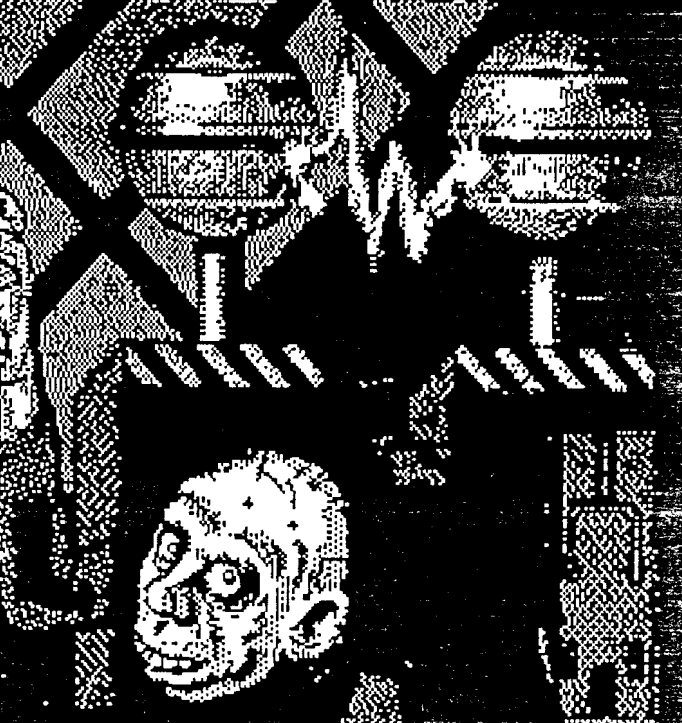
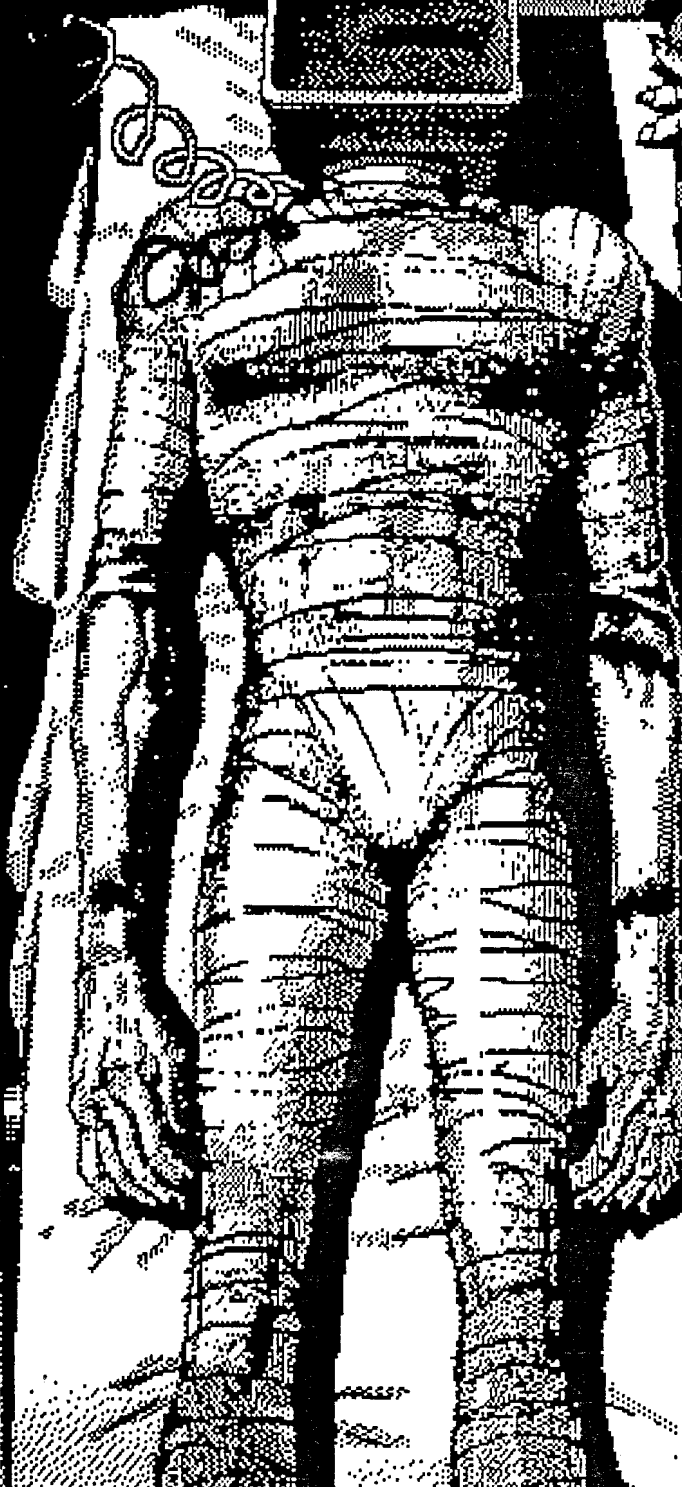


BUSH
TELEGRAPH
FEBRUARY 87



My Own
Valentine!

BUSH TELEGRAPH

The in-house magazine for staff present and past of BREL Wood Lane

Vol. 29 No.1

Cover

Plagiarised by KB

Production

Doreen Greenbury

Editorial Board

Pete Walters
Kim Booth
Geoff Holder
Les Ireland

Saint Valentines Day - Hooray!

Why hooray you may ask , well St. Valentine's Day this year is one day after our intended publication date , so if you are reading this BT before then we have succeeded , yet again , in getting it out on time....a worthy cause for celebration! We didn't intentionally mean to tempt fate by publishing on Friday the 13th .

The Editorial Board , this month , shows some changes , gone are Ted Morrison and Anne Buchanan , in has come (again) Les Ireland .

Anne has decided to give up because of pressure of work , while Ted was one of the December leavers .

Ted's departure almost marks the end of an era for the BT , for along with Geoff Holder he was associated with the magazine for over thirty years , almost from its inception .Mere "thanks " to Ted are grossly inadequate for all of his efforts but are wishes are most sincere . His type of dedication is the bedrock upon which the foundations of most voluntary enterprises depend .

Anne's going has created a vacancy for a lady on the BT Board , not that we have any fixed ideas about male/female ratios on the Board . Heaven forbidjust to counteract any false impression that the last sentence may have given , is there any group of ladies (or men) who feel that they might like to take over the running of the BT? If not , one or two volunteers would be most welcome .

DEAR EDITOR,

A Reader

Dear Editor,

Letters from Eileen King , Ted Morrison and Laurie Toppel are to be found on page 8 .

PERSONNEL NEWS

The following personnel joined BREL this year and we would like to welcome them to Wood Lane.

Brian Conneally has joined Administration as the storekeeper

Peter Davis and Daniel Brown have joined Site Services as Craftsmen.

Rosemary Morgan has joined Electronics Development as Secretary to Dr Tubbs and Mr Leavers.

We say goodbye and good luck to:

Keith Spencer and Brian West from Site Services

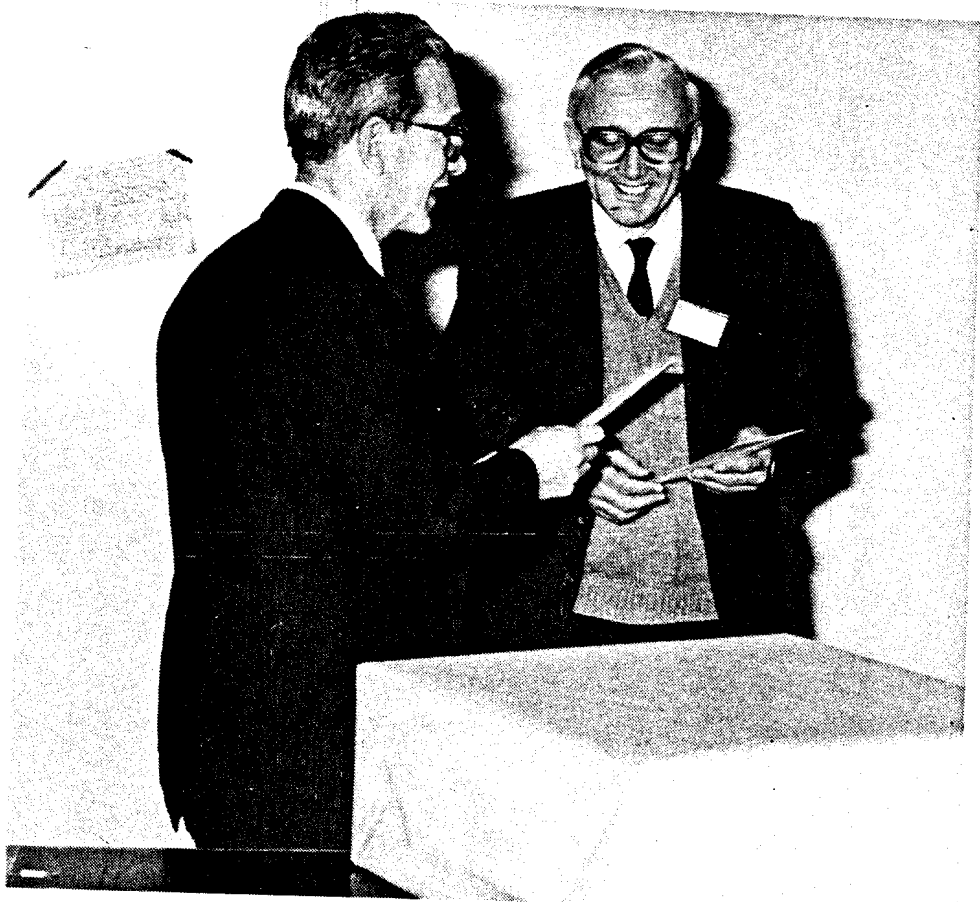
Annette Burgess and Neil Denney from Electronics Development

Gary Randall from Polymer Materials

OBITUARY

Bob King died in late December , after a long illness . Our most sincere condolences go to his wife Eileen .

