

# BVWS bulletin

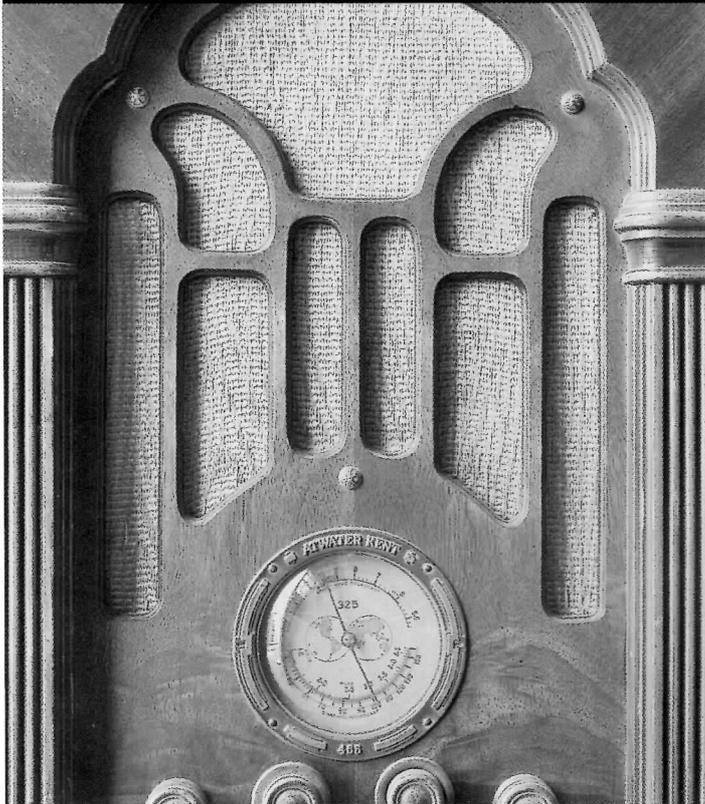
volume 26 number 1 Spring 2001



# The Vintage Wireless Museum

23 Rosendale Road, West Dulwich London SE21 8DS  
Telephone 0181 670 3667

Proprietor: Gerald Wells. Please make appointments beforehand



# The History of the BVWS

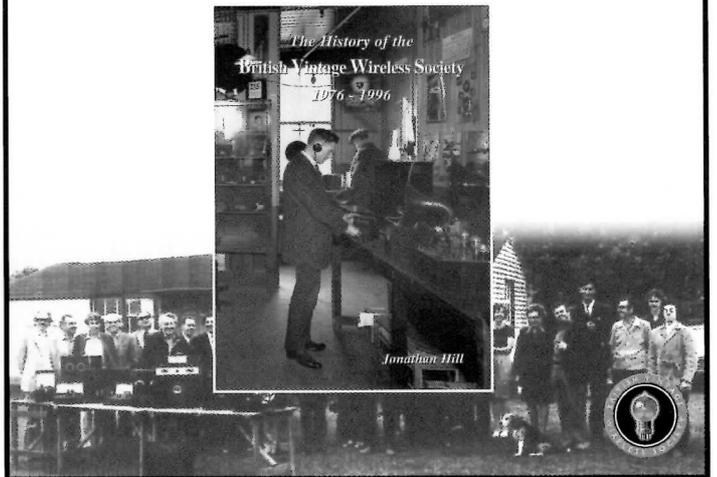
available now

Large Format  
176 pages, 250 photos  
Free to BVWS members

(£4 postage in the UK)  
(£8 postage overseas)

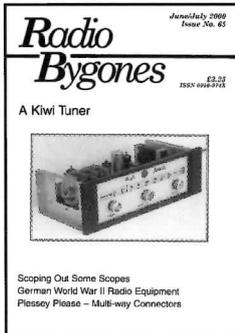
available from Mike Barker, 59 Dunsford Close,  
Swindon. Wilts SN1 4PW

1 copy free per member, additional copies at £5 each + p&p  
available at all BVWS meetings



# Radio Bygones

The leading vintage wireless magazine



Editor : Mike Kenward

Editorial and Subscription Offices:

Radio Bygones  
Allen House  
East Borough  
Wimborne

Dorset BH21 1PF  
England

email : radiobygones@wimborne.co.uk

web sites :

www.radiobygones.co.uk  
www.radiobygones.com

# National Vintage Communications Fair



Sunday 29th April 2001 • Hall 11 NEC Birmingham  
Details 13 Belmont Road, Exeter EX1 2HF

## BVWS Committee

**Chairman:**  
Mike Barker,  
59 Dunsford Close,  
Swindon. Wilts  
SN1 4PW  
Tel: 01793 541634  
murphymad@aol.com

## Bulletin Editor:

Robert Chesters,  
32 Eaton Road,  
Handbridge,  
Chester  
Cheshire  
CH4 7EN  
Tel: 01244 675826  
bakelite.ekcos@virgin.net

**Treasurer:** Jeff Borinsky,  
3 Woodberry Grove, London,  
N12 0DN  
Tel: 020 8343 8121

## Harpden Organiser

Terry Martini:  
122b Cannon Street Rd.  
London E1 2LH  
Tel: 07947 460161  
audiovisual@cellnetuk.com

## Events Co-ordinator:

Steve Sidaway  
Tel: 020 8943 1249

## Membership Secretary:

Steve Pendlebury,  
BVWS  
P.O. BOX 391  
Bolton.  
BL1 1GA  
Tel: 01204-305781

## Members' Advertisements: Committee Secretary

Ian Higginbottom,  
5 Templewood,  
Ealing,  
London W13 8BA  
Tel/Fax: 020 8998 1594

## Bulletin Designer:

Carl Glover,  
Tel/fax: 020 8469 2904  
choris.b@virgin.net

Guy Peskett  
13 Warneford Road  
Oxford  
Oxon  
OX4 1LT  
Tel: 01865 247971  
peskett@atm.ox.ac.uk

## Bulletin of the British Vintage Wireless Society Volume 26 No.1 Autumn 2001

www.bvws.org.uk

Copyright: No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means without the prior permission of the publishers. The British Vintage Wireless Society. Copyright may also be the property of contributors.  
©2000 British Vintage Wireless Society

Separations by Cutting Edge  
Printed by Apollo

## Honorary Members:

Gordon Bussey I Dr A.R. Constable  
Ray Herbert I Jonathan Hill  
David Read I Gerald Wells



Front cover: Ekco AC74 on tubular steel stand.  
Rear cover: 'Sparx' card game

Front cover photography by Robert Chesters  
Graphic Design by Carl Glover

This issue Edited by Rob Chesters, Carl Glover and Ian Higginbottom. Proofreading by Mike Barker, Carl Glover and Ian Higginbottom

## Contents

- 1 Ekco AC74 on stand
- 2 Advertisements
- 3 From the Chair, 'Sparx' card game
- 4 The Amplion dragon  
the evolution of its design
- 8 'Machine Age' Ekco stands  
of the 1930s
- 10 John Logie Baird -  
television pioneer
- 11 John Logie Baird - man of  
determination and inventive mind
- 12 Chromium plating in British  
cabinet design of the 1930s
- 15 From the wireless to the web
- 16 How green was your Ekco?
- 19 The American 'Mystery'  
record player
- 20 Volksempfänger; myth and reality
- 25 Some Bush wirelesses of  
the 1940s
- 26 Enigma - noun, problem, puzzle,  
question, riddle
- 28 A collection in Southend
- 30 The story of the BBC
- 32 Minutes, George R. Jessop
- 33 Pitstone Green Museum
- 34 Letters
- 37 Back issues, Advertisements
- 38 News & Meetings, Advertisements
- 39 Advertisements
- 40 'Sparx' card game

# From the chair

This year we celebrate 25 years of the BVWS. Some people will hardly believe that we started back in 1976. To celebrate our anniversary we will be doing a number of things over the coming year. Firstly, thanks to Jonathan Hill's generous offer of a display area, we will be putting on an exhibition of domestic radio and television equipment at the NEC with a few surprises. You'll have to attend to find out what they are!

The exhibition will contain running equipment from the very early days of radio and television, through to the Silicon chip. With crystal sets, valve sets, portables, early mechanical TV, pre-war electronic TV, luxury sets of the 1930's and studio equipment, through the post-war radio and TV developments and into the HI-FI and early colour TV days of the 1960's. Don't miss this event, its going to be a lot of fun!

Last year saw a turbulent time for Alex and Carole Woolliams with the Portishead Radio meet. Firstly suffering from booking problems and then the September meeting date was graciously given up so that the NVCF date could go ahead without conflict. Now Alex has decided not to continue the Portishead meetings any longer. As you will probably know, this event has been staged for many years and will be a great loss to members in the South West of England, and those who travel large distances to attend. On behalf of the Committee, myself and all the members who have attended, I would like to thank Alex, Carole and family plus the loyal helpers for all the hard work and early Sunday mornings that gave us such a pleasant and

enjoyable meeting. Since the above announcement, John Horne, a regular member at Portishead, has agreed to arrange a new venue and meeting in the Bristol area and I am pleased to announce that it will be held at St George's Hall, at Easton in Gordano (same Motorway Junction as Portishead, but the other side), on the 16th September 2001, more details in the June Bulletin, so we wish John the Best of luck.

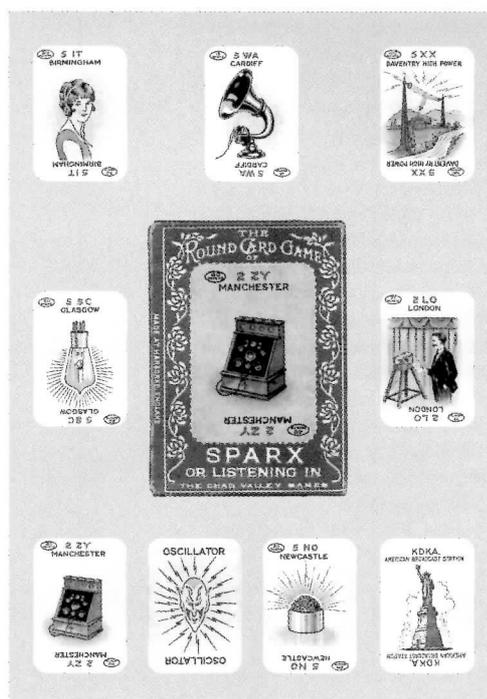
Everyone should now have received the first BVWS supplement for 2001, the excellent book *Marconi's Atlantic Leap* by Gordon Bussey. A very interesting book, full of archive material and photographs that show just how basic the technology was for the amazing achievements accomplished and the struggle encountered in the recognition of the feat. I would like to give my special thanks to Gordon Bussey and Marconi PLC for making this possible for our members.

Sadly, today I have heard that Bruce Adams, a well-known BVWS member and writer in the Radiophile has passed away. Bruce wrote with an uncommon style that gave good technical analysis of repairs whilst keeping the reader interested throughout his column. He will be missed by many of us.

Well it's time for me to get back to the bench and crack on with some restoration work for the NEC display.

See you there!

Mike



## On the rear cover Sparx - a wireless card game from the Twenties

This is typical of a swarm of ephemera generated by the social impact of early broadcasting. Miraculously, it was complete when I acquired it recently. Made by Chad Valley games, it comprises fifty-one cards in seven suits of seven cards each plus a penalty card (Oscillating) and a bonus card or 'Joker' (KDKA). Each suit is named after a station of that time and carries a score ranging from 15 to 100 points. The objective is to acquire all seven cards of a particular suit by exchanging cards face down on a given signal. When this has been achieved, one has 'tuned in' to that station and earned the corresponding number of points. Since the cards include Daventry 5XX the game must date from after the opening of that station on 27 July 1925, but not long after, to judge from the technology depicted.

Ian Higginbottom

# The Amplion Dragon the evolution of its design

by Martyn Bennett



Fig 1: The first 'Standard Dragon'

The early radio loudspeaker is a relatively neglected item in the field of wireless collecting, yet the manufacture and distribution of horns was a major business in the mid '20s as the ownership of multi-valve wirelesses rapidly increased. The pre-eminent manufacturer in England was Alfred Graham & Company Ltd, who produced speakers under the 'Amplion' trademark. Unlike most loudspeaker companies, which were primarily wireless manufacturers and produced a range of one or two speakers, this company specialised in sound transducers and produced a range of around ten different models. David Read's recent bulletin article (ref. 1) describes the origins of the company, their major business of equipping the navies of the world and the key role played by the founder, Alfred and his son E. A. Graham.



The Amplion range was an outstanding commercial success in the UK, outselling the combined output of all other makes in 1924. In addition to producing speakers under their own name Amplion produced re-badged models for radio manufacturers, always ensuring that the Amplion name was prominent. A notable manufacturer supplied was Metropolitan - Vickers, whose speakers were branded "Amplion Cosmos". Under E.A. Graham's leadership the company decided the best way to expand sales in major export markets was to set up overseas manufacture. Amplion of America and Campagnie Française Amplion were established to produce a limited range of models and distribute the other models, which were made in Britain.

Not only was there a wide range of Amplion models, but the company introduced significant changes in design and construction each year while retaining the same model name. I have been researching the whole set of Amplion horn speakers over the last few years, but the task of determining the early models has not been easy. This is because the earliest Amplion advertisements concentrated on one model (the AR 15 "Music Master"), while tantalisingly suggesting that you visit their dealers or their showroom to view the complete range. The earliest advertisement that I have been able to find is in the catalogue for the first "All British Wireless Exhibition" held at Olympia in 1922 (ref. 2). I have been exchanging information with fellow speaker enthusiast Australian Ray Kelly and he pointed out the need to catalogue the evolution of the various

models, so this has prompted me to tackle the "Standard Dragon" - their best known, and, almost certainly, their best selling, model. I hope the information I have collated will not only be useful to collectors, but will also act as a catalyst for finding out more information from members.

In fact, if asked to choose one loudspeaker to typify early radio, most enthusiasts would pick the Amplion Dragon - I notice that at least one US dealer uses an illustration of a Dragon on his business cards. The reason is clearly due to the aesthetics of the design, the balanced proportions and the eye-catching wood-petalled flare - an unmistakable icon. However the original Dragon model was, surprisingly, quite different (fig. 1).

While the Amplion trademark was registered in 1920, according to the Amplion magazine, there is little evidence of horn speakers being advertised until the start of BBC broadcasting in 1922 - in fact pre-broadcast photographs of amateurs' wireless equipment in Wireless World invariably show the upright cone-shaped Browns speaker. The first evidence I found that the rare driver-less Amplion speaker I owned was an early-model Dragon was a retrospective article in the Amplion Magazine of July 1925 (ref. 3). The first Dragon had a cast aluminium sound conduit with three integral feet, and a spun aluminium flare of 14 inches diameter - there doesn't appear to have been a wooden flared equivalent at the time. The Amplion Magazine states that the strange mythical animal-like appearance of this speaker led to

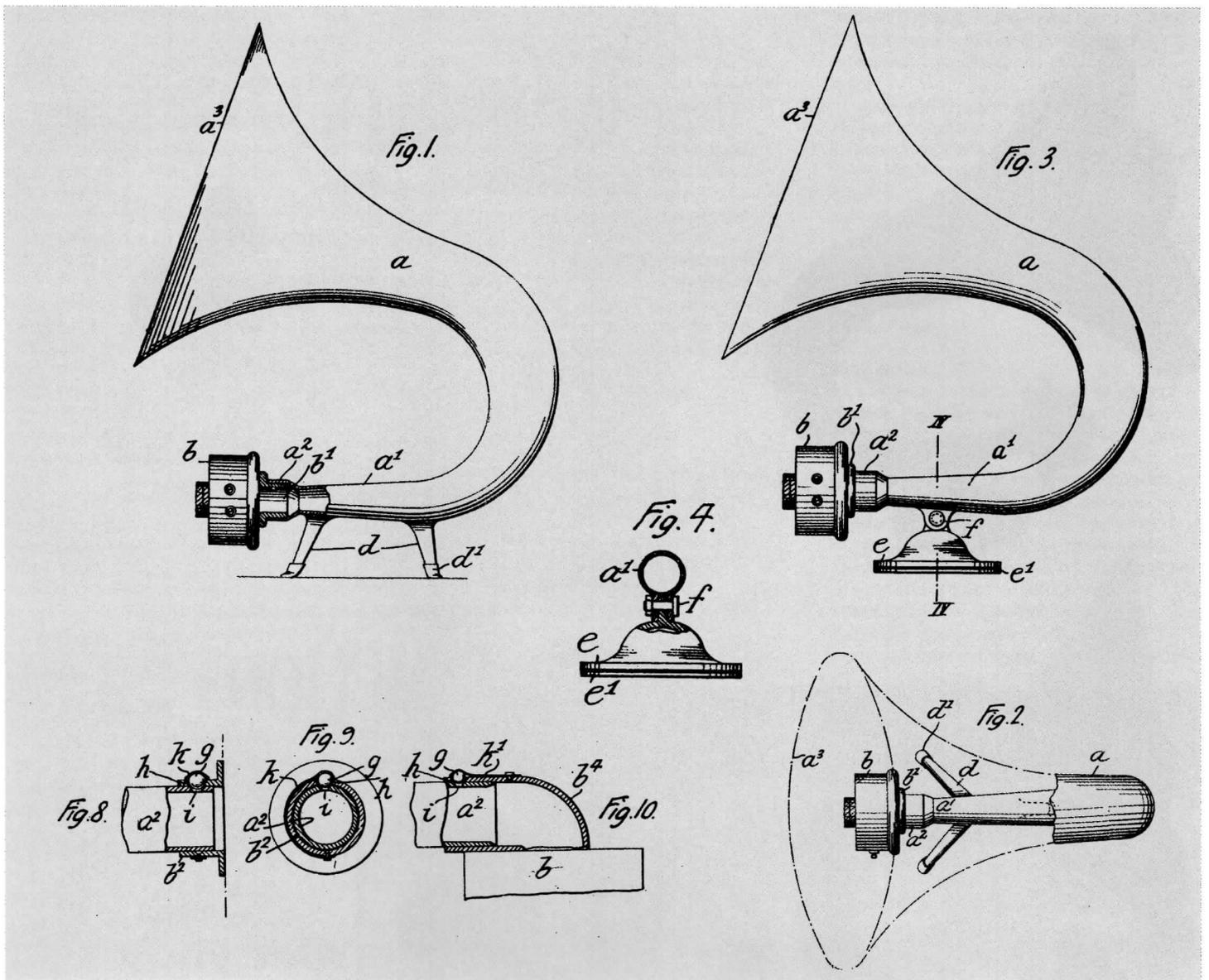


Fig 2 (top): Extract from patent number 213622.

the popular moniker the "Dragon", which was eventually adopted by Amplion for subsequent models of that style. The Dragon original configuration (and the later one) is illustrated (fig. 2) in patent No. 213622 - application date May 1922 - which suggests that the speaker was not produced before mid 1922.

The first Dragon, and later Dragons, had two important features from a practical point of view; the "C" shape of the sound path produced a compact design, and the drive-unit was easily removable so that high impedance (2000 ohms) or low impedance (120 ohms) ones could be used; a feature probably more important from the manufacturer's rather than the user's point of view. This latter feature has posed a problem for present day collectors, as the drive-units become separated from the rest of the speaker and lost. It is indeed surprising to first-time collectors that it is easier to find a speaker without a drive-unit than a separated drive-unit.

The Dragon, like other Amplion models, was given an "AR" number, which was punched on the faceplate on the drive-unit - in this case AR 17 for the low impedance (120 ohms) model and AR 19 for the high impedance (2000 ohms) model. The early Dragon drive-unit was made of cast aluminium and had a tubular spigot of approximately 1 inch long and 1 inch diameter. This first Dragon model was advertised in *Wireless World* in 1923 entitled the "Table Model" (ref. 4)

The major change in design was the introduction of the 10-petalled wooden flare of approximately 14 1/2 inches diameter, accompanied by a radical change to the mounting. A separate pivoting nickel-plated base

was introduced, replacing the integral tripod legs - this is the model we all know (fig. 3). The main identifying features of the model are; the wooden ribs between the petals, the "plug in" flare (secured by three screws) and a cast-metal drive-unit having the 1 inch x 1 inch tubular spigot. This configuration employing a pivoting base is also shown in Patent No 213622. The neck is manufactured from two steel pressings welded together; a construction used for later Dragons. This model appears in retailers' catalogues for the 1923/1924 season (ref. 5). Interestingly, the model is advertised still as the "Table Model"; Amplion had not then adopted the "Dragon" name. The equivalent model was manufactured in the USA and has a different nameplate. "The Amplion Corporation of America" and "Grahams Patents" is printed on the plate. I have a rare variant of the standard design, actually a "Cosmos Amplion", which is identical to the standard model, except that it has a turned wood base with a nickel-plated pivot adapter (fig. 4).

It is possible that an intermediate model was produced, which used a wooden base with a gimbal mounting (like the early version of the larger Concert Dragon model). I would like to hear from any members who have any information.

The next season's model appeared unchanged visually, but internal improvements were made to the drive-unit. The diaphragm, instead of being rigidly clamped at its periphery was now held in place by an annular "wobble spring".

For the 1925/1926 season, the construction of the





Fig 3 (top): 1923/24 model

Fig 4 (above): Rare Cosmos variant

Dragon was significantly changed (figs. 5&6). The wooden petals of the flare were now joined by steel ribs and the flare had a threaded steel pressing at its neck, which screwed into a specially moulded rubber gasket. The neck underwent minor changes to the base-mounting flange - the pivot was moved nearer the drive-unit, probably due to a change of material for the drive-unit casting from aluminium to a heavy, zinc-based, alloy. While this form of construction undoubtedly simplified manufacture and lowered production costs it does not have the appeal of the wooden ribbed model.

From a collector's point of view the change in construction has advantages and disadvantages. The flare construction is much more robust, and does not split and deform like the earlier construction, but the rubber gasket now has to take the weight of the flare, which acts as a cantilever. As a result most horns now surviving have grossly deformed and hardened gaskets. Separate flares and necks, missing the gasket (and drive-unit) frequently crop up.

Whether the lack of visual appeal forced the Amplion designers to rethink is not clear, but the next Dragon production reverted to wood-ribbed construction, while retaining the pressed steel threaded flare adapter. The

model that was advertised for the 1926/1927 season (ref. 6) incorporated the new-style metal AU 1 drive-unit as used in the "Radiolux" speaker. This model combines the threaded-spigot drive-unit with the latest form of wood-ribbed flare. This is clearly illustrated in Pitmans 1927 Radio Yearbook (fig. 7). The use of the threaded-spigot drive-unit made it necessary to modify the form of the neck. While the previous pressed-neck models had an enlarged parallel-sided end, the new model has a barrel shaped enlargement to hold the special threaded rubber neck-adaptor.

For the 1927/28 season the drive-unit was replaced by a Bakelite one, believed to be an AU5, (fig. 8). A metal flared model introduced the previous season also continued in production - reverting to the material used for the original Dragon. These are thought to be the last of the line.

This seems to be the turning point in the fortunes of Amplion. They faced renewed competition from other manufacturers as the cone speaker took over as the speaker of choice. They sought to cheapen the construction to try to extract profit from the rapidly declining market for horn speakers while introducing cone speaker models. Some of the decline in the company's fortunes is likely to be due to the death of

# Progress

**A** FEW months ago the House of Graham announced that there would be **NO REDUCTION IN THE PRICES OF CURRENT AMPLION MODELS DURING 1925.** This intimation was not restrictive as regards improvements or the introduction of new models, and three modified types have just been placed upon the market **at the same prices.** They are the New Junior-de-Luxe A.R.114, Standard Dragon A.R.19 and Concert Model A.R.23.

A brief survey of the novel and exclusive details of construction will show the following points:

- (a) **Larger capacity of sound conduit** in the two latter types.
- (b) **Increased substance of insulating bushes** between ducts and trumpets, improving the non-resonating qualities.
- (c) **Greater convenience and stronger assembly** by the provision of a threaded metal termination to the Horn, which now screws directly into the rubber bush without other attachments. The Horn itself follows the popular AMPLION design, but the leaves are united by metal ribs of crystalline finish, thereby affording exceptional rigidity and mechanical strength with an enhanced appearance.

