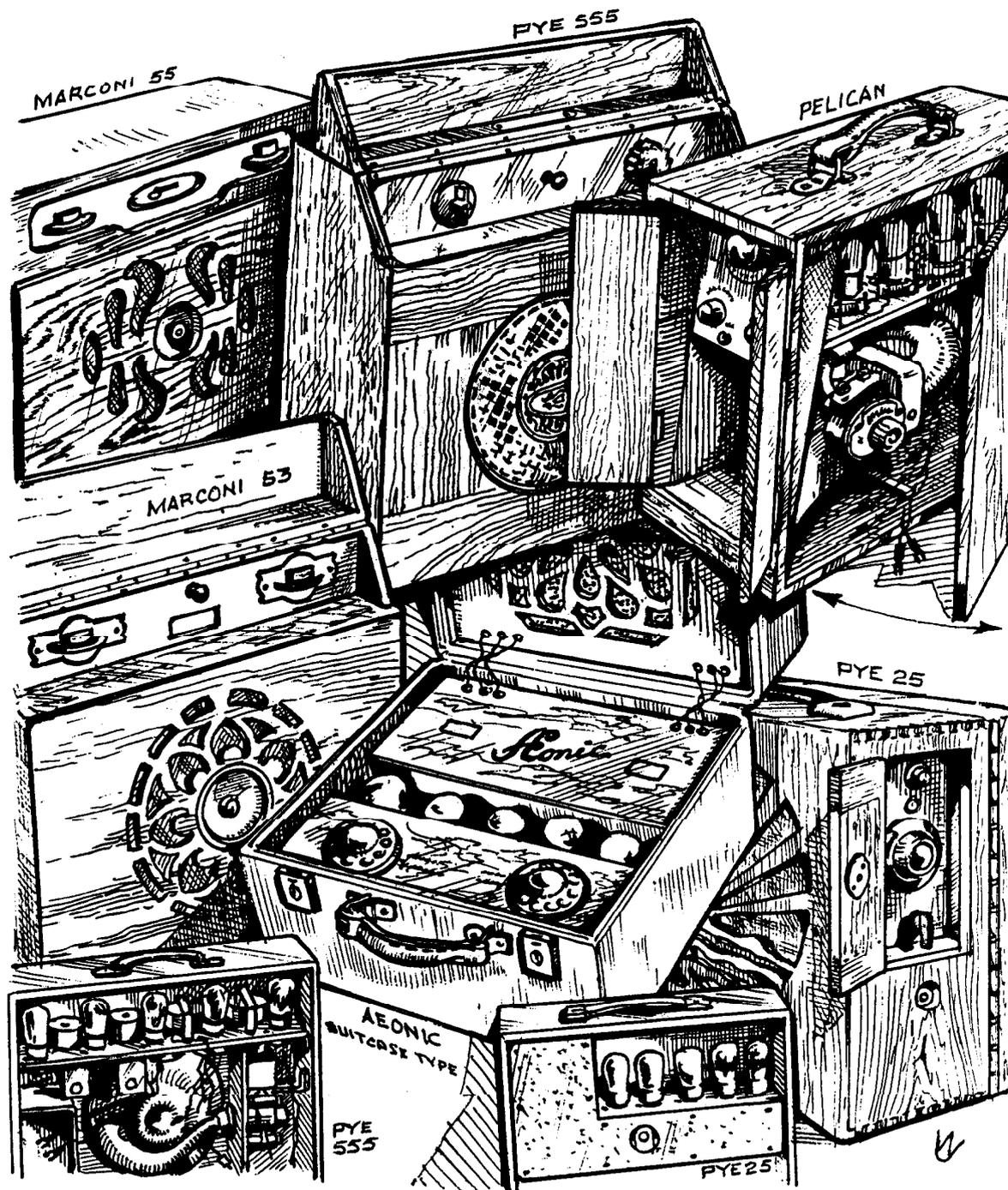


BULLETIN OF THE BRITISH

VINTAGE WIRELESS

SOCIETY



In this issue: Norman Jackson's drawing here illustrates some of the makes of sets covered in Ian Higginbottom's article "The Rise and Fall of the Five Triode Portable" on pages 29-30.