Scenes from a few of the pre-Christmas Leaver's presentations



TED MORISSON



DENNIS COOPER



LAURIE TIPPEL AND TOM DORÉ

SPONSORED WALK READING TO BRISTOL

Bob Harnor and Chris Willson successfully completed the 90 mile walk along the Kennet - Avon Canal from Reading to Bristol . Now they face their hardest task - collecting money from sponsors ! All help would be appreciated .

**A BT
OPINION
POLL**

What do you think of your Canteen Food?



Now's your chance! Let the world (well, at least the readers of the next BT) know what you think. Entirely painless and without embarrassment. All you have to do is fill in your FREE Bush Telegraph consumer survey form and return it to the Editor. If you do not want to spoil your BT, then a copy will do; just one per person please.

We shall begin our statistical analysis immediately with 250 **don't care a jot**, or I eat sandwiches votes. Every form that we receive in reply will reduce this count by one.

Are you a secret vegetarian? Can't stand salad? Would like fresh linen tablecloths? Let us know, and we will publish for all to see.

1. **In general.** What do you think of our canteen?

Good O.K. Poor

2. **Quality and Price.** Do you think that...

- The quality of the food and the price that you pay for it are about right.
- You would rather have cheaper meals.
- You would rather have higher quality food, even if this meant higher prices.

3. **Choice.** Do you think that...

- The variation of the menu is about right.
- The menu does not vary enough.
- You do not want so much variety.

4. **Quantity.** Do you think that the portions are usually...

- About right.
- Too small.
- Too generous.

5. What is your favourite canteen meal?

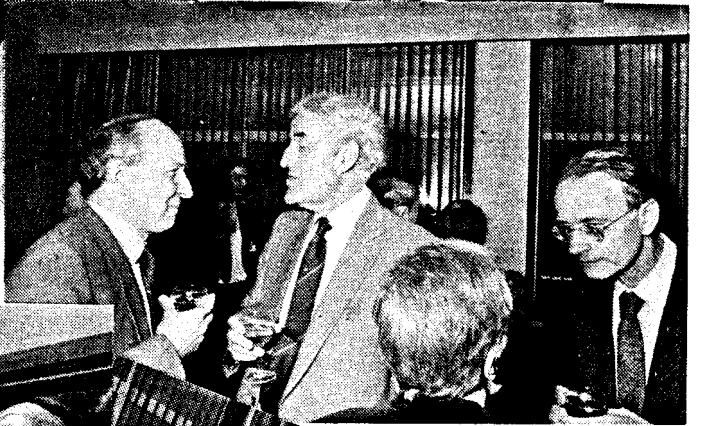
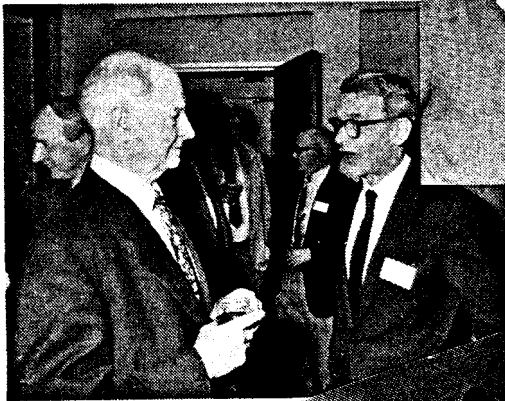
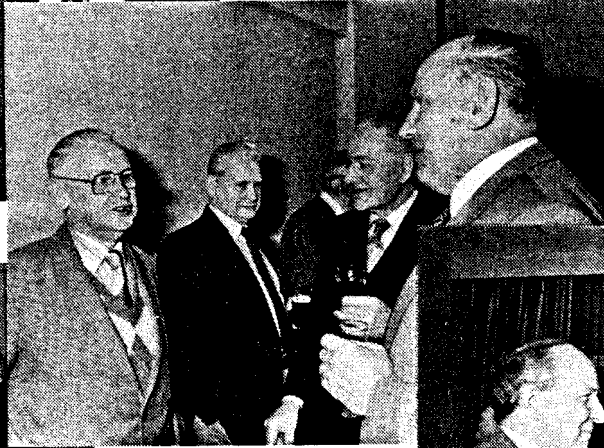
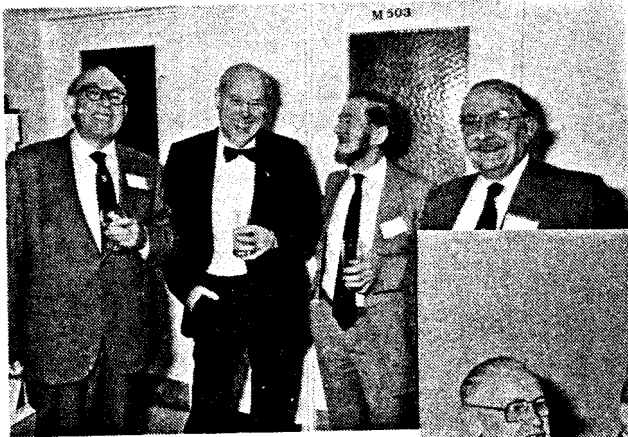
6. What is the worst the canteen can provide?

7. What would you like to see the canteen serve that they do not offer at the moment?

8. What do you think of this survey?

Pensioner's Christmas Lunch

If you didn't manage to see your former colleagues on the day, try spotting them in this montage assembled by Bob Maidlow.





Bush Telegraph February 1987

LETTERS - THANK YOU

From Eileen King

Dear Dr. Farmer ,

I have been deeply touched and proud of all the support from you and your colleagues at Wood Lane . It is so reassuring to know how much Bob was admired and respected .

As there has been such a large donation of money from Wood Lane and friends (£150 in all) I have spoken to the doctor who so kindly (and devotedly) looked after Bob at Charing Cross Hospital and have decided to send the money to 11 West Ward to be contributed to their fund for a washing machine .

Thank you again,

Eileen King

Dear friends,

Thank you very much to all those who contributed to the wonderful gift of a typewriter on the occasion of my departure from Wood Lane .It will be greatly treasured and much used when I embark on Family History Research as a service to others . Currently I am reorganising prior to searching for a few branches of my own "tree" .

I shall always have fond memories of my time at Wood Lane , especially the friends I have made , and would like to take this opportunity of wishing you all every success for 1987 and future years .

Yours Sincerely ,

Ted Morrison

From Laurie Tipple - A SHORT NOTE FROM W6

Dear Friends and Colleagues ,

Thank you for your good wishes , card and gift given to me on my departure from Wood Lane .

Apart from washing up , I am enjoying the benefits of my early retirement .

I wish you well and hope that job security will be on the menu for 1987 and future years rather than the diet of 1986 that made BREL leaner .

All the best and Thanks ,

Laurie Tippell

HEALTH AND SAFETY BULLETIN

A document entitled "A WORKING GUIDE TO THE SAFE USE OF LASERS AND LIGHT EMITTING DIODES - ISSUE 1" has been issued to relevant departments and personnel by Dr. M. Fox, who was recently appointed as Laser Safety Officer. All queries regarding installation, addition or modification to laser equipment must be referred to Dr. Fox before operation.

Following receipt of the Safety Re-Audit, conducted by the Group Safety Co-ordinator in September of last year, it has been decided to update and issue to all staff the Health and Safety Standards booklet which was last updated in 1975. The booklet states unit health and safety policy and details individual responsibilities of all personnel with regard to health and safety.

Halon Fire extinguishers have been purchased for installation in secretarial offices where word processing equipment is present. Halon extinguishers emit a vapourising liquid (BCF) which provides an instantaneous fire-killing action and is of acceptably low toxicity. Halon vapour leaves no trace, causes no damage and is electrically safe, making it ideal for computer protection.

John Watson.

WANTED

BUSMAN'S HOLIDAY. Teams of 3 from same occupation needed for T.V. quiz. See present series on Tuesdays ITV then apply on a postcard to Busman's Holiday, Granada T.V., Manchester, M60 9AE.

LADIES FOOTBALL

**Hammersmith
& Fulham**

London Borough of Hammersmith and Fulham
181-187 King Street
London W8 8JU
Telephone 01-748 3020

Leisure and Recreation

David McCollum
Director of Leisure & Recreation
Mark Carty
Principal Recreation Manager

When telephoning ask for:
Jill Smith Ext. 3550

Our ref JS/gjw

Your ref

Date 9th January 1987

Dear Mr Walters,

I have gained your address through Trevor Hawkins who has been running the Hammersmith and Fulham Men's Lunchtime League through our Sports Section.