**In the attainment of Better Radio Reproduction, PROGRESS is ALWAYS led by**

The  
World's  
Standard

## AMPLION

Wireless  
Loud  
Speaker

*Obtainable from AMPLION STOCKISTS, Wireless Dealers and Stores.*

The new AMPLION Horn, showing improved method of assembly.

A visit to the **AMPLION Stand** at the **Royal Albert Hall Radio Exhibition** (September 12-23) will prove of great interest.

Patentees and Manufacturers:  
**ALFRED GRAHAM & CO.** (E. A. GRAHAM)  
St. Andrew's Works, Crofton Park - LONDON, S.E.4

## Get your AMPLION NOW!

Fig 5: Advertisement for the 1925/26 range

6

| Season             | Drive-Unit                                   | Neck  | Base            | Flare   |
|--------------------|--|---|-----------------|---|
| 1922/23            | AR17/19<br>Cast aluminium<br>Tubular spigot  | Cast Aluminium<br>Tubular mouth                   | Integral tripod | Spun Aluminium<br>Plug-in, 2 bolts                        |
| 1923/24<br>1924/25 | AR17/19<br>Cast aluminium<br>Tubular spigot  | Pressed Steel<br>Tubular mouth<br>Central bracket | Nickel plated   | Wood petals (wood ribs)<br>Plug-in, 3 nuts and bolts      |
| 1925/26            | AR17/19<br>Cast zinc alloy<br>Tubular spigot | Pressed Steel<br>Tubular mouth<br>Forward bracket | Nickel plated   | Wood petals (metal ribs)<br>Screw-in                      |
| 1926/27            | AU1<br>Cast zinc alloy<br>Threaded spigot    | Pressed Steel<br>Tubular mouth<br>Forward bracket | Nickel plated   | Wood petals (wood ribs)<br>Screw-in                       |
| 1927/28            | AU5<br>Bakelite<br>Threaded spigot           | Pressed Steel<br>Tubular mouth<br>Forward bracket | Nickel plated   | Wood petals (wood ribs)<br>(also metal flare)<br>Screw-in |

Note 1: The metal flares are 14 inches in diameter.  
Note 2: The wood flares approximately 14 1/2 inches in diameter



Fig 6: 1925/26 model



Fig 7: 1926/27 model



Fig 8: 1927/28 model

E.A.Graham in June 1926, who pre-deceased his father. I am tempted to make an excruciatingly painful pun and say this was about the time that the company 'lost its flare'.

One of the problems in tracking down the precise details of loudspeakers in general, and of Amplions in particular, is that there has been a lot of mixing and matching of the component parts. The common AR 19 drive-units will fit all but the later Dragon models, and will also fit many other Amplion models. As a result there are several "marriages" around - to use a term used by the antique clock fraternity. I even noticed at a recent Christies auction a metal-ribbed Dragon horn (which should use a straight-spigot drive-unit) paired with a screwed-spigot drive-unit - conveniently unattached: Caveat Emptor! A further obstacle I have found is that trade catalogues often, as an expedient, reuse the picture of the last season's model. I have tabulated some of the main identifying characteristics for easy reference. There are several nuances in the details of the straight-spigot drive-units, but I have left this for another time.

I hope this article will help fellow collectors identify the authentic article as well as acting as a focus to collate any further information BWWS members may have on

any of the Amplion range of horn speakers. I am particularly interested in any information from the period 1920-1923 and I look forward to hearing from you.

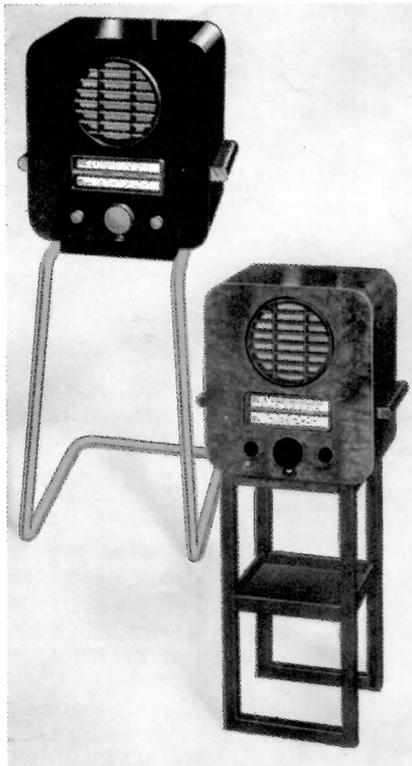
**References:**

1. David Read, BVWS Bulletin No. 1 Volume 24
2. All British Wireless Exhibition Catalogue, Sept/Oct 1922
3. Amplion Magazine, July 1925
4. Wireless World and Radio Review, 10th Feb 1923
5. Dew's Catalogue, Nov 1923
6. Houghtons Catalogue, 1926/27 season

# 'Machine Age' Ekco stands of the 1930's by

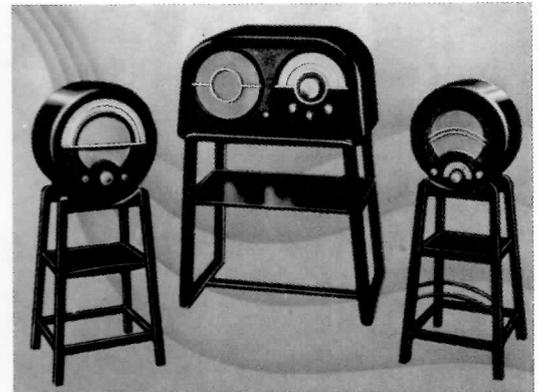
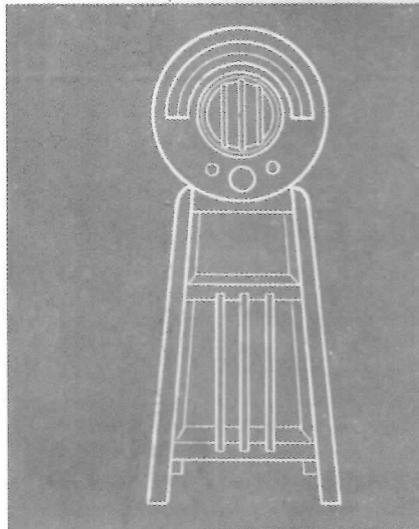
Robert Chesters ( photographs and illustrations courtesy of the author)

A number of manufacturers in the 1930's offered for their table models special stands which converted them into free standing pieces of furniture. Murphy offered stands for the A3a and for the A8 both of which strengthen the appearance of the sets enormously. They were also offered alongside the console models and as such were not intended to replace them. McMichael offered their 135 model and several similar sets with an optional cabriole legged stand (this was only notionally optional as the dealers were encouraged to offer the set and stand as a single item for the combined price rather than as separate units). Today, it is the exception rather than the rule not to have the stand for these sets.



**10 1/2 GNS**

*Black and Chromium 10/6 extra.*



STANDS FOR MODELS 76, 86 and 36

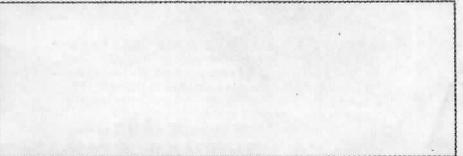
Artistically designed and sturdily constructed, these distinctive stands are available in Black or Walnut.

PRICES AND HIRE PURCHASE TERMS :

For Models 76 & 86—29/6, or 13 monthly payments of 2/6

For Model 36—25/-, or initial payment of 3/6 and 13

monthly payments of 2/-  
Prices do not apply in the I.F.S.



E. K. COLE Ltd., EKCO WORKS, SOUTHEND-ON-SEA  
CF6-2

Probably the most sought after and desirable stands though, are those that were offered for the Ekco range of wirelesses. Best known are the stands for the pre-war round models, which have been lovingly reproduced by several collectors who simply couldn't wait to find themselves an original. Pretty much the entire range of sets for both 1934 and 1935 were supplied with stands including the AC85 and 86 models although the ADT95 and ACT96 were intended to be "transportable" and as such did not require stands at all. After 1935 the company seems to have abandoned the idea of having table models convert into floor standing sets except for the AD37 which was the last to be offered with that feature. It is worth noting that the all wooden stands supplied for Ekco radio are marked with either a stamp on the underside or a transfer saying EKCO and giving the registered design no. (the transfer on the underside of an AC76 stand is illustrated). There are variants but all show genuine signs of age such as microscopic crazing in the transfer and also a type of transfer

technique which is no longer used today. The chrome steel version however, is an exception to this general rule as it possesses no proprietorial markings - no registration number or Ekco badge. I have been unable to find any traces of a point where there may have been a label of some sort or another either, but the method of manufacture is typically 30's as the cantilever is a continuous strip of steel with a bar welded into place at the top rather than a single strip which slots into itself (a later method of construction).

Initially, stands were produced for the models AC64 and 74 designed by Serge Chermayeff in 1933. As can be seen in the advertising leaflet for the AC74, two basic types of stand could be supplied: wooden or a bent chromed tubular steel version. The wooden stand was available in both black and brown but the steel version was only available in chromium finish, unlike the tubular steel furniture which could also be had in cellulose lacquered versions (colours to match your interior). Judging from the technique of manufacture and from the known connection between the



Far left: the cantilevered chrome stand of 1933 for Ekco's model 74 (the AC64 had a similar stand except that the width is slightly different)

Left: the same stand in detail. Here it can be seen that the stand is actually made of two pieces of tubular steel which have been welded together to form a single unit.

companies, the chrome stand was probably produced by Practical Equipment Ltd. (PEL) for whom Ekco had produced bakelite table tops. The price was not totally beyond the contemporary pocket, standing at - chrome version: 35 shillings and beech variety: 17/6.

Judging from the lack of a chromed version in subsequent years the price at twice that of wood presumably made it unpopular with the wireless buying public - probably in much the same way that the extra cost of "special order" colours in the cabinets discouraged sales. Pictured here is an original example of the chrome version. It has some minor pitting to the surface commensurate with age but is otherwise in excellent condition. So far, it is the only known example to have survived. Due to its shape it is not easy to find another purpose for it, i.e. it couldn't easily be turned into a side table or a telephone stand as the wooden stands for the Wells Coates designed sets could be. Amazingly, this piece was separated from its original radio and stored long after the wireless had been disposed of. It utilises the cantilever principle employed

by Mart Stam and Marcel Breuer for many of their chair designs, although Stam is now attributed with the invention of the tubular steel cantilever chair (Stam was never able to patent the cantilever system for obvious reasons but did succeed in obtaining the rights to the idea of a "chair without back legs").

Bent tubular steel was, at the time, very much the material of the avant garde of fashion and design. It was the medium of choice for the Bauhaus designers, Eileen Grey and Le Corbusier. Odeon Cinemas had a deal with PEL to supply all of their tubular furnishings and what could be more fashionably modern than the cinema? At this time Ekco were making a statement about themselves as a modern, fresh company by employing contemporary industrial designers like Chermayeff and Coates. Wirelesses were very much a facet of the "machine age" and the chromium stand emphasises the mechanical modernity of the AC74. Rarities are a curious thing. It is not really the rarity of an object that makes it valuable; rather it is the idea that it is desirable and yet attainable. If no-one can

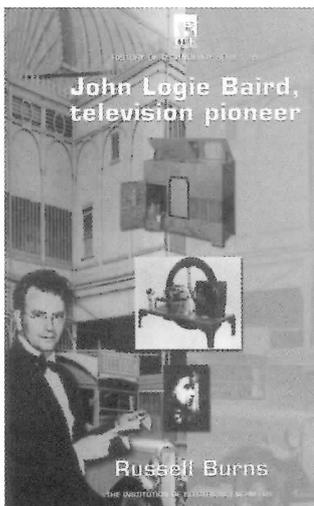
Below right: the AC76 stand in Black 'ebonised' beech wood. Wells Coates designed this stand as well as those for the AD65, AC85 and AD36.

Below: when inspecting a stand by E.K. Cole one should always check the underside of the item as it is usual for it to carry a transfer of this type. Although it is not unknown for the stamp to be absent such an example should be treated with great caution.

attain a thing because it is too scarce then it is effectively valueless - it's mine and you can't have it! Bingo it's not for sale and as such is priceless (I prefer the term worthless!).

Ekco stands are truly rarities as there are fewer about than the radios that stand on them. How many round Ekcos are there out there and if that can be quantified then how many are with stands? This is not a question that I intend to answer at the moment as it is a very difficult thing to quantify. What I do aim to do

is to offer the collector a glimpse of some of the stands that were offered for Ekco radios in those heady days of the 1930's when Ekco knew how to cut the edge of style itself.



## John Logie Baird, television pioneer Russell Burns

Institution of Electrical Engineers 2000 ISBN 0 85296 797 7  
Hardback pp 420 £55 (discount to IEE members)

When one receives a new book by Russell Burns one can rely on seeing the results of meticulous research and scholarship. In his third major book on the history of television he has succeeded again. Its publication was nicely timed to coincide with the 75th anniversary of Baird's first public demonstration of television.

Burns has written what must surely be the ultimate biography of Baird. He has comprehensively surveyed all aspects of Baird's life from family history to little known later work on high definition colour TV. We get a fine picture of Baird the man, Baird the inventor and details of his inventions. Other authors have claimed that Baird was involved in secret radar research during the war; Burns admits not being able to find any solid evidence of this. The author has had access to major archives and many private papers. The book undoubtedly benefits from his personal contact with Margaret Baird and surviving Baird employees, notably Ray Herbert. Unless new primary source material emerges I find it difficult to imagine anything that could be added.

The writing style is slightly academic but not oppressively so and the text is enlivened with numerous anecdotes and quotes from original sources. The book

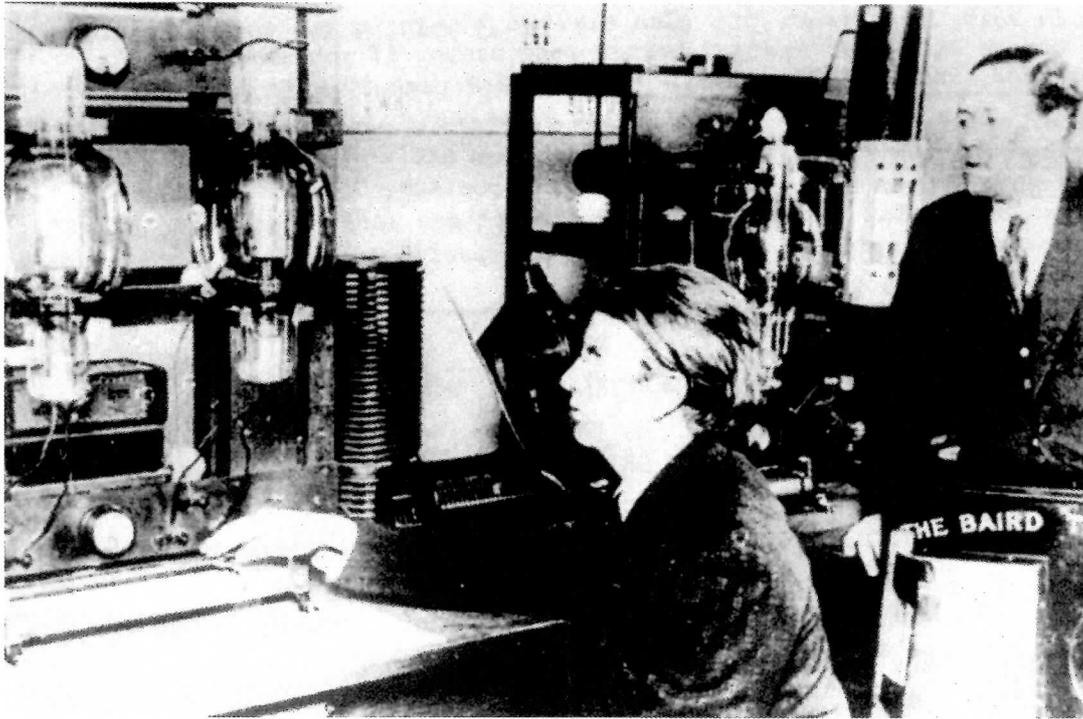
is amply illustrated with both drawings and photographs. There are comprehensive bibliographic and patent references.

A favourite reviewer's sport is nit picking. Burns is a formidable opponent. I have found just a very few typos and would claim that his list of "Portraits and commemorative events and activities" is incomplete. My London A-Z does not show the claimed "Baird Crescent" in Wembley but does reveal six roads with Baird in their name. While not all of these may relate to John Logie I am sure that Baird Avenue in Southall does.

The price may be a deterrent to many readers. I can only urge the IEE to look at pricing potentially popular books at more populist prices. Even at the price it is still essential reading for anyone with an interest in the life of one of Britain's most colourful inventors.

reviewed by Jeffrey Borinsky MIEE CEng

# John Logie Baird - Man of determination and inventive mind



The amplifying thermionic valve was invented in 1906, and Nipkow had already devised the scanning disc. So when Baird started work on television in 1923, all the materials he needed were available.

The illustration above is of Baird and Ben Clapp, when pictures were sent across the Atlantic on 8 February 1928, using Ben Clapp's transmitter 2KZ at Coulsdon in Surrey, and received by Robert Hart 2CVJ at Hartsdale NY.

Baird is the mystery man of television. His part in its development is not clearly defined. None of his patents are in use today, yet there can be no doubt that his enthusiasm for television stimulated both official and public interest, and brought about the world's first high definition television service in 1936.

Most people are either for or against the man; he was either an inspired genius, who showed the world the way, or a back-room boffin whose inventions were of no practical value.

The facts of Baird's life show him to have been a remarkable man; he was the first person, anywhere, to demonstrate the principles of television. He worked on

monochrome and colour television, and stereoscopic colour television. He worked on recording television signals on disc, television in the theatre, and the transmission of pictures across the Atlantic.

When Baird started his experiments, sound radio was still a novelty. The idea that electronics could be applied to picture transmission, seemed at the time quite fantastic; for centuries all inventions had been based on mechanics.

From triumph in 1936 when Baird's cameras were at the opening of BBC Television, to tragedy when the mechanical system was soon abandoned.

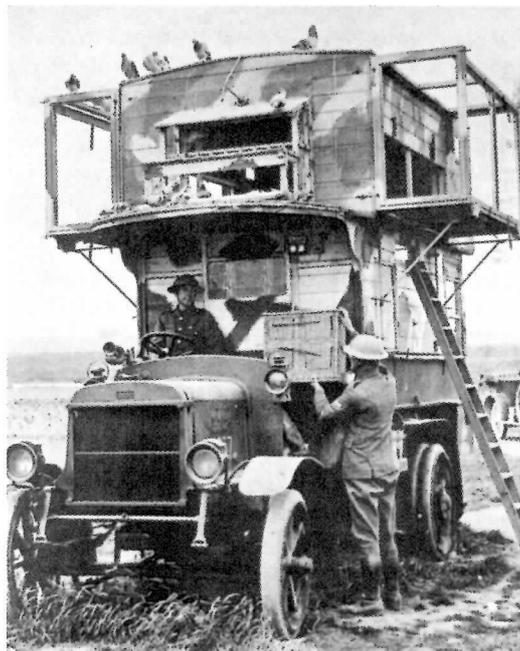
## Pigeons at War

Porthcurno museum of submarine telegraphy is staging an exhibition of the role of pigeons in warfare, the homing pigeon played an important role as message carrier for thousands of years. With the coming of the electric telegraph and wireless in the 19th and early 20th century the pigeon-post began to disappear but remained a vital means of communication in times of war.

Visitors to Pigeons at war can learn the history of wartime pigeon communications. They can discover how the secret messages were carried, see the medals they were awarded, see a pigeon parachute and the special containers used to transport them. Hundreds of photographs show how the birds were transported in aircraft and at sea and record their tales of bravery.

In total 200,000 pigeons were supplied to the national pigeon service during World War II. Birds were used by the Royal Air Force as standard equipment on all bomber and reconnaissance planes by the army and intelligence services.

Adults £4, family £10.50, Children £2.50.  
Eastern House, Porthcurno, Penzance, TR19 6JX  
Tel: 01736 810966/810478 [www.porthcurno.org.uk](http://www.porthcurno.org.uk)



## PIGEONS AT WAR

32 'WARRIOR BIRDS'  
were awarded the  
ANIMAL VC  
during  
World War II

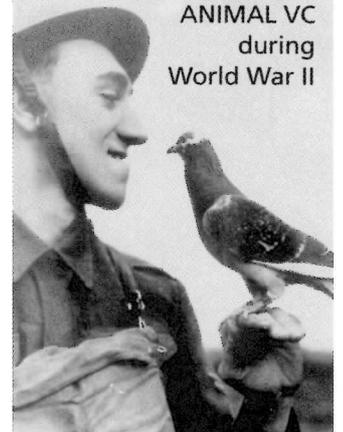
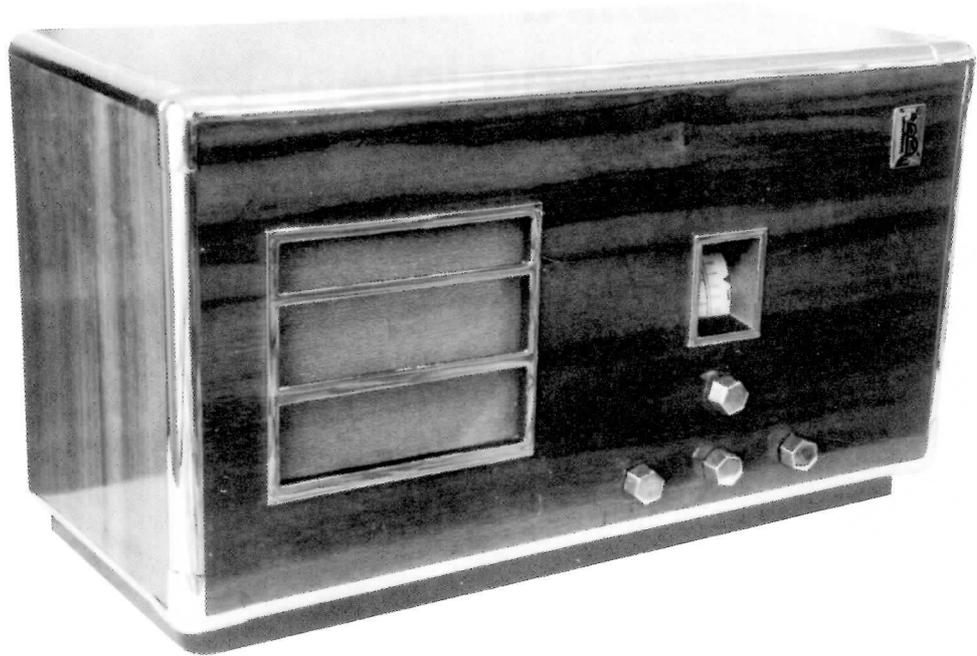


Fig.3: The KB 'Rejectostat' model 666B within the 'delux' Betty Joel designed chromium trimmed cabinet.



# Chromium plating In British wireless cabinet design of the 1930's

a short history by John R Sully.

**Many aspects of cabinet design have been featured in the bulletin over the years, and this article aims to illustrate the use of chromium plating by wireless manufacturers of the 1930's.**

Chrome plating was introduced in 1925, and is accomplished using the electroplating process already developed for copper and other metal plating in about 1840. Often the target object is first plated in nickel as chromium does not adhere well to steel, and to reduce the depth of chromium required. The usual thickness of bright chromium deposits is 0.25 to 0.8 microns, onto a base coat of a minimum 8.0 microns of nickel.

One of the first radios to incorporate chromium plating was the K.B. Rejectostat 666 series of 1933. However by 1938 the practice of incorporating chromium plated cabinet fittings had all but ended, with the Beethoven AD770 being one of the few examples manufactured in that year. So the period during which manufacturers used chromium plated cabinet features appears to have lasted for just six years. Ferguson, Murphy, Philco and Pye seem never to have used chromium plating in any of their sets during those years, whereas chromium plating came with Ekco sets only as a premium option. All the other major manufacturers in the 30's however (namely Beethoven, Bush, Cossor, Ferranti, Ferguson, GEC, HMV, KB, Marconi, Mullard, Phillips, McMichael, and Ultra) featured chromium plated detail on one or more of their cabinets. Obviously chromium plating has been used on other sets occasionally over the years but it is clear that the years 1933 - 1938 were the heyday of chrome. Following the war, chromium plating made a brief reappearance. Pye for example in 1955 produced attaché and jewel case portable sets in mains/battery and battery only versions, where the entire inner surface of the set was chromium plated (see page 15). However, the use of chrome in this instance was purely a differentiating feature of these particular receivers rather than a reference to contemporary design as in

the 1930's. The same may also be said of the Emor Globe set of 1947.

