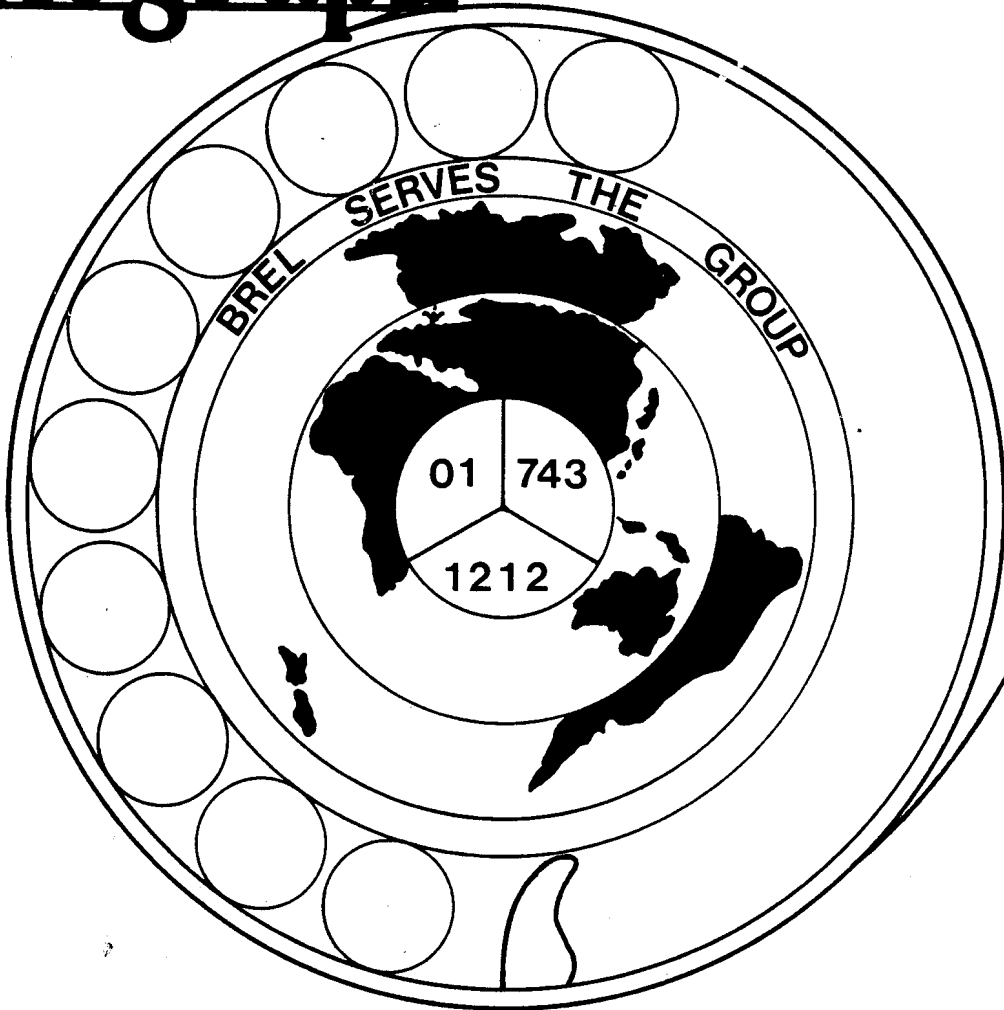


MAY 1984

bush

telegraph



BUSH

vol. **26** no. **2**

TELEGRAPH

the magazine of

R&EL

wood lane



Cover

"Telegraph-Cable"
by G. Price

Editorial Board

Peter Walters

Geoff Holder

Ted Morrison

Dave Green

Mike Denton



Editorial

One of the temptations of having to compose the editorial of the BT is to write something controversial .The reasons for this are many and include the promotion of discussion and encouragement of people to take a different look at apparently established positions - to encourage people to think .There is a problem , however , for an article to be the focus of controversy it must be read . In the experience of the writer of this article few recipients of the BT even bother to look at the editorial page .

In view of this , possibly false , impression and considering the general nature of the BT , is the regular appearance of an article with the grandiose title "Editorial" justified ? If it is , then should it reflect the views of the author alone , or of the editorial board ? Indeed , should it dare to express any opinion , inform , comment or criticize (as one BT editorial defined its function)? Your opinions on this subject will be welcomed by the editorial board on behalf of the present author , who , inthe BT tradition , will remain anonymous .

PERSONNEL NEWS

Starters: Welcome to:

J. Miller	-	who joins	CABM
G. Baggarley	"	"	Administration
Mrs. S.E. Davies	"	"	Patents
A. Saud	"	"	Physics
G.D. Irwine	"	"	Polymer Materials
C. Morris	"	"	Polymer Materials
J.A. Shelley	"	"	Accounts
B. Petitt	"	"	Works Engineering
A. Reeve	"	"	Works Services
Mr. Z. Aradi	"	"	Mathematics

Leavers: Farewell and best wishes to:

Transfers

W.R. Scurry: who has transferred to Balfour Kilpatrick after 4½ years in Physics

Marian Friel: who has transferred to Bloomsbury Street.

Alternative Employment

A.D. Bunn - after 2 years in CACM
C.D. Wear - after 2 years in Maths
N. Lagou - after 4½ years in Works Services

Retirements: Our best wishes for a long and happy retirement go to:

W.A. Walker of Polymer Materials, who retired in March after 31 years service

Long Service Awards

Congratulations to Harry Charman of Accounts who chalked up his 50 years with the Company on April 11th.

Congratulations also go to 20 year men, Brian Tilbury of CABM and Vic Banks of Physics.

RETIREMENT

W.A. WALKER



Friends and colleagues gathered together on 27 March for a presentation to mark the retirement of Wilf Walker after 31 years service at Wood Lane.

Wilf was born and educated in Leicestershire. On graduating in Chemistry from Loughborough College in 1940, Wilf commenced working for John Bull Ltd before joining the Anglo-Iranian Oil Co. , at whose Abadan Refinery he spent the period from 1942-1953. On returning to the UK in 1953 Wilf applied to BREL. He very nearly obtained the post of Department Head (Rubber and Plastics) but instead he became a Section Leader in the Chemistry Department and was involved in the development of processes for anodising and electro-plating of conductors.

In 1970 Wilf transferred to the Rubber and Plastics Dept. as Section Leader responsible for developments of thermo-setting resins for High Voltage insulators and for Civil Engineering applications. His knowledge and expertise in these areas was held in high regard.

On behalf of friends and colleagues, Stefan Verne gave a resumé of the highlights of Wilf's career and presented him with an electric band-saw and some money. In reply, Wilf recalled his many happy years at Wood Lane and thanked everyone for their good wishes and contributions to his gifts.

Wilf will be remembered for his horticultural expertise, particularly for fruit and vegetable growing for which he regularly won prizes in local shows. The autumnal sampling of Wilf's grapes was always an event to look forward to. In fact, many of his colleagues now possess flourishing, even not rampant, Black Hamburg and Riesling vines which were grown from Wilf's cuttings. Wilf will shortly return to his native Leicestershire where his new house has a large garden, for which we are certain he will find a good use.

