engines and boilers had to be sufficient to carry the short daily peak load and were consequently running under very uneconomical conditions during the rest of the 24 hours. Also, in the early days it was not very easy to run ac generators in parallel due to the difficulties in synchronisation, which was not overcome until 1887 and the machinery could never be shut down during periods of light load as could a battery station but had to be kept running however small the demand. It was calculated that the amount of coal required for the generation of a kilowatt of electricity using the ac system was 20 to 25 lb compared with the 10 lb with the dc system. AC also suffered from the disadvantage that in the early 1880s being single phase it could not be used for driving motors as suitable designs had yet to be developed.

The view has been expressed that had the business of electricity supply been destined to continue on the same scale as that of the earlier undertakings, there is little doubt that the direct current system would have been generally adopted.

One of the protagonists of low voltage dc was one of the inventors of the incandescent filament lamp Thomas Alva Edison. Edison was very much concerned with the health and safety aspects of the electric current and in his laboratory at Menlo Park, New Jersey, he was with other workers in the field considering the use of electricity in judicial execution.

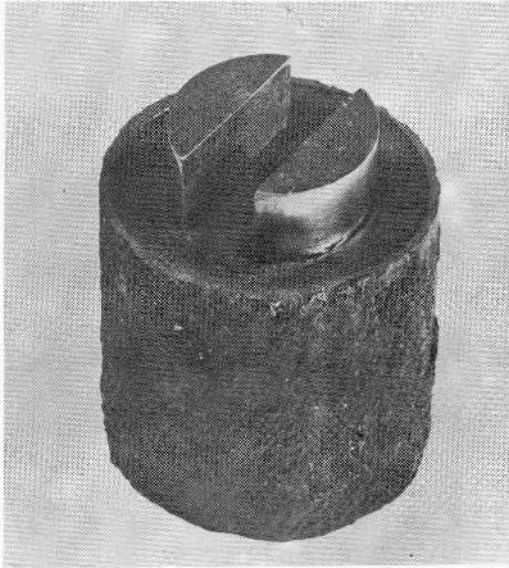
During those years the electrical press contained many references to this work, as well as to the development of 'a secret death ray' which was said to have been applied to a flock of sheep with dire effect. The journals also record the prolonged debate as a result of which the term "electrocution" was finally derived as being a suitable word to describe the particular electric shock treatment finally decided upon.

Edison, in a manner not unlike that of Ferranti around the same time, worked out the details of a complete system for the distribution of electricity, at low voltage, to customers. One problem encountered with low voltages was that of 'copper loss' the reduction of the supply voltage with the distance of the customer from the generating station. As Edison determined to supply his customers at 100 volts it is said that he generated at 110 volts and the practice of the additional ten percent has survived into the high voltage supply voltages to the present day with the 11, 22, 33, 66, 132 kV etc.

Edison's distribution system was based on a network of underground mains built to his own design, fed by a dc generator and as mentioned, supplying current at 100 volts to installations of 16 candle-power lamps in the offices, shops and private houses of the consumers.

In his earlier experiments at Menlo Park, Edison had used ordinary 10 gauge copper wire with an insulation made up of three helically wound muslin tapes, which had been boiled in a mixture of refined Trinidad bitumen, oxidised linseed oil, paraffin and beeswax. The mains which he proposed for commercial distribution of electricity were, however, to be very different. They consisted of two large segmental-shaped copper rods, separated from each other by thick cardboard spacers strung together on a jute string and contained in an iron pipe with a screw thread at each end. This pipe was 20 ft in length and was subsequently filled with a bitumen compound by means of a hand operated suction pump. These rigid mains were to be known as Edison Tubes and in a similar manner to the Ferranti mains detailed a year or so later, although only reaching the stage of commercial application in 1889, were of such a length that they could be transported around the 'average' street corner on a horse-drawn cart. Special expansion joints were designed to take up the longitudinal expansion under load.

In the Telegraphic Journal for the 15th November, 1881 we read:-



Two wire Edison tube as used in the Holborn Viaduct installation

"An offer has been made to the Corporation of the City of London to light Holborn Viaduct for two months with Edison incandescent lamps, free of charge. The intention is that the houses within a convenient distance shall be supplied with electricity by meter for domestic use."

The installation was started in January, 1882 and a central generating station erected in the basement of No.57, Holborn Viaduct, the London offices of the Edison Company. Mains, in the form of Edison Tubes, were laid in subways under the Viaduct to supply the street lights from Newgate Street to Holborn Circus and numerous buildings along the route. On the 15th April of that year the Electrical Review reported:-

"Holborn from Newgate Street to Holborn Circus has been lighted by Edison incandescent lights; two are placed in each lamp with the gas kept burning between them. There are about 160 of the ordinary small bulbs and 4 large ones at the entrances to the London, Chatham and Dover Railway Station, of about 50 candle-power illumination power which gives a very brilliant light."