Chromium plating for decorative reasons is very much related to the Art Deco movement that was popular in the 20's and 30's. The use of chromium plating first came into the public eye at the 1925 Paris Exposition, an event itself viewed as a major exhibition of Art Deco design. The Art Deco style had developed between 1915 and 1925; hence the Exposition showcased rather than promoted the new design trends. Particularly important was the Pavillon De L'Esprit Nouveau, which displayed tubular steel and chromium furniture and industrially designed objects by Le Corbusier and others (although Le Corbusier tended to favour Thonet bent wood furniture in his interiors until a relatively late stage-Ed.).

## Modern Design

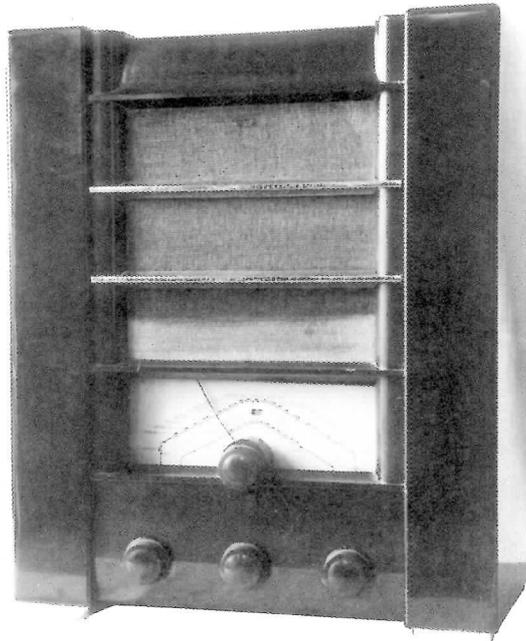
Popular modern designers were clearly aware of bright chromium's potential in domestic design. An article in Homes and Gardens magazine, August 1933 includes a feature entitled 'An Exhibition Retrospect - Modern Design in the home as displayed at Dorland Hall' describing a dining room by Sir Ambrose Heal, where he details the room to include figured Australian walnut and sycamore in combination with chromium steel. The bedroom suite illustration is taken from the same issue of Homes and Gardens and shows a bedroom design by Heal and Son, where it can be noted that the edges of the wardrobe and bed use much chromed steel edging.

Other interior design magazines also ran features and pictures relating ideas using chromium plating and by 1934 the material was extremely fashionable. The January 1934 issue of Good Housekeeping includes an



Far left - Fig 4: Ultra 25

Left - Fig 6: The GEC AC37 of 1936 (note the chromium plated feet)



Below:  
Heal & Son Bedroom 1933.  
This picture is taken from an original publication, the catalogue description, from which reads "This modern bedroom furniture in cream and silver cellulose enamel, and chromium plated steel, fits into an "off-white" setting, by Heal and Son.

Bottom - Fig 5: Door handle

article entitled 'Modernism in the Sussex Countryside' by the Hon. Mrs. Elidor Campbell with the subheading 'a house where the modern spirit is tempered to the needs of the home'. As might be expected from the magazine the article emphasises space and ease of cleaning resulting from the design using wood veneers and chrome, concluding "The metalwork throughout the house is chromium-plated, and the equipment is all so up-to-date and labour saving that only one servant is required to run it".

I have included photographs of three sets from the 30's that demonstrate the use of bright chrome in a little more detail. Though popular, I have not included Ekco, as I am sure most of us will have seen examples of the chrome versions of these sets over the years.

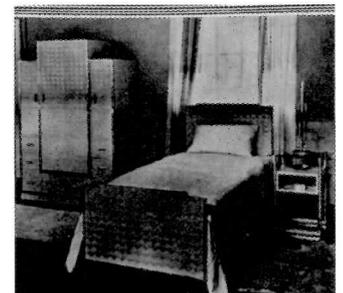
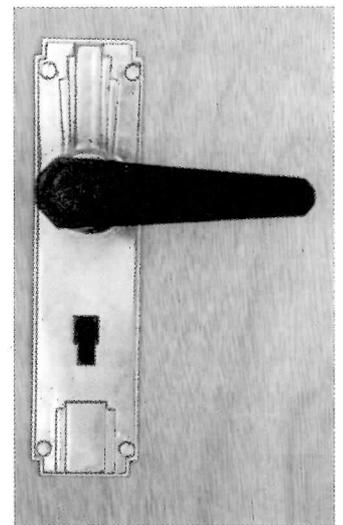
#### Betty Joel

One of the first sets to use chrome as a design feature was the K.B. Rejectostat 666B. (Fig 3) This was a fine set in its own right by K.B. and was available in a fairly dull walnut cabinet with Bakelite fittings. However for a premium this set was also available in a cabinet designed by Betty Joel, whose work included Art Deco home and office furniture. The standard set cost £16.16s.0d, though I am unable to find the original price of the chrome version, which would clearly have been more expensive. The circuit is a 5 valve plus rectifier superhet set, with A.V.C, continuously variable tone control and automatic tone compensation for various levels. Covering 2 wavebands, the set was definitely at the upper end of the price range, and the performance of my set is excellent considering both its age and the fact that it has not been re-conditioned, having all original components except those that have actually failed in service in the past. The set was

reviewed by John May A.M.I.R.E in the September 1933 issue of Ideal Home Magazine, his review opening with the following paragraph: "Chromium steel and walnut cabinet work was one of the most interesting among the many new departures seen at the National Radio Exhibition, Olympia, in August. It is not difficult to imagine how striking in appearance is a radio receiver of natural toned walnut with chromium plated metal bound edges and fittings".

This set probably features the most chromium plating of any British set, there being 19 separate pieces of chromed metalwork in this cabinet. The cabinet edges are made of steel whereas the knobs, speaker cloth trim and tuning escutcheon are made of aluminium. On both the plain walnut/bakelite set and the Betty Joel designed set the K.B. logo was chrome with black enamel lettering. The veneer used was Queensland walnut as opposed to the more common walnut found on the standard version of this set. A particular element of the Art Deco movement was the use of parallel lines in design, and this feature can be seen in the unequally spaced bars that protect the speaker cloth, itself a silver coloured silk. The clean parallel lines are a direct contrast to the ornamentation found on the likes of Marconi and McMichael sets of the time, with their intricate fretwork speaker grilles. There can be no doubt that this set was destined for style conscious homes where money was not short. Indeed, my example of this set still has the Harrods sale/servicing plate attached to the rear of the cabinet.

On page 14 is the Ultra 25 from 1935. This is a 3 valve plus rectifier superhet covering 2 wavebands which cost £12.12s.0d. Here the dial/neon tuning indicator surround and station chart drawer have been chromium plated. The stepped design of the tuning



Above and below - Fig 1: examples of Pye's 1955 chromed attaché case portables. The attaché case was an extremely popular format for wirelesses during this period



**Some readers may have seen the chrome 'clip-on' covers that can be bought for certain models of mobile phone to replace the drab plastic covers supplied as standard. So even 65 years after K.B. and Ekco first offered chrome as a premium option, the deep shine finish still retains its ability to impress.**

glass surround can be noted, (particularly around the tuning indicator at the top), a feature that was typical of the Art Deco movement. Both chrome fittings of this set are contrasted against dark veneer or black painted wood, and the combination of chromium plating and a black contrast was very popular in the 30's. Fig 5 shows a door handle typical of the 30's Art Deco era. Here it can be seen that the handle itself is black Bakelite, and the remainder is polished chrome featuring geometric stepped detailing. It can be noted that the design above the Bakelite handle is particularly suggestive of the Art Deco period, and puts one in mind of the music stands that the 30's big bands used to sit behind. The reviewer noted the use of chromium plate in the 'Radio in the home' column of the Ideal Home Magazine, September 1935. In his review of the Ultra range he comments "The 25 series have clock face neon tuning, chromium and walnut cabinets, and among a wealth of other features-a slim drawer which holds a station chart".

Finally On page 13 is the GEC AC37 of 1936. This is a 3 valve plus rectifier T.R.F. receiver covering 2 wavebands. The wavechange switch has a third position for bringing a Droitwich rejector into circuit on the L.W. band. Here the use of chromium plating has filtered down to the cheaper end of the market. In this particular set the bars protecting the speaker cloth have been plated, as have the front feet of the set. However, unlike the Ultra 25, here the manufacturer appears to have allowed much less Art Deco influence on the bakelite cabinet, but has merely used chrome as it was generally popular at the time this particular set

was made. Nonetheless, the use of chromium plating still had some cachet as the caption illustrating the set reads: 'Bakelite moulded cabinet with chromium relief gives this G.E.C. 8 guinea AC37 receiver a striking appearance for such a singularly inexpensive receiver'. (From 'Wonders Of The New Season's Wireless', Ideal Home Magazine, September 1936).

It seems unlikely that chromium plating will achieve its popularity again, its use having diminished in other areas too (motor car styling being an obvious example). The decline could be due to the comparatively high cost of the process, or perhaps more likely due to the transient world of changing fashions. But wait a minute, some readers may have seen the chrome 'clip-on' covers that can be bought for certain models of mobile phone to replace the drab plastic covers supplied as standard. So even 65 years after K.B. and Ekco first offered chrome as a premium option, the deep shine finish still retains its ability to impress.

#### References

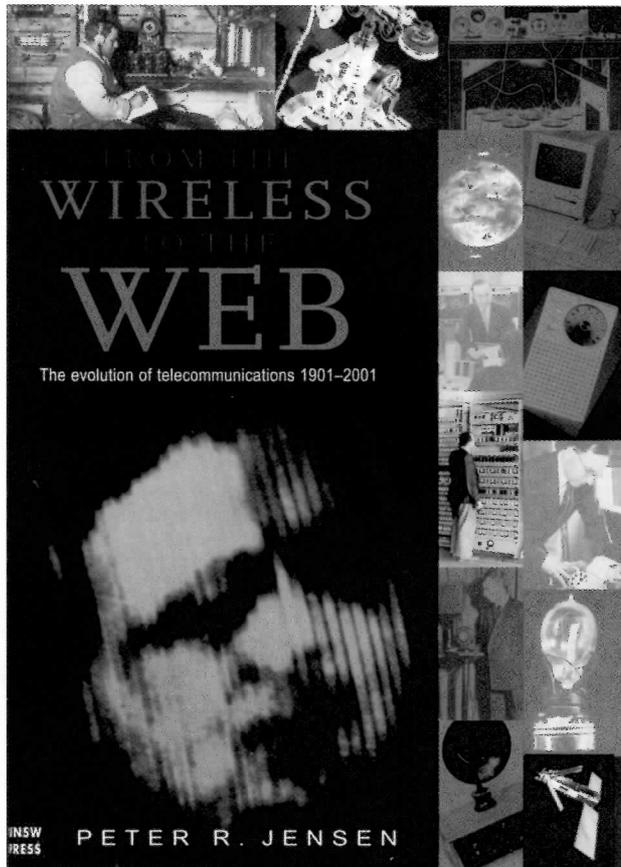
- Radio Radio, Jonathan Hill 1989
- Douglas-plating.co.uk
- Art Deco Chrome, James Linz 1999
- Museum Of Domestic Design & Architecture, (MODA), Middlesex
- Ideal Home Magazine - September 1933, September 1935, September 1936.
- Homes And Gardens Magazine - September 1933.
- Good Housekeeping Magazine - January 1934.
- Trader service sheets 13, 66, 213, 764.

# From the Wireless to the web

by Peter R. Jensen

Reviewed by Ray Bintliff

The scope of this book is impressive. The author endeavours to describe a century's worth of technical achievements in about 300 pages - and succeeds. The publisher's press release describes the book's contents far better than I could hope to do. The book, it says, 'marks the centenary of the first trans-Atlantic radio signal, sent from Poldhu in the United Kingdom to St. John's, Newfoundland. The book leads the reader on a voyage: from Babbage, the frustrated genius, through Marconi's development of early radio telecommunications, Mawson's Antarctic expedition, wireless in the First World War, radio dinosaurs from the first wireless age, early airborne radio, radio at war (1939-1945), codes and cryptography, the silicon chip, the creation of the computer, the microcomputer revolution and on to the future of microcommunications'.



Of the subjects listed above, Mawson's Antarctic expedition may be the least familiar to radio collectors, and its inclusion makes for fascinating reading. Mawson's 1911 expedition differed from previous expeditions to the Antarctic because its goal was scientific discovery rather than territorial claims. Mawson realised the need for reliable communication - or as reliable as early wireless could be. To improve reliability he established a relay station on MacQuarrie Island, located approximately half way between the ice cap and Australia. Construction of the wireless station on MacQuarrie Island was particularly difficult and dangerous. The story of construction of stations on MacQuarrie Island and Antarctica is a mixture of adventure, tragedy and courage. This is an absorbing chapter, I think it is interesting reading and reason enough to buy the book.

History buffs will find the chapter "Wireless In The First World War" of special interest. The book is well illustrated, and this chapter is no exception. It contains many photographs of wireless gear and battle scenes. The theme of this chapter is carried on in Chapter 11 "Radio At War", and in Chapter 12 "Codes, Ciphers and Colossus". These chapters cover the period from 1939 to 1945. The Colossus was the second version of an early electronic computer used by the British for code breaking.

Ham radio operators will be pleased to know that they are not overlooked in this book. There is a special section entitled "Hams and Hackers". In another chapter, the author relates the contribution made by British radio amateurs both in the armed forces and the clandestine corps of listeners that fed raw data to the decoding centre at Bletchley. In contrast, the Nazi

Government regarded the free-spirited radio amateurs as security risks and made little use of their technical skills. The "Hams and Hackers" section draws a parallel between the inquisitive nature of the two groups.

The book makes it clear that history does repeat itself. For example, wireless and undersea cable were competitive modes in those early days just as cable tv and satellite tv are today.

It is difficult to convey the scope and depth of the book's content in a short review. The book does a fine job of linking individual chapters on such subjects as wireless, early radio, wartime radio, radar, code breaking, valves, transistors and tv to show how these components led to the development of computers and the Web.

"From The Wireless To The Web" is a quality book loaded with information and more than 350 illustrations that will be of special interest to radio collectors. However, the book's appeal should not be limited to the radio fraternity since it tells the fascinating story of how the computer and the Web evolved. Considering the widespread use of the Web. This book should have an equally widespread appeal.

Published by UNSW Press, University of New South Wales, Sydney, NSW2052, Australia, this book has 320 pages and is printed in an 8" x 11" hardcover format. For further general and ordering information, please write to Gloria Greer at the above address, or e.mail her at [g.greer@unsw.edu.au](mailto:g.greer@unsw.edu.au)

If you don't wish to bother Gloria Greer the book is available in the UK via Eurospan, 3 Henrietta St, Covent Garden, London WC2E 8LU. Their telephone number is 020 7845 0812, fax is 020 7379 3313. Their website is [www.eurospan.co.uk](http://www.eurospan.co.uk).

(© Copyright 2001 by John V. Terrey. Reprinted with permission of Antique Radio Classified where it was published in January 2001. For a free sample issue of the magazine, write to: A.R.C., Box 2, Carlisle, MA 01741).

Oenophiles welcomed the importation of Australian wines. Now radio collectors also have an Australian product to relish. 'From The Wireless To The Web' covers "The evolution of telecommunications 1901-2001". Its author, Peter R. Jensen also wrote 'In Marconi's Footsteps 1894-1920'.

# How Green was your Ekco?

Investigating the myth of the green marble AD65 words and photographs by Robert Chesters

**Things come and go when one decides to deal in radios but for Steve Harris this has been one of the few real wrenches of his career. Over the years I am sure that members of the BVWS will have been aware of Steve as an inveterate collector and trader of wirelesses and more recently as the director of the "On the Air" broadcasting museum and vintage sound shop. However, in the last few weeks he has obtained one of those highly publicised and almost mythical things - a Green AD65.**

Steve recalls once seeing a round Ekco in a radio shop on one of his jaunts that he swears blind was red and, as memories will become idealised, his is of an ever increasingly perfect vision - no cracks, nice white marbled swirls (although he once confided to me that it could have been a brown one that just looked very red in the light on that occasion, but this is not the stuff on which dreams are made). Today, is not one of those moments though. This is not the story of a missed opportunity to grab the chalice and complete the search of a lifetime, this is the end of the search for one other lucky collector, who is now the proud owner of this unusual prize.

## Loadsamoney

In many ways the value of the Green AD65 is a reflection of the money consciousness prevalent in the 1980's and early 90's but it may also be indicative of an era when prices seemed to be going up regardless of value or reason. I have to admit that if I were to be spending four figures (that is the ball park - none of this £50,000 nonsense) then I would not want it to be spent on something that is disintegrating before my eyes. But then again, Jack did very well on only a handful of beans! As this radio is famous more for being a great rarity worth a lot of money than as a decorative object (which is, some would say, the appeal of the round series) then one has to decide how much one wants to outdo the next collector by having something that few others have any chance of owning.

Outside of its appearance, what is the importance of the AD65? Of course, it is an art deco icon and as such the looks are paramount. However, there are various claims made for the AD65 such as it having been impossible to conceive of in wood. This has always struck me as a most spurious claim as I have seen plenty of round wooden clocks dating from the

19th and 20th Centuries which seem to have presented no significant problem to the cabinet makers of the day. So, what is the significance of the round form? Wells Coates when he designed the set was looking for a shape which would be the most suitable and economic to produce in bakelite.

Sherban Cantacuzino observed:

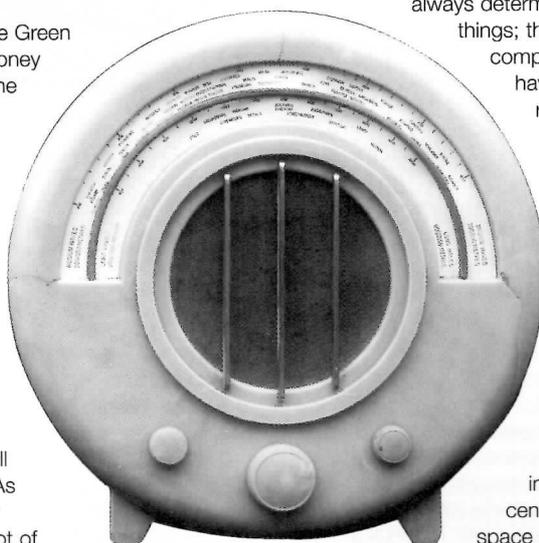
"A favourite phrase and he was fond of coining catch phrases- was 'purpose related to purse', a principle which he applied more successfully to his industrial design than to his architecture. In a lecture at a Council of Industrial Design refresher course, he described the three dimensions which a designer must use: the

dimension s of human beings which have always determined the dimension of things; the dimensions of things - of components and elements which have to be studied in their own right; and last, the dimensions of human beings doing or using things - the dynamic rather than the static dimensions. He goes on to describe his circular wireless design. The intention was to have a circular moulded cabinet developed from the idea that the loudspeaker is a cone terminating in a circle and that the scale or indicator revolves round a centre. The cylinder encloses space more economically than a rectangular shape for the same quantity of material, resulting in a saving of thirty-five per cent. And why, he asks, should a wireless have a front of finished materials and design, and a cheap back with vent holes and connectors, made of compressed hardboard? He suggests identical mouldings (as he later succeeded in having for his portable Princess-Handbag), but with a front to take the chassis, scale and speaker and a back in the form of a screen to provide vents and means of access."

Although today it is perhaps a little difficult for most collectors to think of the AD65 as an inexpensive



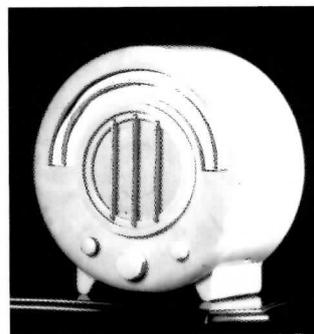
above a detail of the left hand side of the cabinet showing both the cracking and the speckled effect caused by patchy concentration of filler



Right: A green AD65 on offer at Academy in Ealing, nobody has been absolutely sure whether this set was actually sold or not. This radio reappeared in Sothebys only to fail to reach its reserve. Photo courtesy of Carl Glover

Centre right: The cabinet, knobs and dial which made £3,375 at Christies in July 1995.

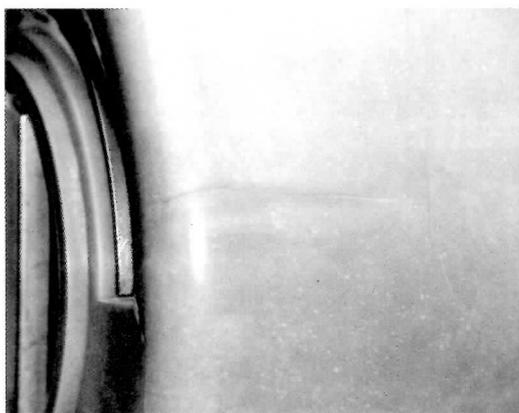
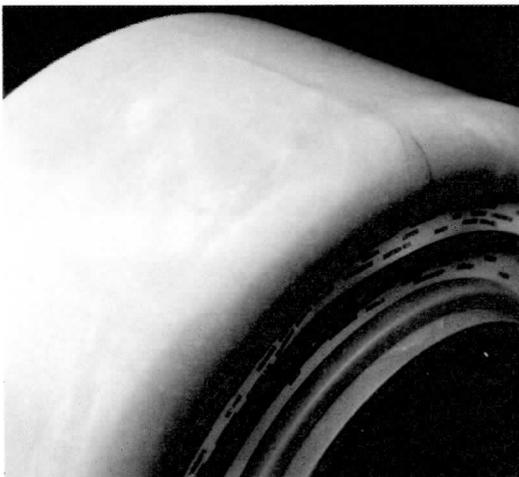
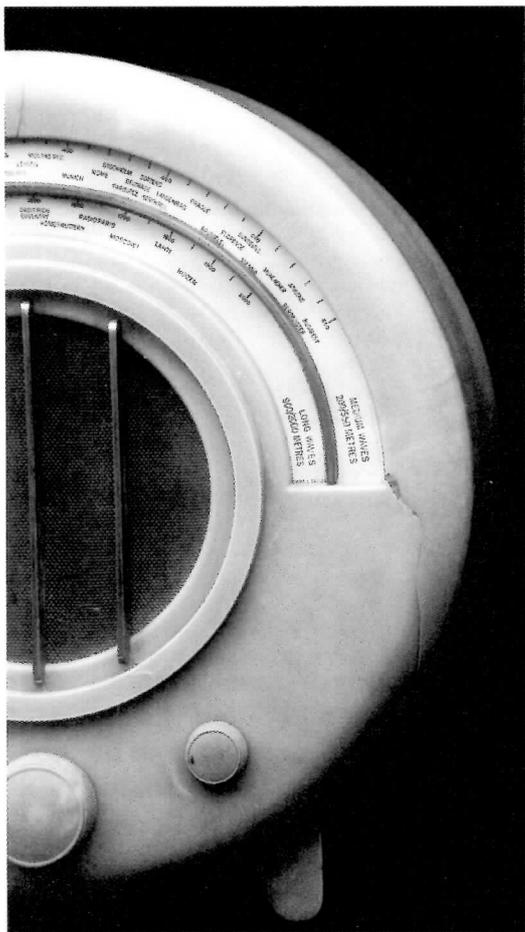
Far right: The late Harry Brown's green AD65 as featured on the cover of 'Radio Art' by Robert Hawes



solution to their wireless collecting requirements, in the 1930's part of the brief was to create a moulded wireless cabinet which would be comparatively inexpensive to produce and hence less expensive to the consumer. This fitted in with Wells Coates' commitment to intellectual modernism - he was in effect helping to democratise the ownership of well designed modern goods. Coates never seems to have made any particular stipulations about colour in his designs although the AC85 (also of 1934) was depicted in ivory in several Ekco adverts suggesting that they felt confident enough of the urea material to offer it to the public (a substance displaying little structural integrity would soon have been rejected by the quality checkers at the moulding plant).