FOR SALE

SANSUI A5 AMPLIFIER

25W RMS/CHANNEL

EXCELLENT CONDITION

£40

CONTACT MARTIN TOWNSHEND X283

MOFFAT "FIESTA" ELECTRIC COOKER

TOP OVEN, ROTISSERIE, ALL ACCESSORIES

IN FULL WORKING ORDER

£80

CONTACT O.L.D. - X260



Group Pension Fund

ADJUSTMENT FOR STATE PENSIONS

An amount known as the 'disregard' is deducted from standard earnings to obtain pensionable earnings on which contributions and pensions are calculated. The disregard is changed each year on 6 April to be approximately equal to the State flat rate pension for a single person. The details of this year's change are as follows:

	<u>State flat rate pension per week</u> (changed 21.11.83)		<u>Disregard</u> (changing 6.4.84)	
	<u>Married Couple</u>	<u>Single person</u>	<u>Per week</u>	<u>Per annum</u>
Previous rate	£52.55	£32.85	£32.50	£1690
New rate	£54.50	£34.05	£34.00	£1768

The disregard for pre-1.10.62 members will similarly be increased by £78 per annum from 6.4.84.

J. B. DENNIS
Group Pensions Manager

March 1984

CONGRATULATIONS

50TH ANNIVERSARY

April 11th 1984 was not just an ordinary working day for Harry Charman of the Accounts Department. It was the Anniversary of 50 years with BICC at Wood Lane.

To mark this special occasion the Accounts and Typing Pool Staff, arranged an office get together, with his closest friends and colleagues.

Pictured below are two specially made cakes - for 50 years - and for one of his favourite pastimes "Bowling", which we all hope he will spend many happy hours, after his retirement at the end of April 1984.

Best wishes from all your friends.



On occasion the BT attempts to describe the careers of the longer - serving members of staff at Wood Lane. This is a difficult task, each article has to be of sufficient length to include all that is relevant, but not too long. This month, however, Harry's wife, Marjorie, has done our job for us. Her poem, printed below, could equally well be entitled. "A History of Wood Lane", for Harry's career has encompassed everything from the official opening of the laboratories in 1934.

Half a Century

That date upon the "Callender",
Way back in "Thirty-Four",
Was when a lad, just fourteen,
Entered "Wood Lane's" door.

He knew nought about cables,
Or what "Research" stood for,
A new world was before him,
His thoughts were ones of awe.

But gradually adjusting,
To the daily round,
Excitement was prevailing,
The answer soon he found.

Research to have an Open Day,
"Wood Lane" would rise to fame.
And then one lovely day in June,
The lords and scientists came.

The staff were not forgotten,
They had their turn too,
That day will be remembered,
By a remaining few.

To him the labs. were magic,
A school boy dream come true,
The "bangs" sometimes like thunder,
There were "lightning" flashes too.

Remembering the Chimney,
With it's majestic height,
So sad to see demolished,
Now banished from our sight.

Drums took on new meaning,
With the cable wound around.
They were used for rolling,
And not to make a sound.

They even grew tomatoes,
By heating through the soil,
But they disappeared so quickly,
Not giving time to spoil.

The thought of miles of cables,
Made without a break,
Laid deeply under water,
Namely in "Cook Strait".

But now we've moved five decades,
Into Nineteen Eight-Four,
With a computer and the micro chip,
A different world from yore.

Along with all the changes,
That lad matured and grew
And made his mark in costing,
Every project, old and new.

He remembers all the many friends,
Each held in high esteem,
And gives a special thank-you,
To his own worthy team.

LETTERS TO THE EDITOR

Dear Sir,

We used to know why the elephant was housed here, but Flanders & Swann reminded us that we forgot -

It's an introverted elephanocentric hypochondriac, and its staying in Polymer Physics until it gets its memory back.

Head Keeper.

(P.S. Large quantities of rose fertiliser for sale - apply Mr. Morrison)

(Ref: last edition of the BT, letters section.)

Cheerio

Andrew Bunn, who many will remember as the author of an article, in a recent edition of the BT, on his participation in a Christian Mission to West Africa, left Wood Lane recently. His farewell letter is reproduced below.

Dear All,

I have only worked at Wood Lane for just over two years, so I doubt if many of you will know me, but it is not because of myself that I am writing this. My time here has been extremely happy and very rewarding and I will certainly miss the people I work with, although I'm sure that I will not lose touch with all of them.

My reason for writing this is to tell you about Jesus, since I accepted him for what he claims to be in the Bible and gave my life into his hands, as he asks all who believe in him to do, my life has been transformed from a purposeless lonely life into one full of purpose and love. There are still problems and difficulties, but now I am not alone, I have a guide who can see past them.

In leaving you I commend you to Jesus, who will never turn anyone away, no matter what religion, or none, who is willing and able to forgive the worst past that anyone can have, and give each of us so much more than we can ask for, or even imagine possible; he is truly the best person to work for.

Andrew Bunn

Doug Latimer

Further to the letters printed in the last edition of the BT, we have received the following letter and photograph from the Cancer Research Campaign:

Dr. J. P. Monjardino of the Department of Medicine and Physiology at the Royal Free Hospital School of Medicine, University of London has sent these photographs of the peristaltic pump that BICC have bought in memory of Douglas K. Lattimer.

We are most grateful for your support and hope that you will be happy with this memorial to your colleague.

Yours sincerely,

Silvia A. Tharp

Mrs. Silvia A. Tharp
London Appeals Secretary



LETTER FROM NEW ZEALAND

2nd April, 1984

Dear Friends,

Many weeks have passed since I last sent my New Zealand letter to Wood Lane, but my excuse you will agree is quite valid.

Ann and I have sold our home in Breaker Bay and moved about 50 miles north of Wellington where the climate is really sub-tropical. Instead of the notorious Cook Strait weather, we have lovely firm sandy beaches and the surf coming in off the Tasman Sea. Four miles away lies Kapiti Island, now a bird sanctuary, but a place steeped in Maori history. It was a stronghold of the greatest Maori chief, Te Rauparaha - who is believed to have eaten his mother-in-law! In the latter part of the nineteenth century it was a base for the whaling industry.

Before going on I should like to describe the view from our lounge window. In the far distance lies the great mass of Kapiti and the glittering waters of the Tasman, over which the sunsets have to be seen to be believed. Our garden abounds in tropical trees and shrubs, amongst them a King Protea, a nature of South Africa hence its alternative name, "The Cape Honey Plant". There are, also, Norfolk Island Hibiscus, Bourgainvillea and other sweet smelling plants. The garden is quite big (294 feet and hilly) so we have bought a motor mower and a "weed eater" - the latter a glorified electric scythe. It is really exhausting cutting and trimming for several days on end, if work keeps one alive, I should make a hundred! (I know Alf Britchford would agree!).

Since moving to this delightful haven of peace, we have done many alterations, a new garage built and a sun-deck, where we have our meals, and a patio. At the moment we are waiting for our drive to be asphalted and are busy painting (we could do with a helping hand from Ron Carter now that he, too, has returned - congratulations old friend!)

Ann and I swim most days ... an activity that creates enormous appetites which we asuage with milk still at 13 p a pint and rump steak 90 p a pound.

The whole area is full of things of great interest. Inga Maru bird sanctuary, where many New Zealand native birds abound, and, a few miles away, Southlands Museum, where you can view the largest privately-owned collection of vintage cars in the Southern Hemisphere. At the bottom of the Esplanade is the Queen Elizabeth Park, 32000 acres of undeveloped coastal strip with cleared areas for barbeques and picnics.

To finish off the coastal attractions there are the old steam engine sheds at Paekakariki, where enthusiasts have restored several old locomotives. I intend taking a photograph of one with a full head of steam, brasses gleaming and send it to an old Wood Lane colleague Geoffrey Layzell-Ward (now living in Perth, W.A., whose letters to the BT I read with great interest). Geoff and his wife certainly live in a much hotter climate than Ann and I down here in the "Shaky Islands". Which reminds me, just before I started this letter we had an earth tremor; two months ago we had a real good one, force 6.2 on the Richter Scale it sometimes makes us wonder whether our house will be all right.