Recently we have been approached by women in the area who would like to start a Womens Football Lunchtime League, so we, as the Action Sports team would like to accomodate this demand. We would be holding matches (and coaching if required) at Hammersmith Park, White City on Mondays between 12.30pm and 2.00pm.

If you know of any women in your firm, or any friends who may be interested, perhaps you could let me know by contacting me on the above number in the hope we can start the league as soon as possible.

Yours sincerely,

Gill Smith

Gill Smith
Action Sport Worker

A. J. Allen LLB (Hons) Chief Executive

Please contact Peter Walters if you are interested

Seen by Mike Fox

Trends in Instrumentation

Arranged by the Instrument, Science & Technology Group of the Institute of Physics.

Wed 25 - SESSION 1 - Signal Processing for Flow Measurement

10.30 Title paper by Prof. M.G. Mylroï, Bradford University

11.00 Opportunities for Economies in Instrumentation in Flow Control Installations by R.J. Weir, Econtrol

11.30 Image Processing, Prof. M. Beck UMIST

12.00 Forum - Chairman and Speakers

Strengthening Process Leads to Break In Glass Lasers, Say Rochester Researchers

Lasers & Applications October 1986

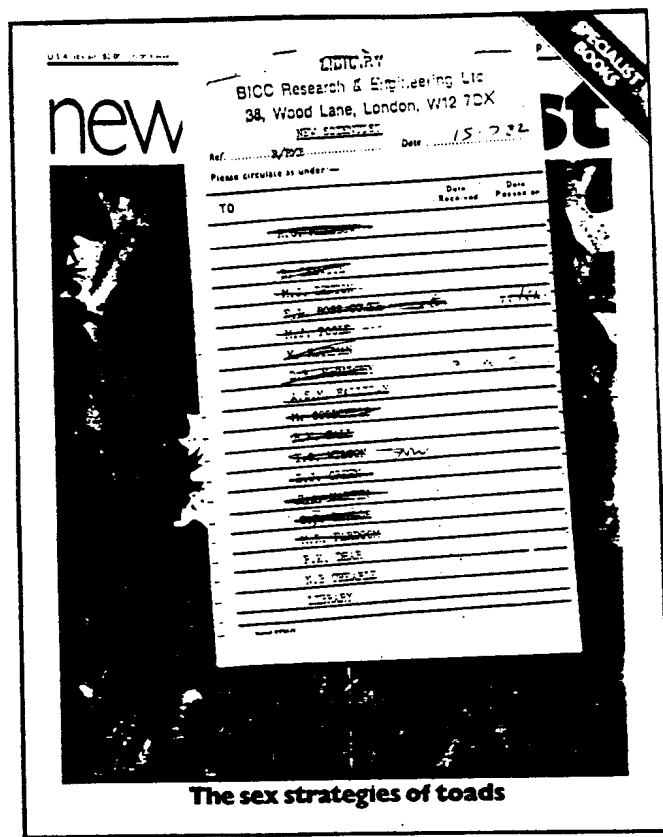
Read any good mag's lately?

One of our eagle-eyed reporters spotted this going through the In-tray on January 5th 1987. What is it? It is New Scientist of July 15th 1982. What was it doing? Why doing the rounds of course, in the usual way.

Of 38 names on the distribution list it has been seen by 20 so far. Using my MacCalculator I see that its passage so far has taken 53 months. If it continues at this stately pace it will be January 1991 before it reaches home in the library.

I suppose that if I were to ask to be added to the distribution list of New Scientist the implication is that I would get to see my first copy 8 years after I showed the initial interest. Mind you, I would have 11 weeks to study it when it eventually did land on my desk!

KB



O WHERE , O WHERE CAN

...My copy of "The Electric Cables Handbook" by D. McAllister be ?
Whoever has it please contact Dr. Black in the Library (ext. 210) .

GAMES EVENING

The third annual Interdept. GAMES EVENING will take place on Wednesday ,March 11th , barring as yet unforeseen circumstances , Enquiries to Denis Groombridge , Peter Walters or Ian Fordham .

What the Press say

Electronics Times, 5 February, 1987

Why the bulls are buying BICC

THIS could be BICC's year. The City is beginning to wake up to some positive changes beneath a fairly pedestrian profit performance at this mechanical and electrical engineering concern, writes Nick Goodway.

BICC shares have moved up 32p to 304p in the past fortnight to capitalise the company at just over £630 million. The research team at Barclays de Zoete Wedd forecasts that pre-tax profits move ahead modestly in calendar 1986, from £92 million to £98 million, but that they will rise more strongly to £115 million in 1987.

Last week's elevation of Robin Biggam from managing director to chief executive bodes well. Biggam gained valuable experience at ICL; in

partnership with his chairman, Sir William Barlow, he forms a competitive, custom-orientated management team.

BICC's best known business is its cable manufacturing division, a world leader in optical fibre technology. British Telecom is laying its first fibre optical network in the City using BICC cables, in what is sure to be the first of many such projects.

Factors such as the Channel tunnel, the STOLport, completion of the M25 and Stansted airport all promise more demand for better quality communication systems in the South East.

Less exciting, perhaps, and often overlooked is BICC's presence in the building sector. It owns Balfour Beatty, whose construction division concentrates on high-tech building projects and, increasingly, on house-building.

In an election year, whatever the outcome, BICC can expect the Government to increase the money spent on the nation's infrastructure. At the same time, there is the unusual prospect of a fall in interest rates early in the year.

Despite their recent rise, BICC shares stand well below their 12-month high of 370p. At the current 304p, BZW says the shares are selling on a prospective ratio of less than 12 and yield 6.2 per cent.

*The Observer
18th January 87*



Employees at BICC Citec... From left: Sena Yaddehigge, Caroline Smith, George Gilvear and Ruth Winter.

PEOPLE

BICC division gains friendly gang of four

BICC Citec's new surface mount and hybrid technology facilities have acquired some new faces.

George Gilvear, a graduate of law, is to become UK distribution manager having gained product and marketing experience with other electronics companies. He replaces John Stook, who becomes product manager, components.

Former internal sales controller Caroline Smith is promoted to internal sales manager with responsibility for customer service and support.

Engineer Sena Yaddehigge has transferred from BICC's research centre to become process development manager.

The post of factored product controller goes to Ruth Winter.

Single union deal signed

The white collar section of the GMBU general workers' union has signed a single union agreement with BICC Cables at the company's new fibre optic plant in Whiston, Merseyside.

The agreement gives the Managerial, Administrative, Technical and Supervisory Association (MATSA), sole recognition and negotiation rights at the plant for all employees below management level.

It is the first such deal to be signed by MATSA since it announced in the summer a policy of seeking single union deals on greenfield sites and published the package it was offering employers.

The move is seen as an effort to bolster membership at a time

when most engineering unions are experiencing a rapid fall in numbers.

Britain's largest union, the Amalgamated Engineering Union, has lost more than 100 000 members in the past year, mainly through unemployment.

The MATSA deal has upset the AEU, which is well represented at other BICC plants in the area.

Dave Gough, AEU organiser for Liverpool and South West Lancashire, felt the established unions in the area should be represented. He would be querying the deal to see whether it was in violation of TUC rules on recruiting at greenfield sites.

The AEU is currently protesting about BICC's rationa-

lisation programme, which has included the axing of more than 1300 jobs in the Liverpool area over the past two years.

Meetings have been held with senior management, but with no result.

Gough said the union realised the company needed restructuring "but we're suggesting they should find some other way than putting more and more people on the dole. We are prepared to consider better working practices."

The new factory at Whiston will employ about 140 people, the majority being transferred from BICC's cable plant in Blakely.

The spare capacity at Blakely will be used to increase production of metallic cables.



Signing the single union agreement are, from left, Bill McGinniss, national officer of the GMBU, and Mark Price, general manager of BICC's fibre optic plant in Whiston.

Have YOU seen any articles in the press? If you have, cut them out and drop them in the mail to the Editor Bush Telegraph

Bush Telegraph February 1987

Power behind growth

Tom Wearden presents a profile of BICC-Vero Electronics' power conversion business.



John Grillo, managing director of BICC-Vero Electronics.

John Grillo, managing director of BICC-Vero Electronics, is enthusiastic about his company's rapid penetration of the international power applications market. "Our power conversion business has grown by some 40% during 1986, a year in which many power supply manufacturers have experienced a severe drop in sales," he said.

Grillo attributes this success to "our transnational design, manufacturing and marketing strategy, which gives us one of the widest ranges of power conversion products available, sold through associated overseas companies, distributors and

agents in over 30 countries. "Continued expansion of our power supply range is vital, so that we can tackle an ever increasing sector of the overall market."

Encapsulated dc to dc converters are the latest addition to BICC-Vero Electronics' power supply range. Terry Sykes, product manager, said many advanced technical features had been incorporated into these designs so that power ratings for various standard sizes were considerably greater than normal.

"Typically, the power rating for a given size has been more than doubled," he said.

