

# BVWS bulletin

volume 23 number 2 Summer 1998



# The Vintage Wireless Museum

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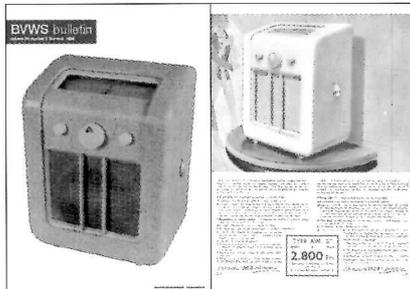
### Bulletin of the British Vintage Wireless Society Volume 23 No.2 Summer 1998

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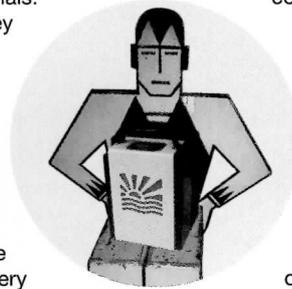


Front Cover: Belgian ivory coloured version of the Ekco AW87.  
Rear cover: detail taken from Belgian Ekco catalogue showing ivory AW87.

Front cover photography by Robert Chesters.  
Graphic Design by Carl Glover

Due to the fact that we are lacking a regular chairman, I the Editor have decided to use this space to thank all the new contributors to this issue. Within these 40 modest pages you will find articles by our hardy perennials: David Read, Pat Leggatt and Geoffrey Dixon-Nuttall.

David Read's offering is a well researched article on the Metropolitan-Vickers company, revealing why they made so few sets. Pat Leggatt gives us his views on another unusual wireless from his collection: the Oriole model 7. Pat also has included a brief article on a device which makes some very high claims in 'Don't miss this!' Geoffrey Dixon-Nuttall also has two articles in this issue: one on Scott Taggart and the other on an EMI tropical set which never reached production.



Robert Chesters offers his second Ekco article for the bulletin, mainly concerned with a rare Belgian Ekco that he has recently discovered.

Simon Wade's (also second) article is concerned with the finer points of trading with our overseas cousins.

The response to my call for new articles has been quite impressive and if you don't see your piece in this issue, I guarantee that it will be used later in the year. New names in this Bulletin include William E. Johnson, who has discovered a French wireless museum and finally Phil Rosen, who offers us some useful tips on collecting if you have to observe a tight budget.

Keep up the good work and keep on writing!



## Harpenden auction, AGM and mini-swapmeet Sunday 1st March

The BVWS' first meeting of the year kicked off to a roaring start with an action-packed auction, a mini swapmeet which appeared to contain some very interesting articles for sale, and the chance for the ordinary BVWS member to speak to the Committee (see minutes page). Amongst the items auctioned were a GEC mains three, a pair of Ekco AD76's, a black/chrome A22, a Ferranti 32, a Brownie No. 2, a Pye 'Sunrise' extension speaker and various Pye Sunrise models, a Marconi 21, a 1920s Peto Scott and a Metrovickers also 1920's.

## Contents

- 1 Ekco AW87
- 2 Advertisements
- 3 Harpenden auction, AGM and mini swapmeet
- 4 A special order
- 8 A new look at Scott Taggart
- 9 Hearing Aid
- 10 Post War British designers: David Ogle
- 15 One of EMI's dead ends
- 16 Metropolitan Vickers Electrical Company - Trafford Park, Manchester
- 22 Faint but following
- 23 BVWS and the internet
- 24 A French wireless museum
- 25 Old Television by Andrew Emmerson, Orkney Wireless Museum, Television: an international history of the formative years by RW Burns
- 26 Fancy giving it a go?
- 27 Wireless collecting on a budget
- 28 Black Propaganda part 3
- 34 Letters
- 36 BVWS minutes
- 37 Back issues, Ads
- 38 News & meetings, Advertisements
- 39 Advertisements
- 40 Ekco AW87 catalogue image.

# A Special Order

by Robert Chesters. Photography by Matthew Pennington. Front cover photography by Robert Chesters.



## MODEL 74

### SEVEN STAGE SUPER-HETERODYNE

Model 74 is the greatest triumph of eminent radio engineers and designers. It is outstanding, not only for its amazing performance, but for exclusive cabinet features, which are made possible only by the huge modern Bakelite moulding plant installed at the EKCO factory.

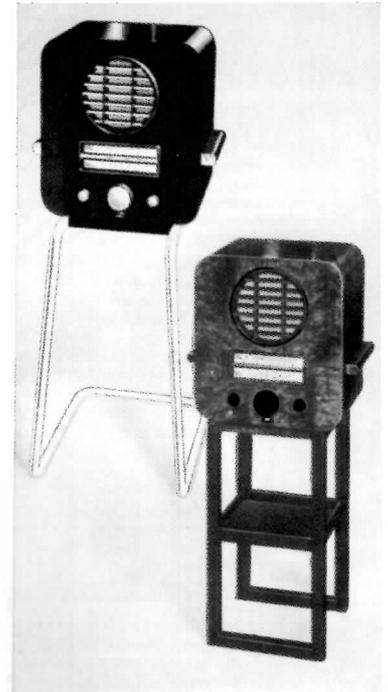
#### PERFORMANCE

Under normal conditions the set will receive the majority of British and Continental stations at full programme strength and with quality of reproduction unsurpassed. In the all-electric models a device known as Delayed Automatic Volume Control builds up distant stations and reduces the strength of powerful local stations so that all programmes can be enjoyed at the desired volume. This feature combined with remarkable selectivity renders the operation of Model 74 delightfully simple. Tuning is by one knob which operates a new type light-beam and shadow indicator with stations marked by names and wave-lengths.

#### EXCLUSIVE CABINET FEATURES

The Cabinet of Model 74 represents a dignified merging of beauty and efficiency. It is of moulded Bakelite and available in two delightful finishes, Black with Chromium plated fittings, and figured Walnut. Both Walnut and Black types incorporate an intriguing feature which is exclusive to EKCO Radio—a detachable speaker fret which permits the speaker silk to be changed to match any furnishing scheme.

You must see and hear EKCO Model 74. It is available for A.C. and D.C. mains or battery operation.



AC64 (1933): Serge Chermayeff's first design for Ekco

AC74 (1933): The cabinet Chermayeff designed for the better specified model, illustrated with its stands (also available for the AC64). Below: Front of AC74 leaflet.

“It is nothing to spend 100,000 dollars, 150,000 dollars to 200,000 dollars for a house in Westchester, or Fairfield County, or Winnetka, or wherever. And yet you find that this house only is about six feet away from the party-line, which stands a few feet away from another pseudo-country house. Being pseudo-country houses, they open in all directions, and normally, of course, you find that your bathroom opens onto the other man's bedroom,... The actual distances are not enough to cope with assault on privacy and modesty. We simply ignore the neighbouring house. We pretend it does not exist.”

Serge Chermayeff, lecture: "Design And Transition: Architecture And Planning Purpose Examined In The Light Of Accelerated Events" April 1957





Ekco stand in Brussels 1936, lower right: front cover of Belgian Ekco catalogue. Bottom right: detail of AC64 cabinet displaying patent no.

This quote may seem to have little or nothing to do with the subject of wireless or even the design of wireless cabinets, but I beg to differ.

When Chermayeff approached the design of a wireless cabinet for E.K. Cole of Southend in the early 1930s he addressed the task with the intention of designing an object that was specifically for that purpose and situation. Although the act of housing and concealing the warm glowing valves and gleaming painted chassis is an act of subterfuge in itself, Chermayeff did not seek to hide the purpose of the object. The designs of his first sets, the models #64 and #74, were distinctly technological - the sweeping light wand cursor, the chromium fittings and the bakelite cabinet with its plain industrial style speaker fret, all signifiers of a new electrical technology. Above all, the cabinets were unadorned by ornamentation, very much in line with the Bauhaus/Gropius vision of modernity, they were radios and unafraid of the fact.

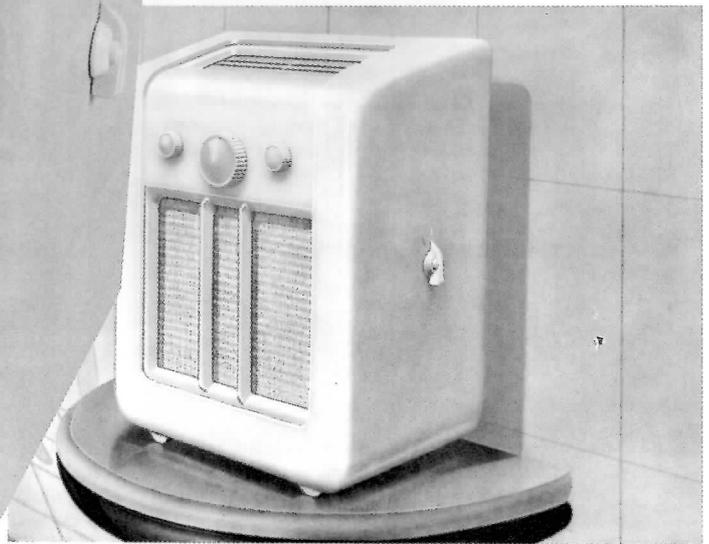
The Swiss modernist, Le Corbusier once described his buildings as "Machines for living in". Unfortunately many perceive machines as being cold and impersonal even frightening, not at all suitable for habitation. Corbusier's description was based on the notion of machines as being dynamic, fresh, economic and purposeful; he had in short a futurist sensibility. What he was alluding to

was the importance of function - how is it used? What or who is it for? This is what a truly modernist designer would ask when approaching the design of anything from a house to a chair or even a radio cabinet.

Ekco made a great many different radio sets in both wood and in bakelite from the late '20s onwards and although their latter-day reputation was for producing televisions it is the bakelite cabinets that have really attracted attention as objects of virtue. I would suggest that the reason for this is that radios have to stand up as objects to be beheld in their own right, whereas a television cabinet serves as little more than a frame to the broadcasters' pictures. Ekco possessed vision, they backed television very strongly after World War II and they backed modernism in 1932 by starting to commission Chermayeff and Coates. They also showed great interest in the Art Deco modern sideline of colour in the home.

It is colour in the home that shows signs of being the least successful of Ekco's marketing efforts. So far, I have yet to come across any period British advertising from Ekco for any of their coloured cabinets. As although there are several pictures of Ekco displays with all manner of coloured cabinets on show, these all seem to be industry events and I have yet to come across any accompanying literature. The surviving examples of the radios could well be from





Top: AW87 (1936): The Belgian ivory version  
Top right: Serge Chermayeff

Right: An illustration from the Belgian Ekco catalogue making great play of the 'all wave' feature and the cabinet of 'moulded scarab'. Note the price.

**EKCO « TOUTES ONDES ».** Récepteur unique conçu spécialement pour la réception des ondes courtes, en plus des ondes moyennes, et longues. Appareil sans égal tant au point de vue technique qu'au point de vue présentation. Il séduira particulièrement l'auditeur averti.

• **Type AW. 87** (alternatif seulement 110 à 220 volts).  
 • Superhétérodyne à 8 circuits accordés (toutes ondes).  
 • Circuit d'entrée par filtre de bande à une triode-hexode, chargeuse de fréquence. Couplage par transformateur fréquence sur 460 K. c. à induction variable à la pendule mécanique fréquence. Contrôle de volume automatique sur deux lampes, par une double diode-triode qui amplifie les modulations subtiles pour alimenter la pentode de sortie.  
 • **Réception « toutes ondes ».** Longues, moyennes et courtes ondes (800-1950 m., 190-550 m., 19 et 25 m.).  
 • Cadran « Prisméen » à lecture facile et claire.  
 • Nouveaux haut-parleurs électro-dynamiques à haut rendement.  
 • Contrôle de volume automatique sur toutes les bandes, particulièrement efficace à maintenir l'audition à un niveau constant.  
 • Contrôle de tonalité progressif.  
 • Magnétique « toutes ondes » « Scarab » spéciale. Cession du fameux architecte enseignant Serge Chermayeff.  
 • Suppression d'images; plus de « sifflements » (Harméniques).  
 • Prise pour pick-up et pour haut-parleur suppléant.  
 • Interrupteur pour arrêt du haut-parleur indésirable.

*Les nouvelles EKCO sont nouvelles*  
 NIX

**EKCO « Alle Golven ».** Dit toestel is eenig en werd speciaal ontworpen om buiten de middellange en de lange golven, ook nog de korte golven te ontvangen. Zowel op technisch als op artistiek gebied is het zonder weersa. Het zal voorraankelijk door de keuners gewaardeerd worden.

• **Type AW. 87** (enkel wisselstroom, 110 tot 220 volt).  
 • Superhétérodyne met 8 afgestemde kringen (alle golven).  
 • Ingangsfilters met triode-hexode frequentie-converter. Koppeling met middelfrequentie pentode door op 460 Kc. afgestemde transformator met veranderlijke inductie. Automatische volumeregeling op twee lampen, door middel van een dubbele diode-triode welke de frequentie versterkt en haar op de eind-pentode overbrengt.  
 • **Ontvangt « alle golven »:** Lange (800-1950 m.), middellange (190-550 m.), en korte (19-25 m.).  
 • Prismeen « schaal »-dialleek en klaar.  
 • Nieuwe electro-dynamische luidspreker met verhoogd nuttig vermenigvuldigt op zeer doelmattige wijze de geluidsterkte constant.  
 • Geleidelijke toonregeling.  
 • Prachtige rozen hout, gepolst « Scarab », ontwerp van den kunst-bouwkunstenaar Serge Chermayeff.  
 • Uitschakeling der spiegel-frequententis; geen storend geluid meer. (Harmenische).  
 • Aansluiting voor pick-up en voor extra luidspreker.  
 • Schakelen van ingebouwen luidspreker door schroef-schakelaar.

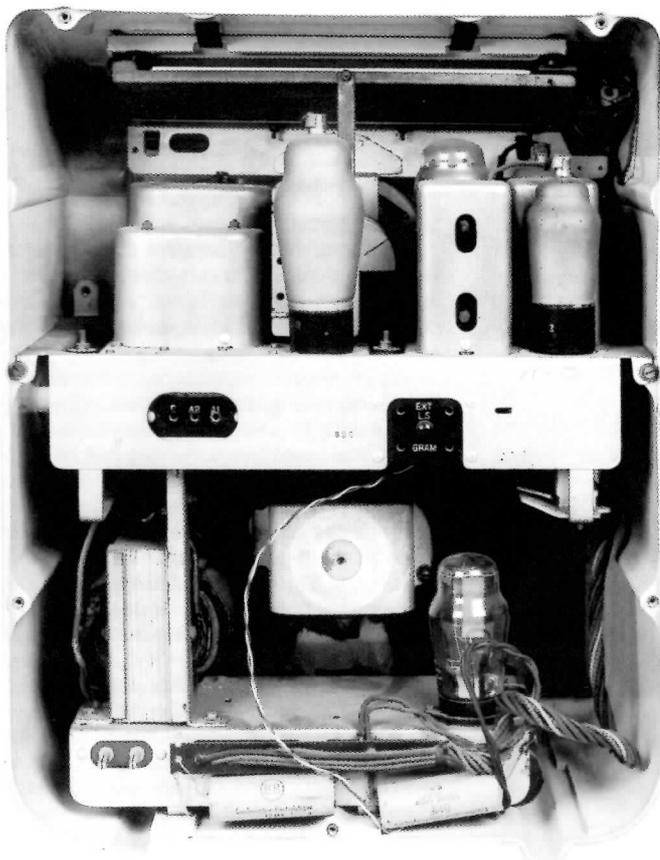
*De nieuwe EKCO's zijn nieuw*  
 ZES

**TYPE AW. 87**  
 Ivore Ivor  
**2.800 Frs**  
 Pour tous à paiement échelonné, voir page 8.  
 Voor termijnbetalingen, zie bladz. 8.

these displays, or from prestigious Ekco agents such as Harrods who may have had a special display. There are comparatively few coloured cabinets surviving which suggests that there were never very many about. I base this on the guess that of pre-war radios still about today there is probably less than one percent of the original number produced between 1930 and 1945. Some sets - usually the square wooden box variety - seem to have a disproportionate survival rate (a bonfire would soon rectify that I'm sure). The 1930s may have been "The Jazz Age" but economic conditions for many were horrendous, so it is reasonable to presume that both the customer and the manufacturer had far more to worry about than was their radio going to be green, blue, black or brown. For a lot of people the price was paramount and so in order to buy the wonderful modern design provided by Ekco they plugged for

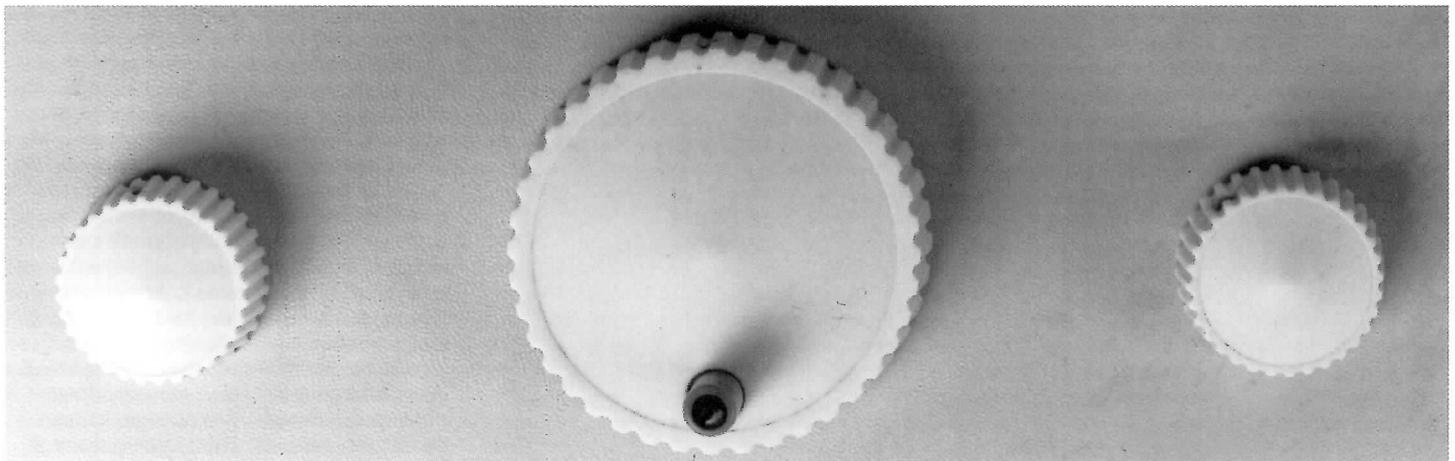
the half guinea saving on the top of the range set (a strange economy, no doubt helped by the unseen hand of a good salesman). This was then paid for "on the drip" which cancelled out the saving - the black version still worked out dearer on H.P. but no figures seem to exist for coloured cabinets, except for those in Belgium. When Ekco launched their 1936 range in Belgium, manufactured at the Haaren Factory in Brussels, they produced an all ivory version of the 3 waveband set AW87. This radio was only available in Ivory, so any that appear with their original backs are most likely to be genuine. They were expensive - 2800 Fr. (about £16.0.0) comparing with the British AW87 in Black and Ivory costing £12.19.6, a significant difference. Belgium is a small (but beautiful) country and the set was subsequently available in limited numbers, the set pictured has a three figure

serial number (896) which suggests that as few as 1000 or less were produced. This is the lowest serial no. that I have come across. It is not impossible that many more were made but it is also possible, given the small market concerned, that the entire production run began at 800. All the other sets of 1936 were available - the AC97, the AD/AC77 and the AD37. Here is a sad truth, the AD37 was 1750 Fr. whether in black or brown. As this was roughly equivalent to £10.0.0 comparing to the British £8.8.0 plus 5 shillings for black it - begs the question who got the worst of the deal? I don't know, but you can bet it wasn't Ekco, they had made a few extra quid from producing a special order of coloured cabinets. Whatever it cost to ship the cabinets it was easily offset by the price differential - it must have sure beaten the export of whole sets which had gone on since 1930.



Top left: As far as circuitry was concerned the Belgian set was identical to the British version. On comparison one may notice some different shaped bits but they perform the same task. The chassis also has similarities with the AC97: it uses the same power chassis, an interesting example of Ekco's standardisation of radios in 1936. The chassis is clearly stamped 896.

Top right: The rear of the Belgian set with the back on.



Above: Detail of the Mottled Urea cabinet.

As I began by talking about Chermayeff's early designs of the '30s let us consider how they have changed. The cabinet is now offered in a special order colour - there is no compromise being made to the fetish for ornamentation - no sign of it turning into a skyscraper, no pseudo classical columns growing up out of the sides, not even the chance of anybody holding mass within it. The only sign of interference is a leather type texture on the front - something not present on his earlier designs and usually attributed to the moulding having possible faults to cover. It is more likely that bakelite came under criticism for being "flat and uninteresting" when moulded in large expanses and so stippled textures were employed. It is hard to appreciate this viewpoint fully today as we have all benefited (or at least I have, maybe it's just me) from the effects of the minimalist love of substance.

The ivory example pictured is the only example of a coloured Pre-war Ekco cabinet moulding that is not in some way cracked, at least to my knowledge. This has been achieved by the manufacturers using a coarser filler in the urea formaldehyde than normally found in many other pre-war sets. Most used a fine filler of a type used for moulding detailed relief decoration which tends to crack easily when used for large mouldings or when put under undue stresses and strains such as the weight of a chassis. Some were produced using a substance very similar to 'Bandalasta', a plastic called thioureaformeldehyde, which also cracks easily under stress. Of course, many were just not looked after very well. This cabinet is made from 'Scarab'; a proprietary name for a filled urea produced by Beetleware from the early 1930's onwards. It's surface quality is remarkably similar to the KB 'Toaster' of the

1950's although the AW87 has a more pronounced marbled effect. It has to be noted that the two piece cabinet, as I have pointed out before (see bulletin no.3 Vol.22), takes up and allows for various stresses and strains on the cabinet caused by shrinkage.

I spend a lot of time searching out information about objects that I believe to be important beyond mere appearance. This radio is like many modernist objects, it exists for its purpose, possessing a beauty derived from its function. There is no reference to architecture. The speaker grill is not the pretence of a church window and the case is not a gothic or classical temple.

It is a radio cabinet and is neither embarrassed nor afraid of being just that.

Thanks to Phil Clarkson, Jeff Turner and Matthew Pennington. ©1998 Robert Chesters.