Soon after we arrived here, I joined the Kapiti Walkers. We meet every other Monday and tramp through different areas. Last week we walked the Mahgaoue Track, which took us approximately 12 miles through native bush and across rivers.

Since my last letter, as you will all know, we have sent an England cricket team home in disgrace. This was after a seemingly never-ending series of disasters, and if the local "media" can be believed even the "Iron Lady" herself is wandering how a team drawn from only 3.2 million people could create such havoc amongst the "Old Country's" sportsmen.

Two weeks ago our clocks went back one hour, now we are in late Autumn, but enjoying a super Indian Summer. In two weeks time Ann and I fly home for a 10 week visit, and since I note that yesterday's temperature in London was only 4°C. I wonder if I should pack my "long-johns". By the time this letter goes to press, Ann and I may have been and gone, in any case we hope to visit our old friends at Wood Lane while we are in the UK.

To finish off, I should say that Ann and I were pleased to see so many of our old colleagues looking so fit and well at the Christmas Lunch.

Good luck to you all,

Ann & Vic Denholm

DISCOUNT PURCHASING

Just opened in Ariel Way is a Company called Rothervale Trading Ltd. The full name and address is:

Rothervale Trading Ltd.
(Rothervale Joinery Centre)
5 Ariel Way
White City Industrial Park
Wood Lane London W12 7SL

Telephone 01-740-9552

The Company deals in doors, windows, kitchen units and fittings. In fact they carry a range of products similar to Magnet & Southernns. But Rothervale are prepared to offer a 20% discount, on most of their range, to BICC staff.

It's good news for keen Do-it-Yourself enthusiasts, to have such friendly neighbours!

PITCH "N" PUTT COMPETITION

Attention all swingers (preferably of golf clubs rather than lead or anything else), the annual Pitch 'n' Putt Competition will take place, probably:-

- (i) in Gunnersbury Park
- (ii) in the first week of July.

For High Fliers Only

- Q. Whats' the best and cheapest way to get engineering designs from one company site up 50 miles of mountain roads to another?
- A. The Lockheed Missile and Space Company found pigeons to be the best couriers. The birds carry 35 mm negatives of the designs faster and cheaper than drivers, and the 10-pigeon team works for about £35 worth of feed a year.

(seen in an Executive's Digest
by Ray Slaughter)

HISTORY OF WOOD LANE

CHAPTER SEVEN - PRE-WAR DEVELOPMENTS

The I.P. Cable - Social Club - Merger

Talks - Death of Sir Tom Callender

Whilst the official opening of Wood Lane in 1934 had placed Callender's Research Laboratories firmly on the map of the electrical world at large, several major research projects were already in hand at this time. We have already mentioned the work of Dr. Arman on the dry gas pressure cable, and have briefly mentioned the advantages to be gained, namely the elimination of ionising voids and the possibility of higher working temperatures, both due to the absence of impregnating compound. The cable, however, had two serious disadvantages (9). One of these was the difficulty of maintaining absolute dryness during manufacture and more particularly during the jointing operation, for which somewhat elaborate precautions were needed. A much graver drawback was the low surge strength of this cable which proved to be only some 40% of that of its fully impregnated counterpart. These disadvantages were the reason for the dry gas pressure cable never finding commercial application.

A parallel development during the mid-thirties was destined to find universal acceptance. This was the compound impregnated gas pressure cable associated with the names of Mr. Hunter and Dr. Brazier. Of all the gas pressure cables this embodied in its design the least degree of departure from the normal mass-impregnated super-tension cable. The gas (nitrogen 220 lb/in²) was accommodated in a thin continuous annular channel between the dielectric and the lead sheath, obtained by applying the sheath with a radial clearance of the order of 50 mil.

The cable, instead of being filled with gas from one end, was charged from all the joints simultaneously by means of a gas channel pipe located in one of the filler spaces; and in another of these was included a small two-core pilot cable which, in case of any fall in gas pressure, automatically signalled to the control station the position of the nearest joint. The sheath was reinforced with double armouring, designed to cater for the longitudinal as well as the radial stresses and the whole was given special protection against any possibility of corrosion.

The cable and its progenitors received mention at the 41st Ordinary General Meeting of the Company in 1937 (17) when the Chairman, Sir J. Fortescue-Flannery, said, "You will find distributed in your seats a copy of a paper (18) by two of our engineering staff upon the Research Department's latest development in 200 000 V impregnated pressure cable. When it is recollected that scientific advances of this nature carry with them not only the development of the cable itself, but also the technique of jointing and terminal arrangements, we feel that a great deal of credit is due to our Research Department". However, the somewhat revolutionary character of this development was not immediately acceptable in some quarters (9). Many eminent authorities were still apprehensive regarding the effect of permitting free contact between gas and impregnating compound, but this attitude of mind was largely based on a disregard of the essential difference between oxygen, for instance, with its known characteristic of causing sludging and degradation, and an inert gas such as nitrogen. Nevertheless, ultimate conviction on this point clearly depended on practical demonstration rather than on academic proof. Such practical

demonstration was, fortunately, forthcoming.

In the mid-thirties leading Companies from all over the world had submitted designs for test to the K.E.M.A. Testing Organisation at Arnhem in Holland in connection with a project for an 88 kV three-phase interconnector between Rotterdam and the Hague (9,19). Later the required voltage was increased to 150 kV with a view to extending the network to link the principle undertakings throughout Holland, and the testing facilities at K.E.M.A. were enlarged accordingly, tests being carried out on a further range of cables including four gas pressure types. The results of these tests showed clearly that the non-diaphragm type of gas pressure cable could be employed with complete confidence at these extra high voltages. Unfortunately, the outbreak of war in 1939 brought the Dutch project to an abrupt conclusion. An interesting sidelight to this account, however, is the fact that during a visit to Arnhem after the cessation of hostilities, Mr. P.R. Hartshorn found the Callender Store at the K.E.M.A. Laboratories still intact, despite the considerable activity in the area during the latter part of the war.

Although single-core gas-filled cables had been laid experimentally as far back as 1937 for the Central Electricity Board, the first three-core 132 kV impregnated gas pressure cable was laid in 1943 at Broadwell (near Burford) in Oxfordshire when it became necessary to "underground" a mile-and-a-quarter of overhead line (part of the British Primary Grid) in order to clear the approach to a wartime aerodrome. A post-war brochure (1945) advertising this cable showed the actual construction.

The development of extra-high voltage cables was accompanied at Wood Lane by new testing techniques. For instance, it was found that misleading results were sometimes obtained if cable sealing ends, which were under development test, were erected inside the laboratory, since it had become known that low temperatures were particularly liable to affect the performance of E.H.V. sealing ends. In order to meet this condition the Research Department built a special refrigerating chamber this being erected on the open space outside HV3. Some people may still remember this tall, odd-looking wooden structure as it was only removed a few years ago. In operation the cable sealing ends were inserted in this chamber, cooled to -15°C and long-term stability tests carried out on them. The chamber required 100 lb of solid carbon dioxide to maintain this temperature, and the thermal insulation consisted of expanded rubber six inches thick.