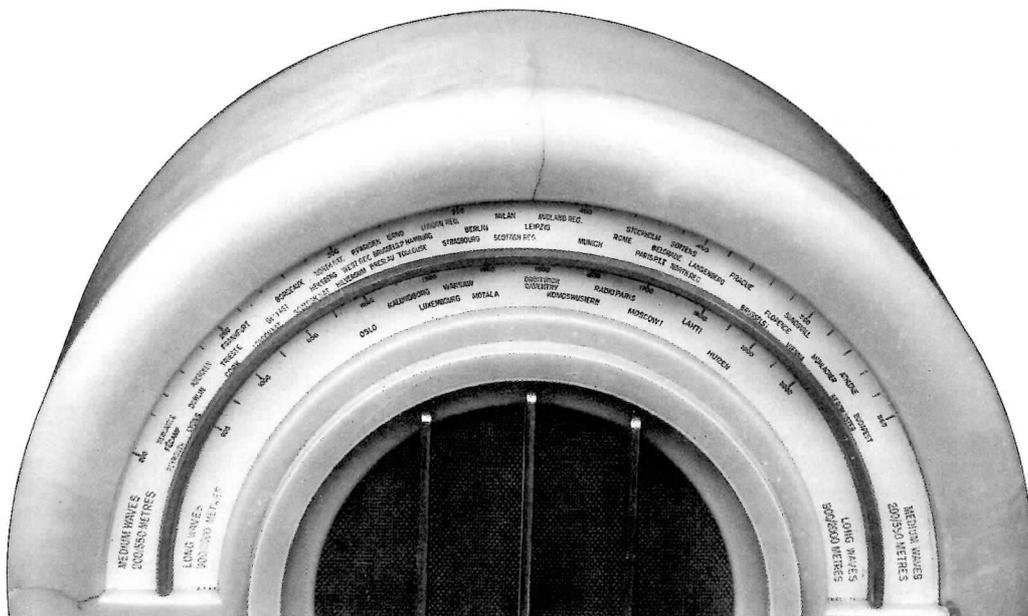
I have sought to make a faithful photographic record of this wireless, as I feel that examples ought to be properly documented. As can be seen from the pictures the set is without original knobs (reproductions have been fitted) and has suffered from extensive and in some places quite serious cracking, particularly along flow lines in the plastic. This is not uncommon with plastics of this sort as they employ a very fine powdered bleached wood flour filler which does not offer the structural integrity of the coarse varieties employed in the black and brown versions. Although there are a few genuine examples of the AD65 in Green and at least two in Ivory now known to have survived all have some level of cracking or crazing on the cabinets. An example was sold recently at an auction

above: detail of the top crack in the cabinet. It displays signs of having formed along the position of the internal strengthening bar, ironically enough. It is interesting to note that although the cabinet has succumbed to a great many stresses and strains, the scale has remained relatively stable except that the scale bar has lost most of its plating - usually a sign of being stored in a damp place.



Far left: here in detail is the right hand side of the cabinet. The colour is surprisingly good and does have a very strong feel of marble to it. Unfortunately, like marble it has its faults and here can be seen another stress line running along the flow line caused by the internal slat formed by a thicker area in the cabinet. It is running along towards the back of the case but is being stopped by a possibly earlier vertical stress fracture. The vertical stresses are not uncommon in bakelite mouldings but it is more unusual to find the more serious variety running from front to back. It is worth considering that the break may be being caused by the thickness of the case rather than the lack of it. According to the usual laws of nature one would expect this to be the strongest point however, it also offers the greatest possibility for distortion while cooling. This might suggest that the cracks were actually present within the cabinet when it left the factory - it simply took some time for them to open up.

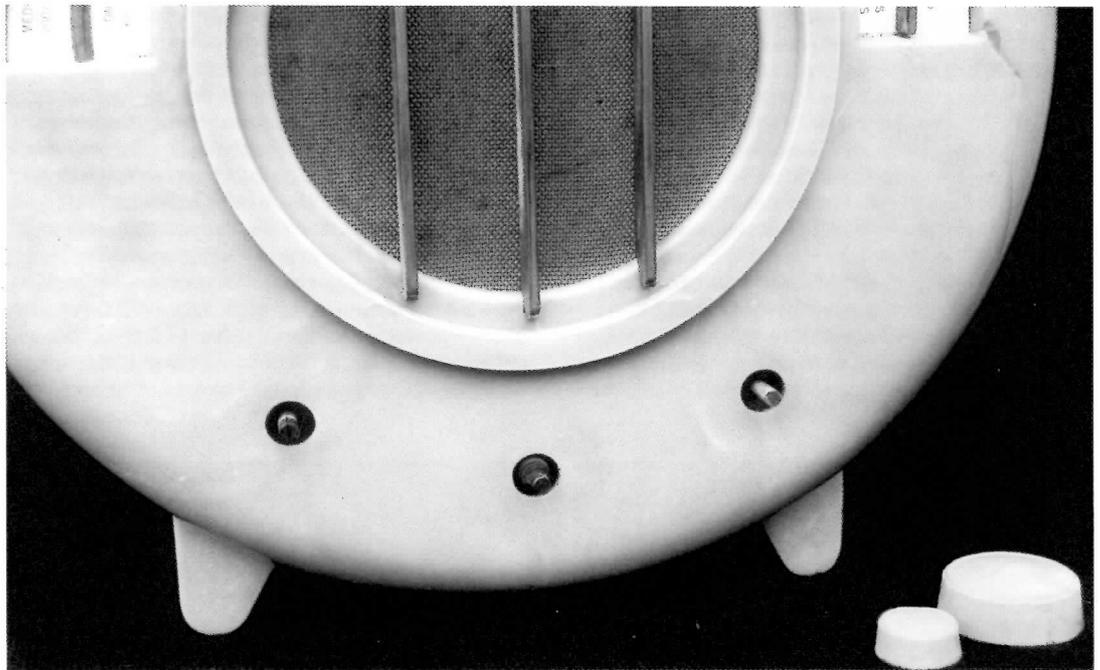
The set has done well to survive at all given that its' status as a useful domestic object had for a long time been extremely low. It has suffered quite severely from crazing which might have been exacerbated by being in a relatively damp environment. The cloth is interestingly enough apparently the original and is the same as fitted in the black and chrome models (except for a little of the dirt of ages).



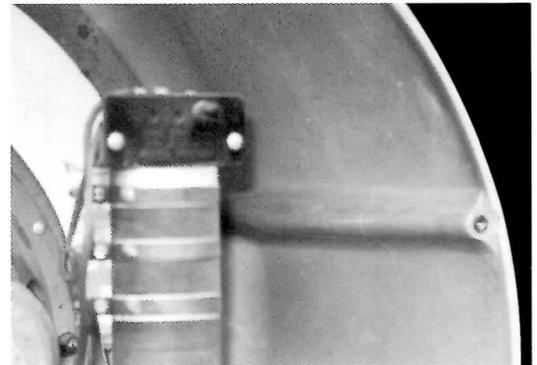
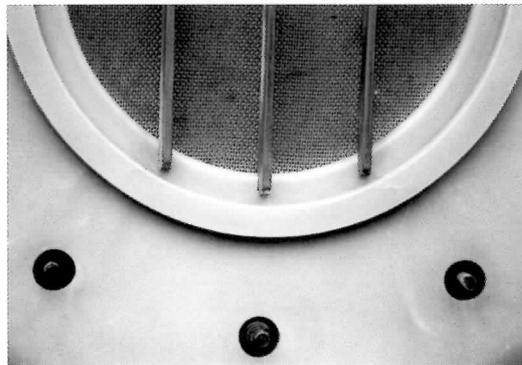
Left: As mentioned earlier the scale and bar have been fortunate in that they have not warped too much. It may be that the cabinet has been forced to take up the strains which often result in this kind of distortion I can not see any remnants of blue paint on the mazak bar a la the green set pictured in the book "Radio Art" although there are traces of chrome still extant.

Right: there is a slight variation in colour where the knobs had been and unsurprisingly enough there is some crazing emanating from these holes. There are also breaks emanating from the points at which the speaker bars slot into the cabinet - again not totally unsurprising.

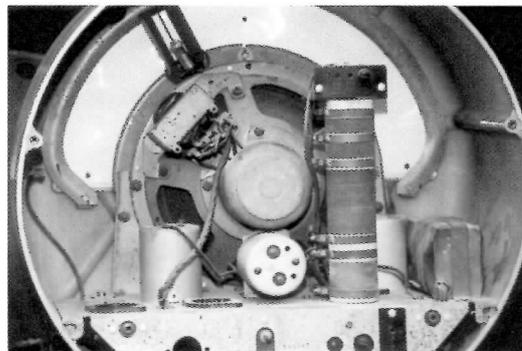
In many ways it would be more alarming not to find this kind of crazing at these points as there are no genuine examples to my knowledge that are with out any forms of crazing whatsoever.



Right: here the crazing can be seen in greater detail. At this kind of distance one can also see the weave of the cloth is the same as those found on other Ekco models - all adding to the authenticity of the item.

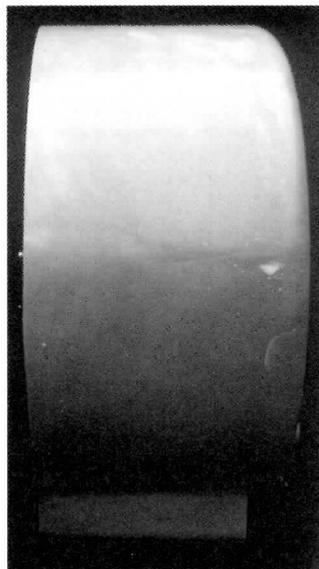


Below right: the chassis is depicted here in as found condition and shows signs of having been cannibalised for valves and parts (initially the volume control was also missing) there is nothing otherwise abnormal about this chassis there are no special markings to be found here or on the cardboard back to ever suggest that this was anything other than another AD65 model. This does beg the question: Was it ever a "special order?"



Below: the side view of the cabinet with its cracking clearly visible. Above right: shown from the inside, the same crack, The horizontal split is not so visible but it can be seen that the fissure has run right along the strengthening slat within.

**...a moulded wireless cabinet which would be comparatively inexpensive to produce and hence less expensive to the consumer. This fitted in with Wells Coates' commitment to intellectual modernism - he was in effect helping to democratise the ownership of well designed modern goods.**



house in London without a chassis but otherwise complete for £2,800 - if a chassis is needed then they are comparatively inexpensive. That set was cracked but it was on the whole crazing rather than proper breaks in the cabinet.

Looking at different areas of the cabinet it is possible to see that the filler has formed into areas of higher concentration producing a speckled effect in the marbling. This may mean that there is less filler in other areas and thus lower structural integrity. Given that the plastic is by definition a polymer then the cabinet is in effect all one single molecule bonded together by chains. Now, either the chains have weakened over the years and caused the plastic to start to disintegrate or there is some other element such as the filler that is decaying and causing a drop in structural integrity. The AW87 cabinet (see my article in vol. 23 no.2) was produced using a plastic whose trade name was "scarab" this was similar to "beat" as used for the AD65 except that it used a more densely packed coarser filler which offers greater binding power within

the plastic and hence a more stable product. This has not meant that the AW87s still extant are not prone to maltreatment but it has resulted in better preservation and appearance. It is worth noting that when Ekco put the A22 into production in the 1940's they seem not to have wanted to try making an ivory version available, although the A33 "Radio Time" set was only offered in Ivory (it may have been manufactured in Brown or Black too but I have never seen any - perhaps one of those might be worth 17 thousand pounds to the right person!).

# The American 'Mystery' record player

by John Savage.

In the late 1930's a new domestic electronic device appeared on the home market, namely a record player with a difference. Built into the gram deck was a small R.F. oscillator tunable to part of the medium waveband and modulated by the output from the pickup.



REAL RADIO GRAMOPHONES, with no tangible connection between the record reproducing equipment and the wireless set, are now widely used in America. Their operation is described in the accompanying text.

**WIRELESS BROADCASTER**

• Play your phonograph through any radio anywhere in the house without connecting wires.  
• Talk through your radio by microphone.

**0.75**

Columbia's new wireless broadcaster will extend your enjoyment of your phonograph to every room of the house and has a radio after receiving the broadcast. You simply tune in on the dial just like any radio set. Frequency adjustable for broadcast between 200 KC. and 1200 KC. in broadcast band - with your own set and receiver and regular broadcast.

This provides for ground G.E. and magnetic overtones. Also has input for direct microphone, or wall or low impedance magnetic microphones, so you broadcast your voice through the radio. Externally meter and discriminator. 100% ready of power. Circuit has 125C, 125D21 tubes also available number. Volume control with auto switch. Minimum price \$10.00. Includes 450 W. 250 C. 110V. H. Stage, etc. Complete wiring and illustrated with all notes. 14-14

NET \$75

**SHIELDED PHONO LEADS**

40" long shielded phono cable. Over-all Polyethylene insulation. Ideal for phono connections or for testers. NET \$5.00. In lots of 10.....2.44 ea.

To my surprise it worked rather well and swamped the Nova downstairs as well as a Little Maestro in the kitchen. I had a friend who lived half a mile away who was much impressed with this advanced technology but alas he was unable to receive my transmissions on his HMV radiogram so I coupled my 60ft outside aerial up to it and I was then as loud as the Home service.

This enabled any domestic radio in the house to hear the records being played and had the obvious advantage of not requiring any connecting cables, one just tuned the radio to the player like any other radio station.

By 1939 one could purchase just the electronic unit to fit into your own player, and some had dual inputs for a microphone as well as a pickup.

I have a 1939 catalogue from the Lafayette Radio Corp. of New York in which are listed two such units, a budget priced one at \$3-95 using a 6A8GT and a 76 rectifier (actually a triode strapped as a diode); or you could buy a Hi-Fidelity version using a 6C6 oscillator driving a suppressor grid modulated 6L7 RF amplifier, plus a 6Z5Y5 rectifier, priced at \$7-95.

Lafayette marketed these units for many years; I have another of their catalogues for 1964 and by then the valves were miniaturised (12BE6 and 35W4) but the price was still only \$4-50, whilst the complete version with wooden cabinet was \$14-95. I was a schoolboy in 1939 and although conversant with receiver circuits I had little idea of how this device worked until April 1941 when the Wireless World printed a short article about it complete with a circuit diagram. This fired my imagination and I visualised myself as a disc jockey, playing my favourite 78's to all and sundry. The fact that it would be highly illegal and very dodgy in wartime escaped my notice.

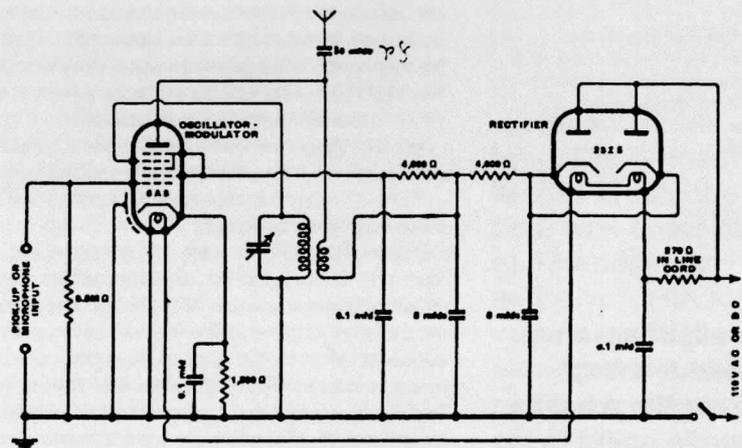
I immediately set about acquiring the necessary parts, but using a conventional mains transformer for the power supply, and I found a low emission Ferranti VHT4 which had been rejected from the family Ferranti "Nova", plus an old tuning coil and some C's and R's. A short aerial wire hung up on the curtain rail was sufficient for testing. Driven by my Rothermel crystal pickup and Simpson turntable, I was in business.

To my surprise it worked rather well and swamped the Nova downstairs as well as a Little Maestro in the

kitchen. I had a friend who lived half a mile away who was much impressed with this advanced technology but alas he was unable to receive my transmissions on his HMV radiogram so I coupled my 60ft outside aerial up to it and I was then as loud as the Home service. A record changer was connected up later on, and I was able to cycle round to my friends and hear my own records being played, though I never aspired to using a mike which perhaps was just as well.

It wasn't until some years afterwards that I realised why it had worked so well. The original circuit was designed for a 110 Volt HT supply but mine was running on about 275 volts, which explained why the poor old VHT4 got rather hot!

I don't recall ever seeing such a device marketed in this country but it was obviously quite successful in the U.S.A.



Typical circuit arrangement of the oscillator-modulator, which is mounted with the record playing equipment.

# Volksempfänger; the myth and the reality.

An overview of German co-operative receiver production

By Mike Izicky, in collaboration with Gerhard Haberzettl and Andrew Denton.

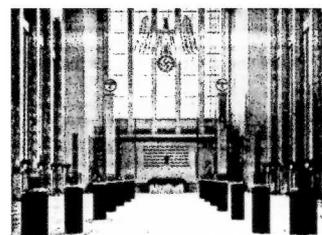
“Never let the facts get in the way of a good story”.

In a recent article I wrote (“Tales from a reluctant traveller”, volume 25 issue 4), some captions were added to the pictures which unfortunately were fallacious. This prompted some correspondence regarding the veracity of these statements and has ultimately led to my needing to write this article, because the alterations to the article damaged my reputation for making every effort to ensure historical accuracy. So this short piece is designed to kill off all the hoary old rumours, half-truths and outright lies that circulate about the Volksempfänger- the German “People’s Receiver” once and for all so that some reason can prevail over these sets, and the sometimes-outrageous claims made about them.



The label reads: 'Think about it:

Listening to foreign broadcasting stations is a crime against the national security of our people. By order of the Führer it will be punished with a severe prison sentence'. 3450 people were sentenced under the laws passed at the outbreak of World War 2 "



"This picture was taken in the Ehrenhalle (Hall of Fame) at the 1938 Funkausstellung (radio exhibition) in Berlin. On the left are several examples of the DKE; on the right the VE301Dyn."

**After all, if you want to make a cheap radio for the masses, it's hardly going to be a six-valve superhet, now is it?**

## The Myths

So let's start with the biggest myth first.

MYTH: "This is the 'Party Set'. You had to be a member of the Nazi Party to buy it"

REALITY: This is complete rubbish. I don't know where this rumour started, but my own opinion is that at best it is misguided, and at worst bigoted. Who knows? Maybe it was started by someone desperate to sell (at a premium) this odd little German set he'd acquired.

This particular rumour tends to accompany the later model of the Volksempfänger, the VE301Dyn. This later model is a restyled, updated version of the original Volksempfänger, the VE301. One assumes it earned the "Party Set" sobriquet because of the very prominent logos on both sides of the tuning scale- the eagle grasping the swastika. The truth is rather the opposite.

Right from the beginning of the Nazi era (1933) it was required of every German citizen to listen to the propaganda broadcasts orchestrated by Goebbels. So how better to make sure that every German home had wireless than to provide them with a basic receiver that was cheap to buy and run? A popular slogan at the time was "Wireless Reception for every German Home"

At the time, the VE301Dyn cost just 65 Reichsmarks- or £3/5/- (in 1938 the exchange rate was approximately RM20 to the Pound). This was about half the cost of the cheapest sets then available- for example, an Emud "Record 31W" cost RM126.10, and was also a detector-LF set. The price was deliberately chosen so as not to affect the sales of the more "conventional" offerings of the German radio industry. The VE301Dyn was introduced to the public at the 1938 Funkausstellung (Radio exhibition).

MYTH: "They were deliberately made insensitive so you could only hear propaganda broadcasts on them"

REALITY: How sensitive do you expect a detector-LF set to be? Most detector-LF sets of this era- be they German or English- are really only local station receivers. Given a good aerial, they can pick up quite distant stations, especially at night- just like any other set. Let's not forget that there would have been a concerted effort by the Allies to beam their own propaganda into Axis territory; think of Station Twelve Twelve. To say that they were "deliberately insensitive" though is a lie. After all, if you want to make a cheap radio for the masses, it's hardly going to be a six-valve superhet, now is it?

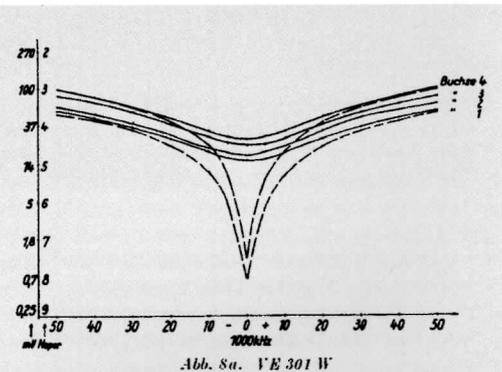


Abb. 8a. VE 301 W

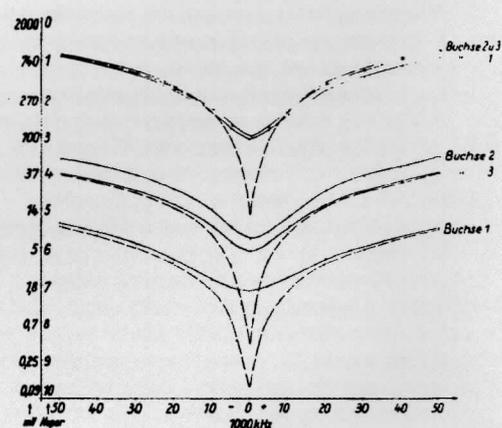


Abb. 8b. VE 301 Wn

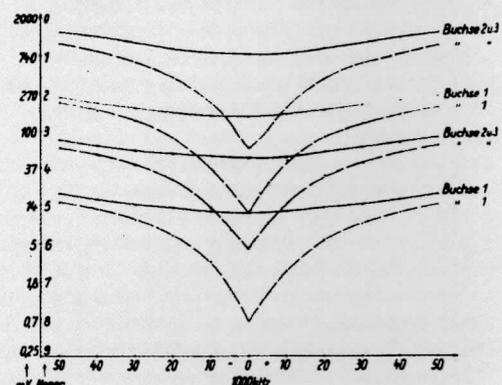


Abb. 8c. DKE

**28. Aug. - 6. Sept.**

# 13. Große Deutsche Rundfunkausstellung Berlin 1936

Ehrenhalle • Große Industriehalle aller apparatebauenden Fabriken Deutschlands • Fernsehen und Fernsprechen • Der Volkswinder 1936 • Täglich Abendveranstaltungen der Reichsrundfunkgesellschaft in Halle 2 Funkturnhallen **Täglich von 9-20 Uhr**

Jeder Volksgenosse hört Rundfunk!

## Gemeinschafts-Empfänger

DKE

### Klein-Empfänger

Ein Vollnetzgerät für Allstrom, das an Wechsel- sowie Gleichstromnetze von 110-240 Volt angeschlossen werden kann. — Der beste und zugleich billigste Rundfunk-Empfänger Europas in seiner Klasse. Freischwinger-Lautsprecher, in Bakelitgehäuse.

Preis: Allstrom . . . RM. 35,—  
Batterie . . . RM. 32,50

### Besondere Eigenschaften:

Der Einzelröhre mit 2 Wellenbereichen, automatisch einstellbar.  
Bei geringem Stromverbrauch von 17/20, 6/10 Watt mit einer hohen Empfindlichkeit und hoher Treueschärfe.  
Maße: 230x220x115 mm.  
Gewicht: ca. 1,5 kg.  
bei Batterie-Betrieb:  
Spezial-Anode . . . RM. 5,75  
Spezial-Akku . . . RM. 5,75

---

### Volksempfänger

Der millionenfach bewährte und beliebte VE-1-Kreis-2-Röhren-Empfänger. Auf der beleuchteten, übersichtlichen Skala sind alle großdeutschen Sendergruppen verzeichnet. Alle Bedienungselemente sind an der Vorderseite angebracht, mit Profistoffgehäuse.

Preis: Wechselstr. RM. 65,—  
Allstrom . . . RM. 74,50

### Besondere Eigenschaften:

Elekt.-dyn. Lautsprecher. 5 Wellenbereich. Rückkopplunges Audion. Stufenlose Abstimmkopplung. Widerstandsabkopplung.  
Leistungsbedarf: 25 Watt.  
Röhren: AF 7, EES 164, RGN 1004.  
GW. u. d. Röhren: VF 7, VL 1, VY 1.  
Maße: 215x215x165 mm.  
Gewicht: ca. 2,2 kg.