# A New Look at Scott-Taggart

by Geoffrey Dixon-Nuttall

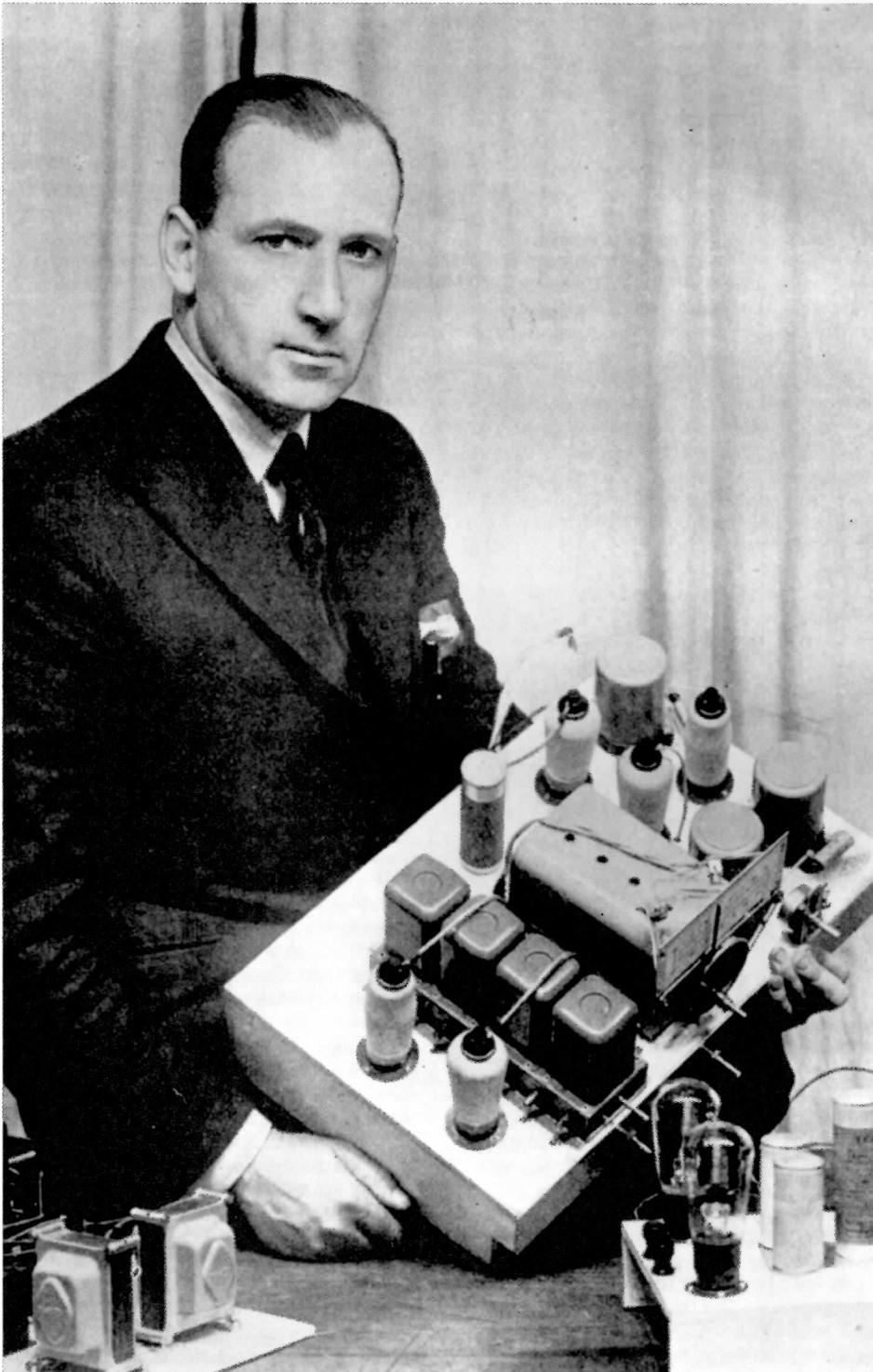
**“One knob tuning definitely limits the technical development of a receiver. The necessity for accurate ganging of the circuits makes it impossible to apply any device for improving signal strength.”**

**“I have seen my name at the head of a thousand articles, on the cover of a dozen books, and as the designer of 900 sets, or not far short!”**

**“Why not use a superhet? The answer is that I did try superhet circuits... they did not give me the results I wanted. That’s all there is to it”**

**“I have designed a one-valve superhet. But sensitivity falls off drastically.”**

What person would write rubbish like this?



Believe it or not, they are the words of John Scott-Taggart.

John Scott-Taggart presents an enigma. He was undoubtedly a very clever man, and also a very brave man. He held a responsible position in the two wars, and was an accomplished amateur pilot, as well as an expert in Oriental ceramics, and a barrister. What is surprising is the disappointing quality of his published designs for home-built radios. It is even more surprising that he wrote such tosh!

There was a large number of published designs, starting with the valve/crystal era, and continuing up to the outbreak of war. The original ST100 design was very successful, being not only issued as a design for home building, but also being manufactured by R.I. as a complete set.

These designs were published by various magazines which he owned, and the hype which went with them is almost unbelievable. Whole issues were devoted to the features of each new design. The announcement of the ST500 was printed in the biggest type ever seen in a magazine-six and a half inches high!

So what did they offer?

All these designs were originally for battery operation only. This was partly for safety, and partly to keep down the cost of the kit of parts, although A.C. versions usually appeared eventually. They were all T.R.F. sets, because he quite rightly thought that a superhet would be too difficult for the average assembler; after all, most of them had only a very hazy knowledge of radio. At this stage you could make quite a nice set with only the ability to put a screw into a bit of wood without splitting it too badly.

One or two puzzles occur to me as I look through these circuits. Why, for instance, are all the output stages triodes? At very little cost and virtually no complication the performance could be improved quite noticeably by plugging in a pentode. And again, why do they all require bias batteries rather than use resistors in the H.T. minus lead? “Free” bias was a feature of the Marconiphone V3, so there was nothing untried about it. It could be that this reduced, albeit slightly, the cost of the parts.

However, he was, as I have said, a clever man. The hype was deliberately aimed at people who were involved in something they knew nothing about, and it was done by a master. Even if the set didn’t work all that well, you felt that if the designer said it was as good as all that, then the fault must lie in the construction.

One of the original features in his designs lay in applying reaction in unusual ways. This gave the circuits a pleasing air of complexity, which was increased by the number of knobs you could twiddle. This got a bit out of hand, and he admitted in his “Manual of Modern Radio” that the ST400 went a bit too far, and none of the subsequent designs had quite so many controls; it had eight!

Some of the circuits were drawn in a somewhat unusual way, and look different as a result, but if they are re-drawn some of the oddities disappear.

Let us look at the sets in detail. The ST300 has, as far as I can see, very little claim to

originality, being a normal three-valver. The aerial coupling capacitor is unusually small and variable (40 pF) and there is variable coupling between the R.F. stage and the detector. There was also an A.C. version, which is equally unadventurous.

The ST400 is, as mentioned, unusually complex. The circuit is the same as the ST300 but reaction can be either applied to the R.F. or to the aerial coil. The designer was obviously fascinated by differential capacitors. (There are three of them). This set uses an anode bend detector and is the only one of the ST designs to do so. It is never very satisfactory to apply reaction to one of these, which is probably why he never used it again.

ST500 introduced a peculiar circuit which was called "balanced phase". Quite frankly I cannot see any point in this. The anode of the R.F. stage has a capacitor from its anode to its grid circuit, and another to a winding on the aerial coil. This arrangement appears to apply negative and positive feedback at the same time.

Up to now all these sets have had the same output stage, but this one has a Class "B" double triode. This experiment was not to be repeated.

ST600 used a ready-made coil pack, and was the only one of the ST sets to have a ganged condenser (in spite of the quotation above!). It did however, have a panel trimmer 'just in case'. It even had three wavebands. The only original feature is the application of reaction from the screen grid of the R.F. stage to the aerial coil.

ST700 had only one feature of interest positive feedback on the audio amplifier! This must have been assumed to have had an advantage, but the only one I can think of is increased gain, accompanied, of course, by increased distortion.

Anyway, like "Balanced phase", it can't have been all that good, because it was abandoned in the ST800. This had four wavebands, but nothing else of interest. The last of the series seems to have been the ST900. This used a crafty, but not original, idea, as the first valve was an R.F. stage with a parallel triode which applied reaction to the aerial coil. This idea was occasionally used for I.F. amplifiers in communication sets, where it was called a "Q multiplier". That is exactly what it does. This set had plug-in coils, covering up to TV sound frequencies in six bands.

It will be seen that each of these designs is not a logical progression from the previous one, but has a gimmick of its own.

All these sets were "designed" more with the screwdriver than the slide rule, but to impress the readers with the scientific basis of the designs some random figures were quoted. The leaky grid detector was stated to be 3 1/2 times more sensitive than the anode bend, for example.

It is all very odd. One supposes that Scott-Taggart made some money out of his designs, and I think he deserved to. One must admire his salesmanship, however much one queries the basis of his designs. He probably gave much innocent pleasure to a lot of ordinary people, although by the time

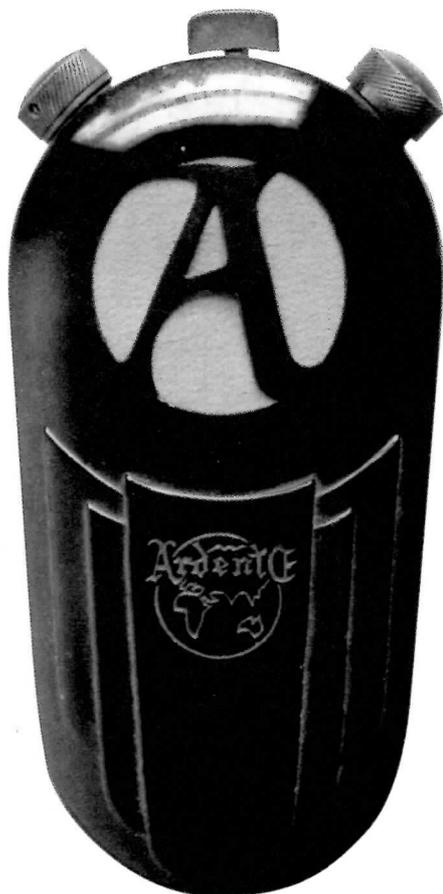
of the ST900 there can't have been all that many of them who actually put these sets together. I don't have the cost of the ST900, but a mains ST800, complete in cabinet, cost £19 10s. You could buy a much better set for that money!

So did he actually write this stuff, or did someone else do it for him? I believe there is a precedent, as Sir Oliver Lodge is believed to have signed things he didn't actually write, and he got involved in one or two dodgy enterprises, the "N" circuit for example. It is also difficult to believe that F.J. Camm actually wrote all the hundreds of articles that he is credited with.

Any ideas, anyone?

|                                  |            | <b>Cost of Kit.</b>                             |
|----------------------------------|------------|---|
| <b>ST300</b>                     | Feb 1932   | £6 16s  |
| <b>AC version</b>                | April 1932 | not known                                       |
| <b>ST 400</b>                    | Jan.1933   | £6 14s 3d<br>(or, finished in cabinet £9 12 6d) |
| <b>Conversion kit 300 to 400</b> | Jan.1933   | £1 11s.   |
| <b>ST 500</b>                    | Oct. 1933  | not known.                                      |
| <b>ST 600</b>                    | Nov.1934   | £7 3s.  |
| <b>AC version</b>                | Nov 1934   | not known                                       |
| <b>ST 700</b>                    | Nov 1935   | £5 11s 6d.                                      |
| <b>ST 800</b>                    | Nov 1936   | £4 14s.   |
| <b>AC version</b>                | Nov 1936   | £11 15s.  |
| <b>ST900</b>                     | Nov 1937   | not known                                       |
| <b>AC version</b>                | Nov 1937   | not known                                       |

(Kits include valves, but no cabinet, batteries, or speaker)



This hearing aid kindly lent by Bill Caten used to belong to his mother. Manufactured by a company called Ardente, Bill recalls his mother acquiring this piece of apparatus in the early 1940's

Of interest to us wireless types is the tiny valves which are soldered in place in order to save room in this minuscule piece of equipment.

Any further information on this or early hearing aids in general would be much appreciated.

# Post-war British designers: David Ogle

by David Attwood, photography by Mark Groep



Fig 1



Fig 1 Murphy A192  
 Fig 2 Murphy A152  
 Fig 3 Murphy A154  
 Fig 4 Murphy's 1957 range still included Ogle's U198 from 1954 (top left)

Classic sports car enthusiasts may recognise the Ogle name, but the Ogle design best known and loved by most of us (perhaps without always realising who the designer was) is the Bush MB60/TR82 portable of the late 1950s and early 1960s. The TR82 was made in large numbers in various versions and of course turns up regularly in sales and markets. It's become just as recognisable to the general public as the early Roberts transistor sets, and has suffered a similar fate, the company now owning the Bush brand name having recently brought out a repro TR82.

The TR82 and its variants were discussed by John Ounsted in the Bulletin not that long ago<sup>1</sup> so I've chosen to look at two other David Ogle sets. One is a mains table set from his earlier Murphy period; the second another rather less well known Bush transistor from around 1960.

David Ogle was born at Reigate and educated at Rugby. After a one year wartime degree at Oxford, he was a pilot in the Fleet Air Arm from 1940 to 1945. Demobbed at the end of the war, he studied at London's Central School of Art and Design from 1945 to 1947. Then, until the early 1950s, he worked as a designer for Murphy.

Murphy Radio of course set high standards in radio and TV design, and Ogle was in illustrious company. Dick Russell - who had designed for Murphy ever since the days of the A3 and A4 - was still working for them in the late 1940s (the A146C console baffle set of 1949 for example). Eden Minns had designed Murphy's first moulded bakelite cabinet, the elegantly ribbed AD94, just before the war (it reappeared afterwards as the SAD94) and has been credited with the A122 baffle set<sup>2</sup>; while A F Thwaites, as well as designing the first baffle Murphy (the A104 of 1946) and probably several of the

subsequent ones, was responsible for two popular symmetrical upright Murphy mains portables: the maroon bakelite A100 (1946) and the 1949 painted phenolic U144 - the one with the blue thumb-wheel knobs<sup>3</sup>.

In fact Murphy were very active in promoting 'good design' at the turn of the decade. Not only their products but their advertising set a high standard: their posters were designed by noted graphic designer Abram Games, and they ran corporate advertising supporting the idea of 'good design' as approved by the Council of Industrial Design (and, it must be said, loathed by others in the radio industry as hopelessly uncommercial). A Murphy ad of around 1951 shows a rather paternalistic attitude to design which seems very much in tune with the austerity of the postwar years:

*we neither "give the public what it wants", nor what we think it ought to want. We try to clothe our sets sensibly and decently and pleasantly<sup>4</sup>*

Another, incidentally, shows that Dome-style controversy is nothing new:

*Two million pounds to build a Concert Hall for the Festival of Britain! Shaped like an egg! Splendid; disgraceful; we should be proud/ashamed. How the fur does fly! ... We*

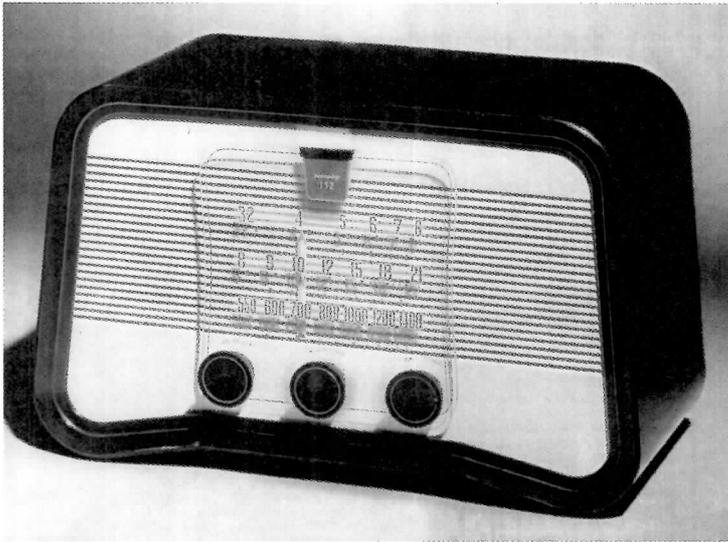
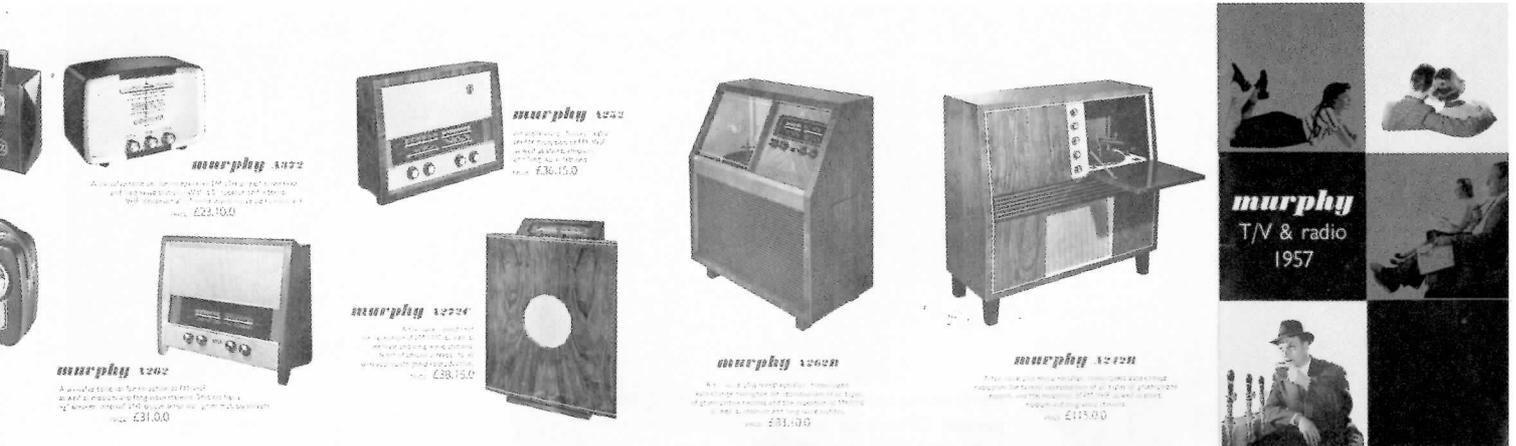


Fig 2



Fig 3

Fig 4



think the new Concert Hall is well conceived, well planned and well built<sup>6</sup>. (See fig 7)

From around 1952 comes the first of the two Ogle cabinets I'd like to look at in detail. The A192 (fig 1) is (as its number indicates) an AC set but the heaters are wired in series and run off a tapped secondary mains transformer (with the chassis connected to one side of the mains and potentially live). It has a fairly conventional Mazda valve line-up: 10C1 frequency changer, 10F9 IF pentode, 10LD11 double diode triode, 10P14 output tetrode and U404 rectifier. Several other Murphys of the same period used a similar line up, though sometimes with the B8A 10P13 instead of the bulky octal 10P14, and a dropper instead of a transformer. There are three bands: medium wave on my example seems disappointingly insensitive but maybe needs an alignment tweak as short wave (16 to 49 metres) is quite lively, even on just the internal capacitance-plate aerial. A drawback of the central dial arrangement is that the speaker (on the left viewed from the front) is only 5 inches in diameter - fairly small considering the size of the cabinet, and sound quality is nothing to get excited about.

The A192's rather stark symmetrical appearance is to my mind very pleasing -

especially if positioned just below eye level; looked down on from above it does lose something. The brown bakelite cabinet is of the markedly bowed shape which was popular at the time. Some design historians have linked this trend to the shape of TV screens (noticeably curved as they were then). With the huge public interest in TV at the start of the 1950s, radio might have to take something of a back seat, but the shape of the cabinet could still reflect modernity.

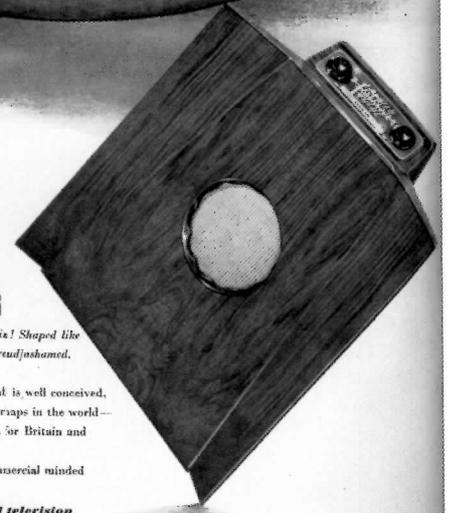
The front panel is sprayed in cream. Murphy paint jobs don't tend to survive the years very well - seriously sad-looking U144s sometimes crop up at Harpenden - but the paint on this example, bought at the Birmingham NEC last year, is surprisingly in almost mint condition.

The tuning scale is framed by a striking 'picture frame' bezel which seems to float free of the front panel and is almost the depth of the main cabinet reveal. The attractive three colour dial isn't fully floodlit, only the red 'Murphy 192' logo at the top being illuminated. This seems a pity; feeble illumination is perhaps excusable on an AC/DC set but more could have been done here as, despite the series heater chain, the dial bulb runs brightly off a separate tapping.

1950s data books show that a trawler band version, the A192T, existed, and the one illustrated in the October 1952 issue of Design magazine has the dial marked in kc/s and Mc/s instead of metres and two bands covering roughly 13 to 120 metres plus MW. Murphy, like most British radio firms, had a thriving export business at the time and some cabinets were designed specifically for the export market. The A152 shown in fig 2 is an export model; despite the resemblance in symmetry and knob arrangement to Ogle's 192 (it probably used the same chassis) this design is attributed to Thwaites<sup>6</sup>. The 152 uses the pleasing and practical back-printed perspex escutcheon mounted clear of the front panel which is found on the A124 baffle set and other 1950s table Murphys which turn up now and again, such as the A362/372, as well as being popular with Philips.

Another export job, the multi-band A154, however, was by Ogle (fig 3)<sup>7</sup>. He was also responsible for the domestic B143 (fig 3), a very tidy looking battery portable of 1949<sup>8</sup>. Fig 6 shows how neatly the design combined plastic end pieces and a wraparound metal skin. The concentric thumb-wheel control knobs seem quite closely related to Thwaites' A100. It seems likely that the two

Fig 5



### THE £2,000,000 EGG

Two million pounds to build a Concert Hall for the Festival of Britain! Shaped like an Egg! Wonderful acoustics! Splendid; disgraceful; we should be proud/shamed. How the far does fly . . . .!

Without wishing to get into the fight we think the new Concert Hall is, well conceived, well planned and well built. The finest concert hall in Europe—perhaps in the world—will be in 'unmusical' London. We think that's good—for London, for Britain and for the world too.

'Better listening' is a subject dear to our hearts. And—for the commercial minded—we believe it pays to provide it.

*murphy radio and television*

394

Fig 6

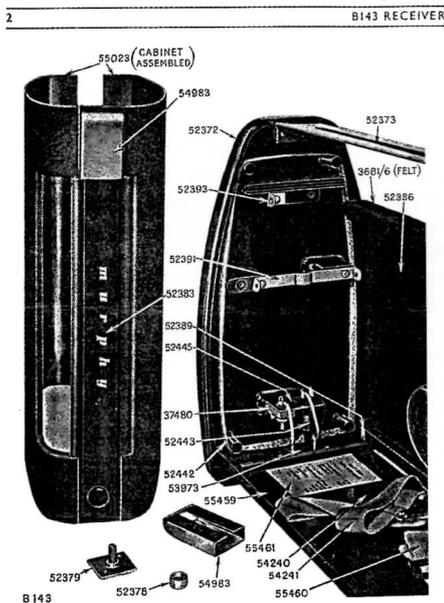


Fig. 1. The cabinet assembly details.

Fig 7

were working closely together during this period. Of course few cabinet designs were truly the work of one person working from scratch. Input from circuit design and production engineers would dictate orientation of knobs and other parts, and marketing and sales departments would dictate that apparently fashionable styling trends be copied or repeated. A late Ogle Murphy is the U198H from 1954 (fig 4 top left). The very similar U198M has been attributed to David Ogle 'modified by James Reeve'<sup>9</sup> which suggests that work was done on the cabinet after Ogle left to set up on his own. A basic little 'two knobs and a scale' bakelite set, the 198 ran for several years (it's still in the 1957 Murphy catalogue), and so still turns up pretty often these days.

In 1954 Ogle set up David Ogle Associates in Stevenage. He gained a retainer from Bush Radio in Chiswick and did all their design work, including TVs and record players as well as radios; indeed, Bush was his principal client in the 1950s. 'He had great flair', says Tom Karen, Design Director of what is still Ogle Design Ltd. 'He handled shape very well, he was an innovator... he had good commercial judgement and always bore ease of manufacture in mind... the MB60 [and hence the TR82] has as nice a back as a front when other radios were only meant to be seen from the front.' Among other products, Ogle designed baths and cookers for Allied Iron Founders Ltd, and also worked on graphic design, packaging and interiors.

The practice thrived in Stevenage and by 1959 employed four designers. In that year he formed David Ogle Ltd, with the aim of designing and developing specialist car bodies. Early work included an Ogle version of the Riley 1.5, but only two or three were built: 'A bold car, but not fun to drive', according to Tom Karen.

The practice moved to Letchworth in 1960, and now had room for a model shop. An Ogle Mini Coupé was developed and customers could bring their Mini in for the body to be cut off and a new one fitted. David Ogle Ltd was a separate company with solid financial backing and eventually about 70 Ogle Minis were produced (it went into production in 1963, the same year Reliant became an Ogle client - a relationship which led to the launch of the Scimitar GTE in 1968).

David Ogle's last piece of work came when he was commissioned by a wealthy company director to produce a custom body for the Daimler SP250 (featured in the June 1998 issue of *Classic and Sports Car*). In May 1962 he was killed while driving down to Brands Hatch when his Mini was in collision with a truck. He was 41. Tom Karen remembers him as outgoing and fun to be with: 'he worked all hours and his staff were devoted to him'.

After his death, Bush put Ogle Design on six months' notice, clearly feeling that his talents could not easily be replaced within the practice. Coincidentally, it was in the same year that Ogle's old company, Murphy, was taken over by Rank, which of course had

Fig 5: Murphy B143  
Fig 6: Sectional view of Murphy B143  
Fig 7: Murphy corporate ad of 1951  
Fig 8: Bush Leaflet showing TR102, TR82 and other Bush radios available at the time.