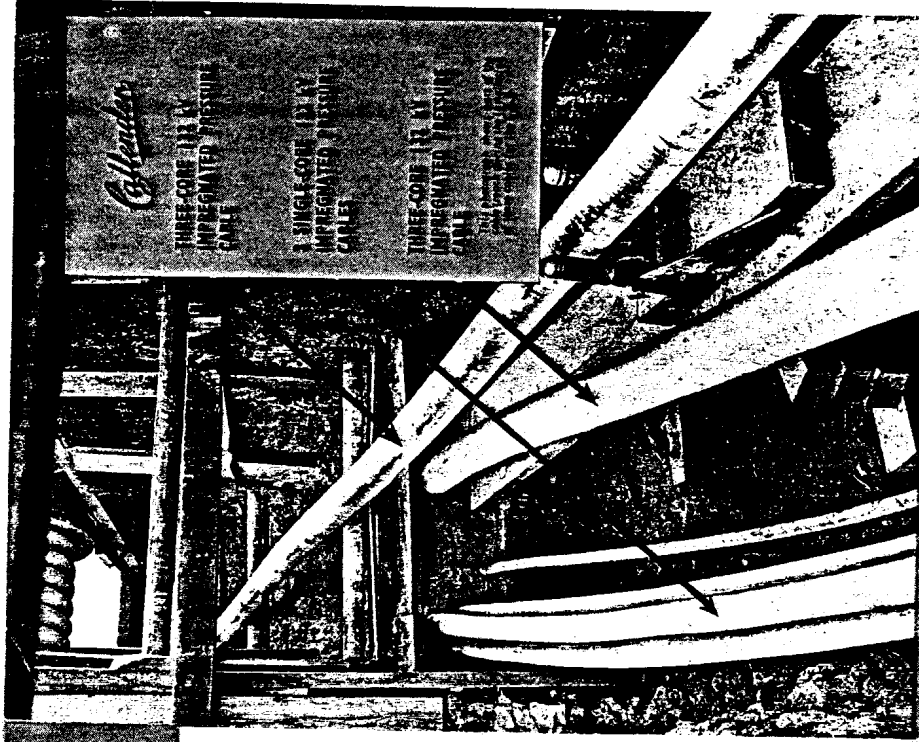
Departments, as well as equipment, developed rapidly during this period, including the rubber shop (about 1936) which was located initially in the area (now partially covered by the McFadzean Laboratory) to the immediate north of the present Kelvin Laboratory. The stores were located at the south-western corner of HV1.

Social activities for the staff were also taken into consideration. Prior to the outbreak of war no separate section of the Social Club existed at Wood Lane, but members of the staff participated in the activities of the London Section. Perhaps the highlight of these activities was the amateur dramatics society, which presented a number of successful plays at the Fortune Theatre - plays such as "Ambrose Applejohn's Adventure" by Walter Hackett, "The Ringer" by Edgar Wallace, and "Thark" by Ben Travers. The players included Mr. Hartshorn who frequently played the lead, Mr. Hart, Mr. Booker, Mr. Morris-Goodall, Mr. Metcalf, Mr. Temple-Hazel, Mr. Condon and Mr. Tempest many of whom were Staff from Wood Lane.

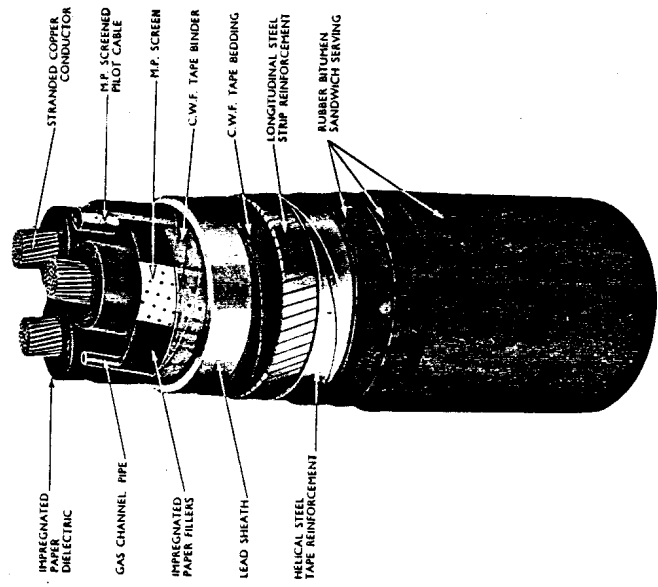
Callenders Brochure Published in 1945

The World's first 3-core 132,000 volt cable

Installed under commercial conditions for underground electrical transmission



Callenders
 THREE-CORE 132 KV
 IMPREGNATED PRESSURE
 CABLE
 1 SINGLE-CORE 132 KV
 IMPREGNATED PRESSURE
 CABLE
 THREE-CORE 132 KV
 IMPREGNATED PRESSURE
 CABLE



This Callender 132 kV three-core cable has normal stranded copper conductors of 0.40 sq. inch insulated with paper dielectric impregnated in special compound.

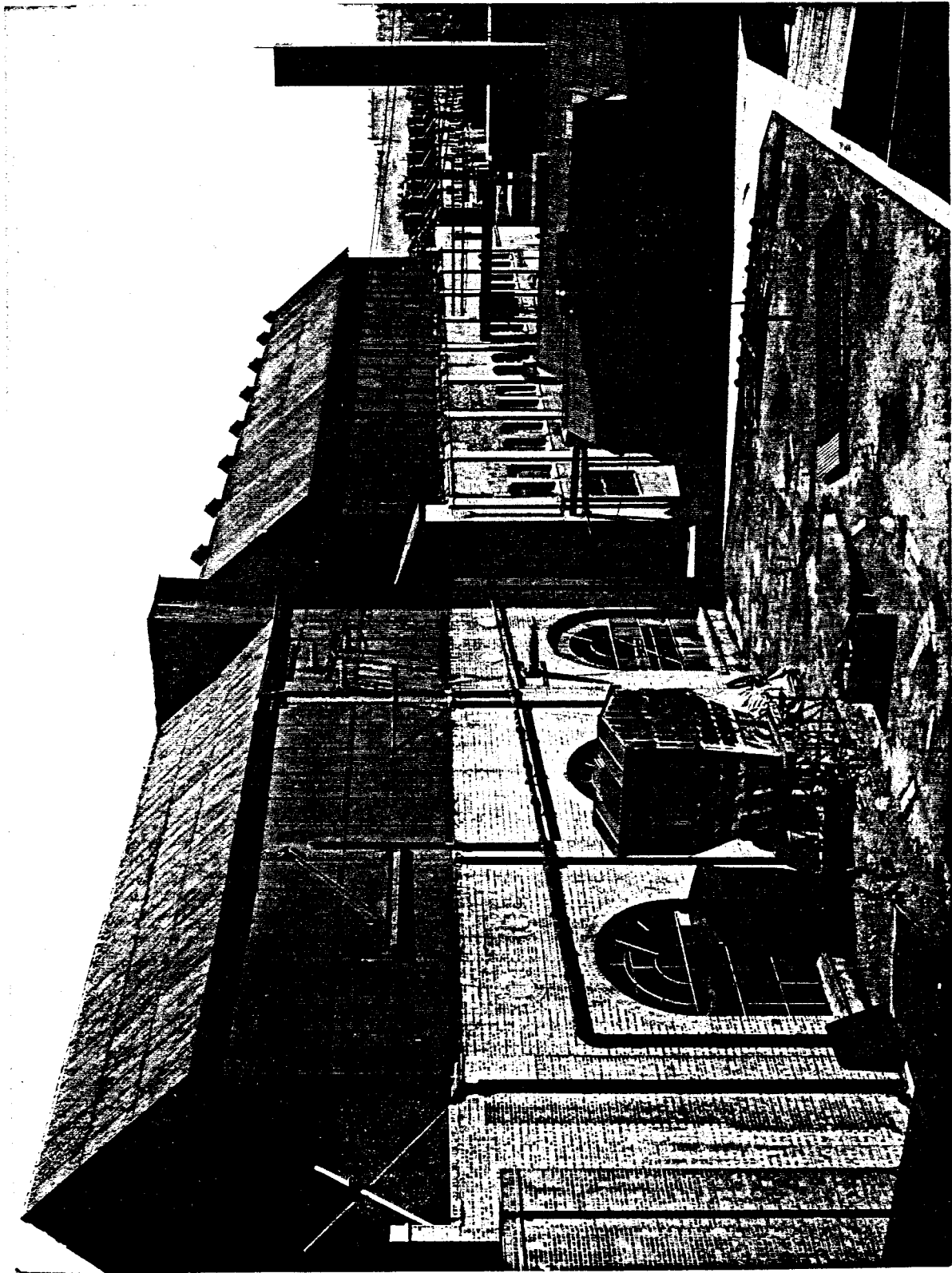
Three cores are enclosed within a lead sheath specially reinforced with metal tapes designed with an adequate safety factor to provide for the radial and longitudinal mechanical stresses set up by the nitrogen pressure of 200 lbs. per sq. inch within the sheath.