Later, on the 22nd April, 1882 they were to note:-

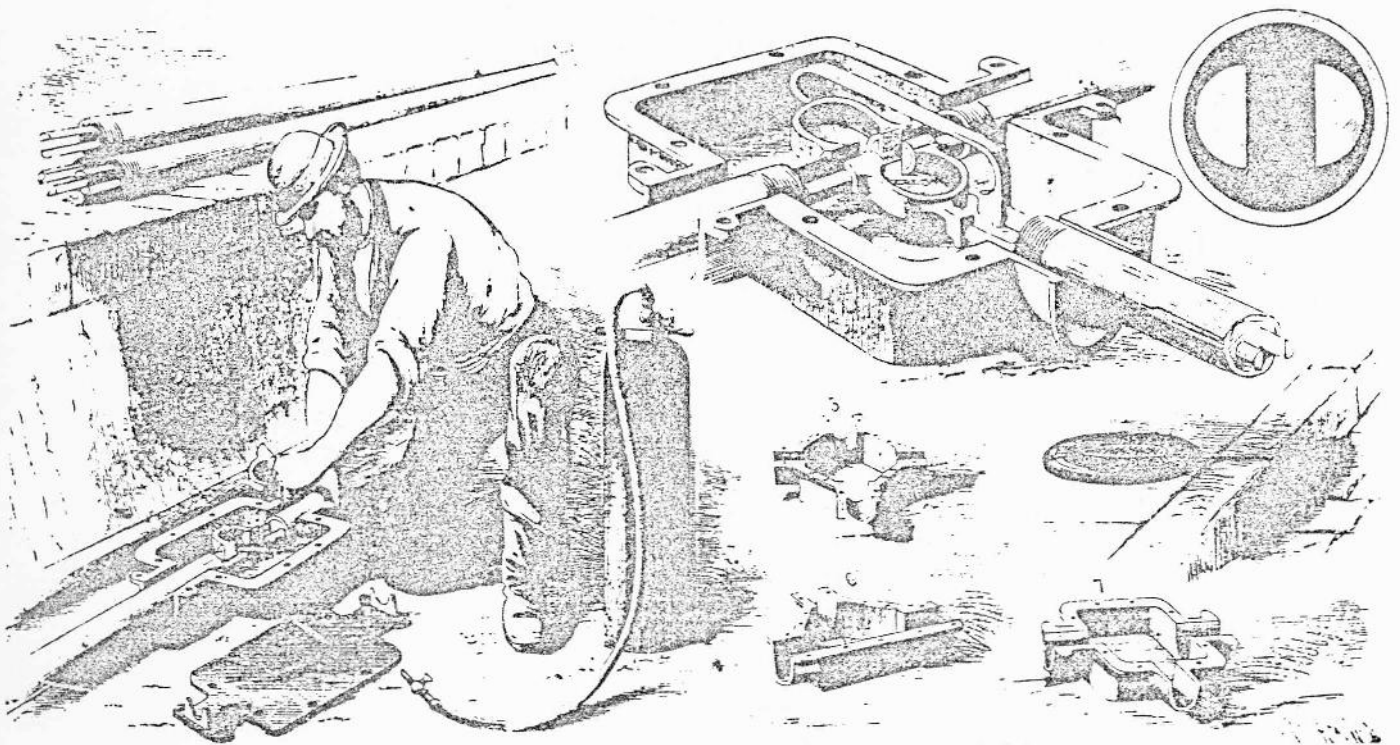
"Edison lighting was used for the first time at the City Temple,* at a popular concert, but the light broke down and the entire building was thrown into darkness."

*The City Temple of Dr. Joseph Parker situated at the West end of the viaduct had an installation of 170 lamps and the credit of being the first church to be lit by electricity. (The people that walked in darkness had seen a great light!)

In 1883, Edison adopted the three-wire dc system which had been introduced in England in the previous year by John Hopkinson in Patent No. 3576 of 1882. In the patent the three-wire principle is covered in the following terms:

"For the purposes of economising the cost of main conductors I place two dynamo machines in series and place two systems of lamps or other appliances consuming electricity of approximately equal capacity also in series. A main conductor is taken from each extreme pole of the two dynamos to points between the two systems of lamps, the intermediate conductor serving to bring back to the central station any electricity required for one system of lamps in excess of that required by the other system of lamps."