**The TR104** is also available in a carrying case in case you go on picnic jaunts. Battery life is over 100 hours.



**The TR106** has a carrying handle and a crystal diode. Battery 9 volt Ever Ready PP3 or equivalent. Estimated battery life—over 100 hours.



**The VTR103** receives all VHF, FM as well as Medium and Long wavelengths. Features a dual and S.M.T. speaker.



**The TR102** has a carrying handle and a crystal diode. Battery 9 volt Ever Ready PP3 or equivalent. Estimated battery life—over 100 hours.

**technical details (2)**

**TR104** has 7 transistors and 2 crystal diodes. Battery 9 volt Ever Ready PP3 or equivalent. Estimated battery life—over 100 hours. Contents: Tuning and volume controls, Volume and frequency selector, Tuning and volume controls on top of cabinet, Waveforms: Medium 100 to 1500 metres, Long 1.5 to 1.50 metres.

**TR106** has 8 transistors and 2 crystal diodes. Battery 9 volt Ever Ready PP3 or equivalent. Estimated battery life—over 100 hours. Contents: Tuning and volume controls, Tuning and volume controls on top of cabinet, Waveforms: Medium 100 to 1500 metres, Long 1.5 to 1.50 metres.

**VTR103** has 9 transistors and 2 crystal diodes. Battery 9 volt Ever Ready PP3 or equivalent. Estimated battery life—over 100 hours. Contents: Tuning and volume controls, Tuning and volume controls on top of cabinet, Waveforms: Medium 100 to 1500 metres, Long 1.5 to 1.50 metres.

**TR102** has 7 transistors and 2 crystal diodes. Battery 9 volt Ever Ready PP3 or equivalent. Estimated battery life—over 100 hours. Contents: Tuning and volume controls, Tuning and volume controls on top of cabinet, Waveforms: Medium 100 to 1500 metres, Long 1.5 to 1.50 metres.



A DIVISION OF THE RANK ORGANISATION



Dressed in "T-tails" by Matronelle, model Claire Tarrant is seen here with Bush Transistor Portable TR104.

In this transistor age the name is

## BUSH

For a Bush transistor portable is a companion when you are alone and a welcome friend in any company. Wherever you are you can hear your favourite programmes - music, plays, news. In the workshop or in the kitchen, in the living room or in the bedroom a Bush transistor radio will bring them all to you with a quality of reproduction that is quite exceptional.

Low running costs, months of use between battery changes (which, in any case, cost only a few shillings), reliability and a performance equal to many a mains receiver as some of the assets built into every Bush model.

Study this leaflet and select the radio of your choice. Then, call our nearest Bush dealer who will be delighted to demonstrate it to you. Join the discerning public who enjoy Bush quality and treat yourself to a new world of listening pleasure to-day.

*Bush Radio products are supplied only by Bush Appointed Dealers.*

**technical details**

**TR104** has 7 transistors and 2 crystal diodes. Battery 9 volt Ever Ready PP3 or equivalent. Estimated battery life—over 100 hours. Contents: Tuning and volume controls, Tuning and volume controls on top of cabinet, Waveforms: Medium 100 to 1500 metres, Long 1.5 to 1.50 metres.

**TR106** has 8 transistors and 2 crystal diodes. Battery 9 volt Ever Ready PP3 or equivalent. Estimated battery life—over 100 hours. Contents: Tuning and volume controls, Tuning and volume controls on top of cabinet, Waveforms: Medium 100 to 1500 metres, Long 1.5 to 1.50 metres.

**VTR103** has 9 transistors and 2 crystal diodes. Battery 9 volt Ever Ready PP3 or equivalent. Estimated battery life—over 100 hours. Contents: Tuning and volume controls, Tuning and volume controls on top of cabinet, Waveforms: Medium 100 to 1500 metres, Long 1.5 to 1.50 metres.

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owned Bush (as part of the Gaumont British Picture Corporation) since 1945. Murphy had hit financial trouble around 1960, chiefly because, unlike most setmakers, they had no significant TV rental business<sup>10</sup>. Although few Murphy staff were retained in the new Rank Bush Murphy combine, the formerly prestigious industrial design unit remained for a time, and, according to Tom Karen, there was little love lost between Ogle Design and Murphy's design staff after the merger. Despite these problems, however, the Bush account stayed with Ogle Design into the late 60s, despite the growing tendency to source smaller portables from the Far East.

To conclude I'd like to take a look at a second Ogle set in detail, from towards the end of his life: the Bush TR102, released early in 1962 (fig 9). I don't think it can have sold that well: it certainly doesn't turn up very often in vintage sales. Ogle was also responsible for the contemporaneous TR104 (a smallish portable with a removable fake 'hide' carrying case) and the TR106 (see Bush leaflet, fig 8). Early TR106s have a rose-pink back moulding but after problems with the handle a modified version appeared with a squared-off grey back. The VTR103, the VHF model in the 82's cabinet, fits into this sequence of model numbers.

The TR 102 is in some ways a funny looking beast, and to some eyes the proportions are all wrong - something I'll come back to later. But it has two or three unique features: it's switched on by lifting the blue plastic cover over the tuning scale; the tuning and volume controls form pivots for the carrying handle; and the dial pointer can be illuminated by pressing the tuning knob. There is a Bush logo on the right hand side of the tuning scale cover, but this has almost disappeared on the example illustrated.

A peek inside the back (fig 10) shows that these features - designer's whims really, rather than seriously useful - must have added considerably to the production costs of the 102. The volume control (on the right in the photograph) uses a train of nylon gears to link the knob spindle to the potentiometer; while on the left can just be seen the fairly fiddly copper make and break contacts for on/off and dial light (it's to someone's credit that almost 40 years later these usually work reliably). Construction is to Bush's usual high standards with a wired metal chassis like the TR82 (Bush must have been on the point of changing over to printed circuits at this time as the 104 and 106 have them). The set is more than adequately sensitive, and sound quality through the 6x4in speaker with its fairly hefty magnet is really quite pleasing - with the 'tone' button out that is; the top cut in the 'mellow' position makes for very woolly results indeed. The AGC modification mentioned by John Ounsted in his TR82 article is fitted to the 102.

The scale pointer is frankly a bit silly: true, it can be illuminated, but if you don't do this, it's actually much harder to see than on most sets with a similar scale arrangement. In those pre-LED days, illumination was provided by a miniature filament lamp attached to the pointer. This draws almost 60mA via a 56 ohm resistor when switched on; with a partly tired PP9 this causes enough of a rail voltage drop to stop the local oscillator, giving a sudden silence which must have baffled a few users in its time.

I've already suggested that the 102 isn't above criticism in design terms, but on one occasion it was given a very thorough rubbishing indeed. While looking for something else in the Design Council archives, I came across records of a 'design appreciation' workshop for industry organised by the Council in 1963. One participant, J M Ladell of Needle Industries, Redditch, had prepared wall charts showing what he thought was wrong with the then recent 102, and how it might be 'improved' (fig 11). There was little Ladell could find to praise: he drew attention to the unhappy relationship of shapes and angles; the multiplicity of colours in the design (seven in all); a tuning scale out of proportion and hard to read; 'disturbing' speaker apertures; the many dust and dirt traps; a base too narrow for the height making it unstable; the handle which could trap fingers... and so it went on. This kind of criticism arising in a Council-run course is particularly intriguing given that Ogle sets had been selected for inclusion in the Council's Index of well designed products.

It has to be said that some of these criticisms have more than a grain of truth,

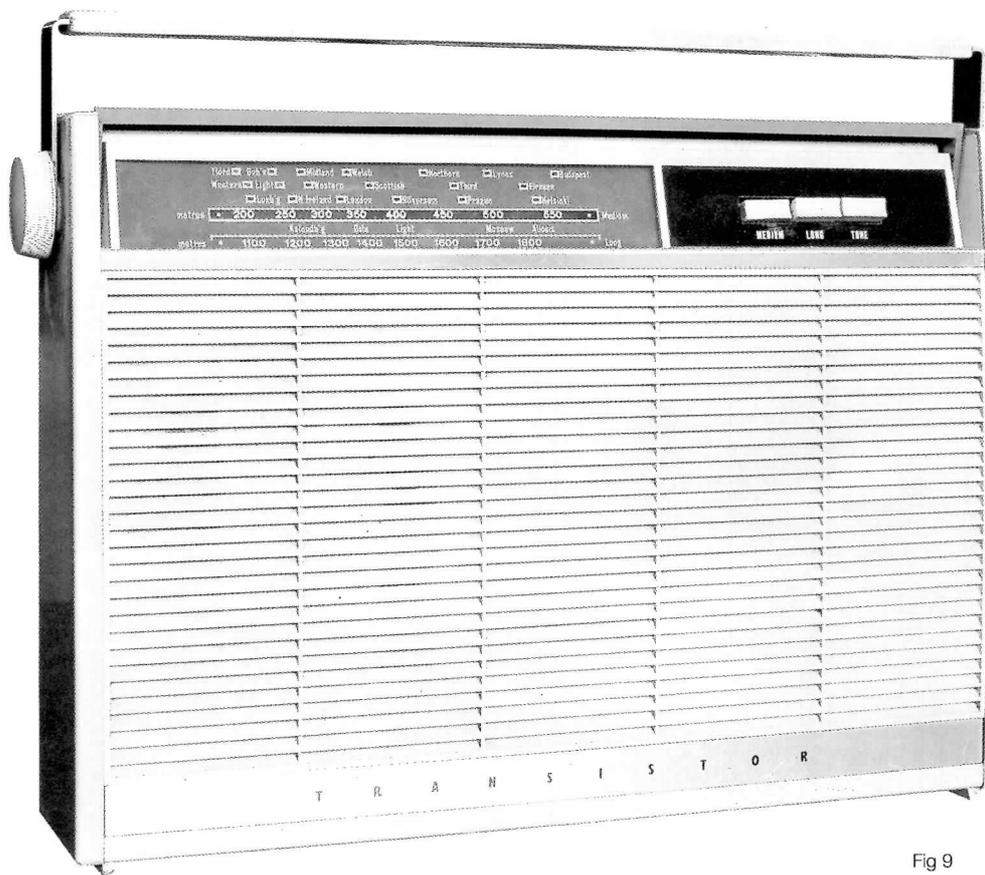


Fig 9

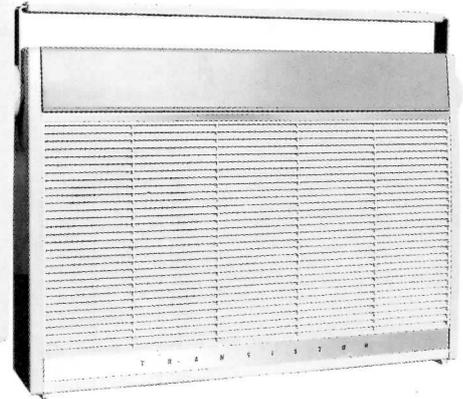


Fig 9: Bush TR102 showing flap which activates set when raised.  
 Fig 10: Inside the TR102.  
 Fig 11: Rather harsh notes from Design Council study offering 'improvements' in design of TR102.  
 Fig 12: the 'improved' version of the TR102

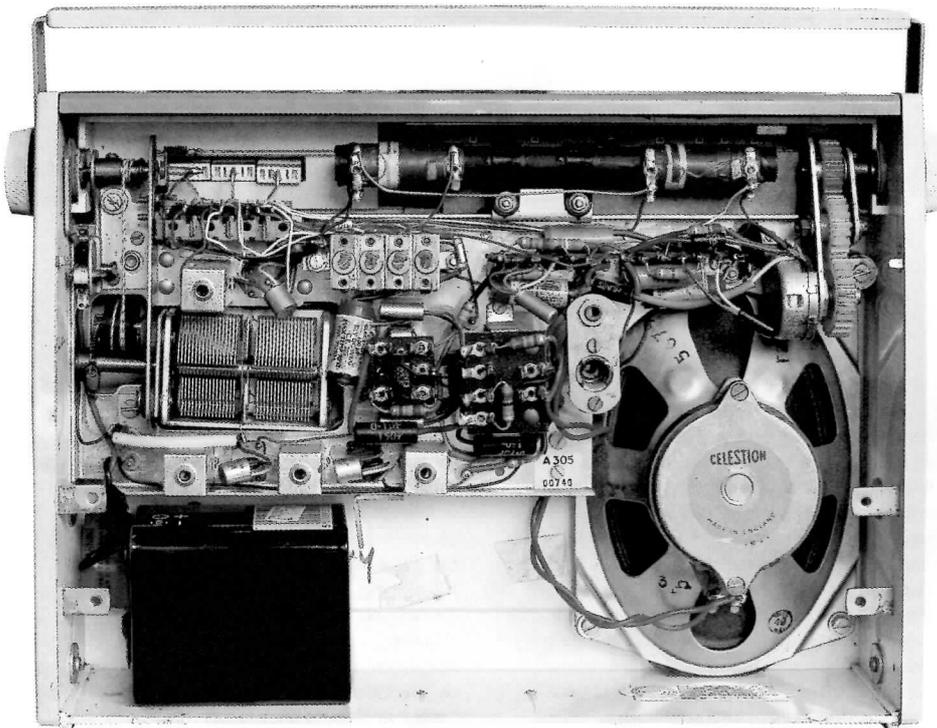


Fig 10

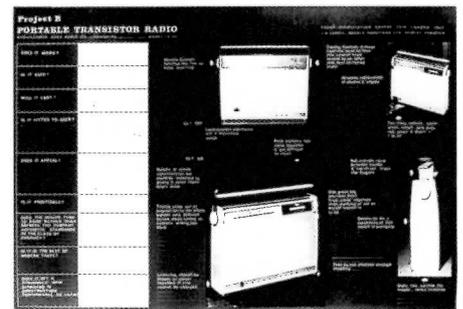


Fig 11

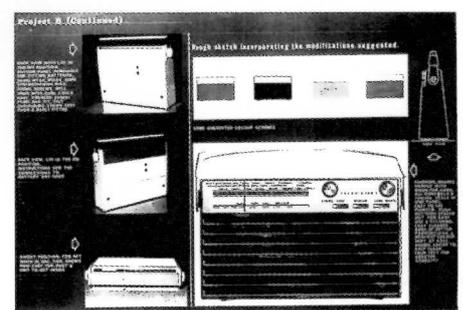
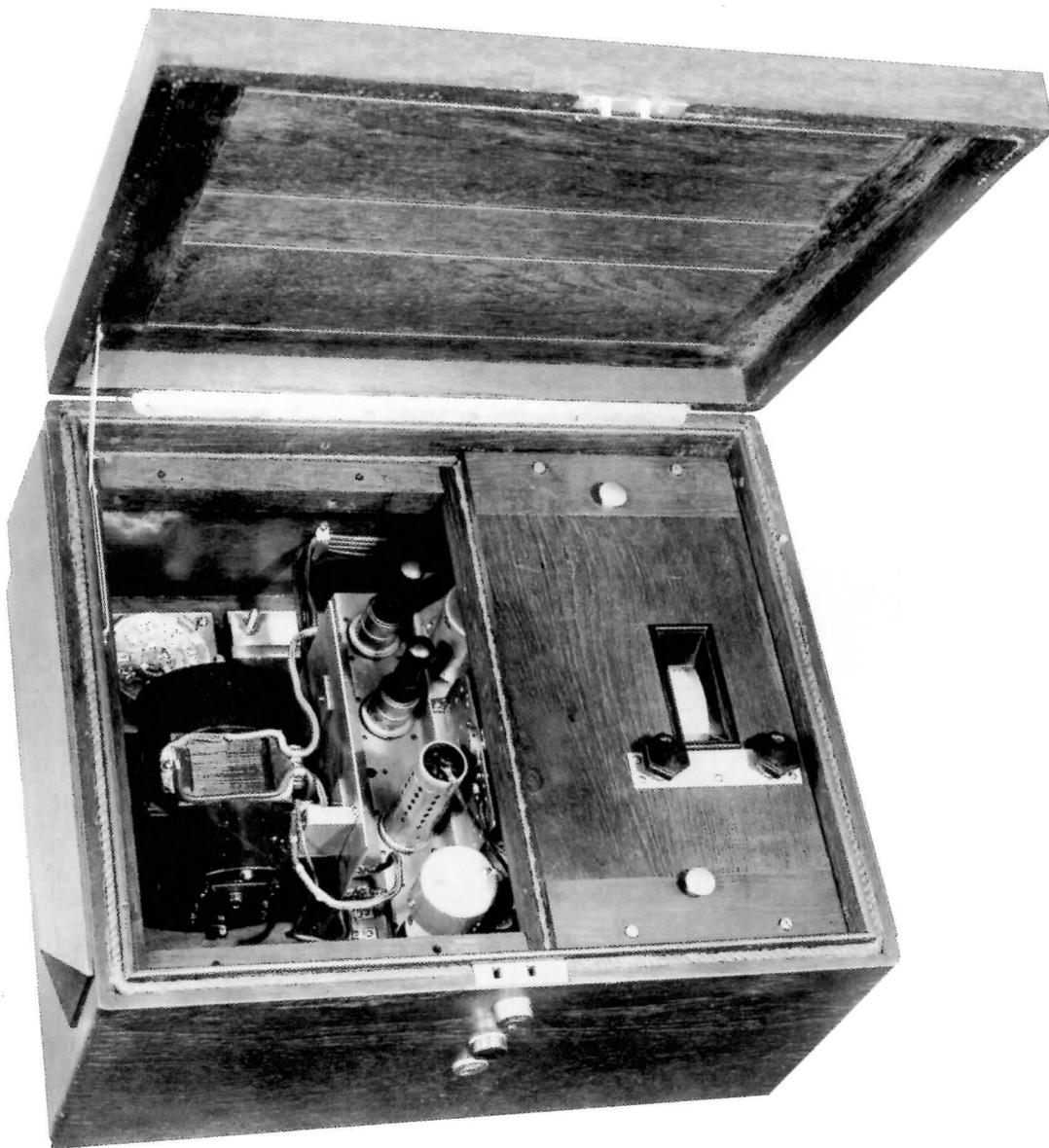


Fig 12

but Ladell then spoils his case. After charitably noting that, if nothing else, the battery connection instruction label is well designed, he goes on to sketch some suggested modifications (fig 10). And, yes, it does seem to obey his rules about ease of use, control layout and so on. Unfortunately it now looks like a rather agricultural mix of early 1960s Perdio and those chunky Russian sets you used to be able to buy by mail order. Who knows, maybe the workshop concluded that there was art as well as science in design, after all.

**Bibliography**

- 1 BVWS bulletin, Vol 20 No 6, December 1995
- 2 Austerity to Affluence: British Art & Design 1945 - 1962; 1997
- 3 Catalogue for The Wireless Show, Victoria and Albert Museum 1977
- 4 Design in the Festival, 1951
- 5 Designers in Britain Vol 3, 1951
- 6 Designers in Britain Vol 3, 1951
- 7 Designers in Britain Vol 3, 1951
- 8 Designers in Britain Vol 2, 1949
- 9 Catalogue for The Wireless Show, Victoria & Albert Museum, 1977
- 10 Keith Geddes and Gordon Bussey, The Setmakers, 1991



# One of EMI's dead ends.

by Geoffrey Dixon-Nuttall

Among my odds and ends I have a thick file of excellent photographs (from the Fox agency) which I suspect they should have shredded. They are of EMI cabinet designs, covering the period 1936-1938.

Some of these are of sets which never in fact made it, and in some cases it is quite obvious why, as they are quite startlingly ugly. One interesting project, though, is what was called the "Indian Village Set" (it never seems

to have got as far as a model number)...

The British radio industry was on the whole very uninterested in exporting. The sets that did go abroad usually merely had American valve types fitted; the long wave band was still there, even though it was quite useless.

The first of these seems to have been the Marconiphone 299 (HMN 471), which was the 345 with "UX" type American valves fitted. Later the 534 was fitted with octal valves, becoming the 399. There was also an AC/DC version of this, (HMV model 473). The last one seems to have been the 491, which was a version of the 481. A great opportunity was missed here, but one hopes that at least they tropicalised the chassis.

The Empire, however, was different, and somebody in the Foreign Office had the idea of providing remote Indian villages with a specially designed radio.

It seemed a good idea at the time. As far as one can see (this is a prototype) it was a TRF with one RF stage. Catkin valves were used, so the villagers couldn't break them. The power source is a rotary converter, and although I can't quite read the plate it looks as though the input was 12VDC. The round can looks like an audio transformer, and the speaker was separate.

The cabinet lacks the usual high polish,

and is therefore I suspect made of teak. The lid is sealed with cord (to keep out insects?) and there are two locks on the front (and what does the bottom one do?). There seems to be some sort of lid-operated switch on the right hand side. Presumably there is only one band, and that would be general coverage SW. The left hand panel has been removed for the photo. The date, by the way, is 1/7/34.

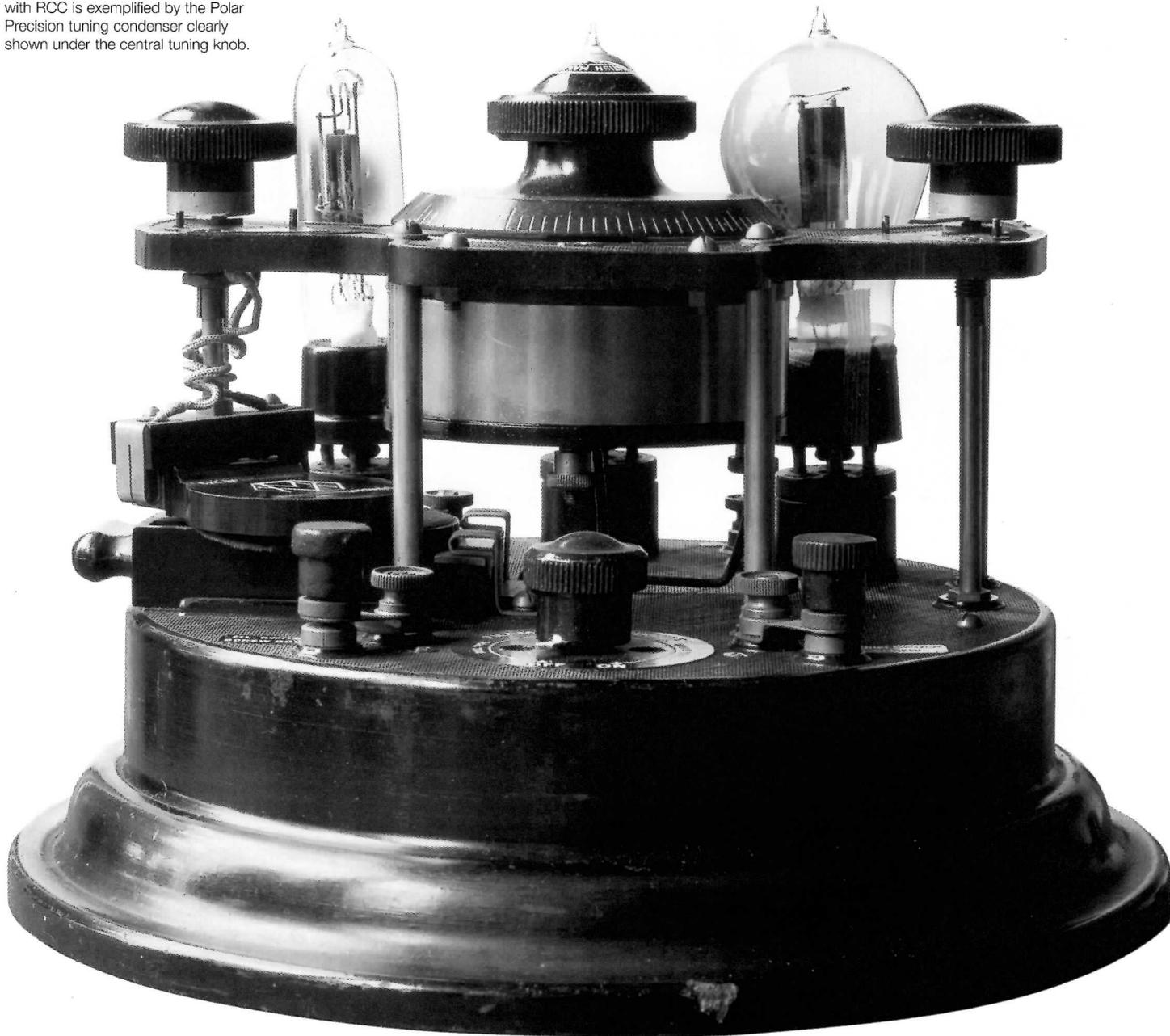
There seem to be some things missing. Where are all the input and output sockets, for example? The aluminium can at the back is, I think, a desiccator.