Served overall with a specially-developed system of protective coverings, this cable has maximum protection against the possibility of corrosion. The cable is only 4.8 inches in diameter and weighs approximately 84 lbs. per yard.

Callenders

132 kV 3-CORE 0.40 sq. inch
 IMPREGNATED PRESSURE CABLE

MANUFACTURED, LAID AND JOINTED BY CALLENDERS
 Acceptance tests included testing at 264,000 volts D.C. between conductors and earth



Refrigerating Chamber Standing in Front of the Present Location of the Stores
(circa. 1946)

The name of Dr. Arman appears as stage manager in several of the programmes. The amateur dramatic society received wide acclaim for its efforts and, for instance, a review in the "Electrical Times" for the 14th April 1938, praised the performance of Mr. Hartshorn as Dr. Lomond in "The Ringer" and refers appreciatively to his "Scottish accent and humpy walk".

Dinners and similar social functions were held at a number of centres in Town, and one held at Bush House Restaurant on 10th December 1937, featured a cabaret and was attended by approximately 200 people. Photographs convey the impression that a thoroughly good time was indeed had by all.

The athletic side of the club was well supported in those days and one annual event was the 10 mile walk for the Pipkin Cup. This cup was held for several years by Wood Lane. Mr Fifield, then a member of the Wood Lane Staff who later worked on the Kariba Dam Project in Rhodesia (as it then was), was persuaded by his colleagues to enter. To their, and perhaps to his surprise, he won! This success spurred him on to further efforts and he was later well-placed in the famous London to Brighton walk.

In the middle of 1938 rumours suddenly swept the electrical world of a possible merger between Callender's Cable and Construction Company and Crompton Parkinson. An official statement which said "that the Directors of both Companies were seeking a closer working arrangement, the formation of a Holding Company" appeared in the "Electrical Times" for the 21st July 1938. By October further statements appeared in the "Electrical Press" concerning this proposed merger and perhaps the statement which best summed it all up appeared in the "Electrical Times" for 13th October 1938. This read as follows:-

"The recent crisis produced a small crop of "war" weddings, but it also led to the breaking off of an engagement that had been widely discussed in electrical circles. The parties in question are Callender's and Crompton Parkinson. An announcement on Saturday explains that the recent crisis and consequent unsettled condition of world trade and finance had induced both sides to agree that it would be inadvisable to proceed with the negotiations. This decision is final, but friendly".

The favourable expansion of the Company in this period was marred by the death of Sir Tom Callender on 2nd December 1938 (20). He died after a brief illness at his home, Bidborough Court, Kent, in his 84th year. Sir Tom was not only one of the founders of the Callender Organisation, but was also one of the pioneers of electrical transmission in this country. All through his life he played an active roll in his Company's affairs, especially as an overseas business ambassador. His activities not only brought large business to his own Company, but they were the means of opening up trade channels which had a considerable influence on the British electrical industry. While he was Deputy Chairman and Managing Director of Callender's, Sir Tom was also a Director of three of the big power companies - The Lancashire, The Yorkshire and The Scottish, Chairman of the Herne Bay and District Electric Supply Company, Chairman of St. Helens Cable and Rubber Company, and a Director of the Anchor Cable Company, the Enfield Cable Works, W.T. Glover and Company Limited and Thomas Bolton and Sons Limited. Sir Tom Callender was the last survivor of those present at the Dinner held at Dartmouth House, Queen Anne's Gate, Westminster, on 10th January 1900 to mark the foundation of the Cable Maker's Association, and as the head of Callender's he had a great deal to do with the Associations development and its world-wide influence.

To everyone connected with Callender's "Sir Tom" was much more than the head of the firm. He was held in real affection by all in the Company's employ and his death was greatly mourned.

REFERENCES

- (17) Electrical Times, June 24th, 1937, p.922.
- (18) Electrical Times, June 1937.
- (19) Electrical Times, November 18th 1937, p.679.
- (20) Electrical Times, December 7th 1938, p.592