"The operating frequency for these switch mode circuits has been pushed up to more than 300kHz which has made it possible to use much smaller components. Conversion efficiencies of well over 80% are achieved by taking advantage of the latest, state of the art semiconductor technologies so that heat dissipation is not a problem, even though we are packing over twice the power into each size."

Sykes cited, as an example, the company's new 3500 Series which is rated at 3W and built in a 20mm x 32mm dip package.

"Previously this size of package would typically be limited to a 1W unit but we have been able to increase the power rating dramatically while maintaining a maximum operating temperature of 71°C without any need for derating," he said. "High reliability is assured with an mtf typically greater than 266 000 hours." The new dc to dc power converters use hybrid

construction with surface mount technology to minimise size and improve performance.

"These new products mean we can tackle many applications where on board power conversion is better than using a completely separate psu," said Sykes.

"At the smallest end of the range, for example, we might offer a small unit that simply supplies $\pm 12V$ at milliWatts level on a computer board, using a stabilised 5V supply rail as an input. But larger power conversion units, delivering 30 to 40W, might be used in hostile environmental conditions — perhaps in a tank or road construction vehicle — to power the electronic communication systems. In this case a vital part of the spec is to keep all systems running, despite large fluctuations in supply voltage that may be caused by heavy loads on the input power line."

All the new units are isolated electrically between input and output.

Continued on page 13.

From page 10.

"Exceptional precautions have been taken to eliminate noise radiation, and feedback of electrical noise to the main power lines from which the conversion units are supplied," Sykes said. "Apart from careful overall design throughout the range, special features such as copper and other shielding are also available in most models."

Peter Frost, as manufacturing director of BICC-Citec is responsible for a new 42 000 sq ft plant at Swindon.

He has many years experience of the power supply business and was previously managing director of Coutant, later, becoming managing director of Boschert Europe. Now he is in charge of coordinating BICC-Vero Electronics' attack on the power conversion market.

Frost explained: "The company came into the power supply business when BICC-Vero Electronics at Bremen, Germany, started to design and manufacture Euromodular power units conforming to DIN

BICC-Citec is becoming established as BICC-Vero Electronics' major centre for power conversion activity. The Swindon company's expertise in hybrid and surface mount technologies is seen by Grillo as a major way forward into future power conversion products.

Frost continued: "BICC-Citec's manufacturing operations include a substantial customised hybrid circuit capability as well as power supplies, and both cermet and polymer thick film resistors and potentiometers."

"We are now in an excellent position to supply customised hybrid systems that incorporate power conversion units."

He suggested that communication systems, including local area networks, would be a major new outlet for this capability, and pointed out: "Every time a transceiver is used at a node in a ring or data highway, a dc/dc converter is needed to supply a stable voltage."

BICC-Citec's power conver-

used, high power switchers.

"At present, these cover 500 to 1000W, but, during 1987, new products will push the upper limit to 1500W," he said.

John Toman's responsibilities, as BICC-Citec's sales and marketing manager, include the whole of BICC-Vero Electronics' power conversion market strategy.

He said: "It is no longer enough to be involved in one section of the electronics business. Specialists will always find a niche, but the market demands a high level of cross fertilisation so that new and innovative products may be designed to meet the differing needs of each segment."

"BICC-Vero, with its blend of in depth applications specialists and power systems technical expertise, can service and meet the needs of a wider range of customers than any other competitor."



Peter Frost (left), BICC-Citec's manufacturing director, and Terry Sykes, product manager.

"It is no longer enough to be involved in one section of the electronics business. Specialists will always find a niche, but the market demands a high level of cross fertilisation so that new products may be designed."

Electronics Times, 22 January, 1987

BICC

Years of rationalisation and investment are coming to an end at cables and construction group BICC. Overheads in its core cable business have been reduced to a minimum so the company can keep prices competitive in international markets.

Meanwhile the company's move into fibre optics is successful. Demand is buoyant and BICC's Deeside factory is reputed to be the largest producer of optical fibre outside the US.

In addition, the construction subsidiary Balfour Beatty will benefit from the recent acquisition of the building services division of Haden — this should bring Balfour Beatty's turnover up from about £830m in 1985 to about £1,000m in the next few years. And some industry observers suggest that if the company makes any more acquisitions they will be in the building services area.

As the company entered the new year

its share price firmed — it had recommendations from several stock brokers. BICC started last year well — it was part of the winning consortia for the Channel



Biggam: at the helm of BICC.

Tunnel project, had a new managing director — one year later made chief executive, and a refund from an overfunded pension fund. But because of the strength of sterling profits were about 20 per cent less than expected.

However, the company seems set to recover because:

- Sterling has weakened against several currencies;
- Interest payments should be less because of reduced capital expenditure;
- A £10m contribution to profits from its overfunded pension fund;
- Reduced overheads meaning better profit margins;
- The sale of loss making computer power supply maker Boschert;
- A buoyant construction market for Balfour Beatty combined with the addition of Haden to the company; and
- Construction of power stations when the CEBG starts ordering again.

specifications. These are now sold throughout the BICC-Vero transnational operation, for applications in telecommunications, industrial control and microprocessor systems. VME bus, Multibus and other products supported by our range of hardware and active boards are important and growing markets for these Euromodular products, which cover the 35 to 240W range."

Citec was established in early 1982 after a management buyout from Plessey's resistor activities. The company joined BICC-Technology in 1984, and in 1985 became part of BICC-Vero Electronics, within the BICC-Technologies structure.

sion design team is headed by Peter Hardcastle who specialises in requirements involving VDE, UL, DIN and PTT specifications.

Frost said: "Peter Hardcastle has a wealth of power conversion experience, involving telecommunications and other applications. He was previously applications engineering manager with Boschert Europe."

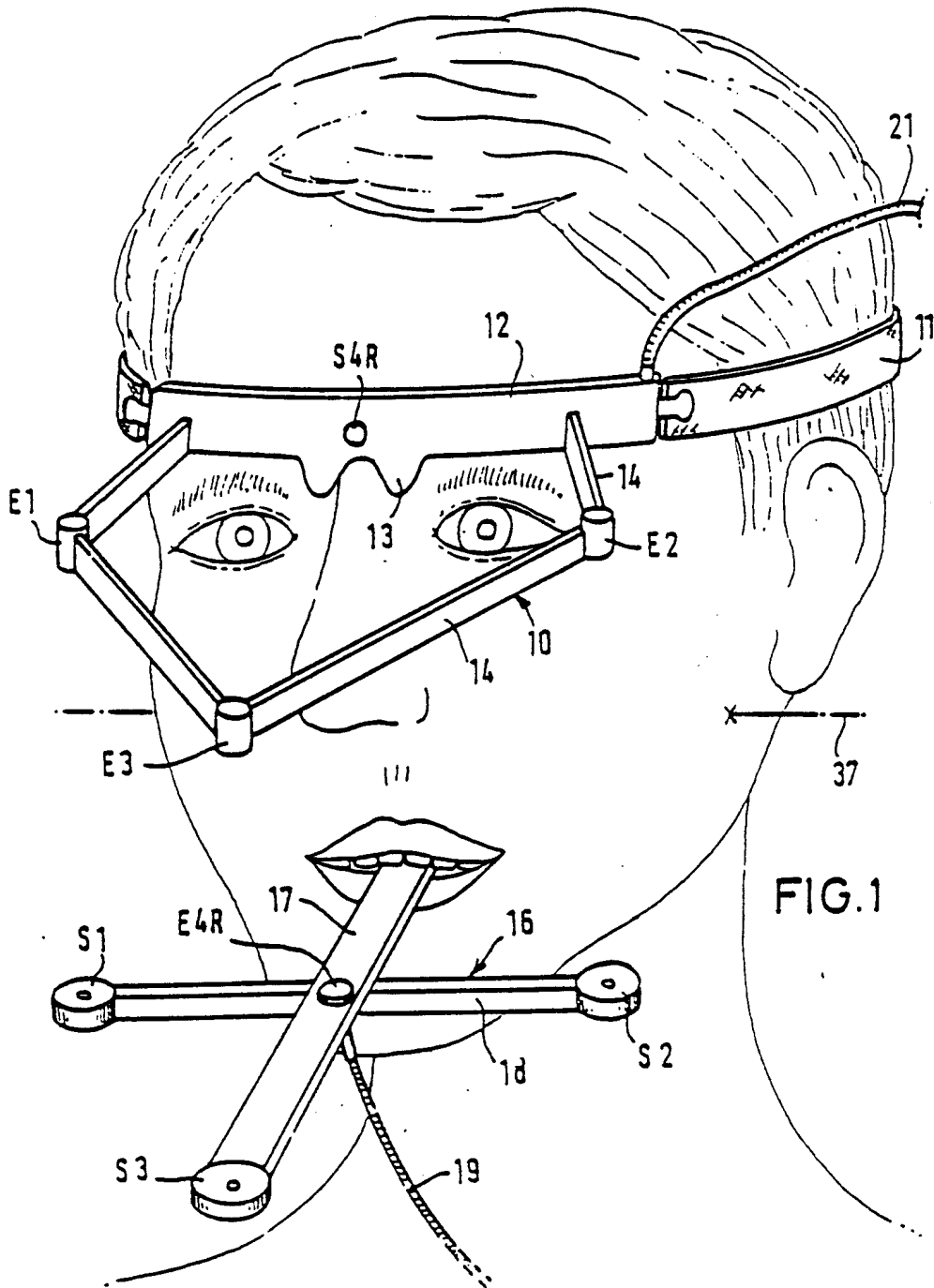
Continuing his summary of BICC-Vero Electronics' wide range of power units, Frost said the company was tackling the market for open frame switch mode units (which, in the UK alone, is worth £200 million), with a range extending from 30 to 450W, and had introduced

PATENTS CORNER

No. 5 in a series of inventions that didn't quite catch on.....

