

bush telegraph



**Christmas
1970**

BUSH

TELEGRAPH

Wood Lane's Club Magazine

Editor

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Mike Hagger
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Christmas

1970

Cover —

photograph by Denis Groombridge



EDITORIAL

This is the time of year when an editorial should be easiest to write, the subject matter being predetermined. You know, just thank everyone for their help, wish them and your readers the compliments of the season, and that's it. All right then, thank you everyone who has contributed during the year, thank you all those who have been coerced into putting the thing together of a lunch-time, thank you Shirley for typing it (mostly several times over) and thank you all those behind the scenes in the various stages of printing it. Happy Christmas to you, and Happy Christmas to all our readers.

As this is my last editorial, I do not wish to finish on a 'sour' note. But I must ask all of you seriously to consider whether it is fair of you to expect the magazine to continue on the present basis - take this issue as an example. There are a total of 18 contributors, (including those on pages 3 and 4!), and 3 members of the Editorial Staff contributed 7 items (8 pages) between them. Thirteen other contributors therefore supplied the other 15 pages (two supplying $7\frac{1}{2}$ of those) and of these, most have contributed before on a more or less regular basis. It's time the rest of you woke up to the fact that this is YOUR magazine, not the editor's. YOU can make it worthwhile for the editors to spend their time knocking it into shape, if YOU will supply the raw material. Otherwise - pouf! No magazine.

A new editor takes over for the next issue, which should appear in February. Peter Revell of the Chemistry Department will continue to have the keen assistance of Mike Hagger and Denis Groombridge. He will need even more.

Think about it.

Christmas Messages

from the club's PRESIDENT

When I come to write this annual Christmas Message, I invariably think of the main events of the year just passing and of the challenges and potentialities of the years to come.

How appropriate it therefore is to open this message by recording our grateful thanks to Mr. Philip Hollingsworth who has retired as Chief Engineer after making outstanding contributions not only in the technical sphere but to human understanding. He has been succeeded by Dr. Peter McNeill to whom I extend a very warm welcome.

A development of outstanding importance for CRED was our mutual shareholding relationship agreement entered into with General Cable Corporation of America. For some years now there has been a close relationship between them and CRED which I hope can now be further developed to the benefit of both. Surely here is an opportunity to create a real international research and engineering operation.

I am delighted too that having achieved so much in the closer and closer co-operation with our other Divisions and Companies in this country, an intensified endeavour is being made to extend this to world-wide members of our Group. The pattern may of necessity be different but I hope the same mutually beneficial result will be achieved.

I know at times CRED may feel a little like the "Forgotten Army". Believe me you are not for we know the patience and quiet endurance required for your work and with what confidence and gratitude so many in other spheres turn to you for guidance and indeed for a solution to their problems.

The latter won't get less and I am confident of the vital part you are playing and will continue to play in Group affairs - a part which I am sure is helped through the team spirit generated by the "Bush Telegraph".

To each and everyone of you I send my warmest good wishes for a Merry Christmas and for your further endeavours and personal happiness in 1971.



&

from the club's VICE PRESIDENT

In 1970, BICC celebrated its 25th Anniversary, having been founded in 1945 by the merger of BI and Callender's. The 25th Anniversary of the official opening of our Wood Lane laboratories was celebrated in 1959 when, actually, we had been in occupation of the site for 28 years. In 1971, it will be 40 years.

We started as a Callender's outfit but, now, our Division has evolved into one which has the strongest linkages with the BICC Group on a world-wide basis. Our relationships with our Home Group compatriots have never been better and, as our President has said, we are getting closer and closer to our Overseas colleagues. As I am writing this, a technical meeting at Wood Lane is about to start at which will be represented Metal Manufactures of Australia, Phillips Cables of Canada and General Cable of USA, together with people from our Home Divisions and Companies. This will be the first occasion when there has been such a global gathering of the Group's technical people.

Nevertheless, it is little more than a beginning because there is much more to be done before we can be satisfied that the total scientific, engineering and technological power of our Group is being organized and applied to the full. CRED has led in this and will continue to do so. The measure of success which we achieve will depend - as does everything else - on the individual contributions of all of us towards our corporate stature.

One cannot help feeling some qualms about the state of the world and the state of our country. But one thing about which I have no doubts or fears is that CRED will prove itself capable of pulling increasing weight in ensuring the technological future of our vast Group.

I thank you for what you have done in 1970 and for what I am sure you will do in 1971 and I wish you and your families a very Happy Christmas and a bright New Year.

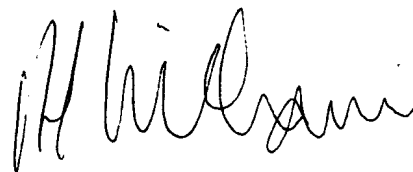


Table Tennis

1ST TEAM

Results since the last issue of the Bush Telegraph:-

G.E. Knockout Cup (1st Round):

Mon. 16th November v Elgee (home) Won 6-3

3rd Division N.A.T.T. League:

Mon. 23rd November v Exiles (home) Won 7-3

Tues. 8th December v Capitol II (away) Won 8-2

With the halfway stage in league matches now reached, the team are leading the division by one point from Rockware of Greenford, who are reputed to be shortly acquiring the services of an ex. BICC Machine Shop gentleman. The two newcomers to our team, Clive Carroll and Tony Greenbury have contributed 19 and 14 wins out of 24 respectively, and old stager Mike Kendle (23 out of 24) has been heard muttering oaths concerning 600 Club's No. 1. If these performances are repeated it must be Division 2 next year!

2ND TEAM

G.E. Knockout Cup (1st Round):

Mon. 16th November v Renault II (away) Lost 1-8

5th Division N.A.T.T. League:

Mon. 9th November v MOV IV (away) Lost 3-7

Wed. 25th November v Glotax (away) Lost 0-10

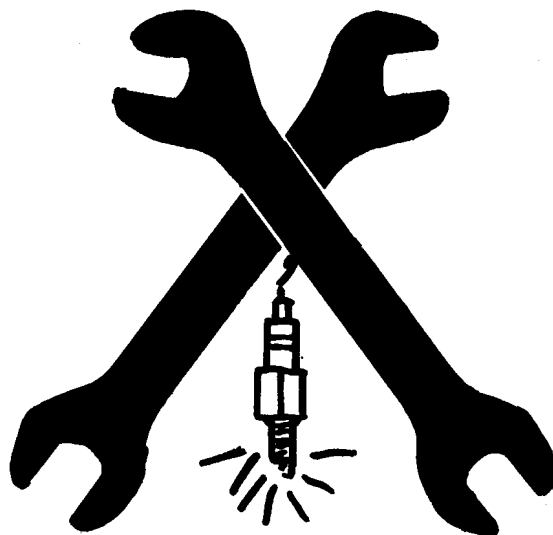
Mon. 7th December v Arnott & Harrison (home) Won 9-1

No! The 2nd team are not bottom of this division, they are one from the bottom, this situation being emphatically resolved on Monday 7th December (I didn't believe it either till I saw the match score card).