Sir Tom Callender

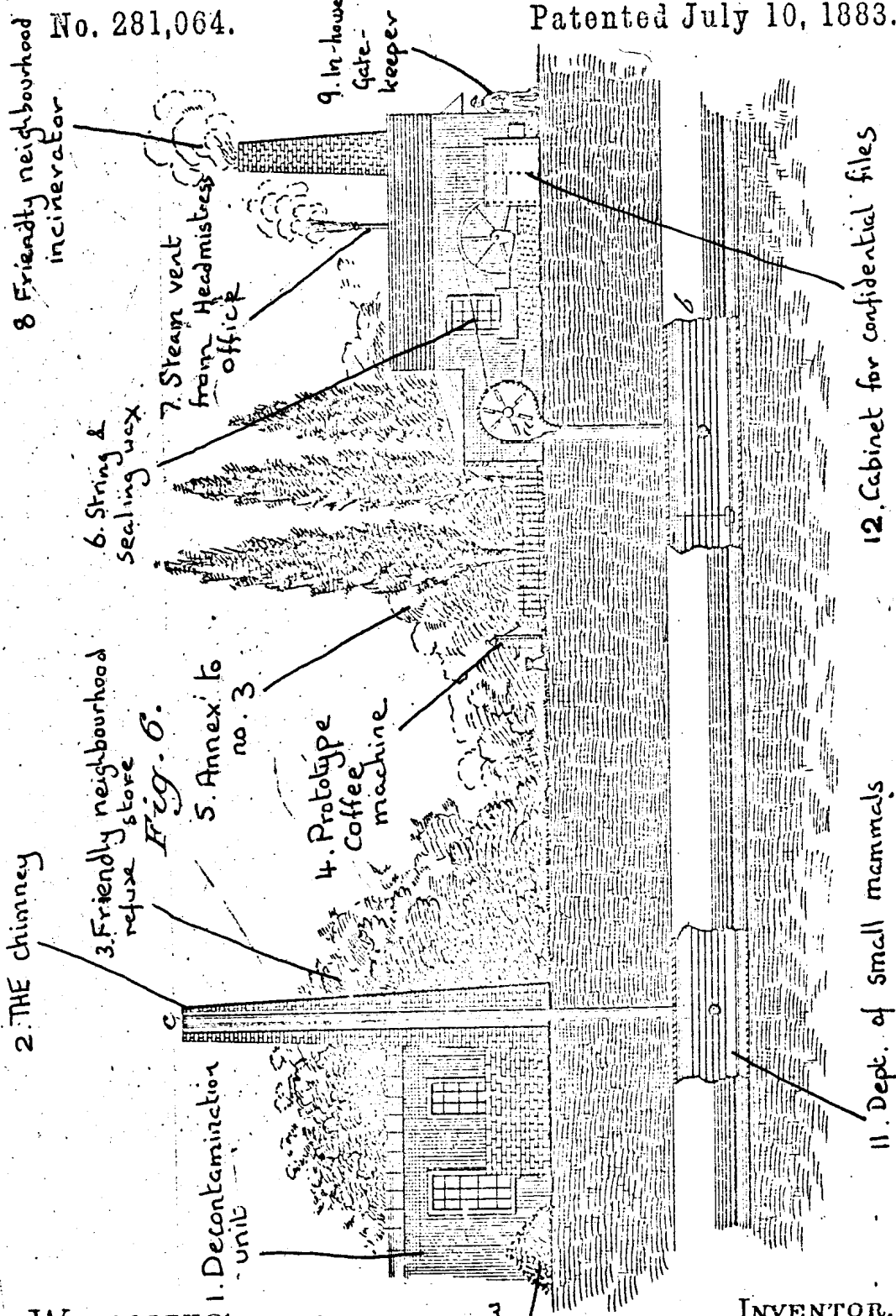
(NOT THE) WOOD LANE OF OLD

(No Model.)

4 Sheets—Sheet 4.

W. HENDLEY.

CONDUIT FOR UNDERGROUND LINES FOR TELEGRAPH AND OTHER WIRES.
 No. 281,064. Patented July 10, 1883.



WITNESSES:

Alex. Kaddles
J. L. Sabatt

INVENTOR.

W. Hendley

R. PETERS, Photo-Lithographer, Washington, D. C.

From Mike Poole

THE BREL MONTHLY REPORT WRITING GUIDE

YOU WRITE

YOU MEAN

It can be proved that ...	I hope it can be proved that ...
It is generally acknowledged that ...	I heard someone say that ...
It can be shown that ...	You figure it out; I can't be bothered.
It is clear that ...	It's not clear, but I'm shaming you into taking it for granted.
Did not operate as well as had been predicted ...	The equipment burst into flames.
After considerable experimentation a solution was found ...	We fiddled about until it came right.
A typical sample ...	The only sample which did what we wanted.
If instability results, appropriate remedial action will suggest itself ...	If instability results, you will have to think of something, Jack.
It is technically feasible but there are practical problems ...	It cost ten times as much as we estimated.
Transient tests were carried out ...	The fuses blew every time we switched on.
The equation was solved numerically...	We averaged eight different answers.
This value is a first approximation...	This value is flagrant guesswork.
It should be possible to improve the method ...	Nothing worked.
Various methods have been used to palliate these deleterious factors ...	We cooked the figures wholesale.
The fundamental principles will now be described in detail ...	We mugged the following from a textbook.
It is of interest to compare ...	It isn't, but I'm going to all the same.
There are certain practical difficulties in realising the gain figure ...	All the transistors burn out simultaneously.
Some reservations must be placed on these figures ...	These figures are quite useless.
The most promising approach is ...	We couldn't think of another way to do it.
The author wishes to thank Mr. J. Dewarflask for a number of significant comments ...	The Group Leader insisted on poking his nose in.

(from Pete Higgins)

DID YOU KNOW ?

About the Hammersmith and Fulham Amenity Trust

The Trust is an organisation which aims to brighten up the Borough of Hammersmith and Fulham, and to provide and encourage the setting up of "amenities". These may vary from the simple provision of litter bins to schemes, such as that currently being pursued, for improvements along Wood Lane. In conjunction with the Borough, which has a programme to widen the road south of the railway bridge, the Trust hopes to obtain improvements to Wood Lane between the bridge and White City Station. The BBC is to be consulted about their frontage and inquiries are being made about further tree planting on the eastern frontage to the road. A pigeon barrier treatment for the railway bridge is to be included in any scheme finally agreed upon.

The following is a list of some of the other things the Trust is involved in:-

- (1) Encouragement of shopkeepers to preserve the traditional features and external appearances of their shops.
- (ii) Refurbishment of All Saints Churchyard in Putney, where there are buried to less than ten Archbishops of London, an Archbishop of Dublin, a slave trade reformer, at least two Lord Mayors of London and Henry VIII's chief physician.
- (iii) A plan to retain and restore on another site the baroque facade of Hammersmith Bus Station. The West Front of the Bus Station is actually the baroque facade of the garden front of Bradmore House, a mansion built around 1710. It is a rare example of English baroque architecture in the Italian Style.

When the Bus Station was built in 1913 much of the house was demolished but the garden front was retained and converted so that buses could pass through it. The side windows were removed, the front raised, and steps and balustrades added.
- (iv) A plan to establish an Ecological Park in the borough.
- (v) Participation in the London Wildlife Trust; members hope to be able to explore parks and wasteland in the Borough and make wildlife surveys.
- (vi) Converting temporary derelict sites into something useful and attractive, adventure playgrounds, gardens, allotments, mini-parks etc.

All of the above has been taken from a letter from the Trust to John Heggie and a copy of their newsletter "Surroundings". If anyone wants further information about the trust or to peruse "Surroundings", please contact Peter Walters, or any other member of the Editorial Board.

HELP!

The latest edition of "Bloodline", a newspaper for London Blood Donors carries an appeal for more donors, as you might expect, which the BT makes no apologies for passing on. This appeal is directed, in particular, at those people having the most common blood group "O". Common logic dictates that since it is the most common type of blood, it is required most often. However, supplies held in many centres are often lower than those of the rarer blood types, not that donors that fall into this category are required any the less.

Blood Doning could never be described as a "fun" activity but it takes a short time only, it does you no harm..... and it could conceivably do someone a great deal of good.

There is only a small proportion of the general public who are not accepted as blood donors. The list below is reprinted from "Bloodline".

YOU CANNOT GIVE BLOOD IF...

- You are under 18 or over 65 years of age
- You weigh less than 7 stone
- You are pregnant
- You have a baby under one year old
- You have had a major operation in the past year
- You are taking antibiotics such as penicillin, or a course of tablets prescribed by your doctor.
- You have had jaundice within the last year
- You have had glandular fever within the past two years
- You have had brucellosis at any time
- You are suffering from:

- heart disease
- diabetes
- TB
- Cancer

(Even when treatment or surgery has resulted in a cure).

YOU ARE ADVISED NOT TO GIVE BLOOD FOR 6 MONTHS IF...

- You have had a miscarriage
- You have had your ears pierced
- You have been tattooed
- You have had acupuncture
- You have had hepatitis

THREE MONTHS IF...

- You have visited a tropical area*
- You have had a minor operation
- *If you have had a tropical disease such as cholera, malaria or typhoid contact your doctor for advice

ONE WEEK IF...

- You have had anti-flu, cold or tetanus injections
(ask doctor about any other injections you may have had)

THREE DAYS IF...

- You have had dental treatment (one month if treatment was under anaesthetic).