James Greig in his excellent short account of the life and work of John Hopkinson notes that this patent, which had been sold to the Westinghouse Company of America, became the subject of one of the most notable legal actions in which Hopkinson was involved. The case was Hopkinson v. The St. James' and Pall Mall Electric Light Co. Ltd.,



Laying the Edison electric mains - the service boxes and expansion joints

reported in 1893. It was alleged that the St. James' and Pall Mall Electric Light Co. Ltd., had infringed the patent. The action, which engaged the highest talents of Bench and Bar, lasted for three weeks between November, 1892 and January, 1893. It was tried before Mr. Justice Romer in the Chancery Division of the High Court. Mr. Fletcher Moulton QC appeared for the plaintiff; Sir Horace Davey, QC, and Mr. Finlay QC appeared for the defendants. Lord Kelvin and Professor Hopkinson himself were among the expert witnesses for the Plaintiff while Professors Silvanus Thompson and Kennedy gave evidence for the Defendants. According to Mrs. Hopkinson, who attended day after day in the company of Lady Kelvin, they sat fascinated by the legal gladiatorial display. Fletcher Moulton asked her one day at lunch if she did not think it as good as a play. In the event, the validity of the three-wire patent was upheld.

In adopting the three-wire system, Edison had to modify the arrangement of the conductors in his 'tube'. These now took the form of three solid rods of copper of the same circular cross-section, individually lapped with jute cord in a very open lay. Three such lapped conductors were then bound together in trefoil formation by means of a fourth cord and the whole slipped into the iron pipe. The bitumen compound was introduced as before. Special joints were again designed to overcome expansion, to introduce right-angle bends and to enable service cables to be connected.

The Holborn Viaduct installation preceded the famous Pearl Street Installation in New York by several months. The Holborn plant was running by the 12th January, 1882 although the opening of the installation was deferred until the 12th April. The Pearl Street installation was on a rather larger scale eventually comprising over 15 miles of Edison tubes, the first of which were laid on the 19th April, 1882. Pearl Street Station was officially opened on the 4th September. As experience with the three-wire proved its reliability and economy, the two wire installations were gradually converted to the three-wire versions and by the end of 1891 the first Pearl Street District was all three-wire. The Holborn Station was shut down in 1886, but not before it had been extended to supply 400 lamps in the News Room of the General Post Office and in 1883 similar mains had been laid down to supply the Holborn Restaurant. A sample of the two-wire tube from which is in the Wood Lane Cable Museum.

Under low-voltage dc conditions the Edison system worked admirably, and some of the tubes were until recently still in service where light loads were operative; but most of the original system was replaced about the end of the nineteenth century, when the ever increasing demand for current led to serious overloads, with consequent softening of the compound filling, particularly at the joints.

(To be continued)

UFOs

We have been asked to comment on "Insects as Unidentified Flying Objects", contributed by Dr. Fox. It is our view that the reaction of the scientific community falls into two categories.

- (i) The observation can be accepted if the explanation appears to be compatible with a terrestrial phenomenon.
- (ii) The observation is rejected on the grounds that if it were accepted, the phenomenon could be extra-terrestrial.

It is our feeling that observation of unusual lights in the sky, of the type referred to in the article, would earlier have been dismissed as unreliable for reason (ii) above. Now that an "acceptable" explanation has been put forward the observations are not only taken as reliable but it is actually proposed to use them to assist in further study on the subject (of swarms of insects in flight at night).

We would be happy to extract for future re-publication some of the more interesting items from the articles on UFOS which were published in the BT from July '67 to May '68, up-dating and reinforcing the points made as necessary.

Dennis Cooper
Ted Morrison

2 in 1 | Competition

This month's competition is all about basic arithmetic—or is it? Here are the problems.

1. Imagine a chess board. Place one grain of wheat on the first square, two on the second, four on the third, eight on the fourth and so on doubling each time until you reach the end. What is the total number of grains when all squares have been filled?
2. If 6 cats kill 6 rats in 6 minutes, how many cats are required to kill 100 rats in 50 minutes?

Now, for 1st Prize (A) we want the numerical answers to both problems. The usual "out-of-the-hat" method being applied to all correct entries.

For 1st Prize (B) we want the best real solutions to both problems, and we don't mean "best" in terms of elegant mathematics. The Editorial Board will judge the answers and their decision will be final.

You may enter for (A) or (B), or for both prizes. A wrong answer (or no answer) to one part will not invalidate the other answer.

Send your entries to reach David Green (Chemistry Department) no later than Tuesday 6th February.

Dysphagian Diary

(An occasional column for those with narrow tracheas)

No doubt we've all made some New Year resolutions including the one which goes something like, "I resolve to ensure that everybody else supports the government's 5% pay policy." Even if you're not sure whether there still is a policy it is comforting to know that Mr. Healey is displaying the right attitude. He recently wrote to the general secretary of NUPE as follows.

"The Government's commitment to help the low paid is clear and illustrated by measures we have taken. There is no evidence to support the charge of any lack of insincerity."

A few eyebrows must have been raised at that.

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There were a few low moans at the beginning of the month when Beatbuns Canterring announced the new price derangements. Parties are up and so are Hamburges (not to be confused with Vienna Stakes). You can still begin your lunch with a Fruit Duce (Italiano?), and the impecunious can take comfort from the unchanged price of omelltes. But has anyone tried the scepial yet? Bomb happy tea !