Anyhow, plans for rejuvenation with sticks of Aberdeen rock are in hand (cash with order please) so we hope for better things in the New Year.

"Mummy! Mummy! Can I go and play with Grandma?"
"No dear, you've dug her up seven times today already."

Motoring Section



During the last month the Motoring Section has been spending some of your Social Club's money. We now have, or will have shortly, in our possession the following items:-

- (1) Colourtune (for carburettor tuning)
- (2) Strobe light (for exact setting of ignition timing)
- (3) Compression tester
- (4) Greasegun (Nubrex 2000 psi)
- (5) Jacking ramps and axle stands (for getting underneath car)
- (6) Device for bleeding hydraulic systems without assistance
- (7) Manometer for balancing multi-carburettor engines
- (8) Valve spring compressor and valve grinding tools
- (9) Battery Jump Leads

Also workshop manuals for the following may be available from the owners on request.

Ford Cortina Mk II

BMC 1100 Series

Triumph Herald, Spitfire, Vitesse range

All the above are available to anyone in the Wood Lane Social Club wishing to borrow them. A large deposit, to ensure return and a small charge to pay for breakages etc. will be made. For any information contact Graham Taylor (Chem. 322).

P.S. Any members having useful gadgets, tools, workshop manuals, etc. which they are willing to let other people borrow please let me know.

Leadergram

compiled by GFH

Most readers will be familiar with this type of puzzle (which used to appear in a now defunct magazine called the "Leader") but for those who have not come across one before, here's what to do.

Solve the crossword-style clues (some of which are topical, some aren't!) and insert the solutions in the spaces in the panel opposite. Then transfer the individual letters, in accordance with the numbers in the small squares, to the appropriate place in the large square below, which when filled gives a quotation from a well-known book, (reading from left to right, with black squares separating the words, but no other punctuation.) After several such transfers, you may be able to guess some of the words in the large square, in which case letters may be transferred back to the panel, to help in solving other clues. Get it? Got it! Good!

When completed, the first column of letters in the panel will contain the author's name and the title of the book quoted.

Send your completed entries to reach the editor not later than 13th January 1971. All will be placed in a receptacle not necessarily a hat and the first all-correct one drawn will receive a prize of 50 new pence.

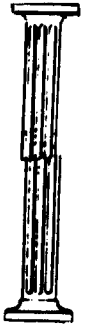
Name
 Department

E 1	C' 2		A 3	Q 4	N 5	V 6	H 7	K 8	R 9	Y 10	C 11	O 12	P 13		F 14	T 15	W 16
B' 17	H 18		D 19	M 20	O 21	D' 22	E 23	U 24		A 25	G 26	N 27	V 28		C 29	G 30	B 31
D' 32	M 33	E 34	T 35		H 36	N 37	V 38	K 39		A 40	H 41	Y 42	D 43	U 44	S 45	W 46	
M 47	G 48		L 49	J 50	T 51	M 52		F 53	O 54	P 55		T 56	B' 57	P 58	G 59	F 60	Q 61
S 62	U 63	X 64	C' 65	T 66		K 67	A 68	M 69	F 70	N 71	O 72	T 73		G 74	L 75		A 76
O 77	C' 78		A 79	B 80	H 81	D' 82	T 83	N 84		H 85	L 86	T 87	X 88		T 89	P 90	R 91
W 92		Y 93	Q 94		D 95	A 96	B 97		J 98	Z 99	E' 100	B 101	X 102	C 103	B' 104	Z 105	
L 106	M 107	N 108	H 109		V 110	P 111	G 112	N 113		H 114	O 115	D 116	L 117	Q 118		K 119	P 120
D' 121	U 122	A 123	E' 124	V 125	J 126		M 127	R 128	C' 129		L 130	U 131		M 132	X 133	C' 134	N 135
E 136	W 137	R 138		U 139	A 140		E 141	D' 142	E' 143	G 144	U 145	K 146	B' 147		D' 148	B 149	V 150
D' 151		A 152	D' 153		M 154	N 155	H 156	F 157	D' 158		Q 159	A' 160	G 161		A 162	E' 163	A' 164
F 165		T 166	S 167	Y 168	H 169	N 170	W 171	E' 172		D 173	A' 174	A 175	O 176	Z 177		B 178	H 179
D 180		N 181	C 182	D 183	T 184	G 185	H 186		N 187	W 188	N 189		H 190	U 191		G 192	C 193
N 194	P 195	B 196		D 197		Z 198	Y 199	D' 200	B' 201		H 202	D 203		G 204	C' 205	A 206	
R 207	S 208	A 209	K 210		B 211	M 212	J 213	W 214		C 215	A 216		C 217	D 218	J 219		H 220
T 221		V 222	Y 223	C 224	T 225		S 226	O 227		B' 228	A 229	R 230	D 231		V 232	C 233	A' 234
		T 235	W 236	F 237	X 238	O 239		Q 240	O 241		R 242	E' 243	E 244				