CHRISTMAS COMPETITION ANSWERS

Looks Familiar

1. Letters of the Alphabet
2. Absolute Zero in Degrees Centigrade
3. Blackbirds Baked in a Pie
4. Divisions in a Zone Circle
5. Piano Keys
6. Notes in the Tonic Solfa
7. Sides of a Parallelepiped
8. Length of a Cricket Pitch in Chains
9. Pennies (d) in a Pound
10. Pennies (d) in a Five Shilling Piece (Crown)
11. Kings of Orient are
12. Density of Water at 4 Degrees Centigrade (SI Units)
13. Dwarfs in Snow White
14. Ships I Saw-a-Sailing on Christmas Day
15. Partridges in a Pear Tree
16. Days of Christmas
17. Pillars of Wisdom
18. Thieves with Ali-Baba
19. Bakers Dozen
20. Steps (Novel by John Buchan)
21. Ides of March
22. Number of Commandments
23. Men in a Boat
24. Men of the Grand Old Duke of York

Does it Add Up

<u>Q</u>		B	D	E	C	D
	+	A	I	E	D	B
	+	D	D	G	A	A
		I A J H F				

<u>A</u>		5	1	7	3	1
	+	2	9	7	1	5
	+	1	1	0	2	2
		9 2 4 6 8				

LEADERGRAM

A	15	109	127	22	115	89	197	10	70	137	33	44							
B	168	32	204	107	245	155	126												
C	224	244	178	76	221	116	195	129	60	211	193	81	40	239	85				
D	142	235	191	87	93	59	75	180	194	253	35								
E	161	140	112	200	199	64	242	41	236	151	74	131							
F	65	160	157	132	201	123	13												
G	206	94	179	86	217	9	55	167	120	104	82	78	241	108	66				
H	150	56	249	36	202	248	83	215	244	3	106								
I	136	220	206	98	45	138	124	8	159	212	34	14	37	187	130				
J	77	128	49	113	174	16													
K	251	38	80	1	182	135													
L	147	207	73	218	101	183	186	6	48										
M	105	95	192	19	232	54	30	169	184										
N	91	50	177	165	110	46	117	5	153	18	203	61	141						
O	189	67	230	52	21														
P	121	133	2	223	71														
Q	27	252	171	237	42	62													
R	213	4	96	250	219	7	63	188											
S	209	134	58	103	166	11	154												
T	6	20	156	172	68	225	53	198	222										
U	162	196	224	145	185	247	148	23	51	216	102	229							
V	57	175	240	24	149	72	111	284											
W	164	143	43	152	39	88	176	97	31	231									
X	122	234	69	158	29	238	118	84											
Y	17	99	210	47	25	181	170	144	119	92	208	26	139						
Z	79	190	125	173	228	214	12												
A'	100	28	233	163	90	114	243	227											

From Bali return in a roundabout way via Italy to assess the supply situation . (12)

It's some distance (to a well-known part of Ireland , maybe?) (4,3)

Being in a bad way assisted and encouraged . (5,3,7)

Passes without challenge . (4,7)

Prosaic enquiry as to truth or falsehood . (6,2,4)

Ted and I , re. the History of Wood Lane . (7)

Metaphorically maltreating one's inferiors . (6,5-4)

(See A') .

"Continental people have sex-life ; the English have — — — ." (George Hikes)(3-5,7)

King well known for sitting around with his Knights ! (6)

Insulate the noise within , then putting the cargo on board appears easy . (6)

Oddly , a short man would be equally warm and comfortable in them ! (4,5)

Describes gains , made from 'S' for example . (3-6)

" What is the use of a book " , thought Alice " without pictures or — — ? " (Lewis Carroll) (13)

Anything will do as an answer to this clue ! (5)

Smart . (But familiar to Mr. Clark , no doubt) . (5)

Flew by Whittle's invention . (6)

Earl Ives recorded the goings-on at their social gathering . (4,4)

Horse around in pursuit of the one who never wins a bet ? It's a crime ! (7)

Collected stamps from a Greek letter recently ? (3)

Lend an ear . (3,9)

} TV series based on two stories we heard . (6,10)

Slighted in some way, by such heady pleasures . (8)

Stretch out a police officer . (It's part of his job !) (3,4,3,3)

As when going down the plug-hole . (7)

(See H) " — — — ; — — — ! " (Winston Churchill) And he wasn't referring to his Christmas dinner ! (E-4,7 and A'-4,4)

1 K		2 P	3 H	4 R	5 N	6 L		7 R	8 I	9 G	10 A	11 S	12 Z		13 F	14 I	15 A
16 J	17 Y	18 H	19 M	20 T	21 O		22 A	23 U	24 V	25 Y		26 Y		27 Q	28 A	29 X	
30 M	31 W	32 B	33 A		34 I	35 D	36 H		37 I	38 K	39 W	40 C		41 E	42 G	43 W	
44 A	45 I	46 N	47 Y	48 L		49 J	50 N		51 I	52 O	53 T		54 M	55 G	56 H	57 V	58 S
59 D		60 C	61 N	62 G		63 R	64 E	65 F	66 G	67 O	68 T	69 X	70 A	71 P		72 V	73 L
74 E	75 D	76 C	77 J	78 G	79 Z	80 K		81 C	82 G	83 H	84 X		85 C	86 G	87 D	88 W	89 A
90 A	91 N	92 Y		93 D	94 G	95 M	96 R		97 J		98 I	99 Y	100 A		101 L	102 U	103 S
104 G	105 M	106 H	107 B		108 G	109 A	110 N	111 V		112 E	113 J	114 A		115 A	116 C	117 N	118 X
	119 Y	120 G	121 P	122 X	123 F	124 I	125 Z		126 B	127 A	128 J	129 C	130 I		131 E	132 F	133 P
134 S	135 K	136 I		137 A	138 I		139 Y	140 E	141 N		142 D	143 W	144 Y		145 U		146 T
147 L	148 U	149 V	150 H	151 E	152 W	153 N		154 S	155 B	156 T	157 F		158 X		159 I	160 F	161 E
162 U	163 A	164 W		165 N	166 S	167 G	168 B	169 M	170 Y	171 Q	172 T	173 Z		174 J	175 V		176 W
177 N	178 C		179 G	180 D	181 Y	182 K		183 L	184 M		185 U	186 L	187 I		188 R	189 O	190 Z
191 D	192 M	193 C		194 D	195 C	196 U	197 A	198 T	199 E		200 E	201 F		202 H	203 N	204 B	205 I
206 G	207 L	208 Y		209 S	210 Y		211 C	212 I	213 R	214 Z	215 H	216 U	217 G	218 L		219 R	220 I
221 C	222 T		223 P	224 U		225 T	226 C	227 A	228 Z	229 U	230 O		231 W	232 M	233 A	234 X	
235 D	236 E		237 Q	238 X	239 C		240 V	241 G	242 E	243 A	244 H		245 B	246 C	247 U	248 H	
249 H	250 R		251 K	252 Q	253 D	254 V											

Author: Alan Marshall

Title of Book: I Can Jump Puddles.

Quotation: I began urging Starlight into a jog trot the last few yards to the trough, and gradually increased this distance till I was jogging over the last hundred yards, though it was not a pleasant gait. I bumped violently up and down on the saddle unable to control my bouncing body by taking some of the shock with my legs.

Generation Gap

<u>Person</u>	<u>Age (Years)</u>
Frederick	3
Benjamin	23
Adam	48
Edward	72
Daniel	92

Who Owns the Zebra?

Follow this! (from George Price)

1	2	3	4	5
Yellow	Blue	Red	Ivory	Green
Norwegian	Ukranian	English	(Spaniard)	<u>Japanese</u>
(Fox)	Horse	(Snails)	Dog	<u>Zebra</u>
Water	(Tea)	Milk	(Orange Juice)	Coffee
Spun Cut	Mixture	Mixed Cut	Flake	Rough Cut

The Japanese Owned the Zebra

SPORTS DAY

The annual Balfour Beatty Sports Day takes place on June 2nd this year (note the earlier than usual date). As usual, a team has been entered for the men's 5-a-side football competition. If 5 ladies would like to form a team and enter the ladies football competition would they contact Peter Walters as soon as possible, please. There will be squash and tennis competitions, if anyone wants to enter, please contact Peter Walters so that he can make further enquiries.