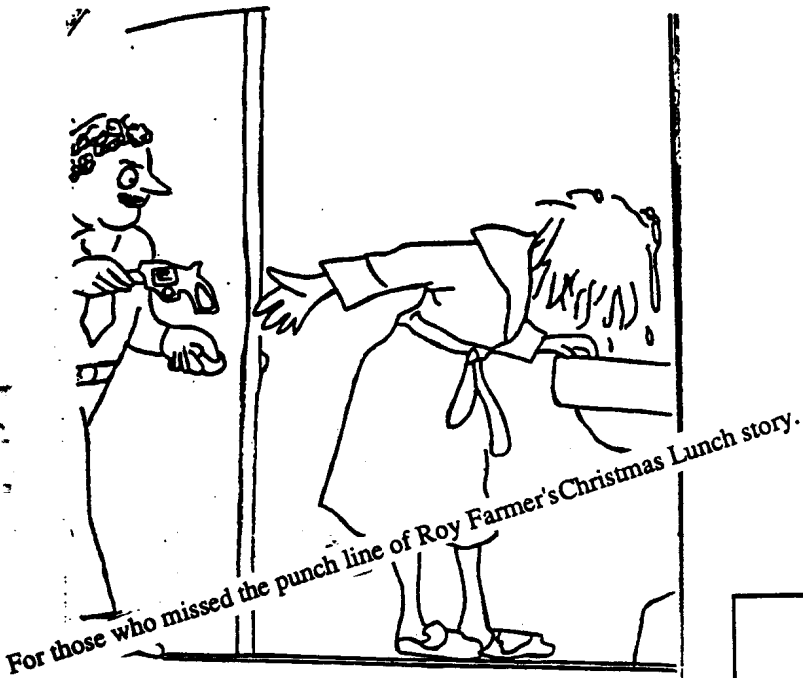
THE TASTEMETER

-1/4-



A person's reaction to strong or unpleasant tastes can be monitored using this sophisticated measuring kit. The platter is rotated to bring a succession of samples into the person's mouth, and any crossing of the eyes is detected by the sensors E1 to E3. In the case illustrated, our subject having shown no reaction to cod liver oil, tripe, snails and prunes, his application for the post of Canteen Manager can be accepted.....

ON THE LIGHTER SIDE



For those who missed the punch line of Roy Farmer's Christmas Lunch story.

HONEY, HAND ME THE HAIR DRYER



*I'm having to go over to sterile,
disposable arrows.*

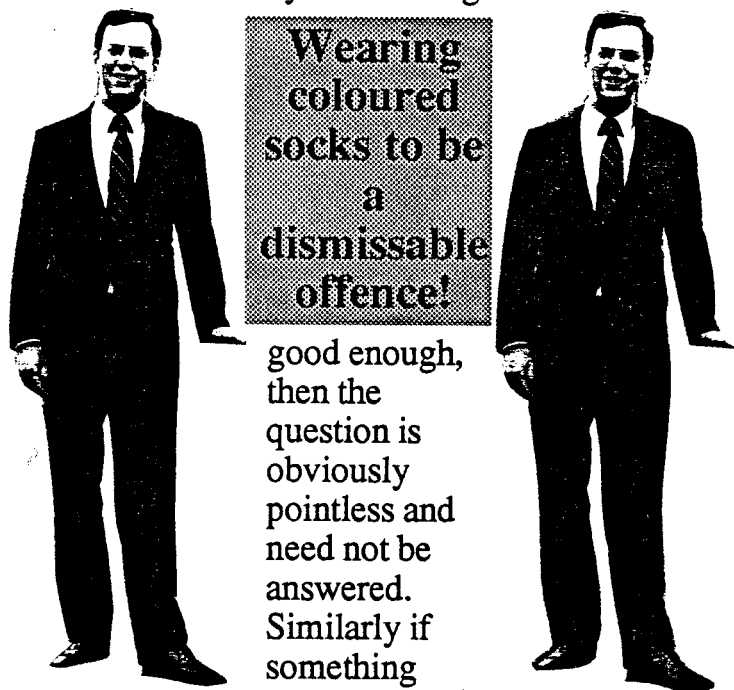


*"Next Friday we'll be letting you go. In the meantime I'd
like to see some improvement in your work."*

The Business Uniform.

It is high time that the concept of the business uniform was formalised. I do find it so irritating when I cannot tell at a glance the status of a fellow worker. Without these recognisable insignia much time is wasted actually listening to what people say. Having to assess all that intellectualising and, much worse, having to demonstrate ones own prowess in every encounter is very wearing. How much more sensible if one were wearing ones *niveau* for all to see.

The military saw this long ago, recognising the immense practicality of the idea. No more silly dialogues when a member of the team asks "why". Simply look at what they are wearing and if it's not



Wearing
coloured
socks to be
a
dismissable
offence!

good enough,
then the
question is
obviously
pointless and
need not be
answered.
Similarly if
something

rather splendid is being worn, then one can relax in the comfortable knowledge that the inhabitant of such regalia must know what is best and one need not tax ones brain thinking for oneself.

Being in business of course, we must start with a grey suit. Women too; I see no reason why they should be exceptions to the splendid new order. I suggest culottes in place of trousers, but otherwise standards could be shared. White shirt for the lowest ranks, and a tie with fine diagonal striping (also in shades of grey). Shoes, black! I suggest that the basic gradation could come from the fibre content of the suit. Basic ranks acrylic, going up through a wool/acrylic mix, through a wool/cotton

mix, with silk providing that final touch for senior levels. Perhaps elbow patches could designate those on the manual side.

There are some possibilities on the tie front too. Marketing personnel might, for instance be permitted spots. Accounts staff might be permitted a few blue stripes (diagonal of course). Senior staff-silk! One might possibly, although I have my doubts about this one, permit a few stripes in the shirts. This might be an unnecessary complication to the system. Socks should not be visible, black or grey. Wearing coloured socks to be a dismissable offence!

Having built up such a tidy system, life would be so much easier. What size office? Show your jacket pocket label and all is clear. What thickness carpet pile? Show your tie and consult the book. A secretary? Any silk? No silk, no secretary! With such a clear cut hierarchy the company car status symbol would be a thing of the past. Think of the money that would save!

I suggest that we start at once. I do notice that one or two people on site do seem to have started off already. This is a little presumptuous until we have a published standard, but one must applaud the good intentions of these obviously forward-thinking people.

KB

Bush Telegraph February 1987



To Financial Controller	From Organisation & Methods
Your Ref	Our Ref Network Tel No:

REPORT ON A SYMPHONY ORCHESTRA

1. For a considerable period, the four oboe players had nothing to do. The number should be reduced and the work spread more evenly over the whole of the orchestra thus eliminating peaks of activity.
2. All 12 violins were playing identical notes. This seems unnecessary duplication. The staff of this section should be drastically cut. If a larger volume of sound is required, it could be obtained by means of electronic apparatus.
3. Much effort was absorbed in the playing of demi-semi-quavers. This seems to be an unnecessary complication. It is recommended that all notes should be rounded up to the nearest semi-quaver. If this were done, it would be possible to use trainees and lower grade operatives more extensively.
4. There seems to be too much repetition of some musical passages. Scores should be drastically pruned. No useful purpose is served by repeating on the horns a passage which has already been handled on the strings. It is estimated that if all redundant passages were eliminated, the whole concert time of two hours could be reduced by 20 minutes.
5. It is felt that further review might yield additional benefits. For example, the methods of operation are traditional and have not changed for several centuries.

There were excessive reaches for some notes on the piano and it is probable that the redesign of the keyboard to bring all notes within the normal working area would be of advantage to the operator.

In many cases, operators were using one hand for holding the instrument, whereas the use of a fixture would render the idle hand available for other work.

6. It was noted that excessive effort was being used occasionally by the players of wind instruments, whereas one air compressor should supply adequate air for all instruments under more accurately controlled conditions.
7. Obsolescence of equipment is another matter about which it is suggested further investigation might be made, as it was reported in the programme that the leading violinist's instrument was already several hundred years old. If normal depreciation schedules had been applied, the value of this instrument should have been reduced to zero, and it is probable that purchase of more modern equipment could have been considered.

A SUPERSONIC DAY TRIP

Wait a minute ! This isn't a British Airways Shares advertisement . One hundred passengers , age range 8 to 80 years , wait to board CONCORDE for their day trip out courtesy of the CONCORDE FAN CLUB.