A	25	175	79	3	69	162	140	96	206	123	76	40	229	209	216	Start at the earliest opportunity. (4,2,3,6)
B	80	196	97	31	178	149	101	211								Worn out on occasion, and may collapse. (5,3)
C	193	103	233	182	29	11	224	217								Seek to dance in exclusive circles. (4,4)
D	197	19	95	218	183	180	43	116	203	231	173					(and K) Sometimes made to go with toast. (5-6,6)
E	34	244	1	136	141											Tutelary goddess who may change and fly away. (5)
F	157	60	237	53	70	165	14									Charlady goes on late turn, perhaps? (7)
G	4	48	26	161	112	185	215	144	192	74	59	30	204			Cook up the old, old story? (5,8)
H	36	202	190	114	169	156	85	81	109	7	41	186	220	179	18	It's all in the mind, one imagines. (7,8)
J	126	213	98	50	219											A crafty word from Jerry: "Achtung!" (5)
K	119	8	210	146	67	39										(See D)
L	49	130	86	117	75	106										Do wash and change, it's after five o'clock. (6)
M	154	212	33	69	52	20	107	132	127	47						Carpenter who built the wooden walls of this Kingdom? (10)
N	155	187	71	108	5	27	113	84	37	181	170	189	194	135		Fair as the ones to which the singer was accustomed. (5,9)
O	77	239	72	54	227	115	12	21	241	176						Call to party membership. (10)
P	55	120	195	111	90	58	13									Did he like striped sweets, the old meanie? (7)
Q	118	240	159	94	61											The RSM's back! That's hard! (5)
R	207	91	128	242	230	9	138									Anything but Q! Spineless, in fact. (7)
S	226	167	208	62	45											He'd get no change from P, so hang about. (5)
T	56	87	166	221	225	73	66	51	83	235	15	184	35	89		Gets me to oil hub variable, the parasite! (9,5)
U	139	63	44	24	191	145	131	122								A pond thus has sporting potential. (4,4)
V	125	150	222	38	110	232	6	28								Dance direction to oppose the outside right! (4,4)
W	46	16	171	236	214	188	92	137								Old-time present time? (8)
X	133	238	102	64	88											Estimated value of a good ticking-off? (5)
Y	93	42	10	223	168	199										The end of the soup? (6)
Z	198	99	106	177												Take a letter from the staff. Well it's brought up properly! (4)
A'	152	234	164	174	160											Privately, he really is a fool. (5)
B'	17	57	104	147	228	201										This boat's not for the Broads. (6)
C'	78	205	134	65	129	2										Point nearby for an alcoholic, Pop, so drink. (6)
D'	200	32	183	82	22	148	121	158	142	151						The way to go if you're driving? (or holding the reins?) (2,3,5)
E'	23	124	143	172	100	163	243									It becomes old at the age of one! (3,4)

The Page 8½ Column

A monthly miscellany.



IN VINO VERITAS

From a parish magazine comes the following report on a home-made wine competition.

"Winners in the home-made claret section were Mrs X (fruity, well rounded), Mrs Y (fine colour and full-bodied) and Miss Z (slightly acid, but should improve if laid down)."

IT'S A KNOCKOUT

"Just look at the S.E. Series SM200 Timer Counters", says the advert" and you will be struck by the five large numerical indicators, giving you a vividly illuminated, clear display."

Of stars?

SIGN OF THE TIMES (I)

Directional sign at an obviously very advanced hospital, pointed to:-

ART THE-
RAPIST

SIGN OF THE TIMES (II)

On a Gas Board office window in Leeds.

NOTICE TO HOUSEHOLDERS

"If you have a gas leak please do not bring it to this office."

HEARD IN COURT

Counsel for the defence: "My client remembers nothing of the incident because he was, in his own words, as drunk as a judge"

Interruption from the Bench:

"The expression is 'As SOBER as a judge' - what your client meant was 'As drunk as a LORD', is that right?"

Counsel (nervously): "Oh Oh, yes, melord"

PROBLEM PAGE

The problems on boating in last month's B.T. seem to have been received fairly favourably, even among landlubbers. As a follow-up, here are just two problems we hope you never experience but the answers to which are worth knowing.

- (a) You are in a sailing boat, between 18 and 27 ft long, sailing close-hauled 10 miles from land. There is a strong force 4 wind blowing against a spring tide, which is about three hours after H.W. Visibility is fair, and you, the skipper, have a crew of one. Suddenly your crew falls overboard. Assuming your boat is well-equipped but that your engine has broken down, describe your procedure to retrieve your unfortunate crew.
- (b) What are the recognised methods of indicating that your boat is in distress?

The best answers will be eligible for a small prize and will be published in the next issue of B.T.

RJA

..... And for amusement only: (Answers on Page 20)

(1)

When Mr. Strange arrived at the tube station he walked down the downward moving escalator and this took him 30 seconds.

The next time at the station he walked down the upwards moving escalator and this time it took 5 minutes.

If he walked at a speed of 3 miles per hour on each occasion, how long is the escalator?

(2)

Mr. Walker walks to his work at 3 miles per hour and Mr. Rider drives to his work at 30 miles per hour along the same road and in the same direction and generally overtakes Mr. Walker at a certain point. One morning Mr. Walker is four and a half minutes later than usual so Mr. Rider overtakes him later? - earlier? and by how far?

(3)

A thin rectangular sheet - cardboard or paper - measures 3.6 inches x 2.5 inches.

This is cut into two pieces in such a way that the two pieces can be assembled to form a perfect square with, of course no overlaps or 'holidays'.

How is the sheet cut?

FAMILY TREE

compiled by DRG

Once again, after a lengthy interval, we invite you to try to solve one of our popular word puzzles. The idea is that, working from the great-great-great-great-grandfather word in the centre, each word has two offspring, each begotten according to one of the rules below, until you arrive at the 7th generation (derived under the same rules). To help (or hinder!) you we have filled in one intermediate generation, too.