What went wrong with this apparently excellent idea? Probably the whole thing got too expensive. For example, who would operate this set; would the District Commissioner carry it round from village to village? If he left it in the village, it would I rather think be sold or stolen. And who charged the battery, and what with? This set and its battery would be quite a heavy weight. Perhaps some reader may know the answers, but in the meantime it remains a curiosity. Has anybody by any chance, met one?

# Metropolitan-Vickers Electrical Cor

by David Read, photography by Mark Groep

Met-Vick type VR4 with Cosmos shortpath valves designed 'in-house' by EY Robinson. The collaboration with RCC is exemplified by the Polar Precision tuning condenser clearly shown under the central tuning knob.



If one is to collect early wireless on a rational basis rather than as a magpie, then the broadcast receivers of the 'Big Six' founding companies of the British Broadcasting Company provide one approach to follow. It soon becomes clear however that whilst the products of GEC, Marconi and BTH, can still readily be found (at a price!), it is a different matter where Metropolitan Vickers, the Radio Communications Company, and Western Electric are concerned. Complete receivers by these companies are scarce, and this observation is reinforced by looking at advertisements and suppliers' (as opposed to manufacturers') catalogues of the period: Met-Vick for instance put out a most sumptu-

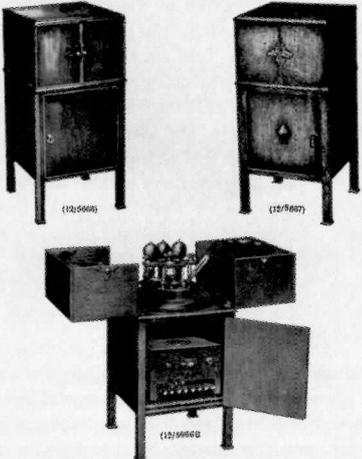
ous catalogue with a full range of complete receivers and unit construction or building block sets, but this does not seem to be reflected in the catalogues of retailers who showed only a few sets. Neither did the company refer much to such a range in its own advertisements, preferring to concentrate on components, some of them of R.C.C. origin, building blocks for unit construction, valves, and so on. One could be forgiven for the suspicion that much of the higher level stuff was for special order only. In addition, those with a sharp eye for badge engineering might notice that some of the finished products of Met-Vick and Western Electric, for example the early crystal sets, are curiously

similar, and American, in appearance. The reasons behind both of these observations become clear if we look at the origins of these companies and their motivations as well as the general historical perspectives from the time when the BBC was being proposed and formed. It was not until 1925 when Met-Vick's most oddball and distinctly British sets in moulded hardened rubber appeared, and the most extraordinary of these is the Cosmos 3-valve Type VR4 illustrated above.

The Metropolitan Vickers Electrical Company was the successor of British Westinghouse, founded by George Westinghouse of the American company which carried his name. It resulted from the

# Company - Trafford Park, Manchester

**THE MET-VICK  
A.C. MAINS RECEIVER  
3-VALVE LOCAL AND DAVENTRY TYPE**



**PRICES**

|  |  |
|--|--|
| <b>MAINS SUPPLY SETS</b>   | <b>SETS WITH BATTERIES</b>   |
| Met-Vick 3-Valve Set in Cabinet (for operation from A.C. Mains 45-100 periods) complete with Illuminator, Model B, A.C. Valves, Long and Short Wave Coils, Cat. No. 64363.C. | Met-Vick 3-Valve Set in Cabinet (for use with Batteries) complete with Accumulator, 2 H.F. Batteries, Valve, Long and Short Wave Coils, Grid Bias and Grids, Cat. No. 64364.C. |
| In Oak Cabinet . . . £27 5 0   | In Oak Cabinet . . . £18 15 0  |
| Cat. No. 64363.M.  | Cat. No. 64364.M.  |
| In Mahogany Cabinet £28 5 0  | In Mahogany Cabinet £19 15 0   |

To the above prices must be added for Marconi Royalties £1 17 6

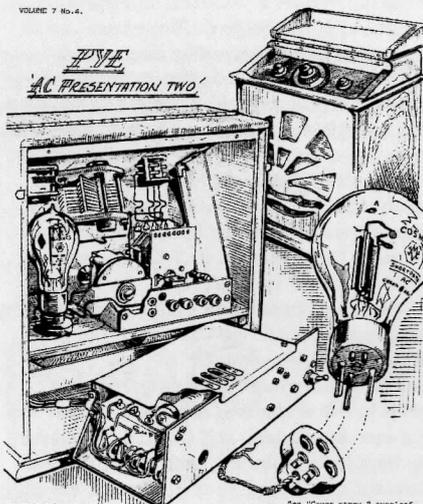
In ordering Set for complete operation off the Mains, please state voltage and periodicity.

For full particulars of this set see Brochure No. 7117/10. See reverse side for particulars of Battery operated models.

The VR4 in its final form in 1928.

VOLUME 7 No. 6.

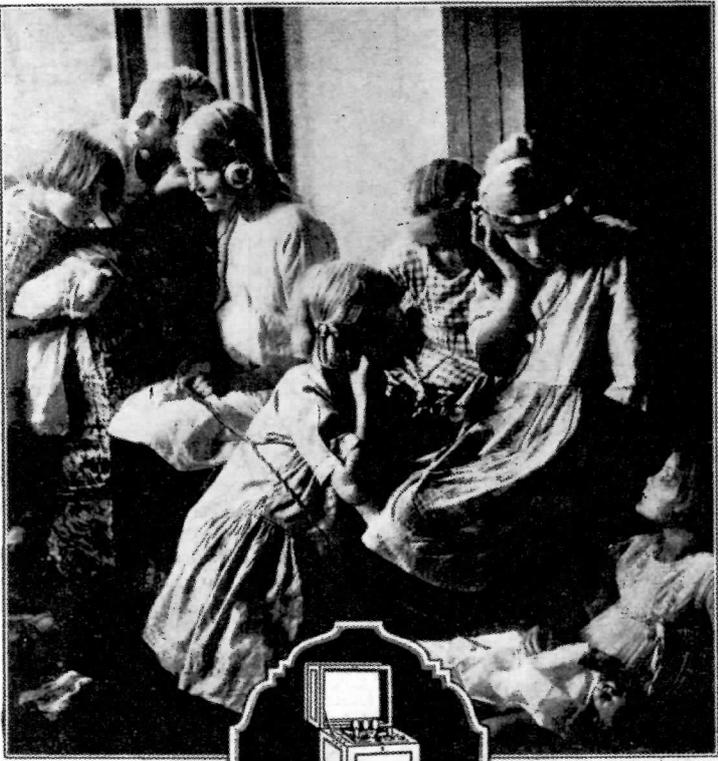
**FIVE  
AC PRESENTATION TWO**



C BYAD 3.33. See "Cover story" overleaf

acquisition of British Westinghouse by the Metropolitan Carriage and Wagon Co. after the first world war and soon after that the merger with Vickers Electrical Co. Whilst the original company was primarily concerned with the manufacture of heavy electrical equipment and steam turbines, they had produced radio valves during the 1914-18 war according to specifications set out by the Admiralty Signal School at Portsmouth by Capt. Round. In spite of British ownership, the company's strong links with Westinghouse in America continued, and its entry into radio as a manufacturer of transmitting stations and domestic radio owes its origins to A.P.M. Fleming (later Sir

336 — RADIO TIMES — [May 8th, 1925.]



*When all has been said about the scientific wonder of the COSMOS Valve Set, there remains its sheer musical virtuosity. Such purity of reception is new in wireless.*

*HEARING IS BELIEVING. Before choosing any set, hear the COSMOS. Then you will know why it is called the Musicians' Set. You can hear it at almost any Dealer's.*

**COSMOS  
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Proprietors: Metropolitan-Vickers Electrical Co. Limited

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Arthur Fleming) who as head of Met-Vick's research department had visited America in 1921. There he studied the Pittsburgh station set up by the American Westinghouse company, which established public broadcasting in America, as well as visiting factories producing cheap radio equipment. On his return he obtained agreement from Met-Vick's Managing Director, Captain R.S. Hilton to set up an experimental transmitting station, 2ZY, in their research department. In addition, Fleming built a smaller station in his own home six miles away. Captain Hilton was also a director of the Radio Communications Company (R.C.C.), formed after the war with interests in the marine

radio business, and therefore in direct competition with Marconi. As a result of Hilton's position on the Boards of both companies, a decision was reached to pool their domestic radio interests and form an agreement about the sale and manufacture of radio receivers. Met-Vick's experimental transmissions had been successful and Fleming's thoughts had turned to the possibility of afternoon and evening programmes for reception by the general public. This was no doubt stimulated, at least in part, by a desire on the part of Met-Vick and R.C.C. to establish themselves jointly as serious competitors to the Marconi company, where a weekly half hour programme of



Plessey. Only Marconi's uniquely patronising advertising was applied to selling the products of the 'Master Mind'. By 1928 Marconi's were looking for a buyer, and in 1929 it sold both the business and the Marconiphone trade mark to HMV. So much for Marconi's interest in the domestic end of broadcasting. From that time onwards, Marconiphone belonged to a conservative gramophone company that had only just two years earlier gone electric, although it is doubtful that the public at large realised that heresy had been committed. Not surprisingly a radiogram was shortly to appear. Today, this sort of nonsense is called synergy.

Western Electric was the wholly owned subsidiary of its American parent, and also bound by cross licensing agreement with RCA. This included an agreement not to sell radio equipment to the domestic market in America. Being privately owned, shares were not available to British institutions, and its Managing Director, H. M. Pease was an American citizen responsible only to his parent Board in the USA. It is hardly surprising that Western Electric in the UK used R.C.A.'s manufacturing arrangements (Westinghouse) and therefore the same crystal set as used by Met-Vick in the British Market. In fact the Met-Vick catalogue also contained the Western Electric Type 44002 (large) balanced armature horn. For its more complex receivers and amplifiers, however, one can immediately see the professional standard of components used elsewhere in its non domestic products. These components are of superb quality, and the LF transformers for instance used in their crystal set and loud speaker amplifiers are unique in my experience for rarely being open circuit even seventy years after manufacture.

This leaves Metropolitan Vickers and the Radio Communications Company, who as explained in the opening paragraphs had decided to pool their domestic radio interests and form an agreement about sales and manufacturing. There is no doubt that Met-Vick had in its research boss A.P.M. Fleming, an enthusiastic proponent of the 'coming radio boom' Neither company was however experienced in manufacturing cheap domestic equipment. In 1924, the catalogued cabinet of Met-Vick sets ranged in price from around £25 for the mahogany cased two valve receivers, to over £70 for the top of the range 5 valve models. This was in line with, or rather more expensive than, the equivalent Marconiphones and Gecophones which had well organised publicity and sales organisations. In other words these sets were in direct competition with top end of the market as one would expect from such a company. Mysteriously, however, they do not feature with the top end competition in the Brown Brothers catalogue, one of the most popular with the general public at the time. As far as the R.C.C. is concerned, their advertisements generally featured their components only, stressing that they were proved in a stringent marine environment. Part of the advertising is directed at the recruitment of wireless operators for their shipboard professional marine communication business. This was the 1923 equivalent to advertising Saab cars today as part of a business building fighter 'planes'. This strategy can of course succeed, and Polar components which also featured in Met-Vick's advertising, seem to have achieved successful domestic sales judging by the number that have survived. Both companies, following a co-ordinated

strategy, chose to offer unit construction sets; the Radio-Brix of Met-Vick (see illustration) and the Polar Blok of R.C.C. both available from at least 1924. These products though well made are, however, extremely rare today and it is very difficult to believe that they sold in quantity. By 1925, production methods were changing away from mahogany to moulded materials, and it is curious that the company's most striking product was apparently initiated in the meter department of Met-Vick where the use of moulded and hardened rubber was in use for meter cases. Both the crystal set type C.4 and the so-called Cruet three valve set type VR.4 with its cover are illustrated in this issue. These sets were much cheaper in every way, competing in technique and appearance with the Burndept Ethophone Duplex and famous family of Brownie Wireless Co. products. The Cruet was a basic HF/Detector/LF circuit with reaction and was originally made to include a crystal detector. This proved to be unnecessary and it does not feature on later production models. Sets of this type were not made of Bakelite, (as is sometimes written) which is a thermo-setting phenolic resin impervious to heat, but a from a type of hardened rubber more closely related to ebonite. Unlike Bakelite, it will most certainly soften and deform badly if heated and should not even be allowed to remain in a sunny window in the heat of summer.

In conclusion it seems that in spite of the co-operative arrangements for domestic business by these two companies, their expertise and kudos was actually elsewhere in the professional end of the communications businesses. These were big firms, used to dealing with governments, shipping lines, and broadcasters as customers. R.C.C. for instance built a significant proportion of the BBC's transmitter masts, and Met-Vick in their 1927 catalogue has no less than four pages devoted to wireless for hospitals, including a large central 9 valve receiver operating 40 loudspeakers and 450 phone points through a distribution system to wards of 8 miles of wire. On top of this there was the traditional heavy electrical generating and traction business of Met-Vick, and they were at this time building London's underground electric railway trains. In today's jargon, value for money domestic radios (of the sort that would be bought in quantity and stocked by suppliers) were not an important part of their mission statement. In retrospect it does not seem surprising that these major companies achieved less market penetration for their domestic radios than was initially expected.

Yet a development was to take place in Met-Vick that revolutionised the valve industry worldwide and must rank as one of the most important in radio history. This was the invention of the slip coating insulation process for the heaters of mains valves by E.Y. Robinson, and which followed his earlier development for Met-Vick of the famous 'Cosmos Shortpath' series of battery valves. The story is worth telling in some detail.

The installation of electric light in more and more homes made the need for mains receivers abundantly clear, but hum free working, even on DC, proved elusive to the extent that solving the mains valve problem became something of a holy grail for the industry. Collectors with an interest in early mains receivers and the development of valves will have noticed that the first mains sets available for operation off the electric

mains supply employed battery valves. For A.C., the earliest power supplies were built into an entirely separate unit consisting of a transformer, rectifier, smoothing chokes and capacitors for H.T., and an accumulator in a separate compartment for L.T. The power supply produced by Western Electric during the 1922 - 1924 period is a good example. The cabinet is made of mahogany and ebonite and is as large as their seven valve superhet which could presumably stand on top of it. For battery valves in a conventional layout, i.e. with all heaters in parallel, acceptable results were only possible if an accumulator continued in use for L.T. At this stage the power supply was essentially no more than an H.T. eliminator. By 1926 receivers began to be offered as all-electric, and passable results were achieved by elaborate smoothing and careful placing of valves with a common filament consumption in a series chain. D.C. receivers incorporated a potential divider which was connected across the mains and provided with a variety of tappings, generally from 100 to 250 volts. These arrangements, particularly with respect to the detector stage were attempting to solve the unsolvable - how to remove the ripple or noise present in the filament of a directly heated cathode. Much better to avoid the problem by using a different approach, and indeed what the radio world was waiting for was a valve in which the cathode temperature and electromagnetic characteristics were independent of the heater. This approach so essential to successful mains operation was at the time easier to visualise than achieve. In an arrangement proposed by Freeman and Wade of Westinghouse in 1923, the grid and anode would surround a tubular cathode into which a ceramic insulator would be placed and into which a hairpin filament could be inserted as a heater. In spite of its apparent simplicity, this arrangement was not easy to achieve in terms of a reliable production item, and the first mains valves generally available in production quantities were directly heated. These, by using thick filaments to avoid temperature fluctuation and hence emission fluctuation, and low voltage to minimise electrical effects, brought about undoubted improvement over standard battery valves. However, the approach was theoretically flawed and incapable of continuing improvement because the benefits of heavy filaments were counter balanced by the effects of the magnetic field generated by the resulting heavy current.

In England, experiments with a separate cathode but without a ceramic insulator led to the introduction by Marconi / Osram of the KL1 in January 1927, and this valve can claim to be the first genuine A.C. valve to be offered for general sale this side of the Atlantic. The K Series whilst hum free were not successful due to non standard filament voltage, long warm up and short life, added to which the wide spaced electrodes caused by insulation difficulties precluded achievement of good electrical characteristics. Difficulty with the problem of directly introduced hum would not go away, and MOV were obliged to recommend the K Series for the detector stage and directly heated valves elsewhere. This resulted in such a dog's breakfast of valves in GEC and Marconi sets, (not to mention confusion in valve catalogues), that MOV as well as other valve manufacturers were forced at last to pay attention to, and eventually standardise on, the work of E. Y.



AC Presentation 2 with the Met-Vick AC/G and AC/R in place.

Pye Presentation 2 designed specifically to use the Met-Vick valves.



Type VR4 under its cover

Type VR4 with plug-in swinging reaction coils shown unplugged to the left



Cosmos horn badged for Met-Vick by Amplion

Robinson, Met-Vick's valve designer and inventor of their shortpath Cosmos valves.

Robinson's AC valve patent lodged on 7 July 1927 was based on an idea of stunning simplicity. He had shown in his earlier shortpath patents of 1925 how close spaced electrodes could be made and held with precision; however, to suit his AC designs a cathode tube of a mere millimetre in diameter would have been required. To insert a heater of suitable wattage and insulation into a cathode of such small diameter required a brilliant innovation since the manufacture of small enough ceramic tubes was impracticable at the time. Robinson's idea was to omit such components entirely and approach the problem from a new direction. Rather than attempt to insert a filament heater into a ceramic insulator, the heater itself was coated with a paint made up of insulating material combined with a vehicle that could be fired or baked hard. The layering and baking was simply repeated until the insulation was of suitable thickness and the assembly then inserted into the cathode tube. The cathode structure so formed was found to give exceptionally long life and an amplification factor double that achieved by any other

valve on the market. The process was called slip-coating, and its principles of insulation and construction laid the AC cathode foundations for the valve industry throughout the world. Met-Vick's first mains valves were offered to manufacturers and the public at the National Radio Exhibition at Olympia in autumn 1927. These were the Cosmos AC/green for detector and the AC/Red for LF. In the transitional period around 1928 MOV continued to sell valves under the K Series name, but in combination with the Cosmos name, i.e. KH1/ACG. These were actually slip coated valves made by Met-Vick, and Marconi's valve boxes were over stamped with the words 'made by Met-Vick supplies'.

Whilst Met-Vick's valve department was busy introducing these revolutionary products, talks were taking place between Met-Vick, BTH, and Edison Swan with a view to combining the research and manufacturing resources of all three companies. This merger which was to cause the disappearance of two of the original 'Big Six' companies was completed late in 1929 with the formation of AEI (Associated Electrical Industries) and from then onwards all mains valves of all three companies were

standardised on Met-Vick's shortpath and slipcoated construction with 4 volt 1 amp heaters. The valve production of all three companies was concentrated at Met-Vick's Cosmos Works at Brimsdown under E.Y Robinson, and existing products were renamed Mazda (a name already used by BTH), and valves such as the AC greenspot, AC redspot, AC/S (introduced in 1929) became AC/HL, AC/P and AC/SG. These were followed in 1930 by the AC/pen and in 1934 by the AC2/pen, the first and best indirectly heated pentodes of their day. Interestingly Met-Vick in introducing the world's first indirectly heated pentode were flying in the face of conventional wisdom. Hum in the output stage was not seen as a problem and directly heated pentodes were cheap and efficient. Nevertheless, E.Y. Robinson's design was of such quality in terms of sensitivity and ability to handle large anode voltages without causing grid current that he once again produced the concept on which the valve industry standardised. The extraordinary sensitivity of these pentodes enabled the output stage to be driven directly by the detector with a useful saving in the cost of the driver valve.



In 1923 the crystal sets of Met-Vick, Westinghouse and Western Electric were in fact the same design (Westinghouse). This example is the Western Electric complete with Wecovalve amplifier.



An array of Met-Vick 'Radio-Brix' with shortpath valves



Met-Vick crystal set type C4 with Met-Vick patent distribution board. Note the use of the Polar precision tuning condenser.

With AC valves costing in the region of £1 at a time when the average wage was £3 to £4, the impact on the home constructor's market was considerable, to say nothing of the cost efficiency in receiver design enjoyed by the manufacturers.

It is worth summarising the achievements of Met-Vick's valve designs under E.Y. Robinson since his AC valves were arguably the most important and influential milestone in the entire history of valve developments irrespective of country. Cosmos AC valves had the quickest warm up, coolest electrodes, and lowest wattage of any AC valves marketed anywhere; and these factors when combined with their unique shortpath construction resulted in electrical characteristics of zero grid current and exceptional amplification which were not equalled for 5 years. The AC/R for instance gave the same output as the LS5a for less than one quarter of the input voltage, and the AC/S gave four times the amplification of any other valve then known.

Many owners of battery sets now had the motivation to change to mains, and Metro - Vick duly supplied a clever valve base adaptor so that owners could make the

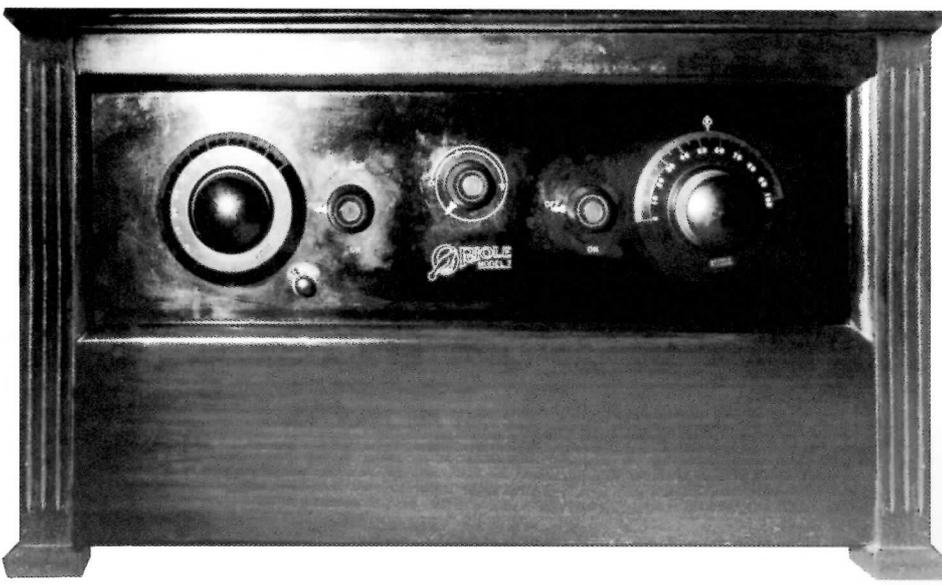
change. For mains sets using these AC valves, special valve holders were needed until the B5 base was used as standard. In order to illustrate the use of these valves the 1928 Pye 'AC Presentation Two' is shown on page 20 together with Norman's Jackson's interior view on page 17 (with one valve removed) which provided the cover of Bulletin Vol. 7 No. 2 to illustrate my earlier article in March 1983. Always quick to innovate, Pye's receiver was introduced specifically to use these valves and was the earliest self contained mains set in the UK. A most handsome and well made set in carved and joined mahogany. It uses Pye's version of Met-Vick's special valve holders and Pye's moving iron cone speaker introduced a year earlier in the Model 555 triode portable. This set was also one of the earliest to use the rising sun emblem. A neat power pack slides into the bottom of the cabinet, giving a clue that this set also exists in battery form. The circuit, a detector/LF with differential reaction, is derived via the 232 from the Pye 222 illustrated on the cover of the very first BVWS bulletin in June 1976.

Today there is no trace left in the market place of Metropolitan-Vickers. Together with

BTH, and Edison Swan, all three companies preserved a degree of separate identity within Associated Electrical Industries for many years. Indeed the logo of Edison Swan, for instance, was to be seen on some of the earliest transistors. These companies and their parent AEI, finally disappeared in the acquisitions that rationalised the UK's largest electrical and electronic companies in the 1960s.