After photographing the plane from every conceivable angle , we're eventually strapped in and hurtling down the runway at Heathrow . Just 43 seconds after takeoff , with the nose jutting out 25 feet and down by 5° , the reheat is switched off and it's beginning to feel like a stall test over Slough - the 'flight -deck' jargon for this is 'tip - toeing ' . If left to it's own devices , the plane would soon be supersonic , and anyone on the ground would hear the pistol shot - like sonic boom .

Heading west we maintain Mach 0.95 until over the Severn Estuary and then Concorde goes supersonic , reaching 1355mph within what feels like seconds . The in - flight data display is situated on the bulkheads in the passenger cabins . It gives air speed readings in miles per hour and also records information such as outside air temperature , altitude and Mach number . Mach is the term used for the speed of sound , which varies according to the outside temperature . 1340 mph is Mach 2 at Concorde's cruising height . As a result of temperature differentials on the outside of the plane's structure , Concorde expands by 8" on either side at this speed and height .

For the mechanically - minded , Concorde's engines are 4 Rolls Royce/SNECMA Olympus 593's .

For the gastronomically - minded , the menu included fresh prawns and salmon with enough champagne to ensure you're still flying well after the aircraft has landed .

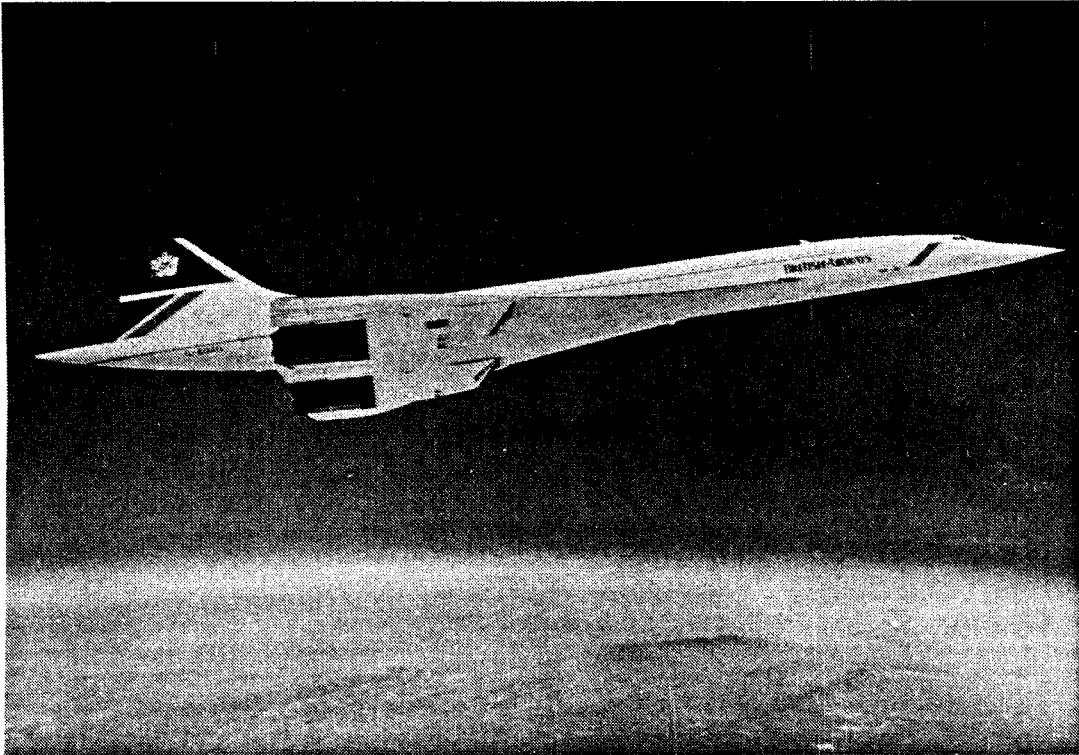
Now to continue with the travelogue...

After making a gentle u-turn we follow the English Channel eastwards and hug the English south coast , all the time decreasing speed to enter air space over Poole Harbour . In minutes we are following the Thames , heading back to Heathrow . For landing the heat shield is down over the nose , which is itself depressed by 12.5° (for the pilots) to get a good view of the ground . Landing speed is 185mph .

During the flight there was the opportunity to make a brief visit to the flight - deck to see the two pilots and single flight engineer at work , afterwards everyone received a certificate to commemorate their supersonic flight together with a model of Concorde .

In addition to the supersonic trip along the English coast , the Concorde Fan Club (based in Bath) offers supersonic excursions to the Bolshoi Ballet in Moscow , a banquet in Rome , and a day exploring the pyramids in Egypt .

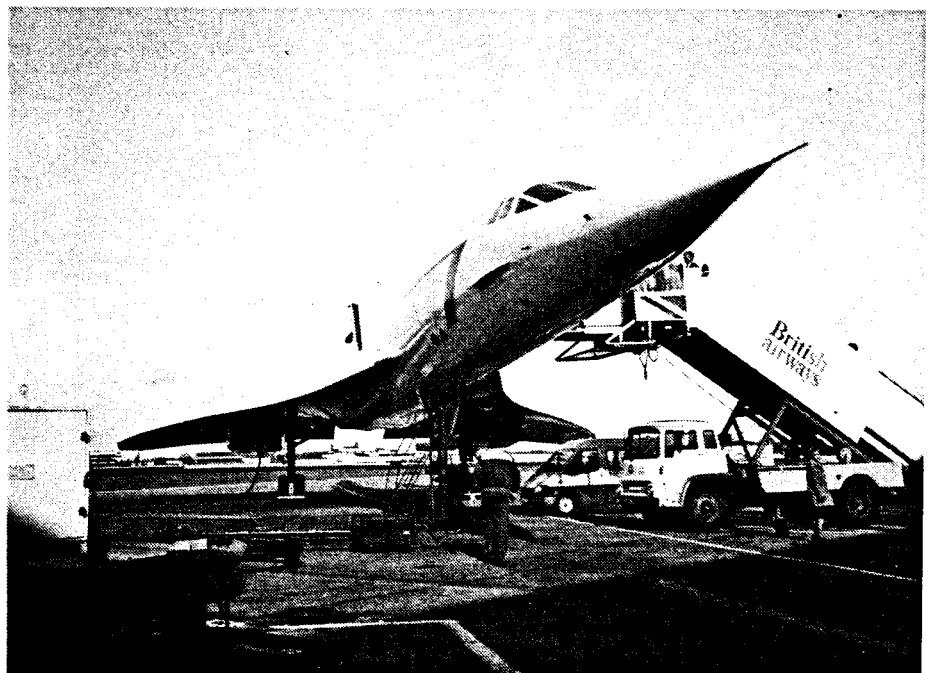
Elaine Harding



CONCORDE

LOWER PICTURE

BY ELAINE HARDING



HOLIDAY CONCESSIONS

Holidays
1987

5%

HOGG ROBINSON

STAFF BENEFIT
HOLIDAYS MAKE
YOUR MONEY GO
FURTHER

Why you have this special privilege

As your employers are valued business travel clients of Hogg Robinson, we are offering this benefit to full time employees and their immediate family i.e. husband/wife plus children under 18 or to single employees plus one travelling companion.

Hogg Robinson top value holiday choice

5% Discount is offered on all overseas package holidays of 8 days duration or more taken with any of these top value tour operators.

Club 18-30, Cosmos, Enterprise, Global, Wings Blue Sky, Wings OSL, Wings, Intasun, Sovereign, Cunard, Grecian, Horizon, P&O Cruises, Speedbird, Lancaster.

The scheme also features: HOGG ROBINSON'S LOW-COST HOLIDAY INSURANCE plus A HOLIDAY PLANNING SERVICE that gives you all the facts from our widely acclaimed RESORT and HOTEL GUIDE.

How to take advantage of the offer — Call in

When you book your holidays at any Hogg Robinson branch simply provide identification by presenting:

- ★ Your company I.D. Card
- ★ A recent PAYSUP
- ★ Company LETTER OF AUTHORITY.

We will then deduct the discount from your final payment.

Or telephone...

The Benefit in Full to Hogg Robinson Business Travel Clients

We are delighted to offer bona fide full-time company employees a 5% reduction on the full brochure price of overseas package holidays of minimum 8 days duration taken with the top choice tour operators listed overleaf.

This 1987 holiday offer includes employees and immediate family (accompanying spouse and children under 18) or single employees plus one travelling companion.

For your own protection and as a further qualification for discount we will require that our excellent low-cost holiday insurance is purchased at the time of booking except in the case of ski holidays where the tour operators policy is likely to be advantageous.

Points to note

1. The benefit is given on the full brochure price exclusive of any applicable surcharges or holiday supplements and will be deducted from the final payment.
2. The benefit is not available if the brochure price is discounted by the tour operator and cannot be

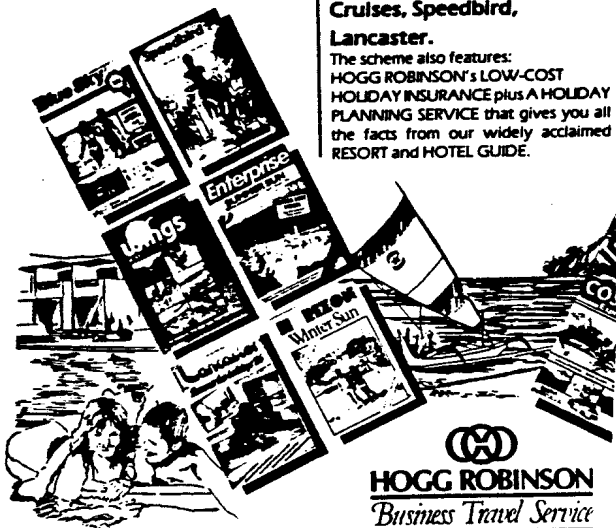
combined with any other Hogg Robinson promotional discounts available locally at time of booking.