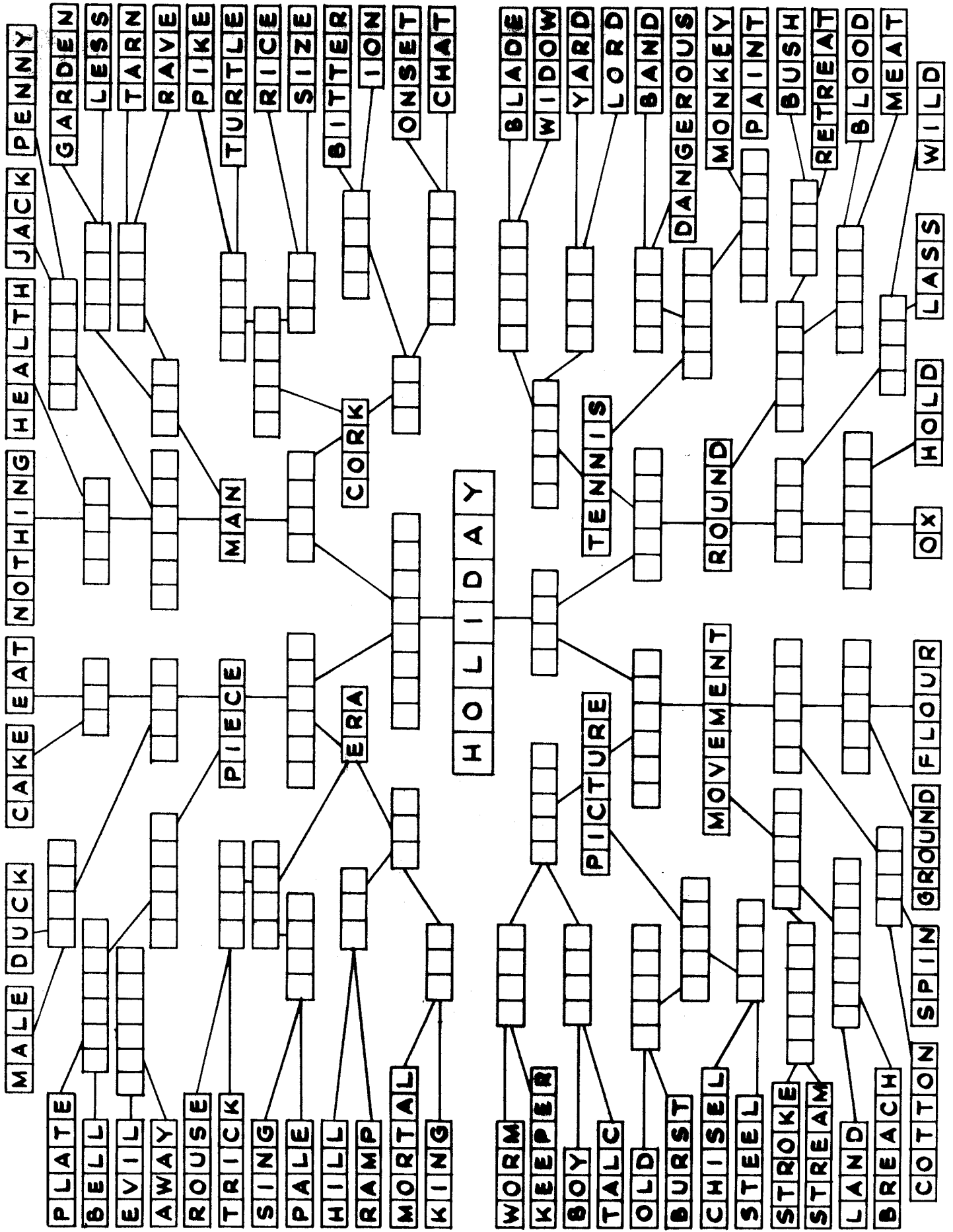
RULES

- (1) A word may be a synonym of the preceding word.
- (2) It may be an anagram of the preceding word.
- (3) It may be derived by adding or subtracting one letter only at any point, the remaining letters to keep the same order e.g. "RAN----BRAN----BRAIN----RAIN----".
- (4) It may be derived by changing one letter only, the remaining letters to keep the same order, e.g. "BANK----BAND----LAND----LANE----LINE----".
- (5) It may be one of a word-pair, e.g. "STOP PRESS", "FIRST AID", "TELEPHONE DIRECTORY".
- (6) Father and Son may go together to form a different word entirely, e.g. "CAR-PET", "DRAW-BACK" "REST-RAIN".
- (7) There may be simply an association of ideas, broader than in Rule (5) e.g. "PIG" (and) "WHISTLE", "CUP" (and) "SAUCER", "STRING" (of) "BEADS" "DRUNK" (as a) "LORD" (where the connecting word is a conjunction or preposition, and is ignored for the present purpose). This also includes well-known quotations, e.g. "FOOD" (of) "LOVE", "LEND" (me thine) "EARS", (some) "CHICKEN" (some) "NECK".

Rules (5), (6) and (7) may apply in either direction.

Please send your completed entries (with your name and department) to reach the editor not later than 13th January, 1971. The first all-correct solution out of the bag will bring the sender a small prize.

"Mummy! Mummy! What's for tea?"
"Shut up! and get back in the oven!"



WHERE MUSIC'S AT

by pete higgins

AFTER THE GOLDRUSH

In the past issues I've reviewed both Neil Young albums for this magazine, and it pleases me now to present for your further delight, his third album 'After the Goldrush'.

Like his second album, this one is recorded with Crazy Horse as backing group, with the added presence this time of Steve Stills and Greg Reeves from Crosby Stills and Nash, to fill out the sound even further.

The album was inspired by the screenplay of a new film called - surprise surprise - After the Goldrush, which, if it's as good as the album, should be well worth seeing.

Possibly the standout track of the album is the song Southern Man which beseeches the traditionally predominant white southern mentality to prepare peacefully the social change that is happening in the tobacco states. The second line of the song appeals to the god-fearing of this mentality.

Southern man better keep your head
Don't forget what your good book says
Southern change gonna come at last,
I see your crosses burning fast
Southern Man.

The concept of the song is a noble one indeed, and if it causes just one man to think and put down his gun, then Neil Young will neither have lived nor sung in vain.

'Southern Man' has been released with 'Only love can break your heart' (another track from this album) as a single.

Album: After the Goldrush. Artist: Neil Young. Label: Reprise.

* * *

And now for something completely different.

* * *

Should a nation's military power be

- A. Defender of the state?
- B. Servant of the state?
- C. Master of the state?

Tick where applicable and send your answer together with a s.a.e. and a good likeness of your fingerprints to:

The Adolf Stalin Memorial Fund,
C/O The White House,
Red Square,
Moscow.

(to arrive not later than September 1939)

"I'm sorry, that should of course read":

(to arrive not later than September 1939 - darling)

*

And now for something different.

*

NEW MORNING

This particular new morning sees the dawn of a new musical friendship, that of master troubador Bob Dylan and keyboard virtuoso Al Kooper.

Dylan is one of those who is blessed (or cursed) with the ability to see a little further, a little deeper than most and better still to be able to convey that insight to his fellow man via his music.

This is a facet of art, that in painting is termed great art, "art that is timeless".

Dylan stands timeless in this time of now and records what he sees feels and knows.

He sees much - he feels much - he knows much.

Why not let a little of it rub off on you?

Kooper participates in, complements and enriches the music of Dylan, in a happy communion of music.

There's only two reasons for not liking this record, the choices are deafness and prejudice, both of which are afflictions - although deafness can sometimes be cured.

However, if you'll forgive my acid comments towards prejudice and just listen to the record, the peaceful calm of Dylan's mind and music will sooth your savage breast.

Album: New Morning. Label: CBS. Test Track: Last track side one.