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We had some very flattering comments about last month's cover (ta), and others saying how nice it would have looked in colour (but not how little other printing would have been possible if we had tried!). Margaret Kingston was a bit worried though.

Gabrielle as a Christmas pud?
Do you think you really should?
I'm sure Derry would agree
It really is lèse-Majesté.

It's all right Margaret, the King is still speaking to us; but the cold weather has left us a bit worried about his heir.

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Last month's "notice from a garage wall" activated a nerve within a near-moribund spirit from the Chemistry Department. He thought one or two of the words needed re-arrangement. It should read,

"We the unwilling
Led by the unknowing
Are not doing the impossible
For the ungrateful.

We have not done much
For so long
For so little
We are now qualified
To do nothing
With anything."

Obviously the white-hot technological revolution
has a few outposts left to conquer.

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Finally this month a delightful, if somewhat
subtle, line from the bottom of a price list sent out by
Fibre Link Limited.

E & EO

Think about it.

Leadergram

The previous record of 14 all-correct entries was
almost equalled this time, but for minor slips-of-the-pen in
two entries, judged not sufficient grounds for disqualification.

I was gratified to receive 3 out-of-town entries from
Norfolk, Ruislip and Prescot — how widely is the B.T. read!
Perhaps we might hope for other contributions from such sources
— how about a crossword for the March or April issue, Les?

First of the 14 names out of the "hat" was that of
Mike Fox, Communications Dept., who receives our £2 prize.

For those others who tried but didn't succeed in
completing the puzzle, the solution is as follows:

CLUES: A. DELIVERY DATE. B. ECTOPLASM.
C. SEND IN THE CLOWNS. D. MIXED METAPHORS.
E. OPEN INVITATION. F. NATIVITY SCENE.
G. DEPLOYED. H. MILLED. J. ON THE HIGH SEAS.
K. ROAST TURKEY. L. RUBBISH TIP. M. INDUBITABLY.
N. SHAVEN HEADS. P. MUSHY PEAS. Q. AROUND THE
CORNER. R. NUMBERLESS. S. WINE CELLARS. T. ARDENNES.
U. TWELFTH NIGHT. V. COUNT SHEEP. W. HULLABALOO.
X. INEBRIATED. Y. NEXT IN LINE. Z. GHOST STORY.

AUTHOR & TITLE: DESMOND MORRIS, "MANWATCHING".

QUOTATION: "THE SMALL CHILD THE TEENAGER THE PUPIL THE
BUSINESS SUBORDINATE THE SERVANT AND OTHERS
WHO MUST NORMALLY INHIBIT THEIR DOMINANCE
FEELINGS IN MANY CONTEXTS CAN BE OBSERVED TO
EMPLOY THESE SUDDEN SUPERIORITY DISPLAYS
WHEN THEY ARE OCCASIONALLY DRIVEN TO BREAKING
POINT AND EXPLODE WITH UNLEASHED VERBAL INSULTS".

Section Reports

GENEALOGY SECTION

At a General Meeting on 9th January the section unanimously approved a resolution to apply for Associate Membership of the Federation of Family History Societies. A set of rules were adopted, and the following officers elected: Alan Bangay (Chairman), Mike Hagger (Secretary) and Ted Morrison (Treasurer). Molly Nalon and Mike Kendle were elected as members of the committee. It was agreed that an attempt should be made to produce a bulletin outlining members interests which could be circulated to other societies and organisations.

The BBC are to present a 5-part series on Family History in the Spring. Former newsreader Gordon Honeycombe will reveal how he traced his ancestors back to the Norman Conquest and show some of the fascinating discoveries he made. It promises to be essential viewing for both new and existing members. The series starts at 7.50 pm on Wednesday 14th March on BBC-2. A book is being published to accompany the programmes.

Mike Hagger (340)

ALCOHOL III

Further to my note in last months BT, an inaugural meeting of the proposed wine and beer making group was held in December. In view of the short notice given of the meeting, its time and venue (one lunchtime in the Polymer Lab.), the size of the attendance was most gratifying, thirteen of the twenty who had expressed interest.

A number of points were discussed (briefly) at the meeting including possible aims of the group, frequency of and topics for future meetings, the acquisition of specialised equipment and circulation of a magazine, the Amateur Winemaker. In addition a number of useful tips were passed on - the first of many perhaps. A further meeting has been arranged for January, which will incorporate a tasting session if enough samples are brought along!

Peter Walters (266)

Gabrielle

On Friday 5th January a hardy band of 5 (Joe Lou, Dave Green, David Millward, Barbara Groombridge and myself) braved the cold and snow to take Gabrielle to the aptly named 'Icicle Ballooning Meet' at Newbury.