#### Bibliography

- Radio's conquest of space by Donald McNicol. Murray Hill 1946
- Invention and Innovation in the Radio Industry by Rupert Maclaurin. Macmillan 1949
- The Birth of Broadcasting by Asa Briggs Oxford University Press. 1961
- The Evolution of the AC Mains Valve by JH Ludlow. Wireless World March 1973
- Metropolitan-Vickers by JH Ludlow. BVWS Bulletin Volume 2/3 December 1977
- BVWS Bulletin Supplement 1/1989 for a detailed account of Met-Vick radio and their technical design origins by Alan Douglas.



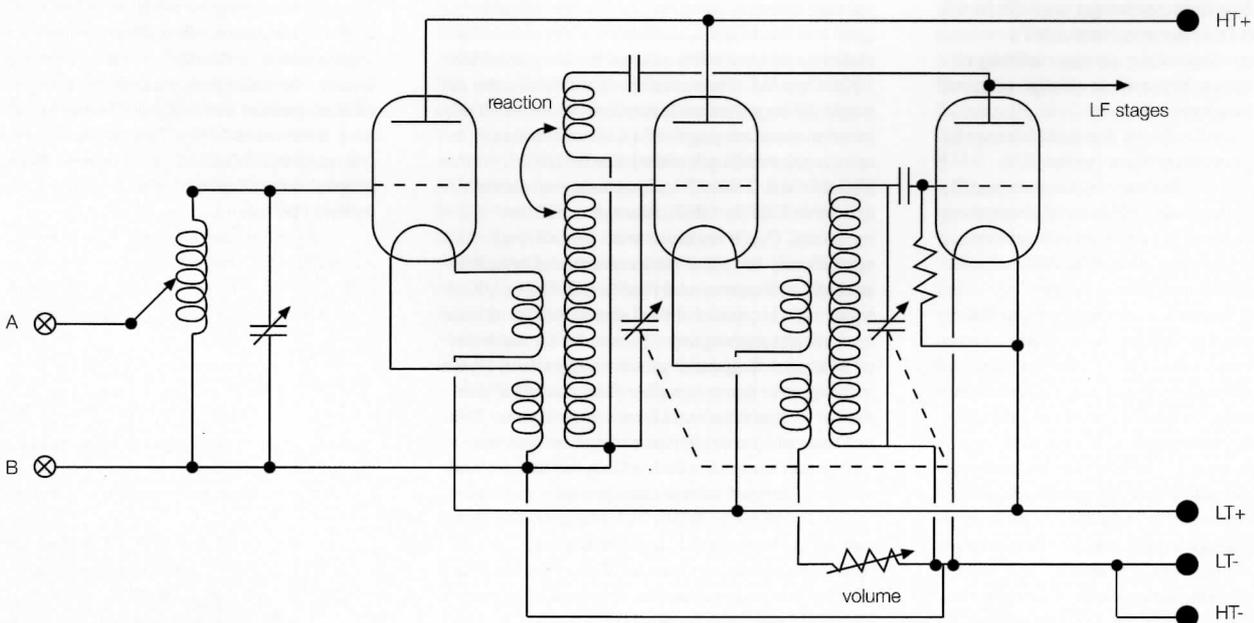
# Faint but following

by Pat Leggatt

Some readers will know that I have a weakness for American sets from the 1920's (indeed I'm a pushover for any set from that period) so I was pleased at a recent Harpenden to find a well preserved 'Oriole Model 7', Oriole being the appropriately chosen name of a songbird. The asking price was reasonable and fitted nicely with my excuse for buying such things as 'a good investment for the grandchildren', which may even be true!

Well I'd never heard of an Oriole but there it is, a five-valve set in a very handsome mahogany cabinet which makes a welcome addition to my collection. One could guess straight away that it would be a 2HF-detector-2LF configuration, although it wasn't the usual American 'three dialler' since there were only two tuning controls.

So, not expecting anything of great technical interest, I removed the works from the box and started to trace out the circuit. No surprises as far as the grid of the first HF valve, but then I was brought up with a jerk: the first HF valve anode was connected directly to the HT+ line, and so also was the anode of the



Oriole Model 7 HF and detector stages

second HF valve. My first thought was that the set had been got at by some unskilled hand, but then I saw that the wiring was clearly original and undisturbed. So how on earth could the songbird sing?

Not to make too long a story of it, what I found was that the two HF stages are cathode followers. As shown in the accompanying diagram, the filaments (the cathodes) are fed through coil windings coupled to the tuned grid coils of the following stages. I have never before come across HF stages in the form of cathode followers, although such a thing is briefly mentioned by WM Dalton in part 3 of his *The Story of Radio* books. Practical application of the cathode follower is often credited to Alan Blumlein of EMI in 1934, so it is remarkable to find it in a mid-twenties wireless set.

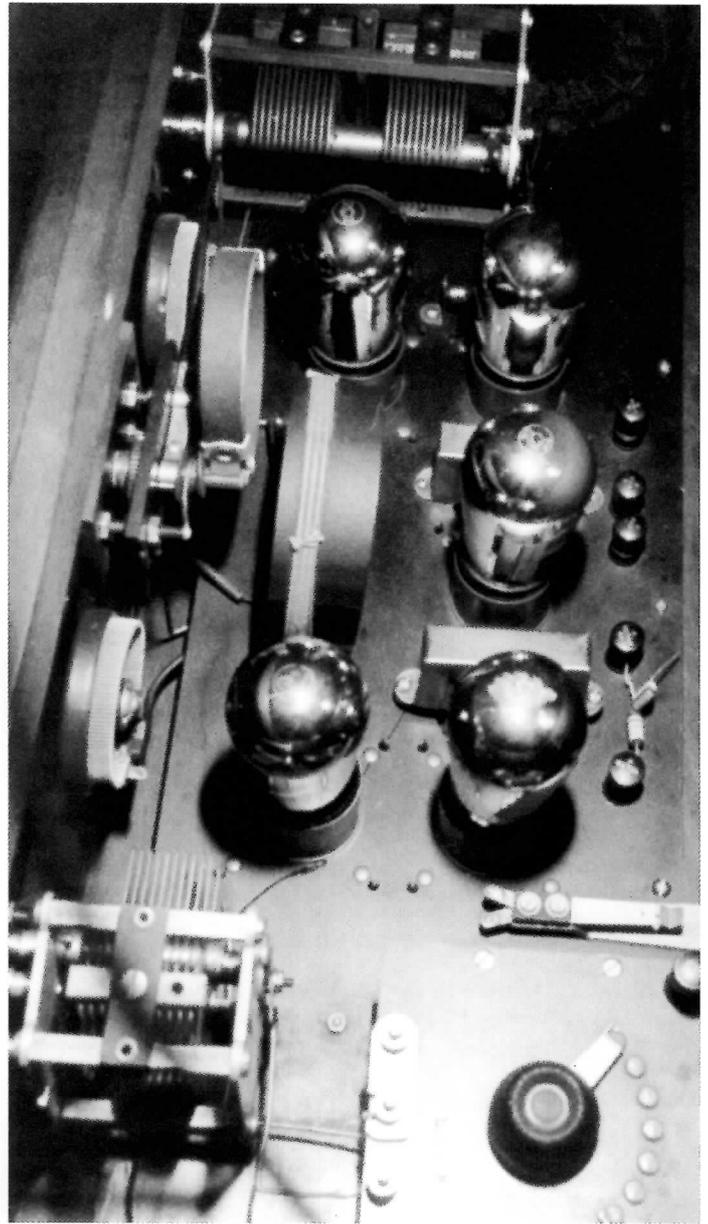
That the Oriole is a 'two-dialler' is explained by the use of a 2-gang condenser for tuning the second HF and detector grid circuits, another interesting feature since ganged tuning was fairly uncommon in this period. The tuning condensers were made by Hammarlund, of later communication receiver fame. A removable link provides for use of a frame aerial if required.

Hoping to find some information on this set, I looked in Alan Douglas's *Radio Manufacturers of the 1920's*, but no luck. Nevertheless I wrote to Alan to enquire, since he knows more than anyone about early American sets; and sure enough he came up with a magazine reference giving the manufacturer as the W-K Electric Company of Kenosha, Wisconsin and the date as 1925. He tells me that W-K were in the radio business for only a couple of years, so my acquisition must be fairly rare. Alan said that he had never seen an Oriole, so I feel rather smug to be one up on the master for once!

The magazine snippet relating to the Oriole—actually the 1926 Model 70 which was the same except for an additional LF stage—says it 'employs two stages of radio frequency in a circuit which, according to its manufacturer, uses no 'lossers' to prevent excess oscillation, thus improving reception'.

'Lossers' was the contemporary term for intentional damping of tuned circuits to maintain stability of triode HF stages. Indeed there are no such expedients in the Oriole, although using cathode followers with a gain of less than unity could be thought to represent intentional 'loss': however there is doubtless some gain in each HF stage due to the step-up ratio of the RF transformer coils. Reaction is provided from detector anode back to the second HF stage grid circuit, and this too will boost the overall gain: surprisingly, the knob controlling the swinging reaction coil is not labelled, while a rheostat in the second HF valve filament is labelled 'Volume'.

When it came to testing the set, it was gratifying to find that the windings on both LF transformers were intact—not bad after 72 years. Sensitivity is only moderate, but selectivity is excellent as might be expected from three tuned circuits with low-loss Litz-wound coils. So altogether it's not a high performance set, but stable and selective nevertheless.



# BVWS and the internet

by Mike Barker

For some time now, the question of the BVWS having a presence on the Internet has been debated. A year or so ago the committee drew on the expertise of members such as Bob and Lee Smallbone and Enrico Tedeschi, who already had Web sites, to investigate the practicality of having BVWS information hosted on the Internet. At that time the costs given were high and seemed to outweigh the benefits, but since then, the Society has been very fortunate, as some members have listed us on their Web pages, and a good number of enquiries and new members have resulted.

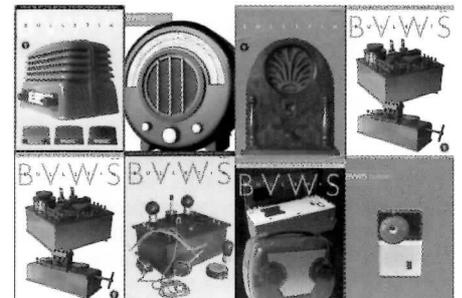
Recently, Peter Foden has given his time and services in creating some good Web pages for the Society, and doing the ground work to find an Internet Service Provider that will host the BVWS, giving space for the pages shown here and also for electronic mail capabilities.

In the very near future, the Society will be internationally seen on the Internet with the web address of BVWS.org.uk

Once everything is up and running, the web pages will include other info, such as links to other sites on the web, service advice, quality and reliable parts stockists, articles etc. However it is not the intention to host items for sale and swap or wanted, as this is well catered for with the newsletter.

Peter Foden, has kindly agreed to take on the job of managing the BVWS web site, keeping it up to date and making any changes as seen necessary. If you have seen Peter's own web pages you will already know that the BVWS web site will be in very good hands.

These are the pages you will see when connecting to the BVWS web site in the near future. New ideas for, and comments on, the web pages are most welcome and should be sent to Mike Barker.



# A French wireless museum

by William E. Johnson

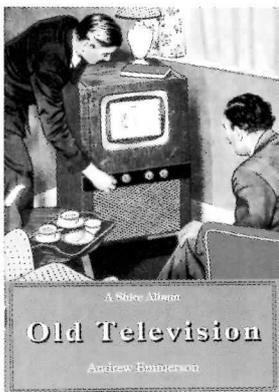


The Department of Deux-Sèvres is not perhaps the best-known part of France for British tourists, though some may find themselves travelling south-west on the A10 motorway. Any BVWS member driving in that area would be well rewarded by leaving the A10 at Junction 31 and following the N11 to the small town of Saint Maixent L'Ecole. In Saint Maixent take the D737 La Mothe road, and you will very soon come to the village of Nanteuil. There, at 136 rue de Charnay, you will find the Musée de la T.S.F. of Monsieur J.C. Bernard.

Monsieur Bernard, a retired electrical engineer, has built up a collection of over 300 vintage sets, mainly French, all very well restored and exhibited in a building behind his house. There is a section devoted to military radio equipment, a section of crystal sets and a display of valves. The domestic equipment includes many sets of the 20's and 30's; makes such as Ducretet, Gody, Ferry, Raymond, Ariane, and Philips (some familiar ones here). Also, though it is not a radio, I was very intrigued to listen to a huge Pathé-Marconi phonograph of 1910.

Monsieur Bernard has set up this museum as a memorial to his son who was killed in a road accident. It is open from 2 to 6pm. on Mondays and Wednesdays, and during the same hours on Saturdays and Sundays of the first and last weekends of the month, but may be visited at other times by arrangement. The phone number (in France) is 05 49 05 55 93. Visitors need to know some French, particularly if telephoning. The Tourist Office in the main street of Saint Maixent would help with making an appointment. There is no charge for entry, but donations may be made to the museum funds.





## Old Television by Andrew Emmerson

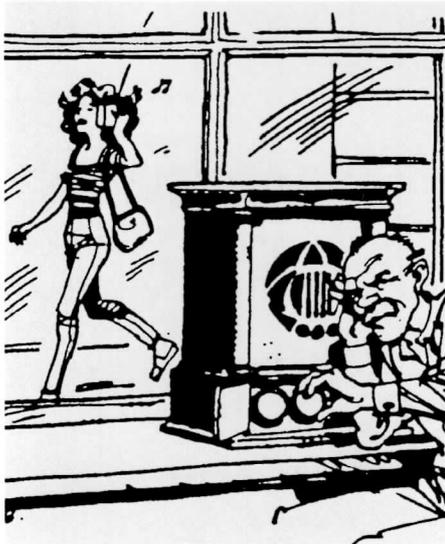
Television, the most recent of the communications media, has nonetheless a long history, from the crude experiments of John Logie Baird in 1925 through the pioneering days at Alexandra Palace in the 1930s to the 1950s, when most homes acquired television, and the increasingly sophisticated 1960s, when colour transmissions were introduced. This book explores the heritage of the black and white era, from imposing sets built like furniture to the first transistor portables. It traces the development of

television broadcasting and the whole culture of the television generation from the coming of commercials to the rediscovery of cult programmes.

Andrew Emmerson, well-known in these pages, is a researcher, writer and broadcaster on technological subjects. He enjoys discovering the history of inventions and restoring and reviving equipment based on older technologies. He has been fascinated by television since watching *The Flowerpot Men* at a very tender age during the 1950s. He edits *405 Alive* magazine, and is also the author of the Shire album *Old Telephones*.

Old Television is published by Shire Publications, isbn 0-7478-0367-6. It is available from most bookshops and costs £2.95

## Orkney Wireless Museum GB2 OWN



Orkney Wireless Museum was founded in April 1983 by the late Jim MacDonald (GM8BFG, RNARS 0468) after a lifetime passion in working with and collecting all things electrical. Named thus because it is essentially a local collection, an attempt to capture the evolution and swift passing of an intriguing era. Orkney's wartime electronic history is strongly represented in the Museum, together with wireless in the Orkney home, both pre and post war

Unfortunately the founder died in April 1988 before he could enjoy the fruits of his work, in retirement. The family were anxious that the founder's work and the collection should not be lost and accordingly a Charitable Trust was set up in June 1990.

In 1994 the Museum was Registered by the Museum & Galleries Commission.

In 1997 the Museum moved from St Margaret's Hope to Kiln Corner, Kirkwall; last

summer being its first year in its new surroundings. The building was erected in 1866 for use as the Estate office for the Earldom. In the 1930s it was leased to John T Miller, who developed a thriving wireless sales and repair business. His sons ceased trading in 1996. So it is that the building still has a wireless connection, as several of the sets in the Museum collection were sold in this building.

This year, the Museum will be open every day from Monday 6 April until Sunday 27 September. Special displays this year will include German U Boat Radio and valve development 1938-43.

It is planned to activate the Museum's amateur radio station (GB2 OWM) for International Marconi Day on Saturday 25 April.

Check the web site - <http://www.lirona.demon.co.uk/owm.htm>

## Television: an international history of the formative years by R.W Burns

reviewed by Ray Herbert

The tone of this most readable book is set out in the preface. Prof Russell Burns declares that the objective is to present a balanced history of world television, based in the main on primary source documents and viewed from the perspective of the times rather than the standpoint of a later generation. In a way it is a companion to his earlier book *British Television, the Formative Years*, but the photographs are much improved, due in part, to the use of higher quality paper. There are 656 pages, 1300 references and it is copiously illustrated with line drawings, tables and photographs.

In common with many other books on television history, the outbreak of World War Two is taken as a convenient point to terminate the account. This means that the important and successful work on colour television carried out by J.L. Baird during the war years, is excluded.

The opening four chapters deal with the period 1843-1900 and the contributions made by Bain, Bakewell, Carey, Senlecq, Ayrton and Perry are examined in detail with supporting illustrations. Two following chapters recall the years 1880-1920. Sometimes called television's master patent, the system put forward by Paul Nipkow in 1894 is described, also the work of Sutton, the first person to apply the Kerr cell effect to the problem of transmitting optical images by wire.

It is pleasing to see that Llewelyn B. Atkinson, a student at King's College, is correctly accorded the distinction of being the first experimenter to use mirror drums for scanning in 1882. He failed to publish his achievements and Weiller received the credit for this device seven years later.

Attention is drawn to some novel non-scanning schemes by Lux, Ruhmer, Rignoux and Fournier prior to 1920. At a later date, Baird suggested a means of transmitting a picture dot-for-dot instead of line-by line, but it was never adopted.

A section is devoted to the early use of cathode-ray tubes for television purposes by Rosing and the accurate predictions of Campbell Swinton are included. Interesting comparisons are made between Marconi and Baird, who shared similar backgrounds and temperaments.

The work of Jenkins in the USA receives detailed treatment. His demonstration of silhouettes using a lens disc was described in *Wireless Review* for 15 December, 1923, and *Chambers Journal* carried an account of Baird's work along similar lines in their November 1923 issue. Clearly it was a neck and neck race.

Three chapters cover the low definition era in the UK, USA and France with digressions to include large screen television and the transition to higher definition. Events leading

up to the BBC service from Alexandra Palace receive considerable space. The limitations of the Farnsworth electron camera are compared with the advantages of using a storage system. This leads to controversial matters relating to the claim that the Emitron was developed independently by EMI and without assistance from RCA who had produced the iconoscope. The author comes down in favour of EMI.

Just over half way through the book it is back to the USA to recount progress made by RCA with all-electronic television and equally important advances in the United Kingdom and Europe.

The respective merits of 240 and 405 lines as promoted by Baird and Marconi-EMI are examined and interesting descriptions of the equipment installed at Alexandra Palace are given. In the same chapter reference is made to the French 60 and 180 line transmissions.

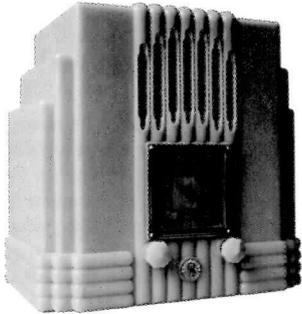
It is impossible to do justice to a well researched, comprehensive and factual account of international television in a brief review. There is a considerable amount of new material and this book will be an indispensable aid to the serious student of television history.

Copies are available from the IEE, PO Box 96, Stevenage, Herts, SG1 23D, price £75, postage and packing included (UK).

# Fancy giving it a go?

by Simon Wade

Scavenging about boot fairs. Answering free ads. We all do it. Driven by those naïve misconceptions that anything old simply has to be worth money and that 'nobody else could possibly collect old radios'. Do we find good stuff?: the occasional Bush 'Rock 'n' Roller, valve tester,



1956 wood Pye, Snoopy transistor, Stentorian speaker. There is no hope of focussing; it is a blind ambition to acquire (and this never goes away). After three years of buying everything there are 50+ sets in the loft, 50+ sets in the garage. 'Er indoors has gone beyond it and decreed that "we're going to have none of that junk in this house, it's them or me!" There may well be a couple of really interesting items, but really... Finally it sinks in that you've got a pile of rubbish.

Divorce is threatened, as it has been for the last 35 months, but it's gone straight over our head. We take stock and think about the situation. Back into the local rag go adverts offering 'valve wireless for sale'. There must be a score of adverts in free ads sections up and down the country every week advertising '50s boxes. Do any sell? Only to starters! Boot fairs are next. It is likely that you still do not know about the BVWS, such has been the blind ambition. Then someone mentions 'Radio Radio'. In this British radio 'bible' are sets that you never knew existed and a whole new world opens up. Nicer ones start to creep in, more money is spent and the radios become presentable. Fingers are kept crossed on the Missus, she simply has to like these.

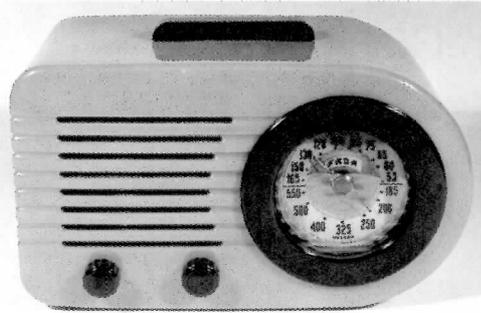
It is when a battle-weary collector discovers the other books, the Steins, Stokes, Sideli, Bunis, Collins and more recent ones that the heart starts a-thumping. This is often where the real bug takes over and collectors realise that there are so many variations to be had in our radio encrusted planet. Those with a little extra guts and determination move warily to the next step. This is what happened to me and it is now an incredible driving passion collecting classic radios from all corners of the the world.

Trading radios with foreigners is something that most collectors simply cannot bring themselves to do. Collectors of anything are often relatively introverted characters who collect to fill a certain gap in their lives. Spreading one's wings towards the wide array of non-British radios seems to negate this sentiment to some extent. The hunt for a certain holy grail keeps all of us on our toes, and a foray overseas has to be given

commensurate thought. There is so much choice (take Scott, Atwater Kent, Cathedrals, Catalins as well as transistors and novelties as examples)

Have you ever considered trading (swapping) radios overseas?

It doesn't have to be a seriously expensive



radio, nor does the exercise have to be. When one flips through pages in a certain American radio magazine a British collector would not need a masters degree to observe a white KB 'Toaster' for sale at \$395 (£240). Americans did not make KB Toasters and some American collectors like them and want them. Insides are a much less important factor here - it is normally the aesthetic appearance that is the driving force.

A few years ago, before the fall of the Iron Curtain, Tesla 'Talismans' were selling in Britain for nearly £500. After 'the fall' a glut of these Czech unique lookers hit the West at below £100. They are in most European collections by now, but Americans are still discovering them. So there's a start! A window of opportunity for the aspirant maybe. A KB 'Toaster' and a 'Talisman' are rotting on your shelf having cost you, a prudent penny-pinching collector, less than £100 for the pair. So where do you go from here? Buy a few American radio books, subscribe to a collector's magazine, and find just the set you think you want. On the other side of the pond an American may be willing to pay \$300 for each (£360 total). He won't be advertising in the wanted section though, so he has to be found. That means hassle and expense! However if you are lucky enough to find your man, he then needs to have what you want! Oh dear, he only has a Fada Bullet, with a hairline on the bezel and wrong knobs, which he values at \$650. You haven't got anything like it, up goes the blood pressure. A similar Fada Bullet in England would set you back £500/550. You don't know this guy from Adam, so what do you do next? For an initial 'cost' of less than £100 you might get your (current) holy grail of radios. The fact that he has been trying to off load this pile of camel's droppings for the past three years is not disclosed to you. Try to sleep on the idea. It's impossible. What about the shipping cost, Customs, Insurance, loss, packing. Are there any other problems with the case, can I trust him, what if?.. what if? what if?

There are many reasons (let's call them excuses) for most not to want to 'stray from these shores':

- I only want English radios in my collection (oh come on!)
- New concept (the fear stepping into the unknown)
- Foreigners (will they play with a straight bat, what?)
- Courage (the fear of oneself)
- Trust (the fear of erroneous descriptions)
- Naïvety (the fear of not understanding 'true value' - if it appeals, does it really matter?)
- Risk (the fear of nearly everything)
- Loss (the fear of everything)
- Shipping cost (this is often linked to the fear of paying the right price for a radio in the first place! Airmail is a little more expensive than sea, and the US takes 7-14 days.)
- Hassle of building up a network (lack of self-confidence)
- Rip Off (lack of self-confidence).
- Exchange Rate (some Americans can't work out what time it is, let alone what a quid's worth - talk in dollars)
- Letter writing (a BVWS pastime - the fear of telephone/fax/computer costs)
- Insurance (not necessary if packed properly)
- Customs (value it sensibly - it is only a radio!)
- Customs Regs (second hand radio - not working - 'gift')
- Time lapse (people can stall for months in the hope of getting something cheap from some old dear in England, but a few days with an American, with mailing -too Risky!),
- Expense (largely irrelevant - communication costs are cheaper than ever)
- References (not necessary with most)
- Previous bad experience (well try again!)