* COME-ALIVE YOU'RE IN THE NUCLEAR GENERATION *

Contribution

So I said "Shawn Philips; what's this like?" "Well" said Mouse, "I don't know if you'd like it. I've only heard it once myself; I didn't have a record player when I got it, " he smiled, "I'll put it on."

Click.

"Like some tea?"

"Love some."

Mouse left; leaving Shawn Philips, Dorothy and me, in the small dim room with the big Mouse fire crackling in the grate.

The first track passed pleasantly enough while I'm lost in the thoughts of Shawn Philips on the back of the cover and discovering the lyric sheet tucked inside, with two of the songs printed out of sequence; when they've gone to the trouble of numbering them from 1 to 8 to indicate that the order in which the songs are played is of importance; ah record companies !

I became aware of Shawn Philips as:

"The myriad reflections of me dancing in the buttons of her oversize navy coat"

"But it's only reflections and never an image in her mind's unfathomable moat"

- the words are carried gracefully by amplified acoustic guitar and concert harp, a gentle swelling stream of sound, moving and growing; setting the pace for time itself.

Along the way an ethereal chorus joins in and swells the flow and the sound changes into a dancing acoustic guitar, with the choral sound weaving over it until it makes the change into the last chorus; with the classic inevitability of which Ravel's Bolero is excellent example.

This album is the first of a Shawn Philips trilogy, all recorded at Trident studios, with the second one due for imminent release; if it's as good as "Contribution" then there are many more magical goodies to come from this outstanding musician.

Album: Contribution. Test Track: Ballade. Label: A & M.

- Does the world belong to humanity - or vice versa - or neither ?

With apologies to Pepsi Cola, John Cleese, and Rupert Bear, who shall remain nameless.....

till next time

the FILM column

OUR NEXT FILM SHOW

Our next presentation on January 13th 1971 features the recent Japanese (horror?) film KURONEKO. A sanguinary legend about two vamparistic women luring the legendary samurai to their death with all the usual trimmings. Exponents of the art of Kaneto Shindo (c.f. ONIBABA) should not miss this one.

NFT

NFT 1 and NFT 2 offer a wide selection for their December - February season. The films of Claude Chabrol (LES COUSINS, LA FEMME INFIDELE, LES BICHES etc ...) and Andrez Wajda (KANAL, ASHES and DIAMONDS, LOTNA etc ...) are given full treatment together with the work of young Spanish directors and yet a further selection from the American Underground. All night tributes to Lee Remick and the Marx Brothers are offered for the enthusiast. NFT 2 offers specialist programmes on the films of Michael Powell (49TH PARALLEL, AGE OF CONSENT, THE RED SHOES etc ...) and the French Cinema 1932-42, and the use of the Propaganda Film, Etc. etc ...

See the Notice Board for further details. Group ticket available from Mike Dennis.

LONDON FILM FESTIVAL

The London Film Festival has been and gone. One film which some members of the Film Committee acclaimed was the Egyptian feature THE NIGHT OF COUNTING THE YEARS and this is recommended viewing if it goes on release. None of the festival entries have yet been released but some may appear in the New Year.

Bridge

Wood Lane's bridge teams have had mixed fortunes in their respective leagues during this season.

The team in the London Business Houses league has, to date, won all 5 matches and is in a strong position to challenge for promotion.

Fortunes were less favourable in the Hammersmith and District League, where the team managed to win once, draw once and lose twice.

In the Todd Goblets one pair (Dr. Gobbetti and J. Condon) are definitely through to the semi-finals and we all wish them the best of luck.

"I don't like my mother-in-law."
"Never mind - just eat the vegetables."

A Christmas Past

by R.M. Black

This is a kind of Christmas story, at least the part with which the Company were concerned took place during the Christmas period; but while there was no doubt some rejoicing I suspect there was little festivity.

It was in the dark days of 1939 when the 'twilight war', as Winston Churchill has called it, was beginning to become unpleasant, particularly at sea. The enemy had introduced a new secret weapon to which he thought there was no counter, and by the end of October of that year we had lost some nineteen ships of 59 027 tons by mines and many of them had been sunk on the five magnetic fields laid off the east coast and in the Thames Estuary. Magnetic mines, in which the explosion is actuated by a localized change in the magnetic field due to the permanent induced magnetism in the hull of a passing ship, were no novelty to us- in fact they were a British invention and had been employed at the end of the First World War when we laid some in the mouth of the River Scheldt and off Zeebrugge. In 1936 an Admiralty Committee had been set up to investigate protective measures against such weapons and in July 1939 the first trials had been carried out in the Solent with a somewhat clumsy version of a magnetic sweep. This proved to be reasonably successful against our own magnetic mines. It would have been nearly impossible to design in advance a sweep capable of exploding mines fired by all the numerous variations in magnetic influence which an enemy might employ.

The shipping losses in October no doubt justified the enemy in claiming some degree of tactical and technical surprise but this was fortunately not as great as he believed thanks to the research work carried out before the war.

On 22nd November, 1939, between 9 and 10 p.m., a German aircraft was observed to drop an object attached to a parachute into the sea near Shoeburyness on the Maplin Sands. Immediately, two experienced and highly skilled officers from HMS Vernon, the naval establishment responsible for developing underwater weapons, were summoned to the Admiralty where Churchill and the First Sea Lord, Sir Dudley Pound, discussed their plans with them. By 1.30 a.m. the officers were on their way by car to Southend to undertake the hazardous task of recovery. Before daylight, in pitch darkness and pouring rain, Lt. Commanders Ouvry and Lewis located the mine, a cigar-shaped object 6 ft long by 2 ft in diameter, in the mud some 500 yards below high watermark. (Figure 1) As the tide was rising they could only inspect it and make their preparations for rendering it harmless after the next high water. Here let Churchill take up the story: "The critical operation began early in the afternoon, by which time it had been discovered that a second mine was also in the mud near the first. Ouvry with Chief Petty Officer Baldwin tackled the first, whilst their colleagues Lewis and Able Seaman Vearncombe waited at a safe distance in case of accidents. After each pre-arranged operation Ouvry would signal to Lewis, so that the knowledge gained

would be available when the second mine came to be dismantled".

The mine when it had been rendered harmless was removed to Portsmouth for a detailed examination and in a short time it was known exactly how it worked. The mine was fired by a change of magnetic field (as opposed to rate of change in the British mine) in the vertical (as opposed to the horizontal) field; and that it required the passage of a ship built in the northern hemisphere which would therefore have its north magnetic pole downwards. In later mines the polarity was sometimes reversed so as to be activated not only by ships built south of the equator but also by those whose magnetism had been reversed by excessive 'degaussing'.