The first event of the weekend was a surprise fitness test devised by Dave Green, it involved digging and pushing the van out of a snow drift into which he had ?deliberately? driven it. Having successfully passed this test we retired to the local hotel (effectively taken over for the weekend by the balloonists) for a well earned coffee and to meet our pilot Ray Bailey.

There was no flying on the Friday but a briefing was arranged for 8 o'clock the next morning. Saturday's weather was nearly perfect for ballooning with a little wind and a clear blue sky, and so throughout the morning and early afternoon 66 different hot-air balloons made a total of 100 flights. Gabrielle made 2 flights, but because of the low temperatures the pressure in the propane cylinders was about half the normal and so only Ray and one other person could be carried in the basket each time.

An added attraction at the meet was the Zanussi hot-air airship which looked a little like an elongated barrage balloon in bright yellow. The gondola seated 2 and had a motor driven propeller behind, with the controls for both the burner and the motor conveniently in front of the pilot. Quite a sight seeing a balloon taking-off for a flight and returning to land on the same spot.

In the evening a buffet, film show and disco was arranged and inevitably the early briefing for the following morning. Unfortunately Sunday was rather wet with low cloud, so there was no chance of flying, however a 'Pub Anagram' competition was organised for those interested. This involved decyphering an anagram of a Village name and its Pub and then being the first through the door at opening time. Because of the rather difficult situation caused by the petrol shortage we decided not to participate. None the less it was a great weekend and the sight of so many balloons together was in itself worth going for.

SLIMMING

The Slimming Club has resumed activity on Thursdays at 1.00 pm in the Design Office, after becoming a little apathetic before Christmas. We hope to start with new vigour and shed those excess pounds gained over the festive period with a view to a slender summer.

The Film Column

LAW AND DISORDER

The next Wood Lane film show, on Wednesday 14th February, will feature an American comedy by an expatriate Czech director. Ivan Passer was one of the leading lights in the flowering of Czech cinema in the 1960s, and then came to Hollywood. He brings a fresh eye to bear on the situation of crime on the streets in LAW AND DISORDER, which stars Carroll O'Connor and Ernest Borgnine giving richly comic performances as two vigilantes. In support there is THE PRE-RAPHAELITE REVOLT, and RHYTHMETIC by the leading animator Normal McLaren.

TV and Film

Dec. 6: This column decides to venture into the alien waters of the small screen by giving a listing of films to be shown on TV over Christmas; copy handed to Editorial Board.

The BBC announce that because of industrial "action" late programmes, including the Fred Astaire/Ginger Rogers films in our list, would be cancelled.

Dec.20: BT is published. BBC staff strike.

We are sorry if our venture played any part in causing the strike. At least its speedy settlement meant that the screens were not blank over Christmas, and even the Fred and Ginger pictures were restored.

Film Magazines

Would you like to read a whole host of magazines dealing with the cinema: Films and Filming, Continental Film Review, Sight and Sound, etc., etc? For only 40p per year your name can be added to the Film Magazine Circulation List and you will receive about one magazine a week to read. If interested, please contact Tom Ruben (212).

Would existing subscribers please note that their subscriptions are now due.

Annual General Meeting

The Annual General Meeting of the Film Section will be held towards the end of February, but it's not too early to start thinking about joining the committee. If you're interested, see Annette Mattock (256) or Richard Grigsby (336).

Film Recommendation

Not easily deterred by our unfortunate experiences with TV, we would like to draw your attention to a forthcoming film on BBC TV. We do not know when it will be broadcast (it may be on BBC 1 on a Sunday) but would ask you to look out for THE PICTURE SHOW MAN, a delightful Australian film about a travelling cinema show in the outback in the 1920s. This was one of the finds of the 1977 London Film Festival, but has since unaccountably been ignored by the distributors.

And don't forget LAW AND DISORDER here at Wood Lane on February 14th (see above).

"SPOT WHITE" 78

The billiards tournament has "hung-over" into 1979, but at the time of writing Geoff Holder was 2 games up over Pete Mercer, with 3 to play. Full account, with excuses, next month.

"POT WHITE" 79 SNOOKER TOURNAMENT

No doubt due to blurred vision induced by the seasonal festivities, few people spotted the entry form on page 37 of the Christmas edition of the B.T., so all you would-be Ray Mountjoys, Doug Spencers and John Reardons are given a second chance below. Or write your name on the notice in the Cafeteria.

N.B. Entries close Jan. 31st

To G.F. Holder, Polymers Dept.

Please enter my name for the 1979 Snooker Tournament.

Name Dept.
Tel.

(BLOCK CAPITALS PLEASE)

Sporting Personality

ELEANOR TARBOX

Some of the longer serving members of staff may remember Peter Mills who achieved great success in the field of Hockey by representing Great Britain and England at international level and in the Olympic games.