HORTICULTURAL SHOW

The 1984 Horticultural Show will take place in September. Arrangements will be essentially the same as for 1983, vegetables, fruit, flowers and home-made wines (including kit wines) will be exhibited and judged.

SECTION REPORTS

THE FILM COLUMN

The Annual General Meeting of the Film Society was held on Thursday 5th April 1984. The attendance was disappointingly low, only 9 members turning up. Full minutes of that meeting will soon be available on request, but some of the major points that came up were:

- (1) 168 members and guests attended 7 film shows in the past season, an average of 24 per show. Although this is lower than last season it seems to be part of a trend that begun in the mid 70's. The shows seem to have been attended by a more selective audience, as indicated by the lower number of season ticket sales and also by the decreased ratio of guests to members (1:3). Reaction Indices for the feature films averaged 76%, whilst accompanying shorts were down to 58%. On the whole those who saw the feature films said that they had gained something from seeing them even if they had been hard pressed to enjoy them. TIN DRUM won the distinction of getting the record low attendance of 8 people although this group were so stunned by the film that they stayed on to discuss it (Reaction Index of 88%, second best for the season)- televised live football and flu (among some of the regulars) were blamed for decimating our size of audience. Poor sound quality was a major problem throughout the season, whilst shorts were also liable to be of poor film quality. Choosing the shorts proved to be a costly mistake.
- (2) Overall overspend on the budget was about £60, due to the low numbers not offsetting the high costs of the shorts in particular. This figure does not include £40 that is usually carried over from the previous season's accounts. This difficulty in handling accounts/budgets had arisen because the AGM was always held before the Social and Athletic club AGM. As this fell before the last film show in the season the costs/returns of the last show had to be carried over. The new date of the S & A Club AGM has allowed the Film Society to finally get back in step.
- (3) Richard Grigsby was elected as Chairman
Sasha O'Bow-Hove Secretary
Bobbie Wardop Treasurer
Ron Hall Booking Officer
Joe Lou Committee member
Martin McDonough Committee member (after the AGM)

Joanna Samson, Olric Morrison, Simon Jones, Jonathan Nevett, and Ted Cooke resigned at various points in the season. The standing-down Chairman thanked them in their absence for all their past efforts on behalf of the Film Society.

Since then the new Committee have met several times to consider plans for the forthcoming season. A sub-committee has been formed to look at ways of improving the sound quality. However the Committee are as yet undecided as to whether to show shorts in the forthcoming season. The choices that seem to be available are:

- (1) Continue with better/newer shorts than last season.

- (2) Abolish shorts and have film on at 7pm with some free bread and cheese later on. This is aimed at promoting discussion.
- (3) Have alternate shows implementing (1) and (2) above
- (4) Run episode(s) of a good serial instead of shorts.

The Committee would like your opinion on these choices. Please fill in the slip at the end of this column and send to SOBH, Optical Cable Research, BREL by WEDNESDAY MAY 23rd

The HAVE YOU SEEN ? COLUMN

Two films to whet your appetites:

- (1) EDUCATING RITA. The film of the successful stage play about a Liverpuddlian housewife struggling to find her true self by becoming educated. Very funny on the surface but a sad indictment of working class life. Michael Caine and Julie Walters were unlucky not to win Oscars for Best Actor, Best Actress this year.
- (2) GREYSTOKE. Supposedly the closest film version to the Edgar Rice Burroughs story, of the many Tarzan films that have been made, it also seems to be the most financially successful - according to Barry Norman it is taking USA by storm. MMCD said that he found it highly entertaining.

 To Sasha O'Bow-Hove, Optical Cable Research, BREL

My preference on the matter of shorts is Choice (1)

Choice (2)

Choice (3)

TICK BOX OF YOUR CHOICE Choice (4)

None of them

If you ticked Choice (4) have you got a series in mind : _____

If you didn't like any choice have you an alternative : _____

Football Section

Results so far:

BICC A

v. BICC B 0-0
v. Buzbys 0-1
v. Chinacraft 1-4
v. CCG Spørtif 2-2

BICC B

v. BICC A 0-0
v. CCG Spørtif 0-1
v. Main Despatch 2-4
v. Buzbys 3-0

As can be seen from the results both teams started the season off less than successfully, but appear to be improving.

The opening match, A vs B was rather a scrappy affair with either side able to make any headway against the other. The disappointment of this game continued into each of the teams' next two games. However both teams deserved to win their fourth games, the fact that the A team only drew was in part attributable to their goalkeeper being injured early in the match. Several new players have appeared this season to good effect, Steven Frost and Gary Nibbin for BICC B, Gordon Irvine and Chris Morris for BICC A. With these additions to the squads we should be able to face the season with confidence.

To close, there is an appeal both for supporters - our teams deserve it, and the standard of play is often surprisingly high - and for a goalkeeper. BICC A require a goalkeeper following injuries to Dave Green (sprained hand) and Peter Walters (broken wrist); only minimal qualifications are necessary:

- (i) Some goalkeeping ability
- (ii) Enthusiasm
- (iii) Availability to play at lunchtimes
- (iv) Strong hands (well stronger than those of DG and PW!)

Applications to BICC A, C/O the BT or to any of the BICC footballers.

CRICKET SECTION

"Summer comes smiling, new willow's staunch lovers,
flash forth your blades from their unctuous sleep" So went a passage from my old school song. What it means for BREL in 1984 is that we have entered the Hammersmith 11-a-side competition, that there is the possibility of at least one Saturday game and that the inter-dept. 6-a-side competition will take place in June (or, maybe, July). Now comes the rub ... after a number of years of organising the section Peter Walters would rather just revert back to being a (very) occasional player. In fact he thinks that he may not have the time this year to organise things as they properly should be. So are there any volunteers? Responsibilities include:-

- (i) Sorting out sections finances and kit purchases (Mike Kendle is principal buyer and keeper of the kit).

- (ii) Arranging matches
- (iii) Organising annual 6-a-side inter-dept. competition
- (iv) Arranging entry into the Hammersmith 11-a-side competition, sorting out a team for the competition, liaising with opponents, and booking pitches (PW has a file containing details of all arrangements to be made).

Finally, until a successor comes forward (sooner rather later, please) will anyone who would like to take part in 11-a-side matches this season let Peter Walters know, preferably in writing (include in your notes any particular skills please be realistic rather than wishful in your claims!)

(n.b. Enthusiasm is considered by PW to be a skill in this context).

Peter Walters

TECHNICAL SOCIETY

At the last meeting of the Technical Society, Don Roworth posed the question, "Why Local Area Networks?", and then went on to answer it. In a very interesting talk Don explained the whys and wherefores of such networks and their importance to BICC.

The next meeting of the Society is to be addressed by John Banks, on Friday May 11th he will give a talk entitled:-

"TECHNOLOGICAL CHANGE"

WANTED

B.P. MONEY MATCH

Does anyone have the following halves to the B.P./National Money Matches?

Right £5,000

Left £1,000

Left £10.00

Right £100

Right £50.00

If so contact Sarah extn. 259.

SPORTS DAY 84

(BALFOUR BENTLEY - SIDCUP)

SATURDAY 2ND JUNE

2PM - 5PM

WILL FEATURE:-

BICC HOT AIR BALLOON

CRAYFORD BRASS BAND

FIVE A SIDE FOOTBALL

CHILDRENS ENTERTAINER

CHILDRENS RACES

SIDESHOWS

FOOD & BAR

PONY RIDES

SQUASH & TENNIS COMPETITIONS

* FREE DISCO DANCE (EVENING) *

SOCIAL CLUB AGM

MONDAY MAY 21st

5-30pm

MAIN HALL