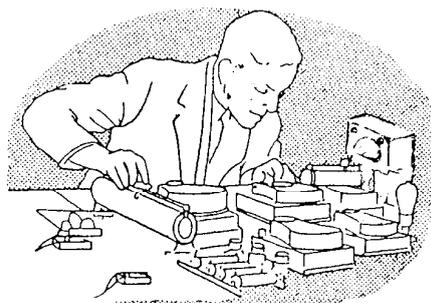
BULLETIN OF THE BRITISH
VINTAGE WIRELESS SOCIETY
VOLUME 14. No.3

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Committee Members: David Read, Ian Higginbottom, Norman Jackson, John Gillies, Rupert Loftus-Brigham.



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VINTAGE WIRELESS MUSEUM



The Vintage Wireless Museum, headquarters address for the British Vintage Wireless Society is at 23 Rosendale Road, West Dulwich, London SE21 8DS. Telephone: (01) 670 3667. The Curator is Gerald Wells, whom visitors should telephone before visiting the museum.

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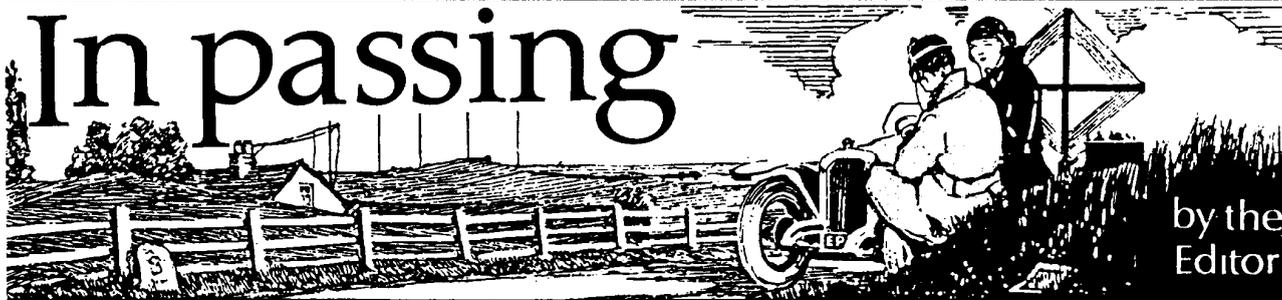
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In passing



by the
Editor

Correspondence for the Society's Bulletin should be addressed to The Editor, Robert Hawes, 63 Manor Road, Tottenham, London, N17 0JH. Telephone: (01) 808 2838.

Important: Next Harpenden

Members are asked to take special note that the Winter Harpenden meeting date has been *changed*. It was originally fixed for October 22 but the Hall cannot now accommodate us, so the date is now **November 19**. Please note this in your diary. Application forms to attend this meeting are being sent out with the Bulletin: Please return them without delay.

The meeting is for members only. Tickets must be obtained in advance and are issued on the understanding that no trading shall take place, inside or outside the hall, before the official opening time of 10am. Now that the "Swapmeet" has become such a gigantic event, demand for stalls is very heavy, so members are asked to share stalls where possible and not to book stalls simply to "get in early". Delay between the admittance of stallholders (to allow setting up in an uncongested atmosphere) and of later blue-ticket holders, has now been reduced to the minimum of about 30 minutes, and trading is banned during this period.

Reference was made in a recent commercial "wireless news-sheet" to the difficulty of non-members of the BVWS getting into our Harpenden meetings, suggesting we are some sort of "secret society". This is, of course, incorrect. Membership is freely available to anyone but is a condition of entry to meetings. The Society exists to promote the study and conservation of "Wireless" and has no commercial function, nor does it exist to promote wireless "fleamarkets" for the trade nor the general public. Swapmeets are intended to augment our aims and provide an exchange of information and equipment between members. People whose interest is purely commercial and who contribute nothing to the Society are not encouraged and nor are speculative buyers, for these tend to push prices beyond the reach of ordinary members.

A la recherche du temps perdu

Regrettably, but inevitably, the world of wireless collecting has changed since the tiny group of pioneer BVWS members began swapping between themselves more than thirteen years ago. In those days when demand for wireless items was small, it was available at "junk" prices, because that was how the "Antique" market viewed it. Now, trading in such items has become a good commercial proposition, in the markets and auction rooms, so there is a "going price" for most of the choice things, which obviously gets reflected in Harpenden prices (but not always, since many members seem still able to swap or sell at reasonable prices between themselves).