Equally outstanding sporting achievements have been more recently attained by Eleanor Tarbox of the Communications Department who apart from representing her country at both hockey and cricket also lists tennis, badminton and squash among her sporting interests. A brief review of Eleanor's sporting achievements, in the fields of hockey and cricket, over the past few years speaks for itself. Her first representative hockey dates from the period 1969-71 when she played for Surrey and South juniors. Three years in the Surrey 2nd eleven were followed by promotion to the first team towards the end of 1974. This has continued into 1979.

In the 72/73 season her ability was rewarded by selection for the South of England 'B' team a position she has also held to the present time, continuously apart from one season. In the 75/76 season she played for the England under 23 'B' team.

More recently Eleanor has been helping Surrey continue their winning sequence in the Southern counties championship which started in 74/75. A measure of her dedication to the sport can be gauged by the fact that immediately after Christmas she was prepared to travel to Southampton to play in this championship. This involved four games in four days. Unfortunately the final game against Oxfordshire was postponed due to snow and left the championship temporarily unresolved. Most weekends she plays for Wallington Ladies 1st eleven in the centre half position, now vacated by the retired England centre half.

While having not yet played for the full South of England team Eleanor has toured Holland with them and travelled as a substitute to several matches. Directly the hockey season is over for her the cricket season starts with possibly only a one week break.

Her interest in playing cricket also started at a fairly early age coached by the then England wicket keeper, when she represented the "South juniors" while still at school.

As with hockey Eleanor has progressed from there playing for the Surrey 1st eleven continuously from '72 and being opening bat (Mr. Boycott beware) from '76.

She has also played for South of England 'A' against Australia. We look forward to reporting further successes for Eleanor in years to come.

Puzzle - Math

Answers to last months puzzles were:-

- (1) N (the letters are the initial letters of one, two, three.....)
- (2) 30 (the numbers are the values, in ascending order, of old fsd coins)
- (3) 70 (the nth term is $2^n + n$)
- (4) 31 (all the numbers represent 16 but are expressed to different bases. The base starts at 16 and is decreased by one each term. The missing term is therefore 16 expressed to the base 5.
 $(3 \times 5) + 1 = 16$)

(5) Let,

$$\sqrt{y + \sqrt{y + \sqrt{y + \dots}}} = x$$

$$\begin{aligned} \text{then } y + x &= x^2 \\ y &= x(x-1) \end{aligned}$$

solving for $x = \text{integer}$ gives 12 and 20 as the next two numbers in the series.

- (6) Since 370 is one of the four numbers then 371 must be the missing one since $0^3 = 0$ and $1^3 = 1$.
- (7) The answer, 6174, may be obtained by taking any four figure number at random and using each answer as the starting point for a new attempt.

e.g. take 9561, then

| | | | |
|-------------|-------------|-------------|-------------|
| 9651 | 8820 | 8532 | 7641 |
| <u>1569</u> | <u>0288</u> | <u>2358</u> | <u>1467</u> |
| 8082 | 8532 | 6174 | 6174 |

* * * * *

Mr. A. Teaser, that handsome young fellow from Product Engineering Department, enjoyed the puzzles very much, but he is in a bit of trouble with some calculations and would like some help from the Mathematics Department or anybody else. He says,

As $(\frac{1}{2})^2 > (\frac{1}{2})^3$
 it follows that $\log (\frac{1}{2})^2 > \log (\frac{1}{2})^3$
 hence $2 \log (\frac{1}{2}) > 3 \log (\frac{1}{2})$
 therefore $2 > 3$!!

And further $\cos^2 \theta + \sin^2 \theta = 1$
 and $\cos^2 \theta = 1 - \sin^2 \theta$
 raise to the power $3/2$ $(\cos^2 \theta)^{3/2} = (1 - \sin^2 \theta)^{3/2}$
 adding 3 gives $(\cos^3 \theta) + 3 = (1 - \sin^2 \theta)^{3/2} + 3$
 Let $\theta = \pi$, hence $(-1) + 3 = (1) + 3$
 therefore $2 = 4$ HELP!!

Poets Corner

A driver who'd had quite enough,
 Of the petrol queues, fog, ice and stough,
 Glumly said, "I am through
 With all driving, it's tough
 Time consuming, expensive and tough".

Brian Tilbury

For Sale

MINI 1000 (RED), H. Registration
 good condition

£600 (or near offer)

Contact - M. Owen (325)



Pensioners Christmas Lunch

This year's lunch was held on Friday 15th December, and after drinks and nostalgia 35 very healthy looking Pensioners and their hosts sat down to an excellent buffet (thank you Batemans).

After lunch, Mr. John Banks welcomed the guests who numbered 35 out of a total of 53 Wood Lane Pensioners and said that this turnout represented a considerable increase over earlier years.