---

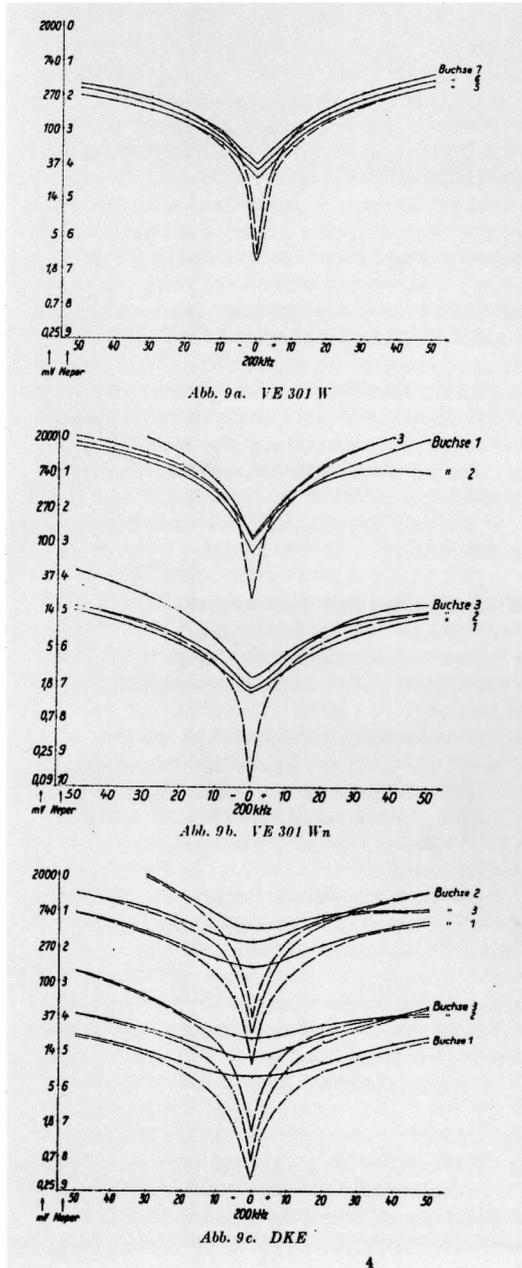
### Der Deutsche Olympia-Koffer DOK

Das Gemeinschaftsgerät der deutschen Rundfunkindustrie, mit einbaubarer Rahmenantenne. Durch den permanent-dynamischen Lautsprecher wird eine volle klangschöne Wiedergabe erzielt.

Preis: m. Röhren, o. Batterie dazu Heitzkath. u. Batt. komplett hörfertig . . . RM. 138,35  
RM. 23,15  
RM. 161,50

### Besondere Eigenschaften:

Batterie-Gesetzempfang. Einbaubare Rahmenantenne. Abschl. für Emulzelektro. Lautstärker. Rückkopplung. Fern- u. dyn. Lautsprecher. Röhren: KF 4, KC 1, XC 1, KL 1.  
Maße: 43x27x16,5 cm.  
Gewicht: ca. 9 kg.



At the beginning of the war there was a cardboard label which could be attached to the set's knobs, reminding you that listening to foreign broadcasting stations was against the interest of the German people and national security. To do otherwise could become an offence classed as treason and carried a maximum penalty of death. These Extraordinary Powers (granted on the 1st September 1939) led to the sentencing of 3450 people by 1943, for the offence of listening to foreign transmissions. If the sets were so insensitive, how come they needed them?

There are some published sensitivity curves for the various sets, and these are illustrated.

Maybe one day, when I get around to restoring my Marconi 246 (a simple mains-driven detector-LF set) I'll put the two side by side and do some comparative tests.

In a 1939 "Wireless World" article<sup>2</sup> the DKE was described as "surprisingly sensitive", although it was noted that a wavetrap would be needed to separate out BBC transmissions from the German ones. It was also remarked that after the German stations had closed down, Droitwich and one medium wave station were receivable on a typical indoor aerial that might be employed by the average town flat dweller. Presumably a country dweller, remote from a large transmitter, would fare better with a large outdoor aerial. The same article goes on to record that the VE301Dyn was much better in respect of its sensitivity and selectivity.

The only set to rejoice in the title of "People's Set" in England- the now sought-after Philco models- were perhaps technically superior, being superheterodynes, but they were twice the cost of the Volksempfänger- the mains model 444 being six guineas (£6/6/-) in price. With hindsight, they were not a brilliant design- the use of the unique output valve, the PenDD61 (or the PenDD2530 in the AC/DC version) being the most obvious oddity. Certainly the chassis do not stand up to the test of time, being only flashed with cadmium and now consequently very prone to rust. This is not something that can be levelled against the presspahn construction of the Deutscher Kleinempfänger, more simply known as the DKE.

On reflection the Wartime Civilian Receiver was an expensive solution to the problem of receiver supply; again technically superior, but limited only to medium wave broadcasts. Was this done because it was expedient to do so, given the materials supply



„Der Führer spricht!“

Das Bild für Ladengeschäft und Werkstatt des deutschen Rundfunkhandels

In a 1939 "Wireless World" article the DKE was described as "surprisingly sensitive", although it was noted that a wavetrap would be needed to separate out BBC transmissions from the German ones.



**Neue Netz-Endstufen:**  
10 und 50 Watt  
klare, rein aus  
normalen  
Rundfunk-  
röhren

**TELEFUNKEN** DIE DEUTSCHE WELTMARKE

**Der Arbeitsfront-Empfänger**

**Das deutsche Standard-Gerät**  
für die  
**Gemeinschafts-Empfang an der Arbeitsstätte**

Nur für Nichtkatholiken  
Dreiwerte-Verstärker-Empfänger  
Gesamte Leistungsentzug 25 Watt  
Wellenbereich: 300-2600 m  
Ohne eingebautes Lautsprecher  
Verbrauch ca. 70 Watt  
Preis: RM 285,- mit Röhren,  
Röhrensatz: AF 3, AF 1, KC 2, AZ 1, RE 614, RA, RA 5450  
Bereitstellungsfähigkeit: 4,5 x 0,3 h, 8, 30 m.

**Arbeitsfrontlautsprecher**  
als Chassis AFC 304 ..... RM 54,-  
als Wandlautsprecher AFC 304 ..... RM 105,-

AFC 304

**VERSCHIEDENES**

Für den Empfang aller gültigen Sender genügt eine Trennwelle von 30-35 cm Länge in schräger Höhe und freier Lage. Für die Aufnahme von Sendern in geschlossener Einbaumung genügt ein einzelner Drahlfaden (10-15 cm) als Zwischenwelle. Größtes Leichtfeld bei Fernempfang erfordert die richtige Wahl der Antennenlöcher. Bei Verwendung einer Frontantenne von 20-30 cm Länge sind keine Stationen mit Wellenlängen 200-300 m über Buchsen 1 und 2, für 350-400 m die Buchsen 3 und 4, für Stationen 600-1200 m die Buchsen 5 und 6 und über 1200 m die Buchsen 6 bzw. 7 zu wählen, um optimale Leistung zu erzielen. Hohe Trennwelle ermöglicht man bei Xern auf den Buchsen 1 und 2 und bei Lang auf den Buchsen 4 bzw. 5. Das Suchen und Abstimmen von Sendern muß durch sehr langsames Drehen des Abstimmknöpfchens und durch sehr vorsichtige Behandlung der Rückkopplung erfolgen. Eine Bedienungsanleitung war für den mechanischen Aufbau des Dreikontaktschalters und seiner Gehäuse gedankend (beizufolgende Fehler!)

Bei VE 301 W beträgt die aus dem Netz aufgenommene elektrische Leistung des Gerätes ca. 16 Watt.  
Bei VE 301 G beträgt die aus dem Netz entnommene elektrische Leistung bei 110 Volt Netzspannung 22 Watt

|     |   |    |
|-----|---|----|
| 150 | • | 30 |
| 220 | • | 44 |

Bei VE 301 B 2 beträgt der Gesamtstromverbrauch 4 mA bei 90 Volt.  
Die Hochleistungsreihe hat bei dem VE 301 B 2 bei 2 Volt Spannung eine Stromaufnahme von 0,3 Ampere.  
Das Ausschalten des Apparates geschieht durch Hochziehen der „Ein- aus“-Schalter.  
Bei Rückfragen muß die Typen- und Firmenbezeichnung des Gerätes sowie vom Fabrikationsnummer angegeben werden.

**Technische Betriebsanleitung für den Volksempfänger VE 301**

**EINKREIS ZWEIKREHLEN EMPFÄNGER**  
TYPE VE 301W FÜR WECHSELSTROM  
TYPE VE 301G FÜR GLEICHSTROM  
TYPE VE 301B FÜR BATTERIEANSCHLUSS

Ein-Kreis-Empfänger mit den Wellenbereichen 300 bis 600 m und 800 bis 2000 m.  
Sagitt. Schwingengitter, aufbaufest am Hochspanner zum Hochspannen und leicht verstellbar. Dreh- Lautsprecher Rückkopplungsfeld. Betrieb bei VE 301 W und VE 301 G Transformator-Verstärkung bei VE 301 B Wellenverstärkung, Endstufen und Frequenzganglautsprecher. Selbsttastende abstimmbare Antennenkopplung.

Adolf Hitler became Chancellor, the 30th January 1933. The set was available in AC, DC (later AC/DC) and battery forms, as (respectively) the VE301W, the VE301G (later VE301GW) and the VE301B and VE301B2. Originally the VE301W cost 76 Reichsmarks (RM), but later fell to just 59 Reichsmarks.

This is the set with the "calling eagle" logo. Technically it is a simple two valve TRF (the battery version had three valves), and uses a large moving-iron loudspeaker. Many of the capacitors are made into block assemblies, not dissimilar to many British sets of the period.

In 1937 a much-improved version was offered- the VE301Wn. The first production schedule for this improved set was no less than 300,000<sup>6</sup>. Outwardly the only noticeable difference was that all the connections- previously at the side of the set- were now round the back, and the dial now bore station names of the major German transmitters whereas previously it was calibrated in degrees. The major differences were internal; in this set's case, the original design's triode detector was replaced with a screen-grid valve. Additionally, it now had a variometer aerial coupler which was later to be seen in the VE301Dyn.

**The VE301Dyn**

This is the later, restyled and modernised model, which appeared in 1938 at the Funkausstellung. It was now just RM65, and was available in AC and AC/DC versions. Unlike practically every British set of the period and despite their cost, these sets actually had fuses fitted to them, in common with practically all German radios.

Much updated from the original set, the AC version now has an energised moving-coil loudspeaker, hence the "Dyn" in the model designation, whereas the AC/DC version has a permanent magnet moving-coil loudspeaker.

**The Deutscher Kleinempfänger (DKE)**

This is the tiny little set that was introduced to the public at the Funkausstellung 1938 as well and cost just RM35 (35/-). The initial production was 700,000, which were sold in the first five months of production<sup>6,7</sup>. Certainly it's a marvel of cost-effective engineering; I'm sure that if a way had been found to magnetise cardboard, then the loudspeaker magnet would have been made of that too! Unsurprisingly it only comes in one mains supply variant- AC/DC. The valves used are a VCL11 and a VY2. The "V" valve series, with their 50mA heaters, were especially developed for low energy consumption to make the sets economical to run (as little as fifteen watts on a 220-volt supply) as well as buy.

If this price was still hard to meet, then the set could be purchased on interest-free credit: for a RM5.00 deposit you got the set, then you paid RM2.00 a month for fifteen months. The price also

meant that the set found favour as a second set in more affluent households.<sup>6</sup> Should you have found yourself in the direst of circumstances, then you could fall back on a scheme known as the "Goebbels-Rundfunkspende" (Goebbels radio donation). If certain conditions were met, then it was possible to get a radio set free of charge.

There is also a battery version of this set, which cost RM32.50. This was a three-valve set, using two KC1s and a KL1.

Despite its diminutive size and lowly specification, a plug-in shortwave converter was made (a similar converter was also offered for the VE301) for this set- the author has seen one of these in a private collection and one is illustrated.

The DKE had an interesting nickname in its homeland- "Goebbels-schnauze"- or "Goebbels' Gob"!

**The Deutscher Arbeitsfrontempfänger (DAF1011)**

This set, as its name (literally "German Labour Front Receiver") implies, was intended to provide music and propaganda for factories. (the "Deutsche Arbeitsfront" was the unified workers union of the Nazis) It is of a higher specification than the domestic sets, being a four-valve TRF set in a metal case. I saw one for sale at the NVCF last April- and I didn't dare ask the price! Once again, the model number is tied in with Nazi Party history. The "1011" is derived from 10th November 1933: the date when Hitler first addressed workers in a factory, in this case the Siemens factory in Berlin.

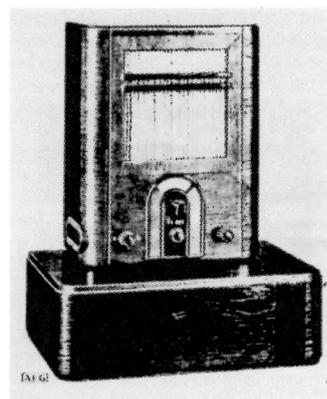
**The Deutscher Olympia-Koffer (DOK)**

This was a portable set, produced again as a co-operative effort by the radio industry, the name being inspired by the 1936 Berlin Olympic Games: contemporary advertising illustrates this. Costing initially RM156 including batteries, it was a four-valve TRF set of HF-Detector-2LF construction. It was made in two versions, one from 1936 (DOK/DO36) and one from 1937 (DO37). The DO36 was somewhat different in both appearance and construction, and lacked the frame aerial which was built in to the subsequent DO37.

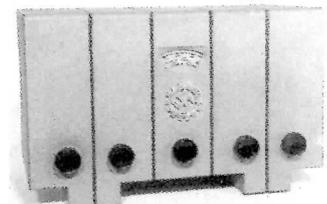
**The "Stuttgart"**

The "Stuttgart" was somewhat different from the rest of the sets previously mentioned, as it was intended to be exported to expatriate Germans. This set was in production from 1937, and was a six-valve AC superhet covering medium and short waves. The price was RM127.<sup>8,10</sup> In 1943 there were a hundred broadcasting stations in operation transmitting abroad in fifty-three languages. It's worth bearing in mind that this set cost as much as a cheap two-valver from Emud; its price is also comparable with the technically inferior Philco 444 "People's Set" in England, which was six Guineas- roughly equivalent to RM126.

**BEDIENUNGSVORSCHRIFT**



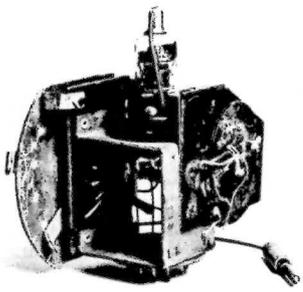
VE301B2 plus matching battery container



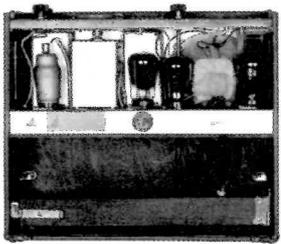
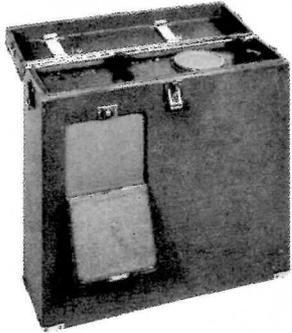
DAF1011

**Bedienungsanleitung Deutscher Olympia-Koffer 57**

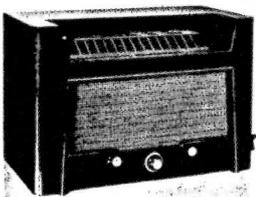
**BEDIENUNGSANLEITUNG**



The short-wave adaptor which could be fitted to the VE301: seen here fitted with a military valve, the RV12P2000. Normally the REN904 would be plugged in here



Der Übersee-Empfänger „Stuttgart“



537 Ansicht des Empfänger „Stuttgart“



## Accessories

Unsurprisingly there was considerable enterprise in producing items with which to customise your set, or accessorise in the modern vernacular! These ranged from simple items like a dial light, via preselectors all the way to illuminated linear tuning scales with press-button preset tuning. Of course, we've already mentioned the short-wave converters. Predominantly these came from firms like Brandt, Heliogen, Körting, Luxor, Membra and Undy. The most ambitious accessory came from a company later synonymous with its bold industrial designs: Braun. They manufactured a complete HF stage in a matching case that attached to the front of the set, and mechanically coupled to the controls to gang them. The final touch was an illuminated scale.

## Quick technical summary

| Type        | Introduction | Retail price      | Valve lineup           |
|-------------|--------------|-------------------|------------------------|
| VE301 W     | 1933         | RM76 (later RM59) | REN904, RES164, RGN354 |
| VE301 G     | 1933         | RM76 (later RM65) | REN1821, RENS1823d     |
| VE301 GW    | 1935         | RM87 (later RM79) | VC1, VL1, VY1          |
| VE301 Wn    | 1937         | RM65              | AF7, RES164, RGN354    |
| VE301Dyn W  | 1938         | RM65              | AF7, RES164, RGN1064   |
| VE301Dyn GW | 1939         | RM74.50           | VF7, VL1, VY1          |
| VE301 B     | 1933         | RM65              | RE034, RE034, RES174d  |
| VE301 B2    | 1934         | RM65              | KC1, KC1, KL1          |
| DKE         | 1938         | RM35              | VCL11, VY2             |
| DKE (Batt.) | 1939         | RM32.50           | KC1, KC1, KL1          |

The other sets mentioned in the text were as follows:

|             |      |             |                                |
|-------------|------|-------------|--------------------------------|
| DO36 (DOK)  | 1936 | RM156 **    | KF4, KC1, KC1, KL1             |
| DO37        | 1937 | RM161.50 ** | KF4, KC1, KC1, KL1             |
| DAF1011 *   | 1935 | RM270       | AF3, AC2, AF7, RE614, AZ1      |
| "Stuttgart" | 1937 | RM127       | AF3, ACH1, AF3, ABC1, AL4, AZ1 |

\* Set remained in production to 1945; price varied from RM295 to RM267.50

\*\* Price including batteries

Note:

W. = "Wechselstrom" = Alternating Current

G = "Gleichstrom" = Direct Current

GW = "Gleich- und- Wechselstrom", often "Allstrom" = AC/DC

B = "Batterie" = Battery

The ultimate product of this co-operative effort was the "E1" television receiver, introduced in the summer of 1939 at a price of RM650 (£32/10/-) This was a joint effort by Fernseh AG, Loewe, Lorenz AG, TeKaDe and Telefunken. Technically this set was very advanced in some respects compared to its British counterparts. The major technical considerations for the E1 were that it used a square tube (not to be seen in Britain until the early Fifties) and most importantly, that it used flyback EHT, a system which would not be seen in England until after the war.

## Post-War History<sup>9, 10, 11</sup>

After hostilities had ceased, it wasn't quite the end of the road for the sets: although they lost their Nazi logos, the basic circuits carried on for a period in the transition to a peacetime industry. With the radio industry trying to recover from a war that brought untold devastation to the world, the industry tried to produce sets from what materials were available. An excellent example is the Blaupunkt 2GW145.

This small set has an air of familiarity about it. The edgewise tuning dial at the bottom of the small wooden cabinet... surely not? Yes, it is- this set is the DKE in a wooden cabinet. The DKE in fact continued in some form or another in some manufacturer's catalogues until 1949-50: Blaupunkt and Siemens being just two of such companies producing the sets in Bakelite

cabinets. An example is illustrated.

In the Seventies Quelle, the German mail order house offered a DKE- shaped set with the same dimensions, with a linear glass scale and modern superheterodyne circuitry based on solid state technology. Later on a replica appeared on the German market of the VE301G, again with modern circuitry inside.

Whatever may be thought of the sets, the success of the Volksempfänger is indicated by the sheer number- several millions- which were sold to the public.

On a personal note, I find it intriguing that an industry that produced a few sets that were regarded as a joke by British standards was, to within ten years of the end of the war, have the British desperately copying them to keep up- and not quite managing it..

## Acknowledgements

First of all I must give much credit to Gerhard Habertzell, who has been a great source of help and inspiration in my research in to the German radio industry; his assistance in the preparation of this article has been invaluable.

Much of the historical information comes from "Historische Radios", by Günther Abele and also from "Volksempfänger, Geschichte und Technik der Gemeinschaftsgeräte" by Dieter Holtschmidt.

Credit must also be given to Andrew Denton, who supplied me with much information from contemporary issues of "Wireless World" and other British magazines.

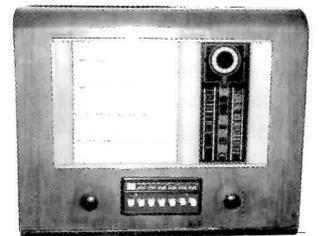
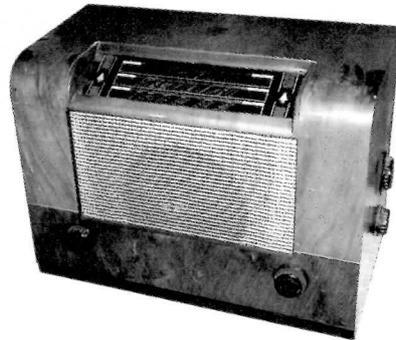
## References

- [1] "Telegraphen-Fernsprech-Funk-und Fernseh-Technik", November 1938
- [2] "Wireless World", 25th May 1939.
- [3] "Funkgeschichte" no. 96, 1994.
- [4] "Illustrierter Radio-Katalog für 1937-1938": "Radio-Web" catalogue, 1938-1939; "Eitax Elektro" catalogue, 1939-1940.
- [5] "Wireless Retailer and Broadcaster", 25th September 1937.
- [6] "Wireless Retailer and Broadcaster", 13th August 1938.
- [7] "Wireless World", article by Wolf E. Felix, 2nd March 1939.
- [8] "Wireless Retailer and Broadcaster", 7th August 1937.
- [9] "Radio-Katalog", Ernst Erb, M+K Computer Verlag.
- [10] "Volksempfänger, Geschichte und Technik der Gemeinschaftsgeräte", Dieter Holtschmidt: published by the author.
- [11] "Historische Radios", Günther Abele, Füsslin Verlag, Stuttgart 1996.

Herr Abele was recently honoured by the Federal Republic of Germany for his services to the culture of Germany and radio history, and was awarded the "Verdienstkreuz am Bande des Verdienststrens der Bundesrepublik Deutschland" (a medal of honour) on the 11th January 2001.

# Some Bush wirelesses of the 1940's

by Mike Gohl



Here is what I hope will be, a useful list: DAC90, AC81, DAC81, AC1, DAC1, AC2, DAC2, PB12, DAC12, PB83, DAC73? There are quite a few variants of these receivers and they are not all listed because I don't know exactly how many different models were produced.

The DAC73 has a question mark against it as I'm not sure if it was a late 30's radio or a post-war set (nor am I - perhaps a member may have a suggestion - ed.). After the war, quite a few different manufacturers produced variations of, if not the same, set in a different cabinet and Bush was no exception; this was most probably due to a lack of available manpower and materials (I always thought that this was called merchandising - ed.). I have tried to give a little description of the models on the above list. In order to make things clear I have listed the AC and AC/DC variants as still being essentially the same product.

As many readers may be aware, the DAC90 has become quite a celebrity amongst the radio fraternity. The cabinet is especially favoured due to its pleasing curved corners, sloping ergonomic dial and prominent speaker aperture; using octal valves it was an AC/DC receiver employing a dropper resistor. By way of illustrating Bush's economy at this time it should be noted that the same chassis was also used in the Bush AC2 (though there are slight differences in the power supply section and number of bands covered) and the cabinet was available as the AC91 AC only version.

The AC81 (AC only) and DAC81 (AC/DC) were very similar to the pre-war AC71 and DAC71 in that they used octal valves and had much the same chassis arrangement (same chassis layout, if not the same metalwork). The sets differed in that they did not use the 'Telefic short range logging device' as used in the AC71.