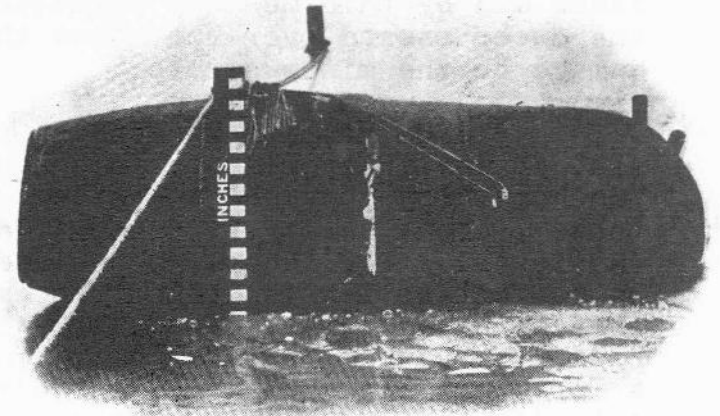


Fig. 1

There were two principal methods of combatting the magnetic mine; the first by reducing the permanent, induced magnetism in the ship and the second by sweeping or causing the mine to explode in a harmless manner. Degaussing consisted of winding a coil of wire around the ship and passing an electric current through it to produce an equal and opposite field to that induced in the ship during building. The provision of the large quantities of insulated wire required placed an enormous and immediate demand on the British Cable Industry.

The sweeping of magnetic mines by presenting a deliberate magnetic field to them had been already demonstrated and various techniques for doing this were investigated, from old ships carrying powerful electro-magnetics to low flying Lancaster bombers with magnetic coils but these were not particularly successful as the former tended to damage themselves while the latter, though effective, only managed to clear a limited and undefined passage through a minefield. (They were later employed successfully for sweeping the Suez Canal.) A more promising approach was some form of towed electric sweep. That finally adopted was the double-L sweep which consisted (Figure 2) of two minesweepers on a parallel course about $\frac{1}{4}$ mile apart, each towing a pair of cables,

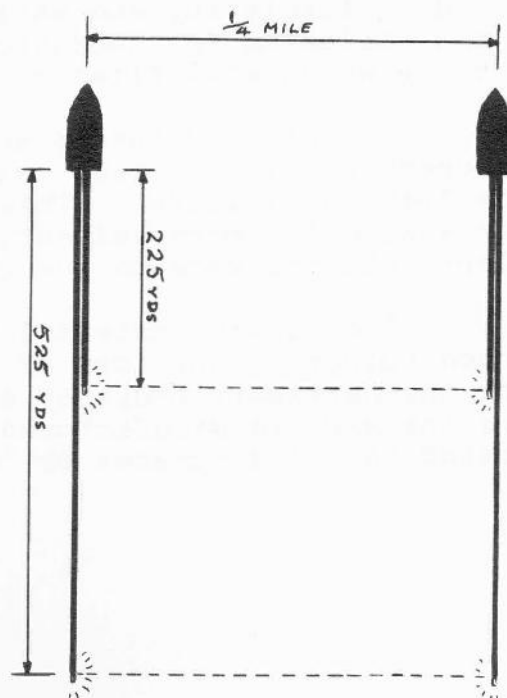


Fig. 2

one long and one short. At the ends of these cables electrodes were fixed and by this means a magnetic loop was formed in the sea. As the sweep passed over the mines they would be detonated without damage to the minesweepers.

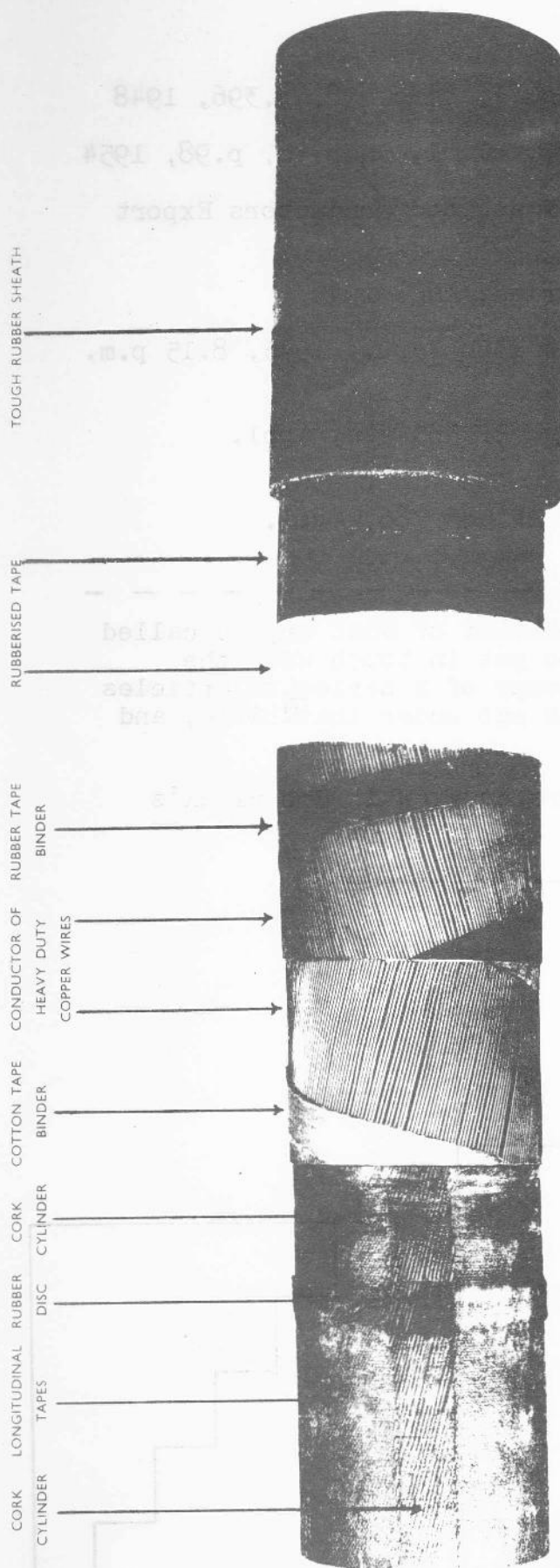
The problem was the support of the electric cables in the sea, in early experiments this had been done with underwater kites. The Admiralty convened a meeting with the cablemakers and amongst those present were P.V. Hunter (Callender's) and Percy Dunsheath (Henley's). P.V. Hunter conceived the idea that the cable should be buoyant in its own right; the novelty of his idea being that the cable was to be turned virtually inside out, the buoyancy elements being enclosed within an annulus formed by the conductors, a large diameter helix of fine wires. This proved to be a brilliant solution to the problem as the large surface of the conductor presented to the cooling action of the sea water enabled the weight of the copper to be very substantially reduced and the required current density of about 6000 A per sq in to be readily achievable. In addition the cable was strong enough to be towed at minesweeping speeds and sufficiently flexible to be coiled on the deck of a minesweeper.