Mr. Banks made special mention of Mr. W.H. Cottrill at 81 the oldest Pensioner present, Mr. Norman Davis who with 48 years had the longest Company Service though almost the shortest service as a Pensioner, a fortnight, and finally Mrs. Turasiewicz who had retired the day before.

Finally Mr. Banks reviewed the year at Wood Lane outlining the changes that had taken place and some of the main areas of work.

Dr. A.L. Williams, (for newer readers, past Director of Research and Engineering) identifying himself as a stand in for a mystery star who had suffered stage fright, thanked Mr. Banks on behalf of the Pensioners for the splendid hospitality. He went on to say how pleased he and no doubt others were to receive the Bush Telegraph and thus be kept in touch. He also said that the list of comings and goings indicated that Wood Lane was thriving, but that he for one was saddened a little by the fact that these changes meant that fewer actually remembered those who had retired. In conclusion Dr. Williams reiterated his thanks and wished the Company well over the coming year.

Children's Christmas Party

Saturday 16th December saw the Main Hall take its third pounding in 24 hours when the children assembled for the annual party. The event followed its ritual pattern (there would be a few howls if it didn't) which basically boils down to fun, food, films and Father Christmas. There is no doubt that everybody enjoyed themselves as judged by two letters we have received. Brain Tilbury wrote,

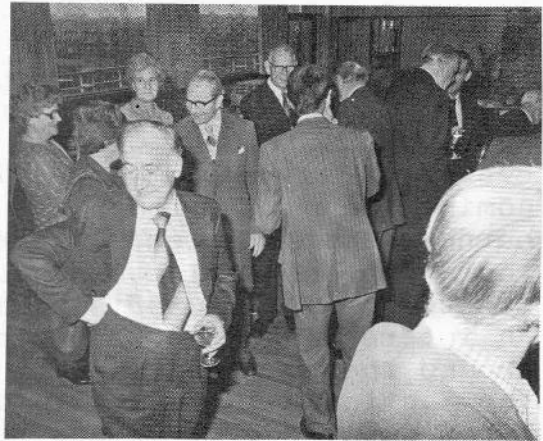
"May I, on behalf of one young fellow, thank most heartily all those who contributed time, effort and funds to the Children's Christmas Party. He reports in his own manner that he had an absolutely splendid time."

Fred Palmer expressed similar sentiments.

"May I take this opportunity, on behalf of all the Social Club members whose children were at the recent Christmas Party, to thank the numerous people who helped make it a success. Thanks go to Viv and her hard-working girls in the Typing Pool, Eileen, Peter, Denis, Roy, Roger "Father Christmas" Roberts and all other helpers."

* * * * *

On the opposite page there are some happy faces of pensioners (photos by Bob Maidlow) and children (photos by Gene Nalon and Stuart Castle). We leave you to guess which is which.



A History of The Film Section

by Ted Morrison and Tom Ruben

PART V

In the course of a quarter of a century any organisation is bound to experience some crises which might conceivably have led to its death. The fact that the Film Section is still with us and about to celebrate its Silver Jubilee is an indication not that it never experienced such crises but that it met and successfully overcome them. One such crises was that brought about by the Three Day Week, described in last month's instalment. Another occurred in 1975, at the Annual General Meeting in February. At the AGM every year a new committee is elected to plan and run the coming season, although the existing committee remains in harness until the end of the current season. Well, in 1975 there were no nominations for election to the new committee. - not, perhaps, surprising in view of the workload involved. An interesting discussion took place at the AGM, revolving around the point of whether no committee meant the end of the Section. The constitution demanded a committee including a chairman, secretary and treasurer. Could one person fulfil all three roles? And if there was not even that one person, was that the end? The constitution here came to the rescue again, for it said that the Section could be wound up only at an AGM at which there had been advance notice of this intention. So the Section was safe for at least another year. But if there was no Chairman/Secretary/Treasurer to call such a meeting, would the Section therefore continue indefinitely, albeit inactive? Fortunately this last question was never answered, for at this stage four people allowed themselves to be nominated, and the continuation of the Film Section was assured.

These four, later augmented by the co-option of a fifth member, set to work with a will and produced a full season of seven shows. The opening attraction was one of the James Bond spectaculars, THUNDERBALL, followed as usual by the Soiree. And attraction it was, for at 72 the turnout was more than double that at the corresponding occasion a year before.

Other films shown in the 1975-6 season included Jacques (Monsieur Hulot) Tati in TRAFFIC, Jane Fonda and Donald Sutherland in Alan Pakula's KLUTE, a double bill of Frank Perry's DAIRY OF A MAD HOUSEWIFE and Val Lewton's horror classic CAT PEOPLE, and Claude Lelouch's UN HOMME ET UNE FEMME starring Anouk Aimee and Jean-Louis Trintignant. In the end this season turned out far better than one could have dared to hope after its troubled start, and indeed it was one of the most successful seasons for a number of years; average attendance at 39 was 10 up on the previous season's.