Quite a plain set to look at, the AC1 (AC only) and DAC1 (AC/DC) used octal valves in a fairly ordinary circuit. It would have been of little success, in my view,

had it not been aggrandised by one of Bush Radio company's famous descriptions, 'A five valve, including rectifier, three waveband superheterodyne receiver with "Bush Bifocal Tone" negative feedback' (Not too dissimilar to today's advertisements).

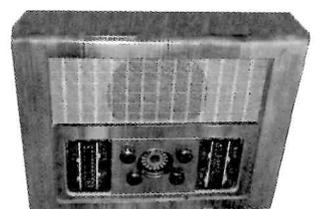
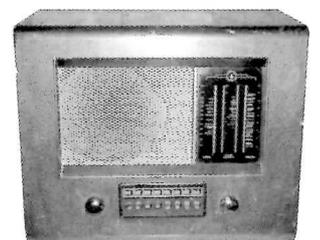
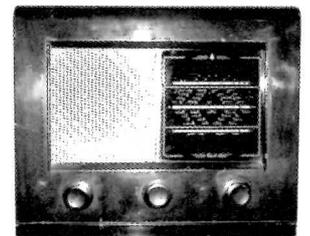
The AC2 (AC only) and DAC2 (AC/DC) used octal valves and a chassis not so far removed from the DAC90 though it did have 3 wavebands and that "bifocal tone" gimmick.

Again using octal valves (the norm throughout the 1940's really) and having rather a large cabinet, the PB12 (AC) and DAC12 (AC/DC) was also endowed with a small array of push buttons, 3 for each band plus the rest for presets. Like a lot of its contemporaries it had a slow motion tuning drive employing an epicyclic gear. What happened was that when you tuned the dial, the pointer went slowly at first until it hit a stop and then went quicker; this was useful particularly when fine tuning on short wave.

Something of an anomaly, the PB83 used octal valves but unlike its post-war contemporaries this still had the pre-war "telefic indicator device" and push buttons (for wave change and station presets) also looked very reminiscent of its pre-war relations.

Perhaps this was a receiver which Bush had designed prior to World War 2 but had for whatever reason never released it or perhaps it was designed by one of Bush's old-timers who had returned after the war but only got as far as designing the one model before it was pointed out that radio didn't look like that anymore!

The DAC73 used octal valves and had an array of push buttons for MW, LW and its 4 short wave bands (but no station presets). It did not have a 'telefic indicator' and I do not know if an AC73 was made, if any reader knows of one and is willing to dispose of it then they can contact me. The same is true of any Bush sets not mentioned here; in fact, just any Bush sets.



# Enigma

## noun, problem, puzzle, question, riddle

(with thanks to the Thesaurus in Microsoft Word.)

by George Smith

After a chance encounter some years ago, I have always harboured a conspiracy theory about the famed 'Enigma' machine, but always just held back for fear of ridicule. I have always thought the 'actual' and the 'perceived' history of this box of cogs had more flaws than enough, but what would I know?

How could it have taken 9,000 personnel at Bletchley to crack these codes, what did they do with all the information already available since the mid thirties, from elsewhere? If we are to believe that Churchill gave orders to destroy the remaining machines and all of the war time research, it must beg the question, why? Surely, if Bletchley did crack this machine by themselves, why should all reference to it subsequently be destroyed. After all, it was some coup in itself, something to be proud of, if you could prove you did do it. Maybe Bletchley never existed? Maybe, actors are brought out now and again for documentaries, with a little 'that's where I sat' sigh for effect? Maybe it did all exist, but was never as advanced as it seemed? Why were the Poles totally ignored? Bletchley, and it's possibly true story could have had devastating effects on a future election. Certainly, as soon as they could, the populace did vote Mr. Churchill out. I am not saying I know all the answers, what I do know, is the following.



Above right : The Enigma Machine as used at Bletchley Park

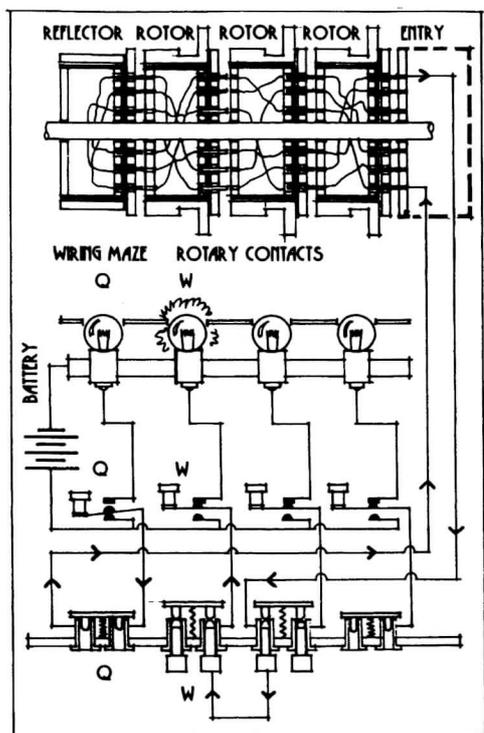
In the spring of 1918, Germany's High Commission contemplated the use of cipher machines. But as Kaiser Wilhelm II fell, experiments were halted. The introduction of the Weimar Republic ensured the military would now be equipped with cipher machines. In 1926 and 1928 the Navy and Army were issued with such machines modified from civilian machines called 'Enigma'. A plug board was added which meant the combinations were expressed by 34 digits and 51 noughts. Impossible to stumble on the correct sequence accidentally.

Germany was preparing to repudiate the Versailles treaty and made no secret of its wish to re-take the Polish 'lost territories'. The Poles were working on intercepted 'Enigma' messages in 1928, with no real success until 1932. At this time Poland had no cryptologists to talk of. The Cipher bureau run by Major Franciszek Porkony however, was not giving in easily.

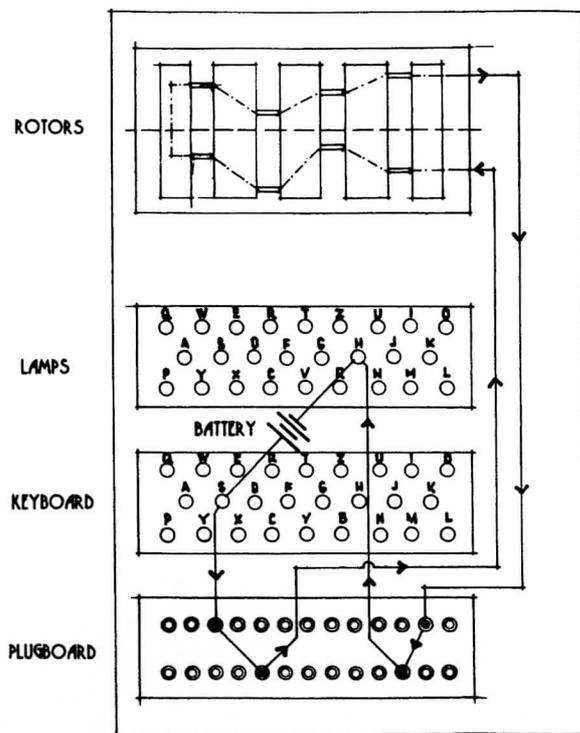
In 1929, the mathematics institute in Poznan, run by Professor Zdzislaw Krygowski drew up a list of fourth year students, who were then selected and interviewed by the Polish military. Marian Rejewski, Jerzy Rozycki and Henryk Zygalski finally were left after this process. They attended a course of code breaking in Poznan. Rejewski went to Germany for a year and returned in 1930, to become a teaching assistant. A large room had been allocated in the Military headquarters in St. Martins Street, Poznan, where new recruits exploited German cipher clerks' failings, but most were unbreakable. Later in 1932, Rejewski was to look at the new four digit codes used by the 'Kriegsmarine', and he soon realised that far from a mathematical solution, this

required linguistics and logic.

Briefly, it was discovered units like 'YOPY' and many of the coded units began with a 'Y'. This they thought was the beginning of a question, most German interrogatives of 'Wer? Wo? Wohin? Wann? Welcher?' could possibly be substituted? They realised that six 'sent' units was returned with four, and eventually worked out 'Wann wurde Friedrich der Grosse geboren?' (When was Frederick the Great born?). Within two months the Poles were reading German naval messages. These included Captains' names, ports, and actual ships' codes. This was finally confirmed after electronically 'watching' a Kriegsmarine training ship travel around the Indian Ocean relaying back its ports of call. This was being done while still working on the 'Enigma' codes. Rejewski was given a civilian 'Enigma' machine without the military 'commutator' fitted. This was useless. However in 1932 the French military intelligence recruited a German agent, Asche, who passed the plans of the military 'Enigma' to the French. The officer involved, Gustave Bertrand, had no time for generals and politicians, and decided those best equipped for the work were the Poles. This was the first contact of the French with Polish cipher experts. On December 7, 1932. Rejewski 'guessed' at the make up of the ring, 'guessed' it was alphabetical, and reconstructed 'Enigma' machines to de-code the German transmissions. However there were still 17,576 ways that ring could be started, a laborious manual task. This was eventually done 'electrically' and a cyclometer was used. In June 1934 they intercepted the first complete message 'To all



**SCHEMATIC LAYOUT**



**INTERNAL CONNECTIONS**

commandants of airfields throughout Germany', it began. The 'night of the long knives' had begun.

By 1936, until 1938 the encryption became more of a challenge. Polish staff worked hard and long, seventy five per cent of Germany's messages were being de-coded. This year, Bertrand visited England, specifically the British Cryptological service, officially called the Government Code and Cipher School or Station X, and after early 1939, Bletchley, where it was moved. 6.C.C.S. had failed to crack 'Enigma', possibly starting too late and running out of time, possibly not using precise mathematical analysis as the Poles did.

On 15th September 1938, Hitler organised a shake up in use of his 20,000 'Enigma' machines, knowing, but not really worrying about the three Polish monitoring stations at Starogard, Poznan and Krzeslawice. Amazingly, the Poles discovered they were still able to read the new messages. In November, Rejewski had constructed his 'bombe', a device that would check all 17,576 combinations in two hours; six were built in that month alone. At the same time, Zygaliski worked out a method of breaking the double enciphered codes, regardless of the originators' number of plug connections.

In mid July 1939, Polish General Waclaw Stachiewicz ordered all information and knowhow should be made available to the allies, 6.C.C.S was told this information. Britain and France were given a Polish built military spec. 'Enigma' machine each, by the Poles.

In September 1939, while the RAF was dropping propaganda leaflets instead of bombs on Germany, the order in Poland was to destroy all machines and information quickly. After a massive confusion and a journey through Romania, the three Polish mathematicians were taken to France, although the Government in exile (General Wladyslaw Sikorski) was never to officially recognise their talents in France, in the formed Radio Intelligence unit. This unit, 'Bruno', was specially linked by teletype to Bletchley. Bruno consisted of seventy people. When the Germans modified the ciphers, the Poles worked 'round the clock' to beat it. May 10th 1940 saw a modification, May 20th saw it beaten, and so it went on.

Not all information gathered was acted on though. The Poles warned of air attacks on Citroen and Renault plants. This went unheeded, with the massive loss of civilian life. After the fall of France, 'Bruno' was moved about, even after Hitler had ordered all radio intelligence to be handed over. Even some French decided this was

the right thing to do, to try to save any more destruction of their country. Bertrand decided on clandestine continuance. The original team of three Poles returned from north Africa to a Chateau bought by Bertrand under the name 'Monsieur Barsac'. This new 'Bruno' was called 'Cadix'. Thirty two people worked here. Links to north Africa were made and the 'Kouba' and 'Rygor' units were set up with close contact with England. Major (later General) M.Z. Slowikowski, who was in charge of the 'Rygor' unit and over 200 staff throughout Africa, obtained information to allow 'Operation Torch' to go ahead and was awarded the American order of Merit and the Order of the British Empire for this work. On November 9th 1942, 'Cadix' was disbanded after the Nazi's invaded the 'free zone' of France. 'Cadix' had, by now, intercepted 4,679 German messages. Rejewski and Zygaliski eventually made it to Britain, albeit via Spanish prisons, and constant police surveillance. They continued under Captain K. Zieleinski breaking SS and SD codes. The reason for this long article is that nearly twenty years ago, when I was employed by BT, I installed a 'phone in a ground floor flat in a decaying road off Brixton Hill, South London. The man living there was old and tearful, not uncommon in the area that I worked. BT did not allow me the time to be human or compassionate, profit was everything. So I revisited this man occasionally in my own time. I wanted to own his knowledge and to understand his struggle. His manner was frustrated, his movement sometimes worrying and his conversation passionate, but awkward. Around his flat was dirt, old thick tablecloths butter stained, clutter of immense proportions and framed photographs that held me. I could add this man to my list of famous people. I already shared tea and cake with Roy Hudd and Rod Hull (two bastions of English humour, for the overseas reader), but this man had a different history.

The latest Hollywood film on the 'Enigma' was blown apart when it portrayed the Americans recovering the 'Enigma' machine (a little date problem slipped in as well, but that's entertainment). The British were enraged at such a lie. He told me that the first example of an Enigma machine to reach the Allies was recovered by the Poles. Subsequently, another machine was recovered from a U-boat captured by the British Navy. The Poles were told to pass over any information and equipment. He pulled at me and begged I carry his story forward that he had struggled to tell for nearly forty years. His story had been met

**By 1936, until 1938 the encryption became more of a challenge. Polish staff worked hard and long, seventy five per cent of Germany's messages were being de-coded. This year, Bertrand visited England, specifically the British Cryptological service, officially called the Government Code and Cipher School or Station X, and after early 1939, Bletchley, where it was moved. 6.C.C.S. had failed to crack 'Enigma', possibly starting too late and running out of time, possibly not using precise mathematical analysis as the Poles did.**

# A collection in Southend

Rob Chesters spends a day at the Seaside with Bill Caten and his many radio sets.

**Southend on Sea isn't a bad little town - even if it has sprawled quite a way along the coast. In fact, it stretches all the way from Prittlewell down to Leigh on Sea, which I don't think is at all a bad thing, but then I happen to like English seaside towns, especially when out of season.**



Above: Some of Bill's radio collection as it is today. I have to admit that there are still a few items on my wants list amongst his wirelesses.

Below: Mr and Mrs Caten listening in to a crystal set driving a small horn speaker.



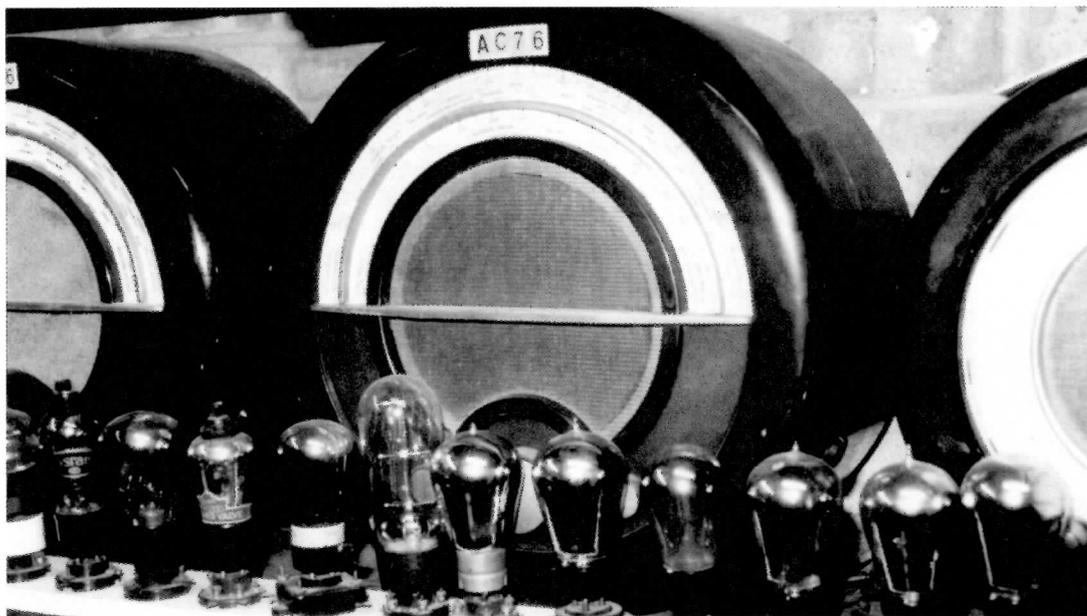
What I enjoy about these towns - Brighton, Llandudno, Rhyl, Broadstairs, and many others around the country (even Margate with a little imagination) is that in the winter they acquire a certain wistful air that speaks of summers gone, of sandcastles and happier days when the British knew what a holiday was about. I think that that is part of the appeal of vintage radios for me - there is a certain wistfulness in their bearing. A tired relic of those who paid hard won money for a chance to be in touch with the then modern world. An object that sat in their living rooms and lounges, dusted daily, eventually outliving both usefulness and owners.

If it were not for collectors that would have been the story - in fact the beginning, middle and end of it. However, in an act of recycling, these items have been offered a place of preservation and retirement, without which many an unusual and historic item would have been off to the landfills for ever.

One such collector is Bill Caten. Having started his collection in the late 1960's after a serious accident in which he broke his back, Bill's wirelesses have been featured in the Bulletin and in the national media on a number of occasions. As he has made his collecting

interest Ekco and because the current issue is re-evaluating one of the great myths of the Ekco world (see "How Green was your Ekco?") then it is worth looking at one of the collectors who helped to create it. It took a little while to get to Bill's (I was extremely glad of the local transport services as I would be still walking about trying to find his house long into the summer) but once I got there I found both Bill and his wife very hospitable with the very welcome provision of cheese on toast and a cup of tea. While I munched I became aware that somewhere in the room there was a radio playing very low. At first, I couldn't work out where it was coming from. After a while I realised that it was emanating from a horn speaker in the corner of the room. Bill explained that it was so quiet because it was coming from a crystal set. A crystal set? I thought. I even went as far as to voice my scepticism

"Oh yeah! O'course' says Mr. Caten as though crystal sets are always used to run loud speakers. "Where's the amp then" I enquired. "There's no amp, I have it going all the time. I'm a bit deaf but I can still hear it". Obviously wireless is a spiritual thing for Bill as I could barely hear it and I like to think that my hearing



Top: Now where did I put that 'round radio'? Bill searches in his shed's for the various useful bits of wireless he has stashed away until they come in handy.

Above: Accumulators of the type Bill would charge in his youth.

Top left: Bill looks thoughtfully at the fruit of over 30 years of collecting.

Left: the AC76 in black and chrome foregrounded by an impressive collection of valves dating from the early 20's to the late 30's

below: another horn loudspeaker plays from a crystal set keeping us in touch with the world outside

is pretty good.

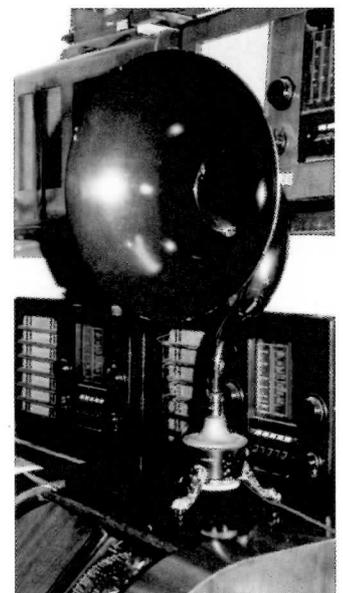
One of the questions that I am always eager to ask of collectors and especially those who have specialised is what makes them do it? Most members will have quizzed themselves on this point and like many others Bill finds the answer difficult to articulate as it is something almost spiritual rather than of one's own volition. He found that Ekcos simply gravitated towards him rather than him making a conscious effort to acquire them. Of course, it must have helped that he resides in Southend, but he says that this isn't altogether the case as he found radios were coming from all over the country to him, particularly in the early days as he was one of the few people in the world (to his knowledge) who were interested.

My next question is normally what on earth did you start for? Bill has a very interesting reason. By trade a builder, he fell in a loft and injured his back; with the prospect of never working again he drew on his boyhood hobby when, on a home made generator, he recharged accumulators for 2d a time and made crystal sets to sell at 10 shillings each. Obviously, he couldn't start to recharge peoples' accumulators again - they

are not so popular as they used to be, but it is still possible to find a few people who do have the odd wireless treasure tucked away in the loft.

Back in the 60's when Bill had his accident there were far more people who still had very real treasures in their lofts, lounges and living rooms and he managed to acquire some rarities which are now on display at the Prittlewell Priory Museum. I have visited the exhibition and several prewar televisions and some exceptional items of Ekco memorabilia come to mind. Prittlewell Museum is not far from Prittlewell Station and in fact quite close to the old Ekco factory which when I last visited was the headquarters of the HSBC Bank.

As I looked about at Bill's collection I realised that I could hear the ubiquitous, low voice of a radio presenter chattering away in the background and I realised that my host is quite seriously gone on wireless. You may think that a bad thing but, if it weren't for Bill's efforts in collecting, Southend would not have a significant record of it's 20th Century history. Well done Bill.



# The story of the BBC

by Robert Chesters

**With the centenary of Marconi's first trans-Atlantic transmission looming one becomes aware of the fact that the 20th Century is going to be distinguished as being the century of mass communication. At the very edge of developments in the medium was the BBC which began as a service essentially offered by wireless manufacturers to provide those who were using their equipment something other than time signals and morse code to listen to. They quickly evolved into a public institution for the purpose of information, entertainment and education. Having an entire century to look back at, it is interesting to see how the BBC viewed itself back in the mid 1950s.**

Before and after - below: the pre war headquarters of the BBC at Broadcasting House and below the Sleek "International Style" of Television Centre at Wood Lane.

In 1958, at the mid point in the 20th Century, the BBC had well under way the building of Television Centre at Wood Lane (in fact the site of Steptoe and Son's fictional scrap yard). It was a building which reinforced

the image of the Corporation as a modern forward looking and dynamic entity in much the way that the building of Broadcasting House in the early 1930's had done. To commemorate this event they published a pamphlet detailing their activities on behalf of the public.

"The Story of the BBC" is, oddly enough for a pamphlet about something considered terribly British, written by the Hungarian born author Georges Mikes (pronounced Mikesh to those who don't remember him) who was famous for such books as "How to be an Alien" among others. In fact, this is pretty reminiscent of "How to be an Alien" and the general tone of Mikes's writings, with their commentary on the uniquely British climate and its effect on the listening public, no doubt appealed to those at the BBC in charge of this endeavour. I seem to recall that Mikes noted that the English have an uncanny knack of commenting on the weather at the slightest opportunity.

He writes:

"The British Broadcasting Corporation is primarily an organization which provides a radio and television service for the inhabitants of Great Britain. In fact, most people in the United Kingdom think of the BBC simply in terms of the programmes that they see and hear every day.

In Great Britain broadcasting is a very highly developed affair. With long winters, and plenty of bad weather, radio and television sets are used a great deal, and during thirty years or more the BBC has become an important part of the nation's daily life. On a typical winter's day thirteen million seven hundred people watch one or more BBC Television programmes, and nearly twenty-two million hear one or more BBC sound programmes.

However, the service that was created in the first place to provide programmes for Great Britain is the same organization that broadcasts throughout the world. The External Service of the BBC has the same Board of Governors, the same Director-General, the same principles and the same constitution as the



home services.

The BBC is in no sense a department of the British Government. It is not a ministry, and its staff are not civil servants. It is responsible to Parliament for performing its duty to the nation—but it is not subject to any close day-to-day control. The news and other programmes are created by the independent action of the BBC itself.'

Of course an important aspect of the BBC's remit is to Inform, Entertain and Educate. Bearing this in mind along with the idea that they felt (and no doubt still feel) a great responsibility to the people the following is a great claim to success.'

'WELL OVER half the population of the United Kingdom, according to a recent survey, think that they have to thank the BBC for an improvement in their musical taste. No comparable question was asked about the other arts, but BBC audience research shows that millions of people have come to enjoy, through the radio and television broadcasts of the BBC, a wider range of literature and drama than would otherwise be within their reach.

Early in its life the BBC showed that it was on the side of the angels in the matter of music and the other arts. In 1927, the year in which the BBC changed its status from that of a private company to a public corporation under Royal Charter, the famous annual season of Sir Henry Wood's Promenade Concerts in London's Queen's Hall had been given up for lost, as nobody could make it pay. The BBC stepped in and took over the running of the concerts, with Sir Henry Wood as conductor, retaining them as public concerts but multiplying their audiences from a thousand or so to millions. In 1930 the BBC formed its own Symphony Orchestra, which quickly won for itself the reputation of one of the leading orchestras of the world—a reputation which it has maintained ever since.'