3. The full cost of your package holiday, less the 5% benefit, must be paid 10 weeks before departure date, or immediately if booked within this period.

Proof of identity

As an important Hogg Robinson business travel client this holiday benefit is available to you if you identify yourself in one of the following ways:

1. Presentation of valid personalised company I.D. card.
2. Presentation of your payslip (no greater than 1 month old).
3. Presentation of a letter of authority from your employer (valid only within 1 month of issue date) with designated signatories agreed between our two companies.



HOGG ROBINSON
Business Travel Service

Added Benefit — Hogg Robinson HOLIDAY PRICE INDEX

Again available for consultation, this document allows you to compare prices offered by leading operators for essentially the same European holiday — same hotel, same departure airport and dates (departure times will of course vary). Some 35 operators are analysed, and we can advise you when to switch out of the Hogg Robinson benefit scheme for an even greater price advantage on another holiday.

Added Benefit — Hogg Robinson's unique EUROPEAN RESORT and HOTEL GUIDE

Available for personal consultation at each and every Hogg Robinson holiday shop, this comprehensive and plain-speaking guide gives you an unbiased report on your holiday destination and hotel — before you book it. 1987 edition covers 19 European resort areas and 2200 hotels — with facts, comments and recommendations on each. — All the top operators new hotels for 87 are featured. — Comments on hotels include SAFETY and SUITABILITY FOR KIDS drawn from research among 1986 guests. — Every hotel and resort listed has been personally inspected by Hogg Robinson staff.

Added Benefit — Hogg Robinson TRAVEL PLUS Insurance

Our own holiday insurance has been tailor-made to the needs of our holiday clients travelling within Europe and worldwide. It has been negotiated with one of the world's foremost insurance companies, Commercial Union Assurance, and is highly competitive with policies offered by the leading tour operators. Cover includes: a) Medical Expenses — £1 million b) Cancellation — £3000 c) Personal Accidents £25,000 d) Baggage — £1500 e) Money — £300 and EUROPE ASSISTANCE EMERGENCY SERVICE — (Children — Free under 2 years — ½ price under 12 years.)

Unrivalled for Detail and Directness

HOLIDAY ACCOMMODATION

A terraced cottage close to the harbour at BRANCASTER STAITHE, NORTH NORFOLK, available for holiday lets from April to October. Local amenities include good beach, Scott Head bird sanctuary, sailing and a golf course. Details.... Mike Kendle, Polymer Materials (ext.341).

POET'S CORNER

FOR REAL

Bullets flying
Lovers laughing
Junk kids highing
Hot tap bathing
Babies dying
People dancing
Mothers crying
Late night prancing
Always sighing
Dreams enhancing
Lawyers lying
Brave men asking
Pushers plying
Good job tasking
Credit card buying
Music blasting
Fed up trying
Surprised we're lasting

MAD DOG

A CYNICAL VIEW?

Supplied anonymously to the BT Office

DUE TO THE often detrimental effects on human resources, the consequences of mismanaged reorganisations deserve special attention. In some cases an "internal" reorganisation often is designed to create the illusion of progress although it may bring about rewards only for the in-group elites by furthering their entrenchment within the organisation at the expense of other more productive participants. When this form of reorganisation occurs it may create a pathological situation where employees are attached to unwanted superiors, or superiors are attached to unwanted subordinates. In either case, such consequences are often the penalties borne by those who are not members of the organisational elite. Thus, in a reorganisation which does not consider the human element, a participant's productive capacity and potential can be sealed off from the organisation.

Robert A. Smith, III and David L. Wilemon from
Fields Within Fields Spring, 1974

HOW TO BECOME A LIVE WIRE!

FAULT LOCALISATION - 1903 STYLE

The following item appeared in a publication entitled "The Localisation of Faults in Electric Light and Power Mains" by F. Charles Raphael (circa 1903).

UNSHEATHED CABLE

A fault in a drum of plain rubber-covered or other cable which has no lead covering or armoring may be found as follows:-

The drum of cable is placed on an insulated stand or trestle, and the inside end of the cable is connected to the spindle, the other end being trimmed and then covered in with dry rubber tape. Connections are then made as in Fig. 77, and the cable is run over a measuring wheel on to another drum. As the measuring wheel is earthed, there will be a large increase in the current through the galvanometer when the cable passes over it. Owing to the surface leakage along the outer tape or braiding of the cable, the reading of the galvanometer will gradually grow as more and more of the cable gets on to the uninsulated drum; but as soon as the fault comes over the measuring wheel there will be a sharp kick of the galvanometer needle. Of course, any earth connection,

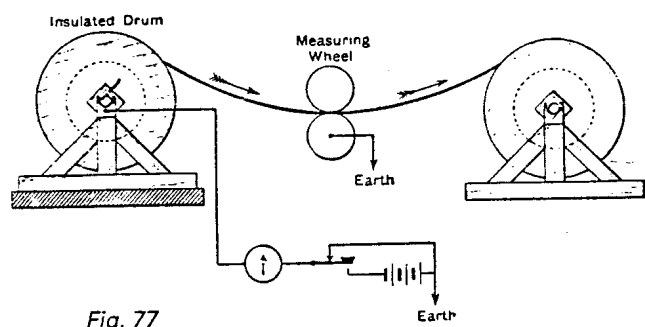


Fig. 77

such as a trough of water or a damp cloth connected to earth, will do in place of a measuring wheel, but the latter is useful if one is available, as it saves the trouble of measuring off the cable again so as to record the position of the repair or the length of the two pieces of cable if it is decided to cut at the fault. If the outside of the cable is dry, a trough of water or damp cloth is necessary.

When the fault is a fairly bad one, the galvanometer may be dispensed with, and a boy with a wet cloth is told off to guide the cable on to the drum. If 200 or 300 cells are used, the boy may be relied upon to tell when the fault passes through his hands. The connections are then as

shown in Fig. 78.

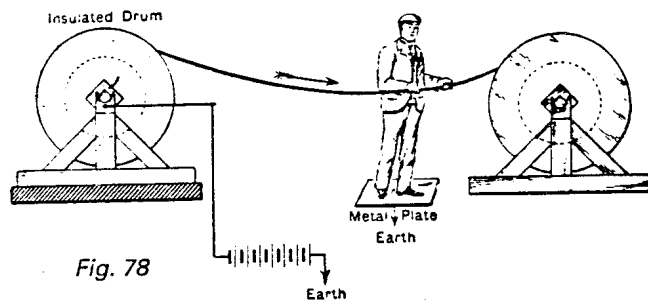


Fig. 78

Mr R Appleyard has described* an application of the guard-wire principle with the object of protecting the galvanometer from receiving too large a current. The connections are made as in Fig. 79, the cable being wound from drum B on to drum A. C is a wet cloth, and W is a wire spiral through which the cable passes.

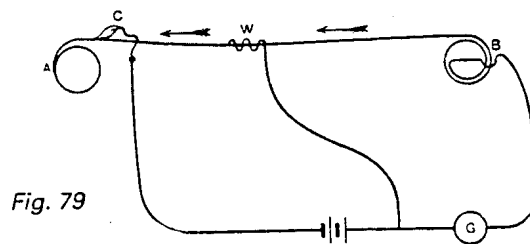


Fig. 79

As the fault passes through W, the deflection diminishes, and then rapidly increases until it comes to C. If there is more than one fault, each fault as it comes past W will cause a momentary diminution in the deflection, followed by a rapid increase.

* "Proceedings of the Physical Society", July 1900, p.104, or "Science Abstracts", Vol. IV, p.242.

Editor's Note

This method will be submitted to the Safety Liaison Consultancy Group for their (possible) approval.

Social Club Round-Up

GENEALOGY SECTION

IGI MICROFICHE

An order has been placed to update the microfiche for Lancashire , London and Middlesex to the latest (1984) edition . In addition we shall be acquiring Wiltshire and Wales for the first time . Enquiries about using the fiche should be directed to Mike Hagger .

GO FOR IT!

As Promised - A Challenge!

Our section is unique in that we have no members , have no budget and have never been officially recognised by the Club . Strictly speaking we do not exist . However , we would not let a minor point like that keep us from indulging in our favourite pastime of participating in things silly ,daring or brave !

The challenge this month encompasses all three , it is to forgo the consumption of alcohol for forty days (and nights) during Lent , beginning on Ash Wednesday (March 4th) and finishing on Palm Sunday (April 12th) .

The only prize is the satisfaction that you did it where others failed and some didn't even bother to try .

We are expecting particular support from Messers.Fitperson and co. of the newly formed FITBELLY CLUB along with members of the older , established FATBELLY CLUB (founder members ANB ,ILF ,RWC) .

If you , or anyone you know has been promising themselves a chance like this , challenge them , GO FOR IT!