The summer of 1976 saw a transformation of the Main Hall, which was redecorated in its present colour scheme, and new curtains and lighting provided. At the Film Section's request the lighting console was moved from its inaccessible site on the East Balcony to the West Balcony, so that full use could be made of all the sophisticated lighting features available: coloured lights surrounding the ceiling raft, spotlights with dimmers on the curtains, etc. At the same time the opportunity was taken to replace the by now rather tattered maroon curtain slung on hooks on the West Balcony to define the area of the projection booth, with a pair of new curtains running on fixed tracks and retracting into wooden boxes on the rear wall when not in use. Improvements were also made to the loudspeaker wiring, and a separate light was provided for the booth. Together with the still fairly new electrically operated screen, all this made the process of setting up for a film show very much easier than it had been ever since we moved from the Lecture Room to the Main Hall, and the refurbishment of the Hall lent a much more intimate atmosphere to the shows. This was also aided in no small part by the fact that the new hall curtains were designed to encourage heat from the radiators to warm the hall rather than to be dissipated out of the windows.

The first film show of the 1976-7 season, preceding the annual soiree, was the Jewish musical FIDDLER ON THE ROOF with Topol as the star. This was followed by Nicolas Roeg's DON'T LOOK NOW and another musical, French this time, Jacques Demy's LES PARAPLUIES DE CHERBOURG starring Catherine Deneuve. Other films in the season included the Marx Brothers in A NIGHT AT THE OPERA; Joanne Woodward in THE EFFECTS OF GAMMA RAYS ON MAN-IN-THE-MOON-MARIGOLDS, directed by her husband who is more often to be seen on the other side of the camera, Paul Newman; and a magnificent historical epic telling the story of Sir Thomas More, A MAN FOR ALL SEASONS, directed by Fred Zinneman and starring Paul Scofield.

During the season a change took place at Wood Lane which had wide repercussions, the introduction in March 1977 of Flextime working. Although there is no way of knowing its precise effect on the Film Section, we believe that it has encouraged more people to stay on after work to see the film shows. They have always been timed to start at 6.30 which is thought to be the earliest time to allow wives, husbands and other guests to get to Wood Lane. In the same way, in the early days of the Section Wednesday was decided on as film show night, and it has remained so for over twenty years. As an experiment, however, two programmes in a recent season were held on Mondays. The results were inconclusive, the attendances being respectively the highest and lowest of that season. After that we decided to stick to Wednesdays.

(to be continued)

Christmas Disco

The evening of Friday 15th December saw an invasion of the 5th floor McFadzean by over 150 people for the Christmas Disco. It had been rumoured that over 200 tickets had been sold and that Wood Lane 'experts' were called in to make sure the floor could take the strain of 200 gyrating bodies.

We can now report that 156 tickets were in fact sold and that the floor is still intact.

As usual most people arrived much later than the advertised 'kick-off' time of 8.00 pm, however, the room gradually filled up and the serious business of Disco-Dancing began. The music and lighting effects were excellent and had soon encouraged the first braver souls on to the dance floor quickly followed by many more. The energy exerted by some of the younger members of staff (and some of the not so young for that matter) was simply unbelievable, one or two obviously displaying the after-effects of seeing 'Saturday Night Fever' or one of the other Disco Films of recent months.

As the night wore on a surprise visit of Father Christmas, in the shape of Roger Roberts, was made, accompanied by his own theme tune of 'Jingle Bells'. Roger obviously needed some practice for the next day's Childrens Christmas Party.

A Raffle Draw was made and prizes worth £21 in all were won; prizes were bottles of spirits and chocolates. Unfortunately no-one seems to remember who actually won the prizes!

A thoroughly enjoyable evening was had by all and thanks must go to everyone who helped, especially to Ruth and the Canteen who during an extra-busy week still provided an excellent buffet, and to Ray Coomber, Denis Groombridge and Lindsey Buchan for making extra sandwiches. Thanks also to all the Bar Staff and Washers-Up and everyone who helped clear up the hall both before and afterwards. Special thanks to Lindsey who washed the floor on Saturday morning ready for the Childrens Party and to Yvonne who organised the whole thing so well.

The next Disco is likely to be held during March. Anyone who would like to either help or take over the organising from Yvonne would be welcomed, she deserves a rest after organising the last four.

BICC FILM SOCIETY

SILVER JUBILEE SEASON

Law and Disorder

Rhythmic

The Pre-Raphaelite Revolt

WEDNESDAY

14th FEBRUARY 6.30 pm

MAIN HALL

5th FLOOR

ADMISSION BY PROGRAMME 40p

Orders for sandwiches may be placed with members
of the Committee or with your local representative
not later than 12.00 P.M. on the day before the
show