Most fears are unrealistic. Foreign collectors who are prepared to swap are often in the same boat as you. People have different perceptions from others about condition and how to pack. Be specific. Values reflect a radio's novelty in a different country. In the US there are established values. Be flexible. Be in regular contact. Follow up. Never swap a radio you will not be able to replace!

Parcelforce and the normal mail service are by far the best.

If you haven't got the get up and go, then there are always the dealers. They take the strain out of this!

I will expand in the next Bulletin. There are so many different factors. Indeed just now I have been approached by two very interested collectors in South America - at last a new avenue? I know nothing about their radios, but I am most excited about the prospect. Some of my trades are like international house chains, sometimes never ending. A collection can grow organically this way. A small initial investment, hundreds of faxes and phone calls, high shipping costs, no less than nine links in the deal with sets going all over the place (sometimes not even seen) but I landed up with this gorgeous green AWA Radiolette. I also have had four radios on a radio collector friend's shelf for over three years whilst he looks for suitable swaps. Is this trust or stupidity?

# Wireless collecting on a budget

by Phil Rosen. C.Eng

My present rabid interest in pre-war wireless sets became acute round about the time I retired 5 years ago. Not a good time to take up such a hobby. Prices had already begun to spiral upwards and my free cash was strictly limited. However, I decided it could be done provided I was prepared to compromise on quality and authenticity.

What I wanted was a decent sized representative collection of domestic radios from the 20's to the 40's taking in as many different styles and brand names as possible. I joined Radiophile and BVWS and attended auctions and swap meets. I haunted the three local auction rooms at each weekly sale and visited local antique fairs including the gigantic one at Newark.

My policy was to deliberately go for tatty specimens with rusty chassis, missing bits, damaged cabinets etc. In this way I could pick up quite a few classic models at prices far below what one would have to pay for pristine examples. e.g: Ekco 85 for £15, Philips 531 for £10, KB New Pup for £30, Philco 600 for £33 etc...

What to do with all this junk? Well I had a friend who was a fellow collector. He had little electrical knowledge but was an absolute wizard at cabinet renovation. I was a chartered electrical engineer with two left thumbs when it came to cabinet repair. So we worked together. I did the electrical repair work and he did all the cabinet renovations.

The purists may smile pityingly at the results of our labours, the varnish on the cabinets may not be authentic and anyone who looked inside the chassis would find a fair crop of RS replacement components. Nevertheless, to the average radio buff the results are quite impressive—though I say so myself. In the back room allocated to me by the wife, I have some 70 sets on shelves floor to ceiling. Most are electrically operable and are wired to the mains and an aerial and earth system which enables them to be played to visitors.

My most expensive exhibit is an Ekco round radio with an extensive crack (invisible from the front) for which I paid £260, one of the cheapest a GEC BC3545 of 1934 vintage for which I paid £6 at auction. However, even this stratagem of buying tatty specimens no longer works for sets of older 1920's vintage. Prices are now way out of sight with dealers happy to pay up to £1000 or even more for many older models whatever the condition. To get a representative collection of sets from this period I have had to resort to even more questionable methods.

I look for authentic cabinets of the 1920's. These can still be acquired if one is patient, at quite reasonable prices. I have amassed a fair collection of genuine late 1920's components and valves and I have sourced a supply of black plastic material, which when sanded matt, looks surprisingly like ebonite. I try to get photos or articles on the sets in question, enough to give a clear idea of the panel layout and circuitry. I then build reasonably authentic innards for my genuine cabinets. The results are not as bad as one might expect. When fully assembled and working, these replicas, although they wouldn't fool an



Right: A replica Gecophone 'Smokers Cabinet'.  
Below: Phil Rosen's large and varied collection of bargains.



expert for one moment, do give an impression of what the originals must have looked like. In this way, I have built a tolerable smokers cabinet, a BTH type C crystal set and even an Efascaphone Rodney Grand. And so, for anyone who would like to have their own

comprehensive collection of old wireless sets but is put off by all the hype about astronomical prices, if you are prepared to compromise, it can still be done. It's getting more difficult all the time but—it can still be done!

# Black Propaganda part 3

By Mark Kenyon, reproduced by kind permission from 'After the Battle' No.75 with permission of the publishers. Back issues available from 'After the Battle', Church House, Church Street, London E15 3JA price £3.88 including post.

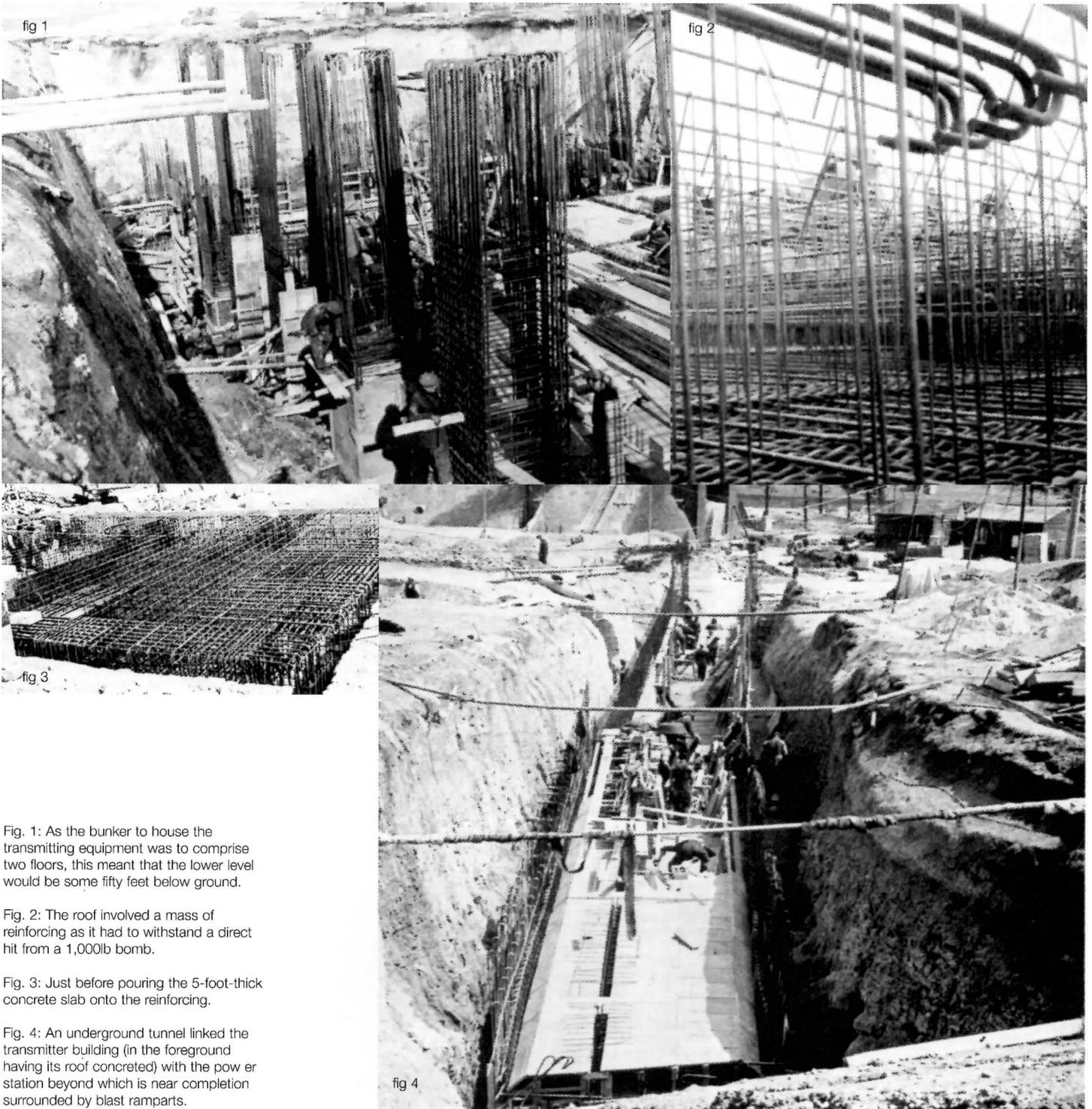


Fig. 1: As the bunker to house the transmitting equipment was to comprise two floors, this meant that the lower level would be some fifty feet below ground.

Fig. 2: The roof involved a mass of reinforcing as it had to withstand a direct hit from a 1,000lb bomb.

Fig. 3: Just before pouring the 5-foot-thick concrete slab onto the reinforcing.

Fig. 4: An underground tunnel linked the transmitter building (in the foreground having its roof concreted) with the power station beyond which is near completion surrounded by blast ramparts.

McLachlan's chief, Rear-Admiral John Godfrey, had had a shore posting in Germany in 1936. While there he became aware of differences in German political opinions and of a rift between U-Boat ratings and their officers. In 1942, as Director of Naval Intelligence, he had the foresight and imagination to realise that one of the best ways in which the U-Boat menace could be overcome was to widen this rift which, on the evidence of the German Navy's mutiny at Kiel during the previous war, would quickly spread to the Army and the Luftwaffe. It was with this in mind that Godfrey had set up a special

propaganda section, NIDI7z, which had been working with Delmer for some time. Now, through Donald McLachlan at the Christmas lunch, he put forward a plan for the development of his idea and suggested that Delmer open a new radio station that was to be aimed specifically at the U-Boat crews.

At the time, Delmer was unhappy with his work and its results to date. Godfrey's proposition appealed to him immensely but he realised that the present system of recording broadcasts for later transmission would not be good enough for the new station: programmes would have to go out live. In his

book, *Black Boomerang*, Sefton Delmer states how at this point he 'suddenly remembered' that there was a vacant studio at Milton Bryan, a recollection that prompted him to tell McLachlan that he could put a new station on air provided that he could obtain the use of 'Aspidistra'. This account is repeated by Ellic Howe in his own and later book, but it is, in fact, incorrect. One can only assume that Delmer, as a top flight journalist, thought that his book version made a better story.

Harold Robin was involved from the very beginning and knows the true story. In a recorded interview in 1982, and later in a letter

written in February 1990, Robin states that the Milton Bryan complex was built specially for Delmer's programme. After discussions with Delmer the accommodation was laid out by Robin and Squadron Leader Ted (later Sir Edward) Halliday. It was constructed by the Ministry of Works using direct labour and Robin with his staff installed the wiring and recording equipment for the studios. It follows that 'Aspidistra' was purchased for Delmer's use, despite the delay, and that he knew about it and the plan for the new station much earlier than he admits in his book.

According to Delmer, he put the revolutionary plan to his new chief, Sir Robert Bruce Lockhart, who had now succeeded Reginald Leeper. Lockhart was very interested but was afraid that a great deal of influence would be necessary to prise 'Aspidistra' from the hands of the BBC. How that influence was obtained is not recorded, but among those whose

assistance was sought were Major-General Dallas Brooks of the Royal Marines and Delmer's departmental Deputy Director-General in charge of inter-Service relations, and Charles Lambe, the Deputy Director of Plans at the Admiralty. No doubt Churchill also had a hand in it. Whatever went on at top level, 'Aspidistra' was removed from BBC use and control and Delmer and his team took possession of Milton Bryan (MB) in January 1943.

The MB studio complex was five acres in area. The main building was of two storeys and built of red brick and stood in the centre of a compound sited just off the road that runs through the village's Church End. The compound was surrounded by a 12-foot high, steel-mesh fence which was patrolled by Special Constables with Alsatian dogs. These security guards were retired members of the Bedfordshire Constabulary and were responsible to the PWE Security Officer at Woburn

Abbey, Colonel Chambers.

The guards were employed to keep unauthorised persons out rather than to keep the mainly German inmates in, although, because of the identity of some of the inmates and also the effectiveness of the station's transmissions, there was always the threat of direct retaliation in that an attack might be staged by German commandos. In the event of this possibility, the guardroom contained an armoury of rifles and sub-machine guns. There was a firing range within the compound and the sound of staccato bursts of fire must have puzzled the villagers.

The MB studios were the most modern of their time and its telephone operators had years of previous experience with the GPO in London. Scrambler telephones stood on the desks of the senior staff and there were direct telephone lines to the BBC and the Air Ministry. The Hell-schreiber news service was

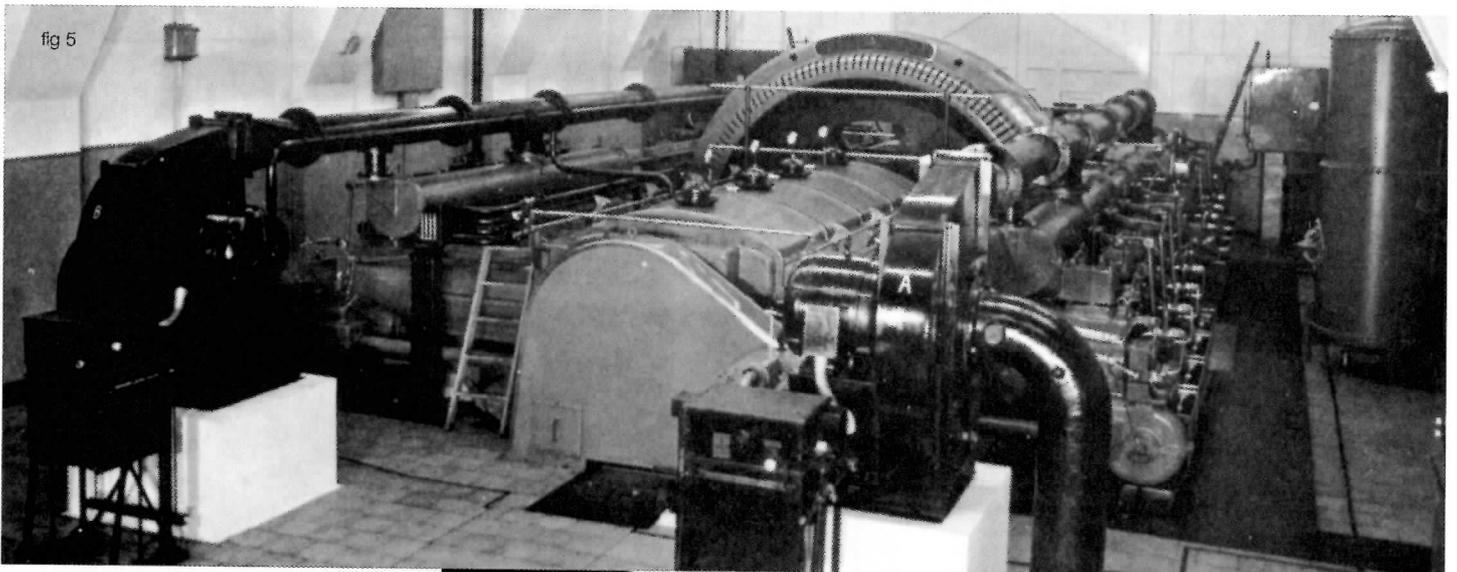


fig 5

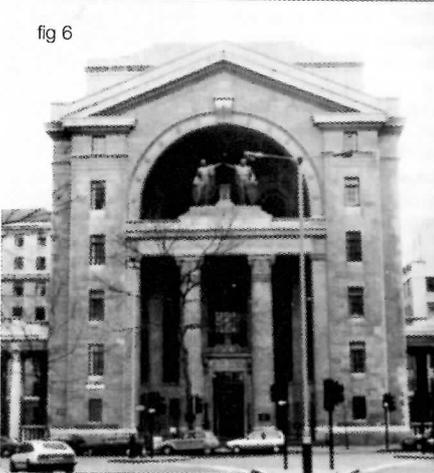


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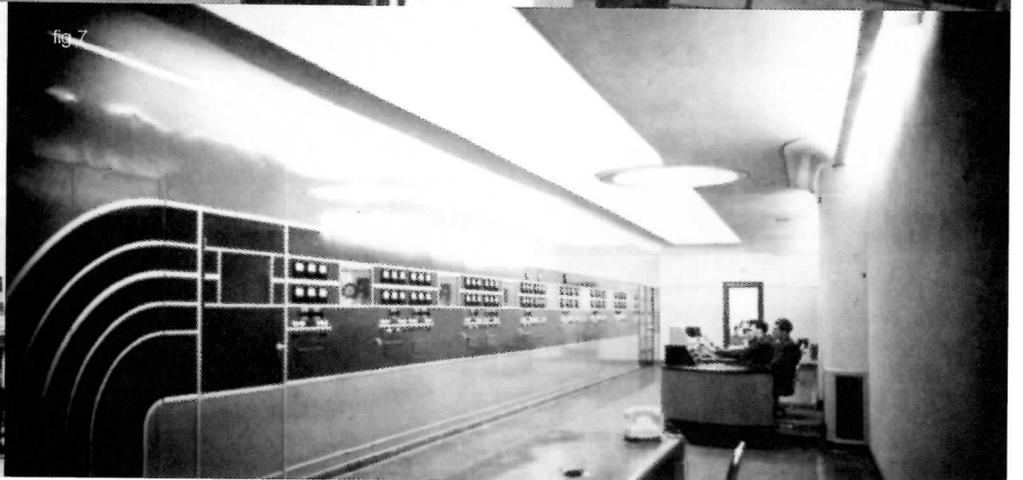


fig 7

Fig. 5: Electricity was generated by a 3,000hp 16-cylinder Crossley Premier engine. This ran for a total of 145,000 hours until outside power was brought in from the National Grid. This is the view from the supercharger end.

Fig. 6: However, all during the construction and installation phase, the BBC raised strong objections to the immensely powerful Aspidistra being used to broadcast on enemy wavelengths. They saw this as a form of jamming which the War Cabinet had forbidden, as a tit-for-tat assault on Reichsender would lead to the BBC coming off worst. It was finally resolved in May 1942 that Aspidistra would be used by the BBC's European Service, now located at Bush House (illustrated) on Aldwych, the

same building to which the PWE's headquarters had moved from Woburn Abbey earlier that year.

Fig. 7: On November 8, 1942, Aspidistra went on the air for the first time, putting out pre-recorded speeches by President Roosevelt and General Eisenhower on the American landings in North Africa. However, the first broadcast backfired because no one had been informed of the wavelength to be used would be that of the Vichy-controlled radio in Rabat. Consequently, it led the Admiralty to presume that the city had already been captured and was in American hands! This is the control room in 1942.

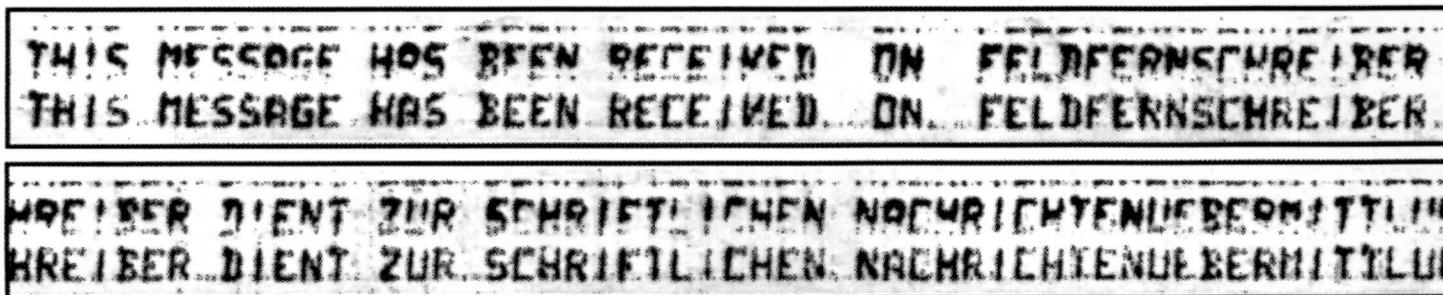


Fig. 8 (above): Although Aspistra was not yet in Delmer's hands, one acquisition which was proving of inestimable value was a German radio-operated teleprinter called a Hell-Schreiber. Goebbels had set up a network of the machines so that the German press agency — Deutsche Nachrichtenbüro or DNB — could service all its occupied territories without resorting to land lines. When its London office had closed, the DNB correspondent had left the machine behind and Delmer requisitioned it for his own use. This enabled him to intercept press releases as soon as they were sent out from Berlin. It gave Delmer

unrivalled access to current news and events, sports reports and the like, which helped to make his own broadcasts sound all the more authentic, while still distorting the truth in his own inimitable way. 'And', wrote Delmer after the war, 'being faster workers and less inhibited than the teams working for Goebbels, we were able to put this news on the air before our Nazi competitors.' Although we were unable to trace a working Hell-Schreiber, Hans Ever of Cerisiers, France sent these examples actually sent on the Wehrmacht version, the Feldfernschreiber.

Fig. 9: The transmitter section of the Feldfernschreiber. The coded drum turns one revolution per character, and every time a key is pressed, one turn of the drum produces a series of pulses. These pulses are recognised by the receiver (centre) and an electro-magnet taps the slowly-moving roll of paper tape against a fast-running inked worm-shaft (figure 10).



taken direct from Germany and there were additional landlines to Reuters and the Press Association and to the PoW interrogation centres. The latter were at Latimer and Wilton Park in Buckinghamshire and when Delmer learned of a prisoner who could be useful, he would drive down immediately.

The delay in Delmer's use of 'Aspidistra' was largely due to the objections from the BBC who were afraid that the Germans might retaliate either by jamming its broadcasts or bombing its headquarters at Broadcasting House in Portland Place. These objections had now been overruled and Delmer was ready.

The name chosen for the new station was 'Deutsche Kurzwellensender Atlantik', the English translation of which was 'German Short-wave Radio Atlantic'. The Germans soon abbreviated the name to 'Atlantiksender'.

Although Delmer had increased the size of his original team during the 18 months that Gustav Siegfried Eins had been in existence, he needed a considerable number of extra personnel for the Atlantiksender operation, and by the end of the war there was a total of around a hundred people working at MB. Very few of these were English but two who were British were Delmer's right-hand men.

Clifton Child was a 30-year-old education officer from Manchester and fluent in the German language. He joined the army when war was declared and was a specialist corporal in the Royal Corps of Signals when, having just published a book on the subject of Germans in the USA during the First World War, he was posted to the Political Intelligence Department of the Foreign Office where he worked with Dr John Hawgood on the preparation of both the German and American sections of the FO's Weekly Intelligence Summary. In March 1943, when the PID was merged with a unit of Chatham House to become the Foreign Office Research Department, Hawgood recommended Child to Delmer and secured the necessary Army and Foreign Office approval for his transfer to MB where he became Chief Intelligence Officer (Political). Clifton Child spent much of his time poring over German newspapers and intelligence reports and he had an uncanny flair for drawing the correct conclusion from the most vague and apparently unrelated news items. So good was he that Delmer was sometimes suspected by the SIS of having a 'mole' at Bletchley Park supplying secret Ultra' decrypts.

Child's opposite number at MB, the Chief

Intelligence Officer (Economic) was C.E. Stevens, a Fellow of Magdalen College, Oxford, and an ancient history don. He came from the Ministry of Economic Warfare and among his accomplishments were a photographic memory and the suggestion that the beginning of Beethoven's Fifth Symphony, which sounded like the Morse code letter 'V', should be used to introduce the BBC broadcasts to the Resistance in Occupied Europe that followed the news every night.

Delmer's deputy was Karl Robson, an Army major, and a fellow journalist from the *News Chronicle* who spoke German as well as he spoke English.

Another Englishman who played a key role was Ellic Howe whose 'fakes and forgeries' propaganda printing unit is a story in itself (which he has recounted in his book *The Black Game*). Howe was the only British national to use a cover name, probably for business reasons. Delmer called him 'Armin Hull' which was another unexplained departure from using correct initial letters.

The great majority of the personnel who worked behind the steel mesh fence at MB were German, some of whom had held prominent positions before the war. Max



Fig. 11: And so to MB — Milton Bryan — the nerve centre of Sefton Delmer's operations from February 1943. The purpose-built studio block was protected by a perimeter fence patrolled by armed guards with dogs. This picture was taken several years ago by Felix Delmer.