While being proud of their independence from Government in editorial matters and of their success in raising the public awareness of "high culture" (or even just other aspects of culture) the Beeb were, as now, very proud of their technical innovations. As far back as

the 50's (and I am sure that those of you who remember the '50's will testify to this) the issue of colour television was very much in the minds of both those who produced programming and those who were "looking in".

As a last excerpt from the booklet I have chosen a fascinating document of the early days of colour. While you are reading don't forget that when you tune in to your favourite programme that had these experiments not gone ahead you would still be wondering what colour that nice presenters eyes are.

'The BBC has done a great deal of research into the problems of colour television during its experiments and developments over the past ten years.

Since 1955 several series of experimental transmissions have been made using a system similar to the one developed in the U.S.A., but modified to the British television standards with 405 lines. These tests have been made by the BBC in co-operation with the General Post Office and the Radio Industry. The transmissions originate from colour studio and colour film and slide equipment in one of the BBC's original television studios at Alexandra Palace, London, and are transmitted from the television station at Crystal Palace, which serves London and south-east England. This system, which has been demonstrated to international bodies interested in the development of colour television, has so far given promising results.

These experimental colour transmissions serve four main purposes:—

To provide a source of high-grade colour picture signals to enable colour receiver development work to continue.

To enable further experience to be gained in the operation of colour television equipment.

To obtain further information on the compatibility of the system, that is the quality of the pictures when received in monochrome on existing black-and-white receivers. To enable the problems arising in the transmission and reception of colour signals to be investigated.

No decision on the system to be adopted for colour transmissions in the United Kingdom has yet been made. This decision will be taken by the Government on the advice of the Television Advisory Committee, which will consider all the relevant information obtained from the results of the tests.

The BBC is also making experimental black and white television transmissions in Band V on the 405line standard; in the early summer of 1958 it is intended also to make experimental transmissions in Band V on the 625-line standard, so that comparisons can be made.

On the international plane the whole question of standards for colour television is being studied by Study Group XI of the International Radio Consultative Committee (CCIR).'

Whatever happens and wherever the BBC as an organisation goes, their aspirations for the public and for themselves have to be acknowledged and although the didactic style of the early days is no longer so much in vogue it is an aspect that the last remaining Quango would do well to maintain. I wonder what will be said in the year 2058 and how much of the BBC will still be a publically funded but quasi autonomous non-government organisation.

**Well over half the population of the United Kingdom, according to a recent survey, think that they have to thank the BBC for an improvement in their musical taste.**



Left: the BBC Riverside studios "the most up-to-date studios in Europe."

Above: An advertisement for Marconi's proudly associating itself with the most up-to-date company in Europe.(it is interesting to note that both Companies were then more interested in their history .

# Minutes

## Minutes of BVWS Committee meeting held on Thursday 7th December 2000 at the Vintage Wireless Museum, Dulwich

Present: Mike Barker (chair), Terry Martini, Jeffrey Borinsky, Ian Higginbottom, Guy Peskett, Carl Glover, Steve Sidaway (part time on telephone).

1. Apologies for absence: Robert Chesters,
2. The previous meeting's minutes were accepted as a true record following the correction of some typing errors. Matters arising  
TM tabled two copies of the "Antique Wireless Newsletter", an advertising magazine put out by Tudor Rees, which contained derogatory remarks about the Society. This appeared to be a reaction to the issue to all our members of the Trader Sheet CD which had had the effect of undermining the market in unauthorised and high priced photocopies. It was agreed that we would ignore the remarks and send Tudor Rees a copy of this years CD with our compliments.
3. MB reported that the membership stands at 1379. For the first time, overseas members will be sent a modified renewal form with a panel allowing credit card payment for three year renewals.

Steve Pendlebury will take over the duties of Membership Secretary with the forthcoming renewals.

4. JB reported on the first "Talking about Wireless" held at the last Harpenden meeting. The committee congratulated JB and TM on a very successful innovation. The talks were given by Jim Duckworth, Keith Thrower, and Tony Hopwood. JB proposed further talks and a discussion about number of talks, duration, and timing ensued. Decisions will be taken at the next meeting.

5. JB reported that the Society's finances were in good shape the balance standing at £16,000 compared with £1,700 last December. This was due to there having been no exceptional expenditures this year. It is believed that credit and merchant facilities will be set up with our bankers in time for them to be available for overseas renewals (see 3 above). This will cost £200 to set up and 5% on each transaction subject to a minimum of £ 20 per month, (all figures to have VAT added). Renewing members will be charged about 5% for using the facility.

6. CG reported that the Winter Bulletin will be late due to delayed delivery of proofs to readers. It will be mailed before Christmas.

7. Bulletin binders were discussed. TM agreed to liaise with a manufacturer on artwork, colours, and costs. If negotiations are successful an advertisement will be placed in the Members Handbook.

8. TM reported that plans for a TV event at Alexandra Palace next summer continue to be developed. Changes of personnel at the Palace had slowed things down.

9. GP tabled a proposed constitution containing amendments previously agreed by the Committee. It was approved for issue for a ballot on its acceptance by renewing members.

10. AOB

(i) It was agreed that the mileage travel allowance (last reviewed in 1996) would be raised from 12p to 16p.

(ii) The siting, and staffing of the BVWS stall at Harpenden were discussed.

(iii) The numbers of lots per seller at auctions was discussed. It was agreed that these would in future be limited to 5 per member for mini-auctions and 10 per member for main auctions with the proviso that extra lots might be accepted after an announced deadline?

(iv) JB will contact the IEE to explore the possibility of holding a signing of Don Macleans "Restoring Baird's Image" at one of our meetings.

(v) MB reported that Jonathan Hill had offered the Society five tables at the April 29 2001 NVCF to mount an exhibition of historic radio and television. The Committee welcomed this offer and noted that it would also provide an opportunity to celebrate the Society's silver jubilee. A planning group was formed.

(vi) MB reported that an order had been placed for a special publication to be sent to all members.

The next meeting was fixed for February 15th at 5 Templewood, Ealing The meeting closed at 11.35 pm.

## A tribute to George R Jessop - a fine old man of wireless.



George Jessop, one of the best known names in wireless, died on Sunday 11th Feb 2001. His funeral took place 16th Feb 2001 at St Peter's and St Andrew's Parish Church, Old Windsor.

George was an extraordinary man. I first knew him as a legend, then as a colleague and finally as a friend.

He was an engineer with a deep and abiding interest in all things wireless. He first became involved in the subject as a young boy living in Hammersmith just behind the Osram valve factory where his father worked. As a young

boy of 10 he was building and operating wireless sets based on the famous R-valves being manufacture by the Osram Company to power the Trench sets of the Great War. Wireless remained his passion throughout the rest of his 93 years.

He began his professional career in 1926 when he joined what had by then become the Marconi-Osram Valve Co, one of the foremost companies of its time operating in the new electronics industry.

It would be impossible in a few words to do justice to the scale of his achievements. This is partly because of the sheer length of his service - he worked at the cutting edge of thermionic valve developments for the whole of his working life - and partly because George's contribution to the advancing state-of-the-art was a daily occurrence; every day a new valve to be introduced into production or a modified process or an improved jig or an up-grade in the design; an endless series of corrections and improvements stretching over 45 years.

There were highlights, of course. He was one of the pioneers of VHF airborne radio and took part in the early trials. He designed the Music Magnet wireless set - GEC's answer to the Melody Maker. At the start of the Second World War, the strategic importance of the Hammersmith factory was such that a duplicate 'Shadow' factory became essential just in case Hitler's bombers scored a direct hit. George was despatched to Shaw, Oldham, with just seven colleagues tasked with converting an old cotton mill to a modern valve factory and training the 2,000 people that would be needed to staff it.

Needless to say, all the output of the factory was of the most urgent and the most sensitive types. It was a great enterprise and a great success - in the end all production targets were met. George grew to respect northern folk a great deal during this time and felt that it was the most important period of his whole career.

I first met him around 1970 when he was leaving M-OV and I was just arriving. But George was not one to retire in the normal sense of the word. He became President of the RSGB and then its general manager.

He wrote books such as the VHF/UHF manual which has become the standard reference work for radio operators. Of recent years I had the great privilege and pleasure of working with George on 'the Saga of Marconi-Osram Valve' which was serialised, prior to publication, in the Bulletin and we were working on the next book 'the Shadow of War' right up to the end. His detailed memory of things long past was inspirational.

George epitomised everything that was fine in his generation; honest, intensely loyal, hard-working, straight-forward, plain speaking - he never used two words when one would do - independent of mind and spirit - he was his own man. He didn't suffer fools gladly but was never unkind; he hated accountants; he knew what he knew and focused on getting the job done; never self-seeking and never complaining whatever his problems which in his latter years were considerable - blind for many years and increasingly immobile but still fending for himself for all but the last few weeks.

The wireless world will note the passing of an old and respected colleague but can also celebrate a working life of immense achievement. For me, George was one of the great 'Unsung Heroes'.

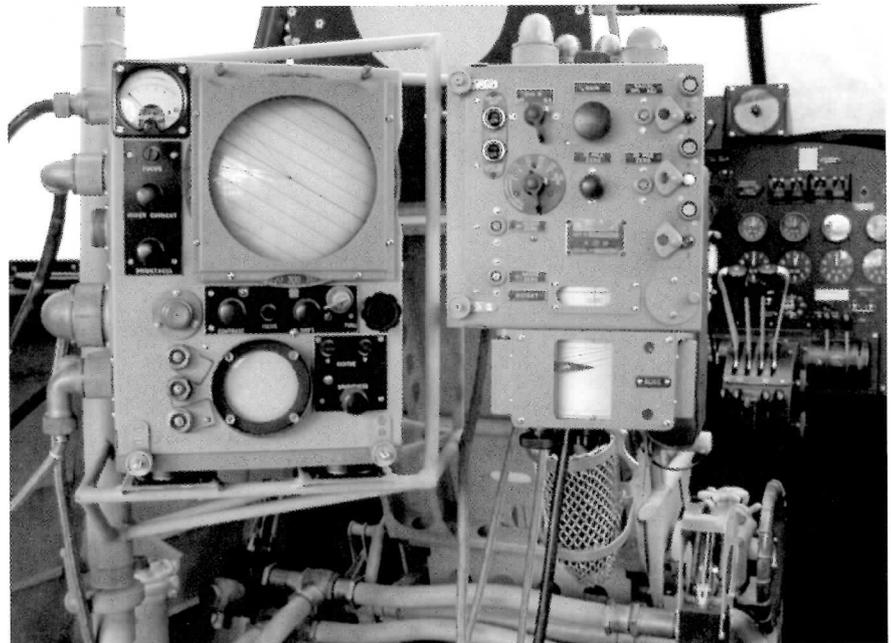
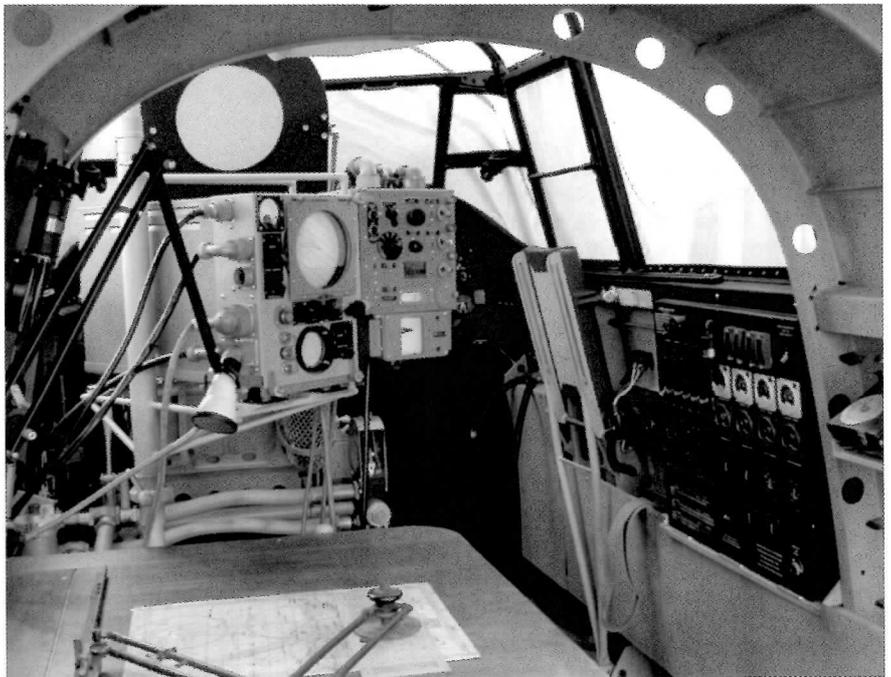
Barry Vyse

# Vintage wireless rooms at Pitstone Green Museum.

Pitstone Museum is basically a Rural Life Museum but it does contain other attractions including two rooms devoted to Vintage Wireless. One of the rooms contains DIY and commercial sets from the 20's up to the 1950's. There is also a rather rare GEC dual standard (240 line Baird and 405 line Marconi) TV receiver dated 1936, the chassis of which weighs in at 56 kgm. Other exhibits include early electrical and photographic items. The second room contains WWII military radio, radar and navigation equipment, much of which is in working condition, including a Gee navigation system and H2S radar. Several American communication receivers are on show as well as the British R1116, R1082 and of course the R1155/T1154.

This year should see an unusual addition to the military room in the form of an accurate replica of the front section of a WWII Lancaster bomber. The section is some 15ft long and includes the pilot's cockpit, the navigator's section and the radio section. Built from original drawings, photographs or copies of original parts, it is accurate almost down to the last rivet and will contain all original WWII radio and radar equipment. This project can be followed on its own Website: - <http://website.lineone.net/~norman.groom> or from a link on the Museum's Website: - <http://website.lineone.net/~pitstonemus>.

Pitstone Museum is open to the public on the second Sundays in June, July, August and September when additional family entertainment is provided (craft fair etc). The Museum is also open on Easter Monday and all the Bank Holiday Mondays without the family entertainment. The museum is located in the village of Pitstone on the B489, between Dunstable and Tring on the Bedfordshire, Buckinghamshire borders. For further details see the above website or phone Norman Groom on 01582 605464.



Enigma - noun, problem, puzzle, question, riddle continued

with threats by the Official Secrets Act, by threats from pieces of wood, visits by men in black cars and men in black suits. Of his 260 'staff' just one and himself remained. It is too much to expect that he is still alive today. The photographs on the wall showed him being decorated by Churchill, De Gaulle and 'an American' of status. The backdrops were military buildings and squares apparently in Africa, and the medals sat beside them. He showed me a book from Poland, in English, telling the tale above, I was eventually allowed to borrow and copy it. The man was General Slowikowski and nearly twenty years later, I carry his story forward. How much of this is true, I cannot tell.

The reason? This week (January 2001), British Prime Minister, Tony Blair has ordered that all Polish 'war work' is to be recognised, and various Polish people have taken on the task of searching the Public Record Office for information. As a nation, they are justly proud. MI6 has 'lost' theirs, GCHQ has destroyed theirs and other paperwork handed over by the Poles was destroyed in 1959.

What was the reason for originally calling it the 'Enigma'? A strange premonition from the original

constructor of what was to come? Why were the Poles hidden from history in this way? Didn't they have a bit to do with the Battle of Britain as well? Whatever the truth is to all of this, the story ranks with Jack the Ripper, T.E. Lawrence and Death of a Princess types of intrigue. I have no answer. Over the next few months, with Polish volunteers, the PRO will gradually prove or disprove what you have just read.

Which takes me back to the original burning question, why exactly did Churchill want everything destroyed at Bletchley? This, I fear, will never be known.

I should lastly point out that anything in this article is my view and not that of the BWWS.

# Letters

Send your letters to The Editor Robert Chesters; BVWS Bulletin Editor 32 Eaton Road Handbridge Chester Cheshire CH4 7EN - to help make my job easier please mark your envelopes 'Letters Page'

## Dear Editor

Readers who were interested in Geoffrey Dixon Nuttall's article on the Meccano Crystal set may be interested in further information contained in the book "The Meccano System" by Bert Love and Jim Gamble.

A picture of the British version of the first set is given on page 87 of the book, and is very similar to the original American set. The kit sold for 45 shillings, or 55 shillings ready made, in September 1922, which was quite expensive. Meccano marketed this set before gaining GPO approval and was in breach of certain regulations concerning experimental receivers. It is obvious very few kits had been sold before withdrawal, which probably accounts for why nobody has ever seen one, and there is not even one in the Nottingham Meccano Museum Collection. The new approved receiver, which was ready made and not a kit, was brought out in mid 1923 at the same price of 55 shillings. Competition for the sale of crystal sets was quite fierce at this time and one Liverpool company was offering a crystal set at 10/6 without headphones! As a result Meccano was forced to offer their set at the same price and by mid 1925 were selling off stocks of the set at 17/6 including headphones.

No more was heard of Meccano receivers, and the advertised valve set was never made. Meccano obviously burnt their fingers with radio. An equal failure at this time was a Meccano mains electric motor, which with its exposed commutator and terminals was lethal and also quickly withdrawn. It would be nice if somebody in the society could build one of these sets, but I fear at present day Meccano parts prices, the cost would be even greater in proportion, than the crystal set was in 1922.

Yours Sincerely  
Graham Dawson

## Dear Editor

I can throw a little light on the pictures on pages 20 & 21, I cannot throw any light on the people pictures and I would think that, as they look to be in their mid-thirties to forties, they are all more than likely not with us any more.

However, the pictures bottom left and bottom right are of the BBC OBA/8 equipment. Designed by the BBC in 1939, it was the standard outside broadcast equipment in continuous use by them until the sixties. It looks as if it was being demonstrated at some exhibition or other. The black box on the extreme left looks like a wire recorder and is not part of the standard rig. It must have been there on an experimental basis as nothing in my BBC technical library ever mentions a wire recorder - the quality was appalling! The BBC never used them. So, moving to the grey cabinets: Left are the 2 mains units (MU/3) - one is a back-up. Centre are the amplifiers (OBA/8) - again one is a back-up. The monitor

loudspeaker units (LSU/1) sits on top of the 4 input microphone mixer (MX/18). The boxes on the extreme right are not part of the standard OBA/8 equipment and may be some sort of experimental set-up. Standard on any outside broadcast was the portable radio (high above the amplifiers) so that they could hear the continuity announcer "hand over" to them and check transmission quality. The curious thing to me is, what on earth did the Dunlop Rubber Co. have to do with the OBA/8 and the BBC for that matter? According to the letter, they provided the pictures. Sorry can't be of more help.

Would you be interested in articles on this sort of thing? BBC equipment, its use and history, is my main subject of interest in vintage wireless.

Best wishes for the New Year.  
Malcolm Addey, New York City

**Editors reply:** Thank you for your input on the photographs I am sure that readers will find this very interesting and may even jog somebodies memory concerning the people depicted as I am sure that they did not die the day after having been photographed and someone might just recognise people who they knew in their old age. Concerning the writing of articles about the BBC - of course we would be delighted to publish any research or articles about the Beeb in it's infancy.

## Dear Editor

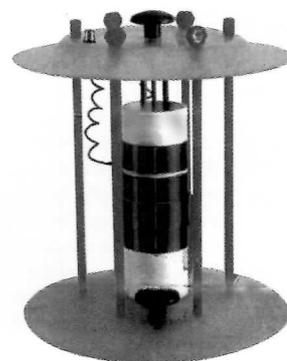
BVWS Bulletin Winter 2000 "Do you recognise these pictures?"

Sorry, no. But a reference to "The Receiving Room at Bridgwater" (in Somerset) in the letter from Marconi's dated 1929, might suggest a connection with the Beam Station at Huntworth, a couple of miles outside Bridgwater on the road to Taunton. I do not now know whether this was a GPO station transmitting and receiving telegrams to and from similar stations in distant parts of the British Empire or whether it was an independent Marconi station communicating with other parts of the world such as South America.

I lived in and around Bridgwater from 1931 to 1949 (minus a few wartime years) and remember the huge aerial array at Huntworth: it stretched a long distance and had countless thick vertical wires descending from a great height to virtual ground level through which the wind soughed and moaned in a most eerie and exciting manner. The father of a schoolmate (1935-40) worked at the Beam Station so it was still in operation then.

I know of no Receiving Room in Bridgwater itself, but a helpful Welsh correspondent some years ago wrote me that in the town there is a building (I have been in it) in which Marconi had some premises and there was still on the wall a switch that Marconi himself had litted. This was to do, said my correspondent, with Marconi setting up the Beam Station at Huntworth in 1926: if that date is correct, it would suggest that Huntworth was a private station as the Empire stations were not set up until 1927, I believe.

Apart from the large photograph at the top of page 21, which could have a 1920s appearance and in which electric bulbs (?) on the front of the table have a "pip" on top - usual in 1920s and early 1930s - the photographs seem to me to date from the late



some antipodean home made crystal sets

1930s or 1940s. The apparatus on them looks as though it has been set up temporarily on stout tables - perhaps at an exhibition - as some photographs appear to have been taken at an exhibition, where perhaps there was a temporary hook-up. I knew of no such exhibition at Bridgwater (though that is of no significance). The hall in the photo bears some similarity to the interior of the Blake Hall in Bridgwater, but my memories of that place are of more than half a century ago and could be quite wrong.

My Welsh correspondent had told me that coach-loads (or a coach-load) of Italian Marconi-enthusiasts used to come to Bridgwater (after WW2?) to visit the former Marconi premises there. I had quit the area by then and knew nothing about it, but in recent times had intended to ask the Bridgwater Archivist what she knew about it. But I was so disheartened by her and her colleagues' childish antics at the pathetic centenary celebration of the important Marconi transmission from South Wales to Somerset's Brean Down in 1897 (Brean Down "came under" Bridgwater) and the utter balls-up made of the re-enactment of the event, that I abandoned the idea.

I don't know if any of the above is of help; I might be completely wrong in my surmises. No doubt some members will know more about it.

All the best for 2001 Sincerely,  
Eric Westman

#### Dear Editor

I have had two very prompt replies to my request for information on a radio as in the recent BVWS Bulletin.

A big thankyou to John Clappison and Geoffrey Dixon Nuttall.

The information was for a collector in Western Australia, who I am sure will be pleased.

I have enclosed some pictures of some of his home made crystal sets.

Many thanks to all

John Wickham.

#### Dear Editor

Having read the article by Mike Izycky on his travels to Germany to buy radios I can only agree entirely with the sentiments on the language and hospitality. I have similarly been embarrassed by the ability of my German friends to speak perfect English and to be SO friendly to me as a stranger without the need for me to do a Basil Fawlty and not 'Mention the War!'. I say to anyone who is worried about going across that little strip of water, you will be surprised how a common interest breaks down barriers.

To mention another aspect of different cultures, I have just received the latest BVWS disk which will not run on my Mac i-Book. This is rather ironic since this system supports Airport, a "wireless" internet connection which means I can use my computer anywhere in the house with NO cables in sight-try that with infra-red connection! Still at a Harpenden swap-meet in 2021 I will be able to sell it as a curiosity of the beginning of the Millenium. Whatever happened to Betamax and Vincent motorcycles?

Yours in the interests of international friendship  
Jim Styles

#### Dear Editor

I'm hoping you might give me a little help, please. Could you pls tell me where I can get info on a huge radio and stereo unit encased in a (6' x 3' x 2') jacobean-type carved wooden chest (also bearing the label "Packard Bell, California"). It has a "cross-hair" solid state radio, Garrard turntable and old 8(?) track cassette player - it has big speakers hidden behind linenfold (mega-watts!). I've phoned Packard Bell all over the world and got nowhere! I think the unit came from the now obsolete US Naval Base at the Holy Loch here in Scotland, but don't know how old it is or whatever. It's in great working order. I'll be delighted to know anything or anyone you can tell me about or point me to. Many thanks from a frustrated Scot!  
Diane Meechan, Glasgow

#### Editor's reply

I am sorry to say that I have no knowledge of the item of which you speak, however, I am sure that there are members of the society who will be able to help. If any reader does have some information for this type of radiogram then please address your information to myself, the Editor at the usual address.