The initial development work was begun at Wood Lane on the 11th December under Dr. Brazier and Mr. Hamilton, the Chief Chemist, and after these preliminary experiments a Master patent (BP 585 446) was filed on the 20th December. This claimed:

"An electric cable comprising a central flexible cellular core, an annular flexible conductor formed of a large number of helically laid wires surrounding said core, and an insulating and water excluding covering surrounding and enclosing the conductor, the whole forming a flexible cable which will float on water."

Definite proposals were submitted to the Admiralty on the 23rd December and the first trial length of buoyant cable delivered on the 18th January, 1940. This was immediately fitted to a vessel for trials, which were eminently successful. The first four 'LL trawlers' started work on the 28th March.

The buoyant material employed by Callender's was low density expanded rubber in the form of cylindrical blocks but any material having the necessary bouyancy could be employed and Henley's, who before the war had manufactured tennis balls, proposed the use of separated inflated spheres or 'pseudo-cylinders' (BP 585 786).



The unusual form and large dimensions of the cable (outside diameter 3.45 in) and large numbers of fine wires (400/.040 in) which had to be stranded in two layers, right handed and left handed, in order to prevent torsion when the cable was towed, presented considerable difficulties in manufacture, particularly as the fine wire had to be stranded over a core composed of loose expanded rubber or ebonite blocks (Fig. 3). The stranding was successfully achieved in one operation by employing two large disc telephone coring machines revolving in opposite directions each loaded with 200 bobbins of wire.

The cables were made at Erith on existing plant while the assembly of the electrodes and their jointing to the finished cable was undertaken in the high voltage laboratory at Wood Lane, where the terminals were also fitted. As continuity of production was of extreme importance, blast walls were constructed round the large stranding machine and as an extra precaution an alternative plant was built in another part of Erith works.

It might be of interest to note that up until the end of the war some 2000 complete sweeps of double-L equipment were manufactured, each set consisting of one 525 yard length of cable and one 225 yard length, each being fitted with an electrode, the two cables being lashed together up to the first electrode. In addition no fewer than 14 000 electrodes were assembled and 15 000 000 expanded rubber components made until the rubber shortage made the substitution of cork imperative. An estimate of the amounts of raw materials used is as follows:

Copper	4 000 tons
Rubber compound	1 800 tons
Cork	160 tons
Canvas and Cotton Fibre	550 tons

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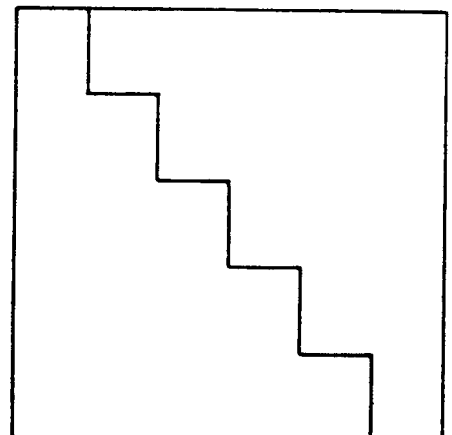
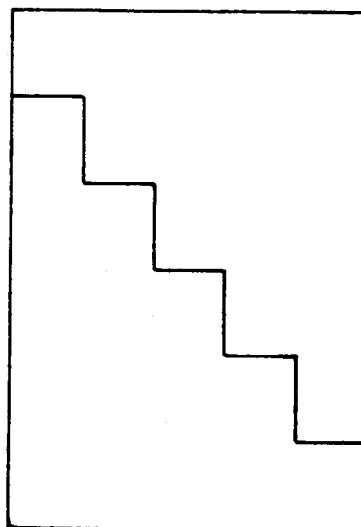
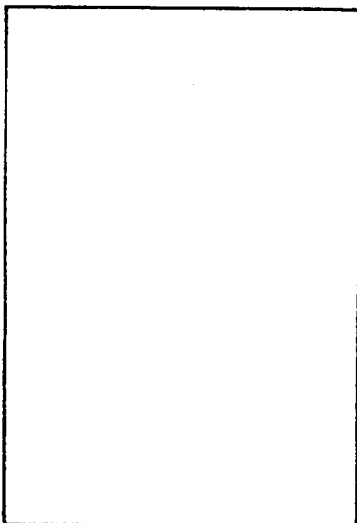
Anyone interested in further details of what may be called "The History of Wood Lane" is invited to get in touch with the Editor, who would be pleased to lend a copy of a series of articles which appeared in the B.T. of many moons ago under that title, and which includes the Buoyant Cable saga.

Samples of the Buoyant Cable are on view in Bob Black's museum in Rutherford building.