Fig 12: Milton Bryan in 1991, the fence has gone, save the odd post. Nevertheless, one can still follow the remains of the patrol path laid around the complex.

Fig 14: The derelict guardroom still stands beside the main gate. Otto John described the scene in December 1944: "Finally the car stopped before an iron grille behind which there was a door leading to a guardroom. Through the half-open door I could see men in uniform and sub-machine guns with their barrels gleaming against the wall."

Fig 15: The move to MB coincided with the launch of Delmer's new station, *Allantiksender*, but still only on the short-wave (30.7 and 48.3 metres) as *Aspidistra* had not yet been wrested from the clutches of the BBC. Nevertheless the new

studio facilities freed Delmer from the constraints of recorded programmes, enabling him to go out live. This had its dangers for there was now a risk that the announcer might depart, either intentionally or by mistake, from the prepared script. Today the risk of obscene callers on 'phone-in programmes is taken care of by a slight delay in transmission, giving time for the offender to be cut off before their voice is heard, but such electronic sophistication was not available in 1943. Therefore each of the announcers in the studios at MB had a 'minder': a man or woman, fluent in German, who sat on the opposite side of the desk with one hand holding a copy of the script and the other poised over a switch with which the broadcast would be cut off instantly should the announcer deviate from their text.

This was demonstrated in the mock-up built by Anglia Television for their 1987 documentary 'Woburn at War'.

Fig 16: Harold Robin who provided the authentic MB microphone and record cutter.

Braun, who blew his own cover on his first morning at RAG, had led the anti-Nazi campaign in the Saar before the plebiscite of January 1935. Philip Rosenthal was a well-known manufacturer of porcelain who became the Social Democrat Social Services Minister in Bonn when Willi Brandt was Federal Chancellor after the war. Rene Halkett was a nephew of a former C-in-C of the German Army, the unfortunate General Werner von Fritsch, and Dr Ernst Adam had been Chief of Staff to the Republican C-in-C during the Spanish Civil War. Fritz Heine had been secretary of the Social Democrat Party until it was disbanded by the Nazis in May 1933, and later on there was Dr Otto John (cover name 'Oskar Jurgens'), a German Resistance leader and possibly the only one of the 1944 July Plot planners who managed to escape, becoming head of the post-war German equivalent of the British Secret Intelligence Service (SIS) until he fell foul of Reinhard Gehlen, West Germany's renowned spymaster.

There were some refugees and some deserters, but the rest of the staff were prisoners from the German armed forces—the Army, the Luftwaffe, and the U-Boat arm of the Kriegsmarine.

Exactly how these prisoners ended up at MB is not quite clear. It has already been mentioned that there was a direct telephone line to the PoW interrogation centres in Buckinghamshire and at that time the Foreign Office had a temporary Prisoner-of-War Department headed by Colonel Henry Faulk, a German-speaking psychologist. It must be assumed that likely candidates from these two sources were passed on to Delmer and it is known that PoW interrogation was also conducted at Woburn Abbey by, among others, actor Marius Goring.

One of the most intriguing of the prisoners was a U-Boat Oberfunkmeister (Chief Petty Officer wireless operator) by the name of Eddie Mander. Although a fanatical Nazi when he joined the Navy, his treatment by his superiors turned him, and he willingly used his extensive talents to help destroy his former masters.

Mander had been the Chief Radio Officer on the prison ship *Altmark* and, although badly wounded with a bullet in one lung, he evaded the boarding party from HMS *Cossack* by jumping overboard and escaping across the ice. After spending some time in hospital he was called up for the Kriegsmarine and insult was added to injury when he was

required to do his radio training again from the very beginning. He made nine operational cruises before being arrested and court-martialled for 'black market' offences. Finding him guilty, the court took the unusual step of giving him the choice of three sentences. Mander took what he thought was the lesser of three evils, returned to operational U-Boats, and was captured when his boat was sunk a few days out from St Nazaire. Mander became the leading scriptwriter for the *Allantiksender*. He was repatriated to Germany after the war and was murdered shortly afterwards, possibly by former U-Boat crewmen in an act of vengeance.

To Delmer, Mander was invaluable due to his hatred for the Nazis, his knowledge of German radio and radar equipment and techniques, the U-Boat code-book that he brought with him, and his personal knowledge of the U-Boat men and their private lives.

The *Allantiksender* was based on Gustav Siegfried Eins but was very different in certain essentials. Unlike the earlier station, it purported to be a genuine German forces station. There were no obscenities or lurid stories and the broadcasts were basically a mixture of music and news: the music to make

fig 17



fig 18



Fig. 17: Live radio provided a 'disc jockey' style of presentation with an approach completely different from GS1. Now the accent was slick and fast, with the playing of much American 'pop' dance music never heard on the official German stations. News flashes, courtesy of the Hell-schreiber, were even read in a new form of colloquial German without the verb at the end of the sentence to make it short and punchy to hold listeners attention. A German band, captured in North Africa, was employed to make special recordings for MB, as was Marlene Dietrich although she was lead to believe that she was performing for Voice of America! 'Poor Marlene',

wrote Delmer. 'She never learned the truth until she revisited her native Berlin after the war' where she was pelted with rotten tomatoes for performing on Nazi radio. The last programme from MB went out at 5.59 am on Friday, April 30, 1945 when Soldatensender West signed off. Delmer made the final announcement — the only time he was ever heard personally on black radio. Milton Bryan was stripped of its equipment and abandoned, save for its period as a POW camp when Mark Kenyon first knew it. By the 1980's it had been extensively vandalised, (Fig. 18) this is how Felix Delmer found it on a nostalgic visit to walk in his father's footsteps.

it contemporary and popular, the news to give credibility and to provide the vehicle for 'black' propaganda.

Initially, the station broadcast for three hours daily from 8.00 p.m. to 11.00 p.m. Later, when it was linked with another Delmer station, the Atlantiksender increased its hours and later still the twin stations were broadcasting 24 hours a day.

The British Embassy in Stockholm acquired recordings of the latest German 'top ten' which were flown to England by RAF Mosquito aircraft, while the American Office of Strategic Services (OSS) obtained records of the latest hit tunes from the USA. The OSS also arranged a special recording session by Marlene Dietrich, leading her to believe that she was doing it for the Voice of America station. Some records for Delmer were made in the Royal Albert Hall by the Band of the Royal Marines, and the crowning musical touch was a genuine German band which recorded for Delmer at MB after its capture in North Africa where it had been entertaining the Afrika Korps.

It was essential that the news items were genuine and topical and a variety of sources were used to ensure that they were up to date.

The primary source was the interrogation of prisoners-of-war who provided up-to-the-minute details of military intelligence, gossip, troop movements and other items that could be used for subversive purposes.

Two members of the MB staff were employed in reading all the letters written by U-Boat PoWs as well as the births, marriages, and deaths notices published in German newspapers. With these they started what became an enormous reference file from which the Atlantiksender was able to offer

congratulations to a U-boat commander on the birth of a baby or its sympathy to a Torpedomaat on the death of his father.

Reconnaissance photographs of German cities were taken by Mosquitos after bombing raids. The developed prints were taken by dispatch riders to MB where photo-interpreters in Clifton Child's team examined them. After comparison with a library of guide books and large-scale city plans, the Atlantiksender was able to announce the names of the streets and the actual numbers of the houses in them that had been destroyed just hours after the event.

Agents in the U-Boat bases in France kept a watch on local events and radioed the results of football matches between flotillas with the upshot that the Atlantiksender was able to broadcast the scores not long after the referee had blown the whistle for full time.

Congratulations on the award of military decorations were often broadcast before they had been officially announced, a seemingly astonishing feat that was actually performed relatively easily as the staff at MB knew the tonnage required for the Eisernes Kreuz (Iron Cross) and the scores of the individual U-Boats.

Despite these useful sources, the real key to the success of the Atlantiksender was Delmer's acquisition of a Hell-schreiber.

The Hell-schreiber (literal translation - bright or clear writer) was a teleprinter that printed by a scan across a paper tape. Dr Josef Goebbels, as head of the official German news bureau (the DNB), issued them to prominent newspapers and broadcasters, and through them the Reich propaganda ministry issued press releases and advanced texts of important speeches that were to be made by

Hitler and other Party leaders, stating precisely which points should be emphasised and how editorial comment should treat them. When the London correspondent of the DNB returned to Germany after the outbreak of war he conveniently left behind his Hell-schreiber in full working order. Delmer acquired it through the generosity of the head of Reuters, Christopher Chancellor, had it copied in the United States, and installed a machine on every desk in the newsrooms at MB. The information sent out by Goebbels' Reichsministerium für Volksaufklärung und Propaganda was received at MB at exactly the same time as it was received by German newspaper offices and radio stations and *before it was released to the German people*. As Clifton Child commented, it takes little imagination to realise the potentialities of the Hell-schreiber machines in the hands of the 'black' propagandists at MB.

Delmer put the information received out on the Atlantiksender before the German stations did. Some items were repeated word-for-word to give an authentic touch to what was supposed to be an official German station, while others were given a good measure of disinformation that was never intended by the Herr Doktor Goebbels.

As the Atlantiksender was supposedly a German forces station, its news items were deliberately slanted so as to be of interest to Service personnel and were spoken in Service jargon. One of the objectives was to encourage surrender and desertion and this was done by suggestion. Much was made, for example, of how prisoners in enemy (Allied) hands would have an advantage after the war because they were being taught new crafts and were already being paid good wages, and

a genuine International Red Cross report was repeated stating that there was a noticeable increase in the number of deserters reaching neutral countries and obtaining good jobs there. Prisoners-of-war in Canada and the United States were also reported to be working for high wages.

Other objectives were to unnerve and to mislead. On one occasion, when information was received from the Admiralty that a number of blockade runners were suspected of being about to sail for Japan, the Atlantiksender laid on a special programme of Japanese music for the ships to let the crews know that their destination was no longer a secret. On another occasion, the Admiralty supplied Delmer with details of a new and secret anti-radar device. It was actually a completely useless piece of equipment but the Atlantiksender managed to give the impression that it was causing grave concern to the Allies and caused the U-Boats to have the utmost faith in it.

As the war continued and 1943 gave way to 1944 the senior and experienced U-Boat commanders who had been either killed or captured were replaced by young men whose previous experience was limited to one or two cruises as watchkeeping officers. Aware of the gap that already existed between U-Boat officers and ratings, the Atlantik-sender used the situation to drive the wedge deeper, suggesting that the drive for decorations and glory by the new, young, and inexperienced commanders would result in the loss of their boats and the deaths of their crews.

It is almost certain that Goebbels knew that his voice was being broadcast on the Atlantiksender! Using recordings of his speeches and the transcripts received through the Hell-schreiber, the Atlantiksender re-transmitted them, but the commentary that followed immediately afterwards highlighted a very different interpretation from the one decreed by the Propaganda Minister.

When the Atlantiksender was ready to commence operations, negotiations for the transfer of 'Aspidistra' to Delmer had not been completed. The powerful transmitter was still in use by the BBC and when the first broadcast took place on February 5, 1943, the programme went out live on the short wave via the Potsdam transmitter. As with the first broadcasts of Gustav Siegfried Eins, evidence of 'come-back' was eagerly awaited at MB and first reports began to be received very soon.

On the very first evening, Atlantiksender was detected by the alert monitors of Reichsmarschall Göring's radio security service which realised that the station was British and attempted to jam it. Despite the fact that its cover was blown within a few hours of its inaugural transmission, Germans continued

to listen and a great many of them believed it. Reference to the Atlantiksender soon appeared in newspapers published in what neutral countries there were left in Europe but, more significantly, captured U-Boat men and aircrew from Luftwaffe units operating in support of the U-Boat bases in France told their interrogators that there was little point in refusing to answer questions because the Atlantiksender already knew the answers. Interrogation reports received from other theatres showed, for instance, that the station was extremely popular with the Afrika Korps.

Not long after the inauguration of the Atlantiksender, Delmer's horizons were considerably expanded when he was appointed Director of Special Operations against the Enemy and Satellites (Black). This new appointment meant that Delmer not only had Germany to consider but also her allies. Additional huts were erected in the compound at Milton Bryan and the number of personnel increased again with the influx of Italians, Bulgarians, Hungarians and Rumanians. A number of additional clandestine stations went on the air and it is a measure of Delmer's genius that he was able to plan and operate them all at the same time without compromising any one of them. Nearly all of these stations were ineffective and had short lives.

While Atlantiksender was aimed at the U-Boat arm of the Kriegsmarine, it was not long before Delmer was called upon to open a second major 'black' propaganda station directed at the other two arms of the Wehrmacht, the Heeres (the Army) and the Luftwaffe. The new station was called 'Soldatensender Calais' but, for obvious reasons, changed its name to 'Soldatensender West' after the Allied advance following the Normandy landings overran the Channel ports. The Soldatensender was linked with the Atlantiksender and also announced itself as such, but this time Delmer had the use of 'Aspidistra' and his new station blasted the air waves with 600 kw of power on medium wave. By this time, two 100 kw short wave transmitters had been added.

Initially, the Soldatensender broadcast for three hours daily from 8.00 p.m. until 11.00 p.m. but its hours were gradually increased until, when the planners of 'Overlord' required Delmer to undermine the morale of the German forces in France, it was on the air for 24 hours a day.

Like its associate, the Soldatensender gave the impression that it was a German forces radio station based in the Pas de Calais area. Once again, its propaganda was subversive and not by direct appeal.

Its first transmission was on October 24, 1943, and there was plenty of popular music

and much that was of interest to the ordinary German soldier in the way of sports results, promotions and decorations. A great deal of emphasis was laid upon the adverse progress of the war: the devastation caused by RAF and USAAF bombing, the misery experienced by the families at home, the disruption of transport and other services. New and fictitious Allied weapons against which there was no protection were reported and the inexorable advance of the Red Army towards the heart of the Fatherland was announced repeatedly and in great detail.

The Soldatensender, as a 'German' radio station, could make no direct appeal for surrender. Its constant message, though, by covert suggestion, was that the war was already lost and that there was little point in the armed forces continuing the struggle. It was cunning too. In denouncing deserters, the Soldatensender told loyal soldiers what signs to watch for among their comrades and in doing so surreptitiously gave instructions on how to desert and get away with it. Other methods of encouraging desertion were to report on the numbers of men reaching neutral territory and to announce that certain well-known and high-ranking officers had not been captured but had crossed the Allied lines of their own free will.

Strange though it may seem, it was the Soldatensender that gave the first announcement of the Normandy landings. This was no breach of secrecy but a carefully planned attempt to break down the morale of the defending German troops. Delmer had been in on the plans for 'Overlord' for some time so that his operation could be used with the utmost effect. As soon as the long-awaited news-flash was received from the DNB over the Hell-schreiber, the Soldatensender announcer broke into a music programme and broadcast his own prepared announcement. This took place at 4.50 a.m. on June 6. It was a simple statement that the invasion had begun but a short time later the same announcer at MB was back on the air with a longer report stating erroneously that the much-vaunted Atlantic Wall had already been breached by overwhelming Allied forces and that the coastal garrisons were surrounded.

Final instalment of 'Black Propaganda' in next issue

## Don't miss this!

by Pat Leggatt

I am always keen to promote the welfare of BVWS members, so may I alert you to the latest electronic wonder, described in a mail order catalogue as 'The cutting edge of 'wellness' technology'. I quote the manufacturers statement.

*'Electricity, electrical appliances and electronic equipment produce an underlying disorder-*

*liness or inaudible 'noise' caused by the random motion of electrons and medical research suggests that constant exposure to electromagnetic fields can be potentially harmful. Quantum Life™ products provide an effective solution to this discomfort with revolutionary Quantum Resource Technology (QRT), which neutralises disorderly electrons, creating 'cleaner' electricity and transforming your home and office into more comfortable and protective environments. Home Free™ has been reported by customers to produce a more harmonious feeling in the home, more*

*efficiency in the performance of appliances and a calming effect on children and pets.'*

This sounds a splendid £199's worth and I am eagerly awaiting delivery of my device. No doubt by turning it up to maximum power I shall be able to reduce the disorderly electrons of Radio 1 to no more than a distant 'thump thump, thump' and transform TV programmes into a soothing blank screen! And how gratifying it will be when the grandchildren become no more worrying than sheep harmoniously grazing.

# Letters

Dear Editor,

It is difficult to understand why Geoffrey Horn (Winter 1997 Bulletin) does not believe the BBC's own documentation of the 'giant' horns published in 1932—the year Broadcasting House was opened. Unfortunately the caption to the photograph accompanying my letter (Summer 1997 Bulletin) was not reproduced – “The Clock Tower and South-West Corner of the Building, showing the Royal Standard flying on the occasion of H.M. King's visit on July 7th, 1932. Note on the balcony the loudspeaker used for broadcasting Big Ben at approximately its natural strength.” The text speaks only of one loudspeaker and one special amplifier. A thorough search of contemporary BBC publications produced no other mention of this installation which suggests to me that it was a short-lived phenomenon.

Technical journalists are no less guilty than others when it comes to inaccurate or clumsy reporting. For example, Mr Horn's letters

6

The Clock Tower and South-west Corner of the Building, showing the Royal Standard flying on the occasion of H.M. the King's visit on July 7th, 1932. Note on the balcony the loudspeaker used for broadcasting Big Ben at approximately its natural strength.

the missing caption

produce quotes of “four drive units each with 180 watts of power” (1935) and “have an output of 150 watts” (1937), the latter as a caption to a photograph accompanying an unrelated piece on noise pollution laws in Birmingham! In fact those “speakers” look very similar to air conditioning intakes on other parts of the roof. And what any of this has to do with the preparation for war in 1939 beats me. Lacking better evidence, Mr Horn's saga does indeed continue. I rest my case!

Yours sincerely  
Malcolm Addey, New York

Dear Editor,

I have been a member of the BVWS for maybe 7 or 8 years, and this letter has been boiling up inside me for much of that time. I recently attended the AGM at the Harpenden auction, and heard one of the committee members refer to the fact that more women were joining the society. I was about to cheer heartily, when she went on to say that it seemed “ladies were now joining with their husbands”.

Why am I upset? Because this sweeping remark assumes that any woman member must be dependent on the original enthusiasm for wireless of her male partner. Rubbish. Let's stop these appalling assumptions, which have been rife in the BVWS.

Over the years at various swapmeets, AGMs and auctions, I have been rendered speechless by podium references to “wives tolerating our hobby” and similar male asides. Please wake up to the fact that there are women who share this enthusiasm for radio, and some of us did NOT inherit it from our partners. Mine first began on a visit to Gerry Wells' museum back in 1985, when I bought my first set, a wartime utility set. I bought more, and introduced my partner Martyn to the interest, which (luckily) he shares. It's a wonderful hobby to share as a couple, and I'm very glad that more women are joining with or

without their male partners. But as the numbers of women members increase, some men in the society are going to have to make an effort to forget the sexist language and pipe-and-slippers allusions of the past, and stop assuming women are just the sandwich makers and support staff at BVWS events. We are collectors and enthusiasts in our own right, and it's about time that was acknowledged publicly.

I've turned up to BVWS events, brandishing my membership card, only to be ignored by the person on the door and my partner asked if HE was the member. Am I invisible, as a woman? Imagine how frustrating this is.

I'm not asking for much, just that our society, which is so rich in enthusiasm and good will, should conform to the norms of the world outside our doors, where women are treated as equals.

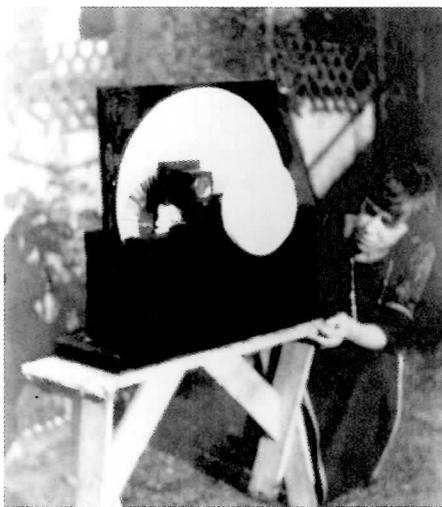
Lesley Curwen (Miss)

Dear Editor,

Towards the end of 1998 it will be 75 years since J.L. Baird produced the first television images in the form of shadowgraphs and it is fitting that Pat Leggatt should reveal some of the lesser known aspects of that period.

Victor Mills was not alone in suggesting that the way forward involved the cathode-ray tube; Campbell Swinton held the same view in 1908. It would be unfair to criticise John Baird for staying with the spinning Nipkow discs throughout the 1920s since there were no other options. In fact, it was not until 1931 that von Ardenne carried out the first public demonstration of cathode-ray tube television.

When Baird moved to Frith Street, Soho, in November, 1924, he worked entirely single-handed and won the race to achieve true television in October 1925. During the same period the Admiralty Research Laboratories at Teddington were engaged upon similar experiments yet in spite of having highly qualified staff and the best equipment, their results fell far short of those being obtained by Baird.



The earliest known photo of Baird's experimental apparatus has been sent to me by his son, Dr Malcolm Baird. Taken probably in October-November 1923, the location is unknown. No one has identified the lady.

The photograph shows the sending end of the system as described in his first patent, applied for in July, 1923 and subsequently reported in the November, 1923, issue of Chambers Journal. The large scanning disc contained 18 or possibly 32 small holes in a single spiral and is shown in the top picture of Pat Leggatt's article. A smaller disc is visible

and this is a wooden sheave which can be seen coupled-up to a DC motor on page 5 of the booklet, Seeing by Wireless.

Unfortunately, this historic print is not sharp, but the editor is hoping to provide some electronic enhancement.

Yours sincerely,  
Ray Herbert

Dear Editor,

I feel that I must write in support of the views put by Chas. Miller in the previous Bulletin regarding setting-up time at Harpenden.

In his reply, the events co-ordinator states that the Committee is only responding to the views of the membership. Of course, it is often those who make the loudest noise who get heard, but I am sure there must be many others who agree that an hour is more reasonable, but have better things to do than grumble to the committee. Over the years that I have been attending Harpenden and other vintage radio meetings, usually as a stallholder, I have seen various methods tried by organisers to control the way business is conducted, but all of them have served only to make life more difficult for everyone.

Remember the 'Harpenden Blankets', used to cover the stock that everyone piled up on the steps outside? Of course, the practice of stacking up your wares near to the door was a way of getting your stall set up in the ridiculously short half hour that used to be allowed. It also meant that anything worth having was examined and a sale agreed before the goods were even in the hall, so the edict was issued that all goods had to be covered up, a kind of Purdah to prevent the incitement of lust in the eyes of intending purchasers.

I had hoped that this sort of silliness was a thing of the past, following the resurrection of the Society from the brink of self-destruction, and that common sense would now prevail. It takes a good hour to transfer a stall full of goods from a car (assuming you are parked right outside the hall), and to set them out in some kind of order, as it is very difficult to push through a crowd of people carrying large and heavy items to your stall.

What is “In- trading” anyway? All stallholders have to be BVWS Members, as do all the buyers. It is a fact of life that many of the “serious” buyers are stall holders, or will by some means make sure they get to the sellers first. That is because it is the keen buyers who make the running, not the sellers. The keenest try to get there first, and those who are not so keen don't. That's life.

The organisers of the NVCF have realised this, and have solved the ‘problem’ by charging £15 for an early entry ticket. I somehow suspect this would not be a popular solution to the situation at Harpenden, and arguably that is correct, as the meetings are not just commercial events.

I would like to reassure some of those who feel cheated out of the ‘Good Stuff’ they see us stallholders loading up before the meetings start. They are probably not missing out, because in a lot of cases the items are sales or swaps that have been agreed by telephone days or weeks before, and maybe even paid for. Goods and money may well be exchanged outside the hall while some of the latecomers are still in bed, (although some of us have had a 3 hour drive to get there.) I often bring goods that are already sold to Harpenden, or arrange to collect things there. Isn't that part of the point of a swapmeet? Even speaking as someone who relies upon vintage wireless for my living, I think we should lighten up a bit,

and not start once again surrounding meetings with complicated rules that make the application form look like a new style tax return. As Chas says, 'no quality stalls, no swapmeet. 'Vintage radio is now a worldwide interest that is quite capable of sustaining non-BVWS supported meetings, and it would be a pity if Harpenden was to wither on the vine through lack of support if absurd conditions are imposed on the members who attend regularly, in all weather, often from hundreds of miles away, to provide the Good Stuff that the members come to buy.

Here's to the success of the BVWS.