Rob Corne

CHESS

Mathematics Department took on the Electronics Department in an all nighter, Conference room A. Betting was heavily on the boys from maths to sweep the board under Malcolm's famous leadership, but some unsuspected talent was let out of the Electronics bag. After a tense three hour session Fayez Agladious held off the effects of the social club bar being open, to snatch a victory from Malcolm. The stewards called for a transistor test, but no electronic assistance was found about his person. The final result two boards to mathematics, two to electronics. The needle-match replay to follow soon!

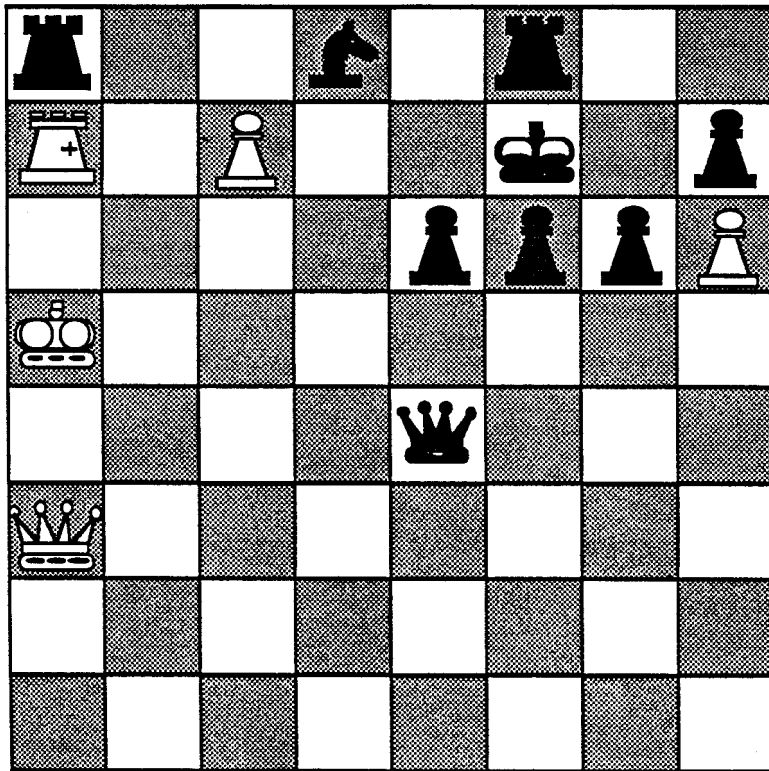
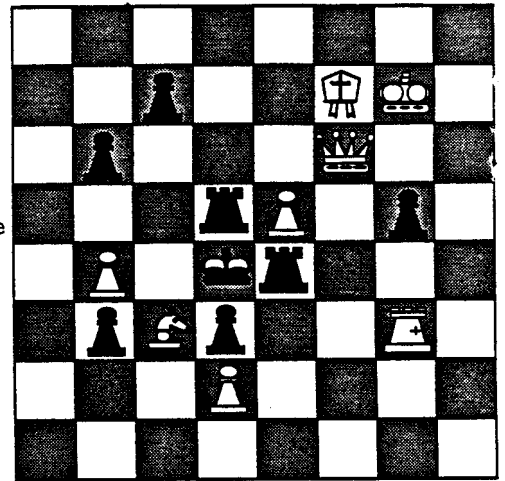
The SOLUTION to the problem in the previous BT

1. Q - KB3 threatens Q x R mate

if 1. ... R-K6
2. Q x R (Q5) mate

if 1. ... K-QB5 if 1. ... K x P
2. Q x R mate 2. ... Q - QB6 mate

if 1. ... R x P
2. Q x P mate



Forsyth Notation:

r2n1r2 / R1P2k1p / 4pppP / k7 / 4q3 / Q7 / 8 / 8

PROBLEM : White to play and mate in 3

CHESS TOURNAMENT

A game between Maths and Physics will take place at lunchtime on Friday, February 13th.

Are there any other challengers?

If enough teams can be raised, an interdepartmental tournament will be organised.

CONTACT :- Chris Willson (ext. 364).

If anyone has any interesting chess problems for inclusion in the BT, please send them to Chris Willson, Maths.

LEADERGRAM WINNER

Only 10 entries were received, one anonymously but postmarked BASILDON, and two with the same error - it was a SHIMMY (colloquial version of chemise) not a SHAMMY (chamois) that Lady Chatterley was (or wasn't) wearing. Of the eight accepted (including BASILDON), first to be drawn was that sent by Ted Ross Gower, who receives our £5 prize. No consolation prizes were awarded in view of the low entry.

The answers to the clues were as follows :

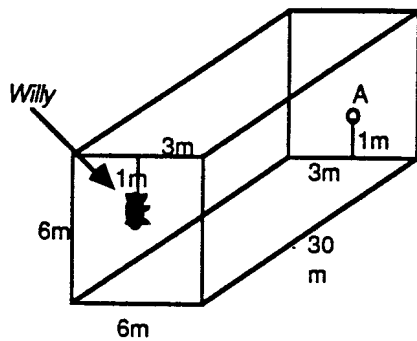
- | | |
|----------------------------|---------------------------------|
| A. <u>Reincarnation</u> | K. <u>Timidity</u> |
| B. <u>Vulgar Fractions</u> | L. <u>Shove</u> |
| C. <u>Jettison</u> | M. <u>Exocet</u> |
| D. <u>Off the road</u> | N. <u>Chime</u> |
| E. <u>No comment</u> | O. <u>Robbing</u> |
| F. <u>Equality</u> | P. <u>Eccles cake</u> |
| G. <u>Sky hook</u> | Q. <u>Time up</u> |
| H. <u>Mimicry</u> | R. <u>What and why and when</u> |
| I. <u>Occipital</u> | S. <u>Avoiding</u> |
| J. <u>Shimmy</u> | T. <u>Ruling the roost</u> |

Rearranged, these give the following excerpt from the book "MOST SECRET WAR" written by (Professor) R.V. Jones :

"Moreover, it was not very sporting to play jokes which had no chance of rebounding, and I sometimes aimed at creating a comic situation from which I could only extricate myself by thinking more quickly than the victim."

(The first "I" was the one causing the downfall of the two disqualified entrants, who shall be nameless).

Mathematical Answers No. 1

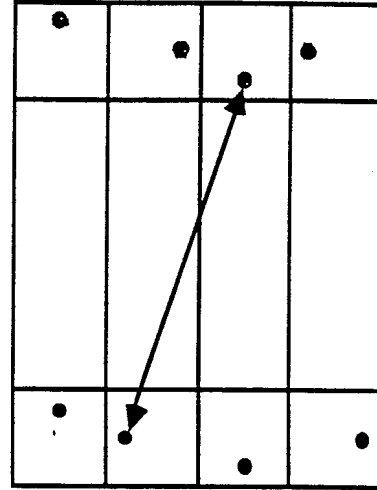


Willy, the cockroach, has spotted something that has taken his fancy at position A in the room pictured above.

- 1) What is the shortest route he can take in order to satisfy his desires?
- 2) What has he spotted and what is he going to do with it?

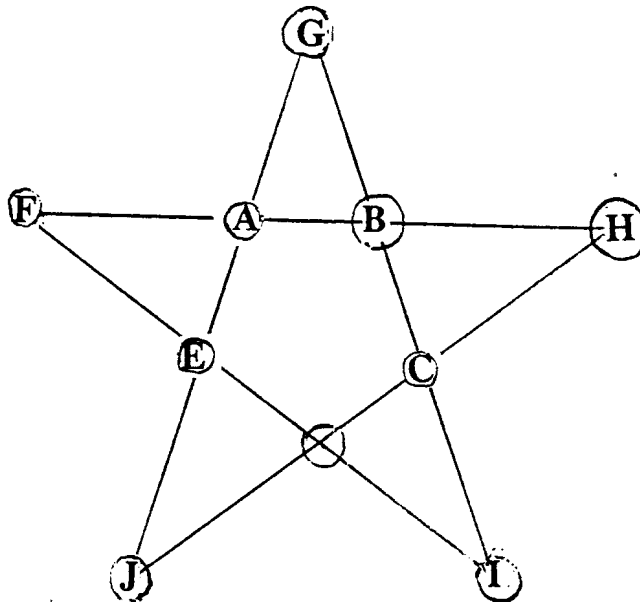
The answer is best explained visually. Imagine the room folded flat, like an opened out cardboard box. The end is duplicated 4 times with Willy & his hearts desire in the correct position. I won't bore you with the exact number. Sneaky innit?

The Answer



Mathematical Poser No. 2

The points of intersection of the pentagram (shown below) are marked by small circles and the letters A to J. The problem is to write TEN different INTEGER numbers into the circles so that the sum of the four numbers along each of the five lines of the pentagram is 24.



SORRY

- 1. For the absence of a football section report this month , we shall have to penallise our correspondent !***
- 2. For the absence of Anne and Vic Denholm's letter from New Zealand , I (P.W.) forgot to get it ready for printing It will appear in the next issue .***
- 3. For the late posting of some of the pensioner's Christmas BTs , it was caused by an administrative foul up and shouldn't happen again , well at least until next December !***