Roberts 808 which seldom fails to bring in the World Service even in the most Southerly locations on the wrong side of a mountain range.

Finally, may I request readers help in identifying a radio in my collection. It is a 3 valve portable in the customary leather case. The speaker fret which contains a knob for adjusting the moving reed speaker is in the form of "AER" as is shown in the illustration. Can anybody supply any information about this company and possibly this model.

Thank you  
Harold Paige

#### Dear Editor

As a devotee to Meccano as well as Vintage Wireless I was very pleased to see Geoffrey Dixon-Nuttall's article on the Meccano Crystal Set.

In many years of searching I also have never seen a Meccano Crystal set, or even an original leaflet. However I have a fair amount of information in my collection of Meccano Magazines of the period and in an excellent set of volumes compiled by various respected Meccano experts, published by New Cavendish Books under the general title 'The Hornby Companion' series, and other sources.



#### Dear Editor

I have read with interest Geoffrey Dixon Nuttall's article on the portable radio in British life.

I too have a fascination with portable radio. My collection covers the early 1930's, a K.B. Hika 337 to a ticket pocket model by Sinclair £9.99 including postage, appropriately named "Mini Mite".

My earliest trace of a portable radio is the 'Ethophone V portable model for the Holidays' It was contained in a morroco leather case with a handle - portable but only just! Price 43 guineas (could this be right?).

As agents for Roberts Radio from 1949, I have always held in high esteem Geoffrey's part in the success of this highly respected company. I have an almost complete collection of Roberts portables except the M4B Geni. Can anybody help?

More up to date, we always take with us on caravan holidays in France and Spain the

As not surprisingly there appears to be some confusion after so many years regarding the RS1 set and other details, I hope the following comments and additional information may be of interest.

Between 1922 and 1925 there were five different versions of Meccano Crystal Sets:

- 1 The original American design. The factory assembled set was designated RS1! and the kit of parts RS2
- 2 A UK design similar to 1! but with much modified mounting arrangements for the detector and tuning condenser.
- 3 The American design but with the two rectangular fibre plates omitted. This was a kit of parts only! designated RS2! replacing the original.
- 4 A set with a cylindrical coil tapped by a single slider! no tuning condenser! glass enclosed detector. This was a factory assembled set, designated RS1, replacing the original.

5 Similar to 3 but with a double slider arrangement.

The one shown in Geoffrey's article is, as he deduces, the original American design, but with UK prices. Regarding the fibre plates, these are included in the parts list as Parts No.s 401 and 402. The threaded pin is not shown in the bulletin article but appears in the rear view in the original leaflet! which also includes a view of the connections under the baseboard, two of these connections being standard Meccano perforated strips. The problem of removing paint from these strips would not arise! as painted Meccano parts did not arrive until 1925! the standard finish prior to that date being nickel plating

Frank Hornby visited his USA branch in May 1922 and brought a copy of the American set home in July. In September 1922 a UK version was advertised, priced at 55/- as a ready made set! or 45/- as a kit of parts A photograph of this set is shown on page 87 of "The Meccano System!! by Bert Love and Jim Gamble! one of the volumes in the above mentioned New Cavendish series.

This UK version differed from the American set by having the fibre plates for the detector and tuning condenser spaced 112! above the baseboard by Angle Girders (standard Meccano parts), and the Aerial, Earth, and Phone terminals were mounted on Double Bent Strips, also standard parts. The only practical advantage of these changes would appear to be that some wiring could be above the baseboard, but perhaps the main reason was that the Binns Road Model Room wanted to put their own stamp on the product. The construction of the variable condenser, coil mountings! and detector were the same as for the American version.

The Post Office objected to Hornby's first sets, apparently on the grounds that they did not conform to their regulations applicable to experimental receiving apparatus. It would be interesting to know what these regulations were and how they could possibly be infringed by a simple crystal set. Far be it from me to suggest that they merely took the huff at not being consulted earlier.

Whatever the reasons! the sets were redesigned' and in November 1922 Meccano announced Version 4, stating that "...certain modifications have been made in the design in order to secure official approval..." This was somewhat of an understatement. as the new set was something completely different. It was featured as a full page spread on the front cover of the December 1922 issue of the Meccano Magazine. In the conventional style of the period it had a horizontal cylindrical coil and single slider contact! and a glass enclosed detector. There was no tuning condenser, so there were many fewer standard Meccano parts.

It appeared in the 1923 Meccano Catalogue as the "No.1 Crystal Receiver" listed as " RS1 complete receiving set at 3216 plus 716 Broadcasting Fee according to regulations" to be used with a broadcast licence.

Next to it in the catalogue was Version 3, the American style set with the rectangular fibre plates omitted, confirming Geoffrey's suggestion that they were redundant.

It was captioned as "No.2 Crystal Receiver (constructive type)" and listed as "RS2 outfit of parts complete with phone" at 40/- ". A note stated that "...this set may only be used under an experimental licence...".

The accompanying price list of Meccano

# The Meccano Crystal Receiving Set

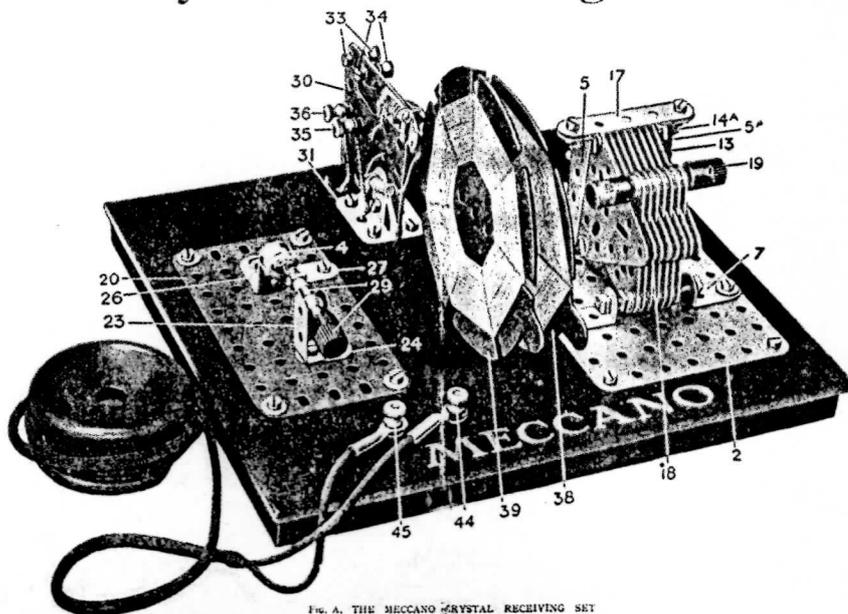


FIG. A. THE MECCANO CRYSTAL RECEIVING SET

Do you have one of these in your meccano set?

Radio Parts included all parts for both the RS1 and RS2 sets. The enclosed detector for the RS1, and the tuning condenser for the RS2 could be bought complete! as well as in individual parts. Most issues of the Meccano Magazine contained items encouraging readers to send in for constructional leaflets to make up their own experimental sets.

I have a recently reprinted copy of The Boy's Own Handbook by C.H.Bullivant originally published circa 1924 which contains details' based on Meccano instructions, for making the RS2 Set, and this shows that the use of the two metal strips for connections had been dropped in favour of bell-wire connections. With a view of the underside connections, this is a useful aid to replica makers.

These two receivers continued to be advertised through 1923 with diminishing price tags and some imaginative performance claims. For example the No.1 set is 55/- in April, 40/- in July, down to 30/- in January 1924. Amazingly the 30/- set "...will receive on wave-lengths from zero to approximately 1000 metres.! (Surely the first set to function at microwave frequencies and beyond') The cost of the 'Broadcasting Fee' had by then been reduced to 1/- The price of the RS2 held steady at 25/-, with the more realistic tuning range of 300 to 500 metres.

Version 2, the UK design with the more elaborate mountings for the fibre plates, seems to have sunk without trace.

Sometime between January 1924 and February 1925, Version 5, with two sliders, appeared. The illustration of this set in the advert in the February 1925 magazine is unusual in that, rather than a photograph, it is virtually a draughtsman's plan view and the baseboard dimensions are given. Very useful for replica constructors like myself. The price was 15/9 (the wave length still given as zero to 1000

metres!)

Later in 1925, in the face of increasing competition and new radio technology! the end of the road for Meccano wireless was approaching. A "Big Reduction in prices of Meccano Radio Apparatus!" was announced in an advert for the two slider set and readers were advised "...to procure their sets before the stock is exhausted and so ensure many happy hours during the long winter evenings! at a knock-down price of 10/6".

An episode in Meccano history which had started somewhat on the wrong foot, but at one stage had even hinted at the introduction of a Meccano Valve Receiver, was over. Fortunately it was only a sideline, and Meccano went on to do what they did best! and continued to 'ensure many happy hours during the long winter evenings.!'

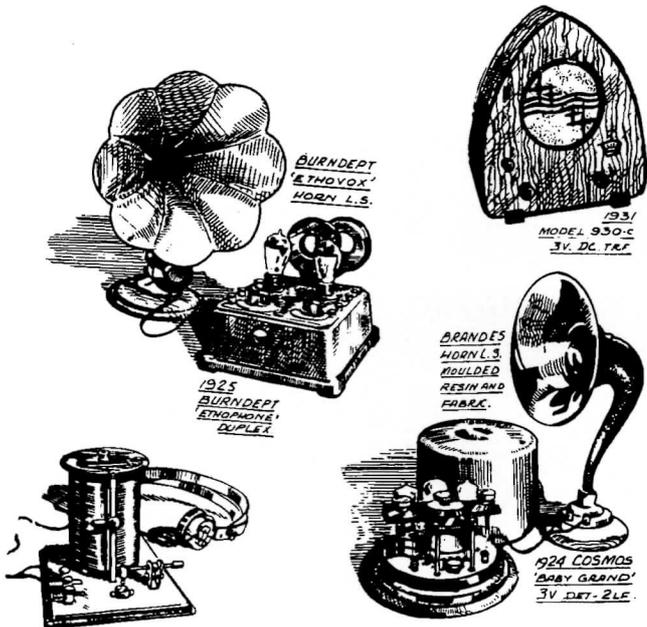
As to the survival of these sets, there is a nice colour photograph of a single slider set on page 314 of the 'Meccano System' book mentioned earlier. Jim Gamble assures me that this specimen still exists! complete with its original box.

Surely there are more of these sets lurking somewhere? Lets be hearing about them!

Yours sincerely  
John Goldberg

# BVWS POSTERS

3 designs depicting wireless sets from the 1920's, 1930's and 1940's onwards



£6 per set at BVWS meetings  
£10 per set mail order including postage

Mike Barker: 59 Dunsford Close, Swindon. Wilts SN1 4PW.  
Telephone 01793 541634

## Vintage Technology Fair

Be sure to join us by the seaside for a day of radios, amplifiers, tape recorders, TVs, telephones, mechanical music, scientific instruments etc.

**Sunday 20th. May 2001**  
**De Vere Hotel, East Park Drive,**  
**Blackpool**

Leave the M55 at J.4, take the A583 and A 587  
**9.00 a.m. to 4.00 p.m.**

Stall prices reduced !  
Contact us now for a booking form  
(if you already get our mailers you will receive one automatically)

**Brian Chesters and John McGlynn**  
**Tel: 01253 300100**  
**Fax: 01253 300020**  
**Email: vintage@blackpool.net**

'as seen on Collector's Lot'

## Back issues

Vol 10 Numbers 2, 3 & 4 Inc. The KB Masterpiece, Extinct Species "A Monster Defiant".

Vol 11 Numbers 1, 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 1, 2, 3, 4 Inc. the

Emor Globe, The Fultograph, Ekco Coloured Cabinets.

Vol 13 Numbers 1, 2, 3 Inc. Direct action tuning, The Philips 2514, Noctovision.

Vol 14 Numbers 1, 2, 3, 4 Inc. Cable broadcasting in the 1930's, The story of the Screen Grid.

Vol 15 Numbers 2, 3, 4 Inc. The wartime Civilian Receiver, Cohers in action, Vintage Vision.

Vol 16 Numbers 1, 2, 3, 4 Inc. The Stenode, The Philips 2511, Inside

the Round Ekco's.

Vol 17 Numbers 1, 3, 4, 5, 6 Inc. Wattless Mains Droppers, The First Philips set, Receiver Techniques.

Vol 18 Numbers 3, 4, 5 Inc. The First Transistor radio, The AVO Valve tester, The way it was.

Vol 19 Numbers 1, 2, 3, 4, 5, 6 Inc. The Birth of the Transistor, Super Inductance and all that, reflex circuits, A Murphy Radio display, restoration.

Vol 20 Numbers 1, 2, 4, 5, 6 Inc. Radio Instruments Ltd., Japanese shirt pocket radios, Philco 'peoples set', notes on piano-keys, the story of Pilot Radio, the Ever Ready company from the inside, the Cambridge international, the AWA Radiolette, this Murphy tunes itself!

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'.

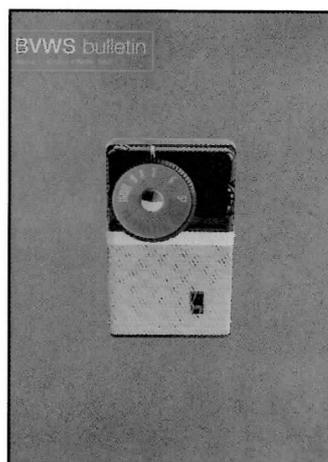
### Supplements:

- 1 'The story of Burndypt'.
- 2 'WW 1927 data sheet'
- 3 'Seeing by wireless' the story of Baird Television
- 4 reproduction Marconi catalogue

Earlier Bulletins and supplements are priced at £2:00 each + postage. Bulletins from volume 21 onwards are priced at £2.50 each. + postage.

### Postage:

for individual bulletins add 50p, for 2-5 bulletins add £1, for 6 or more add an extra 20p each. 23 Rosendale Road, West Dulwich London SE21 8DS Telephone 0181 670 3667. Cheques to be made payable to 'The Vintage Wireless Museum'.



## News and Meetings

### The keeper of the list

I have taken over the role of custodian of the BVWS list of G.P.O. Registration Numbers. As many members will know the project of assembling this list was started in the early days of the BVWS and, more recently, has been enthusiastically carried on by Pat Leggatt. I encourage members to help build the list, whenever they get the opportunity. The BVWS Handbook contains the current listings - one in numerical order and one ordered by name. Please let me have any additions, or suggestions for corrections, by mail or over the phone.

Martyn Bennett, 58 Church Road, Fleet, Hampshire GU13 8LB  
telephone: 01252-613660  
e-mail: martyB@globalnet.co.uk

### NVCF 2001

As ever, the most significant wireless fairs will be the two **NVCF** events at the **Birmingham NEC** this year with the first on the **29th of April** and **23rd September**.

### Harpenden meetings 2001

Sunday the **10th June** hosts a swapmeet. Autumn is heralded with a swapmeet on **2nd September**, and the year finishes with a swapmeet on the **25th of November**.

### Gerald Wells' garden party 2001

For those with busy calendars Gerry Wells will be having a garden party on Saturday **9th June 2001**, 23 Rosendale Road, West Dulwich, London SE21 8DS. Telephone 020 8670 3667.

### Southborough meeting

John Howes will be running his South East area BVWS swapmeet on **Sunday October 21st** at: Victoria Hall, Southborough, Kent. All enquiries John Howes 01892 540022

### Wootton Bassett meetings 2000

Mike Barker will be organising swapmeets on Sunday **July 15th** and **2nd December**. For further details please contact Mike Barker: 59 Dunsford Close, Swindon. Wilts SN1 4PW. Telephone 01793 541634

### Workshops at The Vintage Wireless Museum

Gerald Wells will be bringing back his popular workshops. They will be on: **April 15th, August 12th, September 30th and December 16th**. 25 Pounds per head, to include all minor components, refreshments throughout the day and meals. Larger components like transformers and some valves etc. will be chargeable. Only 6 people per session, on a first come first served basis. Each attendee can bring along 2 sets maximum. No transistors, Stereo or other modern equipment. Please let Gerry know what you are bringing when you book., 23 Rosendale Road, West Dulwich, London SE21 8DS. Telephone 020 8670 3667.

### Radiophile meetings

On May 6th the Radiophile will be holding their Cowbit Swapmeet, July 22nd will be the Radiophile Sambrook summer special, October 14th Radiophile Shifnal Swapmeet and November 4th is the Radiophile Cowbit Swapmeet.

### Eurocheques

The BVWS regrets that it can no longer accept Eurocheques for subscription and other payments. This is because our bankers now impose excessive processing charges. European and Overseas members may now pay 3 year membership subscriptions by VISA or Mastercard (subject to a small surcharge). We are actively looking at other ways to simplify the payment of subscriptions.

### 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. Your article can be just a few paragraphs long if you think it conveys its message 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!*

*Please send to: Robert Chesters, 32 Eaton Road, Handbridge, Chester Cheshire CH4 7EN. Tel: 01244 675826  
email: bakelite.ekcos@virgin.net*

## Chevet Supplies Ltd

Dept BV 157 Dickson Road, Blackpool, Lancashire, FY1 2EU  
Telephone: (01253) 751858 Fax: (01253) 302979  
Telephone orders accepted  
E-mail: chevet@globalnet.co.uk

### interested in vintage wireless or military radio?

Why not subscribe to *The Vintage Wireless Trader*. Published approximately six week intervals. Contains hundreds of out of print, old and collectable wireless and TV books and magazines, vintage and valve communications receivers, valves and components for the short wave enthusiast and amateur as well as **subscribers wants and sales**. Send six first class stamps for one copy or £8 for the next eight issues.

Callers welcome to our vintage wireless shop, address above, open Tuesday, Thursday, Friday and Saturday, 10am - 6pm, other times by appointment. Pre-war and components in stock, also government surplus and valved communications receivers

## New Swapmeet at Lyndhurst

Heart of the New Forest, Hampshire  
**27th May**

Lyndhurst Community Centre

Doors Open for members and guests 10.15 am

Coffee, Tea, etc available Bars and Food close by.

Entry: BVWS Members £2, Guests £3 (directions with tickets)

Stalls £10 includes helper

Stall holders please book, cheques payable to F. S. P. Turner  
**Bookings Phone/Fax Sam Turner 02380 292374** or write  
Greensward, The Crescent, Ashurst, Hants. SO40 7AQ

Swapmeet at

## Wootton Bassett

The Memorial Hall, Station Road, Wootton Bassett  
(3 miles from M4 Junction 16, turn left after Town Hall)

**15th July 2001**

doors open at 10.30 to 3.30 (auction 1.30)

**£2 entry - no booking required**  
**£12 for stall plus helper**

stallholders please book by telephone or letter  
phonecalls after 6pm please

**Mike Barker: 59 Dunsford Close, Swindon. Wilts SN1 4PW.**  
Telephone 01793 541634

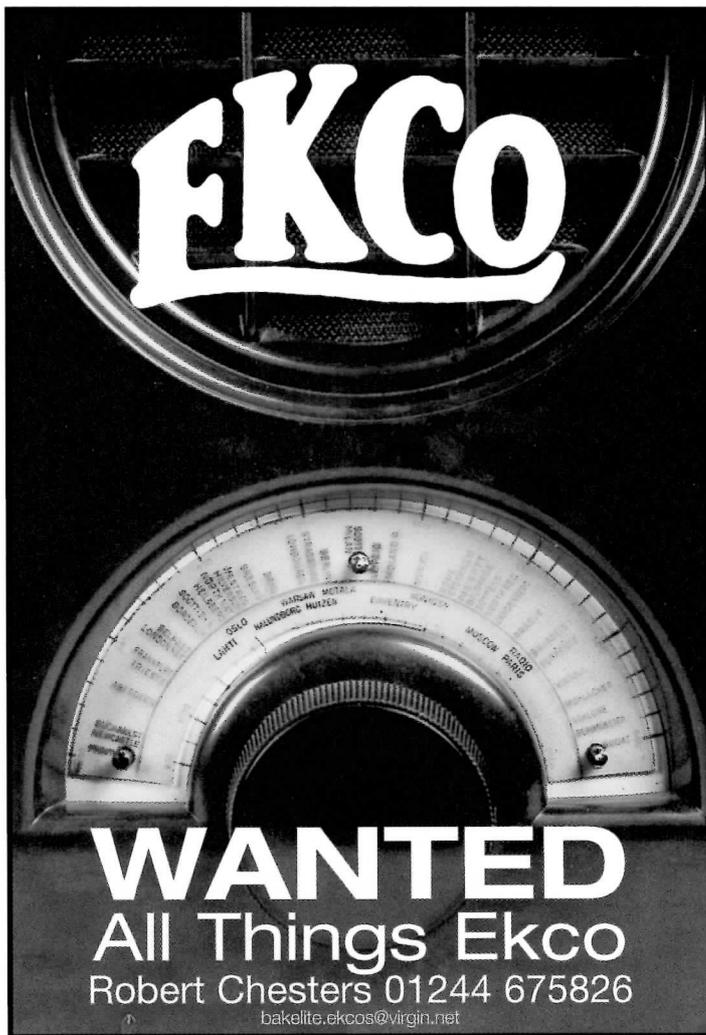
## Workshops at The Vintage Wireless Museum

**April 15th, August 12th, September 30th and December 16th.**

25 Pounds per head, to include all minor components, refreshments throughout the day and meals.

**No transistors, Stereo or other modern equipment.**

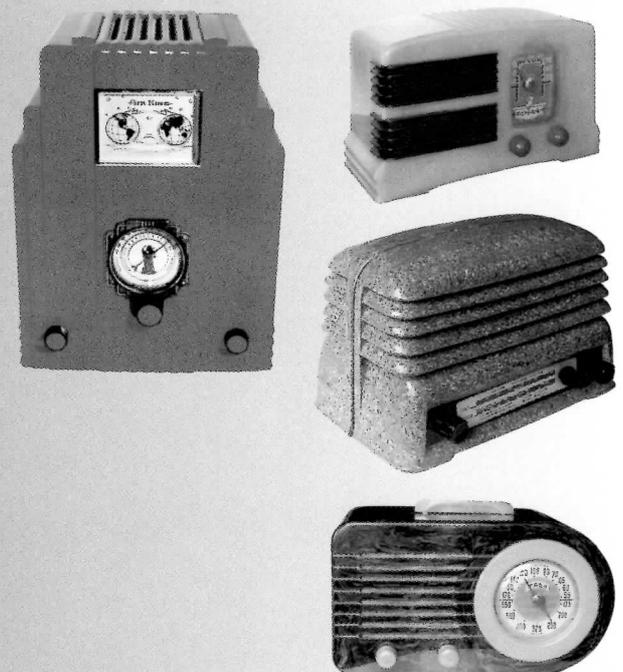
Please let Gerry know what you are bringing when you book  
23 Rosendale Road, West Dulwich, London SE21 8DS.  
Telephone 020 8670 3667



**EKCO**

**WANTED**  
All Things Ekco  
Robert Chesters 01244 675826  
bakelite.ekcos@virgin.net

Wanted by collector



Top prices paid for  
Coloured KB BM20's, Air King 'skyscraper'  
Catalin Sets and Coloured Bakelites  
Carl Glover c/o Runciter Corporation, 33 Rangers Square  
London SE10 8HR | Tel / Fax: 0181 469 2904  
choris.b@virgin.net

Coming soon...



**'Tickling the Crystal'**  
240 pages of GPO No. era British crystal sets  
over 200 full-page photographs

The Saga of **Marconi Osram Valve**  
A HISTORY OF VALVE MAKING  
By Barry Vyse & George Jessop

As serialized in the bulletin



"A fascinating and beautifully illustrated book, written by two people with an inside knowledge of the Marconi-Osram Valve Company. A 'must' for everyone remotely interested in valves".  
**Keith Thrower, Fellow Science Museum.**

Available in Hardback £35 and Softback £25  
Add £4.13 per book for delivery by first class mail

**To order your copy call 020 8933 0918**  
or fax to 020 8866 4334 e-mail [vyse.co@virgin.net](mailto:vyse.co@virgin.net)  
or send cheque made payable to: Vyse Ltd  
14 Cranbourne Drive, Pinner, Middx, HA5 1BZ.

For more info see website at  
<http://freespace.virgin.net/vyse.co/mov.htm>