Regards  
Steve Harris.

Sir,  
I would like to thank Andrew Zimmer for taking the time to answer my letter on the subject of stallholders' setting up times, and my rather tongue-in-cheek reference to foreign visitors being able to take British sets out of the country.

I am rather surprised, Andrew, to read your comment that most of the sets changing hands at BVWS event are undistinguished and can easily be spared. It does seem very odd to me that all those unprincipled stallholders should be scrambling as soon as they arrive at Harpenden to get hold of these not very attractive models, and that the people who complain about their activities should be so sorely displeased at missing these doubtful bargains. At Radiophile events we expect to have radio sets that for the large part are very desirable, and yet we have never received a single complaint about stallholders monopolising the buying. There appears to be room for considerable speculation here.

To return to the question of setting up times, irrespective of what may or may not take place at certain antique fairs, for vintage radio events to be successful what needs to be addressed is that of attracting sufficient numbers of good stalls. To give the holders the impression that they are regarded as predators does not strike me as a good way to go about this. I would suggest, Andrew, that you beware of the precept of making the many suffer for the misdeeds of the few because this is a dangerous path to travel. It smacks rather too much of the sort of schoolboy punishment when Johnny Jones complains that his cap has been stolen and the teacher keeps the whole class in until the miscreant shall confess. When it becomes obvious after a time that nobody is going to plead guilty the teacher finds himself in an untenable position, for he cannot keep the class there all night. Eventually he has to capitulate, the clear loser of the contest. It may then occur to him that perhaps no one did steal Johnny Jones' cap but that he lost it and made up a story to conceal the fact from his parents...

Yours Sincerely  
Chas E. Miller

#### Editor Replies

As most people will probably realise, the business regarding setting-up time has no proper solution, the more agile amongst us can set up in about fifteen minutes, the less probably forty five, help for the less nimble stall holder can be requested from Ian Gurton.

From my first days in the BVWS (10 years ago) right up to the present I've seen examples of intrading occurring at Harpenden. It happens a lot less these days, but that's

because some of the more mercenary characters are no longer members anymore.

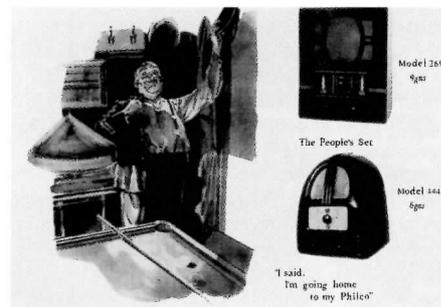
Whenever I've had a stall in order to clear material I no longer need, I usually get approached by people who are going make a hefty profit in their shop/stall with no intention of reselling the item to a BVWS member. My response is a simple 'no'. I am probably being naïve but I like a set to go a good home. As for people exchanging goods/monies/cowrie shells etc at Harpenden before 'kick off' what's wrong with making the transaction after the doors open, I thought everybody was busy setting up?

Regarding Jonathan Hill's solution concerning early entry to the NVCF, his fair has to be commercially viable and it is of course up to him to set his own rules. In the BVWS we are trying to balance the needs of all members, buyers and sellers, and the plight of our gallant stall holders is now to be eased by extending the setting up time to half an hour. Thankyou for your correspondence, I hope that the future Harpendens will be more clement.

Carl Glover

Dear Editor,  
Many thanks for printing my letter and photographs of my console C25 Ekco receiver. Although I only received one response to my queries- Taco Vonk from Holland, who kindly telephoned and then sent me details of the set. In turn I was able to send him colour copies of material I have.

Not too long ago I was asked by an acquaintance if I could dispose of various items of advertising material. Some of these items were related to wireless in the mid 1930's, many of them were in the the form of rolls of paper, delicate to handle and close to



their value was such as to prevent me from buying them. Also, there is a limit to the amount that I can display (join the gang! - Editor). Many of the items were quite large, roughly 3x4 feet. However I did take photographs of almost all of the board-mounted items.

Because these old advertisements are so attractive I was keen to produce something to display with my collection of old wireless sets. My solution was to produce an assembly of ephemera relating to single manufacturers and display them in framed pictures. My pictures are A3 size. For the Ekco and HMV compilations I have cut window mounts into a piece of cardboard so that each individual



disintegration. I therefore decided to mount them onto board with a layer of lining paper so as to 'balance' the board and prevent warping. With care I developed a degree of skill and the results were very satisfying, they were, I felt, well worth the effort. I sold the various items at the local BVWS swapmeet to the benefit of my acquaintance.

Whilst it might have been desirable to add to the advertising ephemera to my collection

advert can sit in the mount in a similar fashion to that of displaying sets of cigarette cards.

The Philco sheet is somewhat different. The original poster was very large comprising only the military figure and the wording 'I'm going home to my Philco'. I decided to add pictures of two 'Peoples Sets' from my collection. I view this as updating the advert for vintage wireless purposes!

Yours Sincerely, David Bickerton

# BVWS Minutes

## BVWS AGM and new Committee for 1998/1999

The Annual General Meeting of the Society took place at Harpenden on 1st March 1998. All members of the Committee were present with the exception of Pat Leggatt who was convalescing after a hip operation. The Society members present joined the Committee in wishing him a speedy recovery.

The Chairman's report was given by David Read who explained that Willem Hackmann had found it necessary to stand down through pressure of his professional work. David thanked Willem for the friendly way in which he had chaired the affairs of the Society and went on to confirm that that he had been asked by the Committee to act as Chairman, and had agreed to do so until the next round of elections. In his report for the year David said that; "1997/98 had been a deliberately quiet year in the sense of special events since it had been necessary to exercise financial care after the heavy expenditures involved in the previous year. Normal meetings together with the production of the Bulletin had continued to reach a high level of excellence. The year had been much less quiet as far as Committee composition had been concerned. As well as Willem Hackmann, Terry Martini and Mike Barker were unable to continue in role through pressure of work, although in Mike's case he was staying on the Committee in a general role. Pam Zimmer who started the year as Events Co-ordinator had taken over Membership Secretary, and Andrew Zimmer had in turn been co-opted to take over Events Co-ordination. Other roles during the year involving Pat Leggatt, Carl Glover, Ian Higginbottom, Guy Peskett, and David Read remained unchanged".

Individual reports were then received from Committee Officers for Bulletin, Members Newsletter, Treasury, and Swap Meetings including Auctions (with a particular vote of thanks our Harpenden and regional meeting organisers, and to Ron Deepröse and Terry Ransom our Auctioneers). The interim accounts were explained by David Read together with an advance warning that after very many years at fifteen Pounds, the annual subscription needed to be reviewed; this is because the subscription income no longer covers the costs of what the Society provides to its members, thus causing an unsafe reliance on income from meetings and also from auction commissions.

For the new BVWS year inaugurated by the AGM, the jobs on the Committee had not been contested, and apart from Pat Leggatt, all Committee members had agreed to continue in their jobs. In Pat's case, he had after very many years of service to the Society (including a period as Chairman) decided that it was time to retire from Committee work. He would, however, be continuing the Bulletin Index and in addition would pick up the management and sale of Bulletin Back Numbers. Also with respect to the new Committee, Steve Sidaway and Jeff Borinsky had offered to serve as co-opted members. This was greatly welcomed both by the Committee and the Society members present, and both Steve and Jeff joined the Committee at that point in the AGM.

The Meeting concluded with Any Other Business which was 'open' to the floor in which two main issues were raised; setting up time for stall holders at BVWS meetings (which some felt was inadequate), and the proposed

BVWS Internet site. These issues were discussed with the members present, and then put on the next agenda of the Committee for resolution or progress. (See minutes of that meeting also in this Bulletin)

## Minutes of meeting held at 5 Templewood Ealing on 2nd April 1998

1 Those present: David Read (Chairman), Mike Barker, Jeff Borinsky, Ian Higginbottom, Steve Sidaway, Pam Zimmer, Andrew Zimmer. Apologies for absence were noted from Carl Glover and Guy Peskett.

2. Minutes of the previous meeting held at 23 Rosendale Road were agreed

3 This was the first meeting of the 1998/99 Committee following the AGM and Steve Sidaway and Jeff Borinsky were welcomed as new members of the Committee. Steve has been a Society member since 1978 and brings a wide experience of the Society's affairs including the organisation of events to the Committee. He has expressed an interest in re-introducing a restoration competition to the events calendar and this was given warm approval by the Committee. Jeff has been a Society member since 1986 and brings considerable technical expertise in communications technology to the Committee. He has a particular interest in television and will provide a much needed focus for this section of the Society's interests.

Pat Leggatt has retired from active Committee work which included providing the official minutes of the Society's meeting and decisions. On this occasion the minutes were taken by David Read. This function will in future be carried out by Guy Peskett who will also act as Secretary in the wide sense of helping in the execution of Committee decisions and business where the Chairman and/or the Committee would find it helpful.

Many members of the Society know that Pat is currently convalescing from a hip operation and we all wish him well. Pat will be continuing to maintain the Bulletin index, and has in addition agreed to provide the 'backnumbers' service to members. In this respect members are asked to be patient about the small delay that will inevitably take place whilst he regains his fitness.

For the future it was decided that photographs of committee members should be shown in the Bulletin at the time of a new Committee taking office. This might also be usefully shown on the notice board at Harpenden to assist members in identifying those on the Committee. A larger badge will also be worn at the Society's events.

4. The outcome of the AGM was considered and in particular the points raised from the floor. The first of these was the set-up time allowed for stall holders at Harpenden meetings. The current time of 20 minutes was in fact arrived at by careful observation at earlier meeting of what was adequate for the majority of stall holders, however, it was recognised that this does give some with complex stalls to complete less time than needed. After careful discussion of all the issues requiring compromise - including the inhibition of early trading requested by very many members - a set up time of 30 minutes was agreed in future. It was recognised in discussion that whatever set up time is allowed, the necessary compromise between the requirements of security, inhibition of early trading, differences between those stall holders with helpers and those without, etc., etc., will always leave someone unhappy. The Society has struggled with this for all of its 20

years and there simply is not an answer that will satisfy everyone. The Committee noted that the Society's events were for the benefit of all its members and not to provide an income for traders. It should also be noted that stewards and helpers arranged by the Meetings Organiser are all voluntary and their comments on this subject have been gratefully received and carefully considered.

Related to this issue, the Committee considered the position with respect to the mounting of occasional exhibitions and decided that as such exhibitions were set up altruistically for the members generally, the rule for time allowed would not apply.

The second subject raised from the floor was on the subject of the Internet. Here the Committee confirmed that a site for the purpose of making the Society, its purpose, its bulletin, its events, and its subscription rates known was making progress with the help of Peter Foden. (Mike Barker is the Committee member co-ordinating this subject, and a detailed account of the purpose and control of the intended site is provided by him in this issue of the Bulletin.)

5. Pam Zimmer reported on the membership status and the position regarding renewal of subscriptions which now stands at 1116. Some of the Society's members appear to be uncertain as to who on the Committee to approach concerning membership matters such as renewal procedures, the subscription amount, changes of address etc. In future a more prominent notice on these matters will occupy a regular space in the Bulletin.

The following new members were noted and given the customary welcome to the Society: Maurice Titcombe, Geoff Parsons, Alan Hicken, Dr. Martin Campbell-Kelly, Julian Scott, Dave Goddard, Andy Silvester, Myles Hely, Donald Sparrow, Peter Hyde, Geoffrey Wooldridge, Alan Hird, Peter Adair Walker, Stephen Walker.

6. Any Other Business. The subject of the 'drinks bar' (as distinct from the main food canteen) was raised. The caterers have apparently discontinued this useful service because it has not proved worthwhile. The Committee felt that an approach should be made to reinstate the service because of the very great convenience it provides to those who only want a tea and perhaps a biscuit or bun. Ian Gurton will be asked to approach the caterers to see if anything can be done.

The problem of the extreme time taken by the Society's main Harpenden auction was considered. Two contributory factors are for consideration: the position of the AGM half way through the auction and the very large number of items. Pam Zimmer who helps with the paying-in and paying-out for lots agreed to approach the auctioneers (Society members Ron Deepröse and Terry Ransom) to explore what might be done to improve the situation. In particular the Committee considered a reduction in the total number of lots allowed might be necessary, and also a possible limit to the number allowed to any single vendor. The position of the AGM is another issue which is of perennial difficulty; in particular to balance time required for the meeting with the need to associate the AGM with a mainstream event so as to secure maximum participation by the membership.

A request has been received from the Eire Early Radio Club to exchange bulletins and this was agreed.

Date of next Committee meeting - Thursday 28th May 1998 at 5 Templewood.

# Back issues

Vol 10 Number 2 Inc. The KB Masterpiece, Extinct Species "A Monster Defiant".

Vol 11 Numbers 2, 3, 4 Inc. BTH VR3 (1924) receiver, Marconi's 1897 tests, Origin of the term 'Radio', Baird or Jenkins first with TV?

Vol 12 Numbers 2, 3, 4 Inc. the



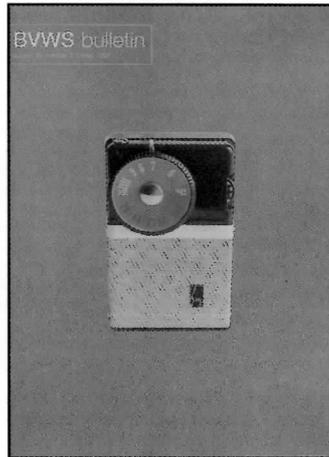
Emor Globe, The Fultograph, Ekco Coloured Cabinets.

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Vol 21 Numbers 1, 2, 3, 4 Inc. Marconi in postcards, the Defiant M900, GPO registration No.s, Personal portables, the transmission of time signals by wireless, the Ekco A23, historic equipment from the early marine era, the birth pains of radio, inside the BM20, plastics, Ferdinand Braun, pioneer of wireless telegraphy, that was the weekend that was, the first bakelite radios, BVWS - the first five years, the world of cathedrals, Pam 710.

Vol 22 Numbers 1, 2, 3, 4 inc. Another AD65 story, the Marconiphone P20B & P17B, listening in, communication with wires, the story of Sudbury radio supply, French collection, Zenith Trans-oceanics, Farnham show, Alba's baby, the first Murphy television receiver, AJS receivers, Fellows magneto Company, Ekco RS3, Black Propaganda.

Vol 23 Number 1 inc. Sonora Sonorette, Bush SUG3, RNAS Transmitter type 52b, North American 'Woodies'.

#### Supplements:

- 1 "Just a Few Lines" The Birth and Infant years of BBC Television.
- 2 "Metro-Vick 1922-1928", "Early Television in the UK", "Industrial aspects of the Valve before 1925"
- 3 'Seeing by wireless' the story of Baird Television
- 4 reproduction Marconi catalogue

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## News and Meetings

### Wootton Bassett meetings

Mike Barker will be organising a swapmeet on **July 5th & December 6th**.

### Harpenden meetings

There will be a swapmeet on Sunday the **7th June**. Autumn is heralded with a swapmeet on **6th September**, and the year finishes with a swapmeet on the **29th of November**.

### NEC Meetings

Jonathan Hill's 'National Vintage Communication Fair' meeting will occur on **11th October**. For further details on the NVCF please refer to the advertisement on page 2.

### Southborough Meetings

John Howes will be holding two more swapmeets in 1998: they are an audiojumble on **12th July** in Tunbridge Wells and a swapmeet on the **8th November** in Southborough.

### Portishead Meetings

On **Sunday August 16th** there will be a swapmeet at the Clarence house, High Street Portishead. Doors open 9.40 am to stallholders an 10 am to members and guests. There is a bring and buy stall all day and an auction at 1pm. Tables are £10 plus £2 each for members and guest tickets. Excellent parking and catering is provided. Ring Alex Woolliams for bookings on 0117 9721973.

### Hull Meeting

Michael Gohl will be organising a swapmeet at the Alexander Hall, Hedon, Hull, East Yorkshire on **28th June**. For further details ring Michael on 01482 654053

### American meetings

**2nd - 5th September:** Antique Wireless Association '36th Historical Radio Conference' (information: AWA, Box E, Breesport, NY 14816. Secretary's telephone: 001 607 739 5443)

The Elgin (ARCI Radiofest XVII) meeting (similar to Rochester) will run from **5th - 8th August**.

### Gerald Wells' garden party

Gerry Wells will be having a garden party on Saturday **6th June** at the Vintage Wireless Museum, 23 Rosendale Road, West Dulwich, London SE21 8DS. Telephone 0181 670 3667. Next year's garden party will be held on Saturday **5th June**.

### 1999 Harpenden meetings

For those who need to plan their diaries well in advance, there will be an auction, a restoration contest and the AGM on Sunday **7th of March**. Sunday the **6th June** hosts a swapmeet. Autumn is heralded with a swapmeet on **5th September**, and the year finishes with a swapmeet on the **28th of November**.

### Bulletin Index

The Bulletin Index is currently available up to issue 23/1 and is a complete cross reference of authors, subject matter and main articles back to the beginning of the Society. Please send a large SAE (31p stamp) with a cheque for £2 payable to Pat Leggatt at 28 High Park Road, Farnham, Surrey, GU9 7JL. Telephone 01252 719081.

### History of the British Radio Valve to 1940

Copies of Keith Thrower's book, *History of the British Radio Valve to 1940*, are available from Kalma Ltd., 12 Wychcotes, Caversham, Reading, RG4 7DA (Tel: 0118-947 1813) A special discounted price of £14.40 (£15.15 Eur/surface) is offered to BVWS members.

Apart from outlining valve progress and constructional details, the book provides data on 1300 valve types from those used in the First World War and through the classical years of radio and television.

### New Articles

If you have anything interesting to say concerning *Wireless, Television, Broadcasting, Collecting etc.* please send it to the Editor for future publication in the BVWS Bulletin, as the Bulletin is only as interesting as the articles that comprise it. We welcome all suggestions and comments regarding the new appearance of the Bulletin and hope that it is catering to your needs as a collector / enthusiast / historian. Your article can be just a few paragraphs long as long as you think it conveys its message across to your fellow members.

Also if you have any photographic material that would look good in the Bulletin, don't hesitate to post it to the Editor. The chances are that I will definitely use it!

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**Early Wireless by Anthony Constable.** This excellent book retraces the paths of history which culminated in the final appearance of the wireless set. Much information for the collector. 167 pages. Hardback. **£8.50** p&p £2.50

**Vintage Radio Valve Line-up Guide, 1930s 1950s:** This invaluable book contains the valve line-up and replacement guide for hundreds of radios, pre-war and post-war. 118 pages. **£12.50** including p&p

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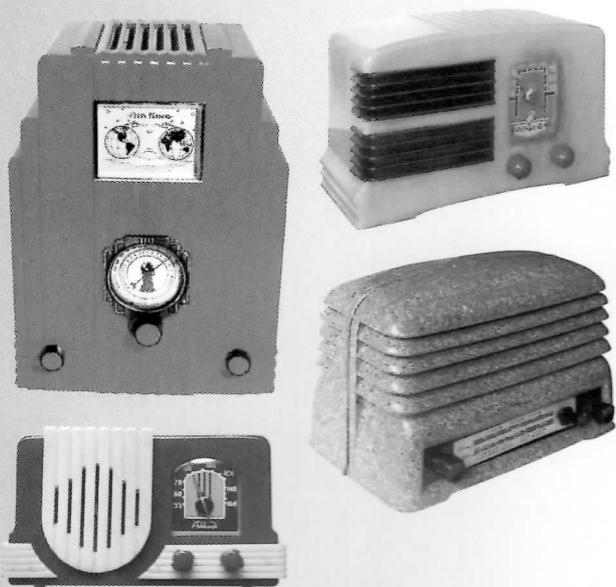
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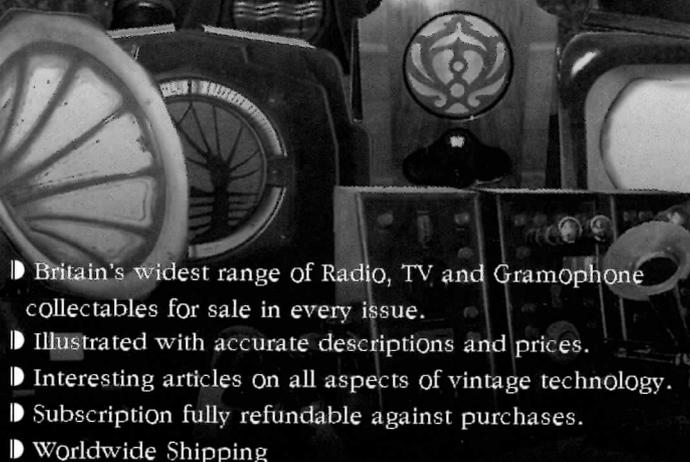
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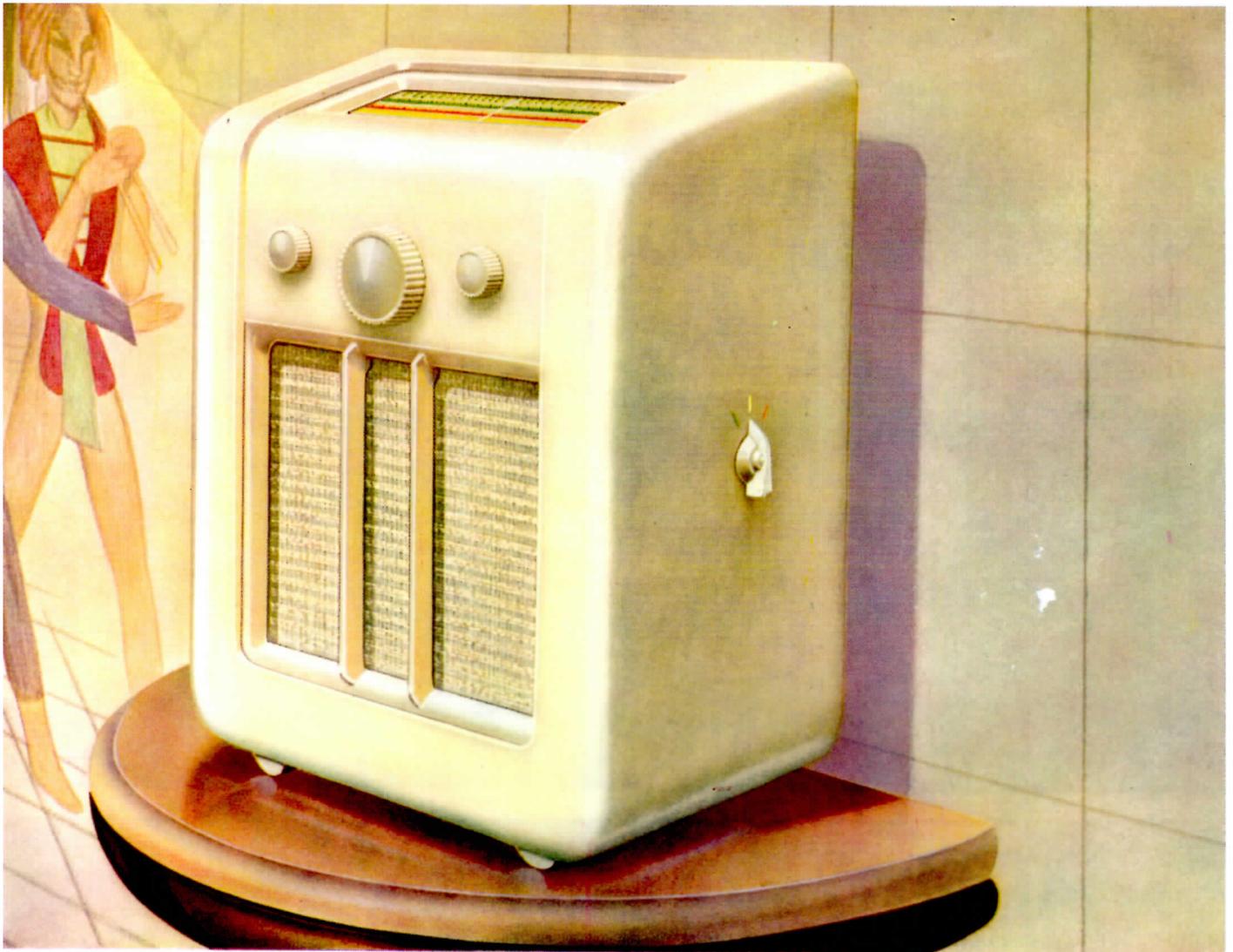


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