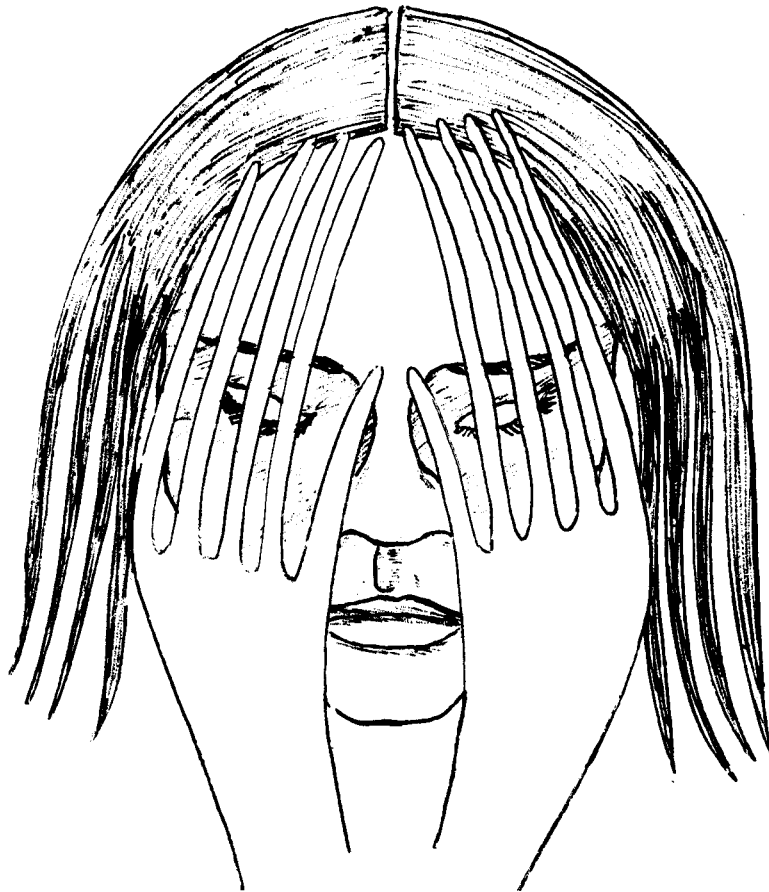
Answers

- (1) 80 yards
- (2) 440 yards earlier

(3)



Wednesday January 13th at 6-30 p.m. in the Main Hall.



Kaneto Shindo's

KURONEKO

Also,

THE HAND

G.I.G.O. (Garbage In, Garbage Out)

Children's Christmas Party

Photos by David Goff.



On the afternoon of Saturday 12th December, the Main Hall of the McFadzean Laboratory reverberated to the sound of 95 pairs of tiny, not so tiny, and not a few fair-sized feet committing sundry assaults on a free issue of Christmas crackers and balloons as the annual riot known as Wood Lane's Children's Christmas Party got under way.

First on the 'organised' part of the bill, after the initial free-for-all, was the evergreen Punch and Judy Show, complete with violent beatings-up of police and old ladies and all, and animal savagery in the shape of a sausage-stealing crocodile.

With that under their belts, the youngsters repaired to the Cafeteria for a beano prepared by Bill Fuller and his staff, finishing with the ceremonial dismemberment of a number of ice-cream snowmen. While Auntie Eileen and her helpers cleared away remarkably little ice-cream and custard off the chairs and floor, the children were entertained with films presented by members of the Wood Lane Film Society. Finally, as anxious parents returned hopeful that little Johnny was still in one piece, Father Christmas appeared mysteriously in the Main Hall, only to almost disappear again under the pressing mob as he distributed his enormous sackful of presents.

And so the Security men can breathe easy again - until this time next year!

Wine Tasting

FRIDAY 11TH DECEMBER

"Go fetch me a pint o' wine
An fill it in a silver tassie"

Thus wrote the renowned Scotsman and bard, R. Burns. There is some evidence to suggest that our not too remote forbears had greater alcoholic capacities than we enjoy (or can afford!) in the 1970s, but one feels confident that even Mr. Burns would have had difficulty in consuming, in one session, a pint of each of 18 wines carefully selected by Mr. Castle and his Bar Committee.

The main hall was decorated with seasonal aptness mainly in preparation for the following day's junior mayhem, the tables were covered with maps of wine growing areas, trays of tasty bitties prepared by Bill Fuller awaited devouring, the lights were dim and the candles ready (but in the event not required).

Regrettably, only about 35 people arrived to taste their way through Rumania, Bordeaux, the Loire and Burgundy. No doubt the uncertainty of the power supply situation was a discouraging influence, but those who did take the plunge had a most enjoyable evening of wine, food and good company to which the Social Club contributed in the form of a generous monetary subsidy. Those with a fairly catholic taste in wine seemed to enjoy most types on offer, but some were tempted to wonder whether the Tirnave Perla was wine or undistilled ethyl acetate! Still there were 17 others and the organisers must be thanked for a fine show despite the less than helpful circumstances.

THE BAR

Newcastle Brown Ale and McEwan's export light ale are now available from the bar.

16 fl oz cans 2/4 each!!

Also available and ideal for Christmas.

Party 7s	14/-
Party 4s	8/6

Evening Navigation Trial

The first CRED evening rally on Wednesday 2nd December presented a minor challenge to the participants, in that dark, unknown country lanes made chance decisions of route more likely to be correct than those arrived at from a 'sense of direction'. One especially labyrinthine stage resulted in several residents having unscheduled visits from teams mistaking driveways for roads. Contestants were asked to name all pubs visible from the road - never, perhaps, in the field of navigation runs, have so many pubs been observed by so many alcoholics with so few stops (a Guinness Book of Records Entry?).

Turning to some individual performances: three cars were observed with head-scratching occupants in a cul-de-sac barely a mile from CRED; Dennis Cooper and Fred decided that the whole thing was too easy and would use only main roads - they finished 40 minutes late!; Robbie Salisbury & Co. had no use for pubs, and spent the entire evening trying to complete each stage before the others had started it, keeping just below speed limits, naturally; Brian Cranfield spent several minutes extricating the rear wheels of his station(ary) wagon from one of Cookham & Dean's farmyard mudpatches; whilst Stuart Castle discovered that Maidenhead was only a few miles off the correct route.

The winner received a robust, all-purpose lantern (to help next time) and an opportunity (!) to organise a future rally. To summarise, the first evening rally was cleverly devised, well-organised, well-controlled and greatly enjoyed by the participants. Well done, Annette Mattock and Graham Taylor.

RESULTS

Crew	Position	Points Lost		Total
		Time	Observation	
Brian & Mrs Cranfield	1	12	30	42
Brian Tilbury & John Childs	2	14	30	44
Peter Revell & Lynda	3	36	30	66
Geoff & Mrs Lewis	4	45	25	70
Denis & Mrs Groombridge	5	48	60	108
Dave Goff & Tony Town	6	38	90	128
Dennis Cooper & "Freddie"	7	40	110	150
Stuart Castle & Co.	8	50	135	185
Rob Salisbury & Co.	9	85	270	355

PARTY VISIT

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for the world to love!*



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with special guest stars ~~and~~ Oscar Homolka Elizabeth Larner Robert Morley Edward G. Robinson Harry Secombe
screen story and screenplay by Andrew L. Stone lyrics and musical adaptation for both the stage play and picture by Robert Wright and George Forrest
dances and musical staging by Lee Theodore music performed by The London Symphony Orchestra musical supervisor Roland Shaw
directed by Andrew L. Stone

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