There is a sense in which most collectors become "dealers" in a small way: some collectors find they have to acquire unwanted goods along with items they covet and so they sell the residue to recover capital; others may restore items purchased in poor condition and feel entitled to charge for their work when re-selling in order to finance a hobby they might otherwise feel an extravagance; others wish to change their collections as their interest develops and seek to make a little profit to finance going "upmarket". There are members who are amateur dealers on a small scale: people who put a lot of effort in scouring markets and junk shops, and who actually increase the total amount of merchandise available to members at Harpenden and they naturally expect a little reward for their trouble, to finance their own collecting. There are also professional dealers whose aim is to make a living in an economy not generally disapproving of profit, often respectable well-established people who can offer items which are difficult to find and who can give a service to collectors by freely offering advice and information based on special experience.

The sort of dealer of whom members disapprove is the one who has no real interest in wireless but is in the business merely for profit, who is unscrupulous in his dealings and who contributes nothing to the Society and its members.

It is difficult to control this sort of activity now that our swapmeet has become so large: How can we define a "dealer"? How can one discriminate between one member and another? What action can be taken?

We always try to settle complaints made to us, usually on a friendly "A word in your ear" basis, but it must be said that complaints are rare. The vast majority of members conduct their mutual business in a fair and ethical manner, and say they are very content with things.

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In Passing news, comment, continued

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Most people say that, for them, Harpenden is a "good day out" and there seems much appreciation of the Society's efforts to make it more than just a market-place, by giving emphasis to its social aspects. They are also grateful for the opportunity it gives members to exchange information and ideas and to enjoy the traditional displays of interesting and often rare equipment and the demonstrations which are presented.

The meetings are run by an amateur organiser on a voluntary basis because we can't afford the team of professionals that such a large event possibly now needs, so the co-operation of members is vital. Your Editor, who is also Harpenden Organiser would be glad to have any comments and suggestions on arrangements (he is usually out of touch with detailed activities among the stalls, since he is too busy with organisational problems all morning to have an opportunity to get around himself!) If anyone knows how we can recapture the gentle ambience of those balmy early days when we were a small group of friendly swappers instead of a hive of hornets round a honey pot we'd be delighted. At present, all we can do is to appeal to everyone's sense of fair play and advocate pre-Harpenden relaxation sessions.

It ought to be pointed out that although our now hugely popular "Fleamarkets" are important to members, they were not by any means the main reason for the original formation of the Society, which also encourages individual research, exchange of information, mutual help and pooling of resources, as well as promoting seminars, regional meetings, important displays of equipment and opportunities for social intercourse at meetings and providing opportunities for international contacts. These aims and activities and the production of a Bulletin reflecting the broad range of interests of members, have always been the most important reasons for our continued existence to which "swapping" activities were meant as a useful adjunct and not a *raison d'être*.

Annual General Meeting

The Society's Annual General Meeting will be held at Harpenden on Sunday 9th November in the early afternoon. Financial and other reports will be presented and the usual elections will take place. Any nominations should be sent to the chairman well before the meeting and proposers should ensure that their nominees are willing to serve.

International meeting

The June weekend was our biggest activity yet and the largest wireless event of its kind ever held in the UK, attracting members from many parts of the world as well as those in the UK and involving around 400 people, which is about half our total membership.

The extensive programme began with a special exhibition presented at the London Science Museum by communications curator, Roger Bridgman, followed by a talk by Anne Moncrieff, head of the museum restoration staff, whose message was one of care and conservation rather than heavy restoration. The visitors then went off to Gerry Wells' garden party at the Vintage Wireless Museum, headquarters of the BVWS, in Dulwich, to enjoy an old English tea-party, to see some of the 1,000 exhibits there, and to watch original vintage television films on appropriate receivers.

Next day they went to our huge gathering at Harpenden, which included our largest "swapmeet" and an auction run by Roger Snelling and Terry Ransom on behalf of members which also earned a commission for Society funds.

David Read, whose presentations of special Harpenden exhibitions have become a tradition, this time organised an appropriate and impressive display which showed pre-broadcast and particularly 1st WW equipment as an introduction, and then featured items showing International links, followed by a unique collection of receivers representing the "Big Six" founding companies of the original BBC.

Members not absolutely exhausted by the Harpenden activities took part in an informal meeting at a London hotel which included a talk by Bengt Svensson on Sweden's Alexanderson alternator station and another talk on a similar topic from Roger Johnson, followed by Keith Thrower's report on detector experiments, and finally by hints on magazine restoration by Alan Douglas.

On the final day, a party went to the GEC-Marconi research centre at Chelmsford, on the site of the original 1899 works, where Roy Rodwell and Stan Woods showed items from the private Marconi museum including c1900 spark equipment and other early apparatus.

Tim Wander, author of the book "2MT Writtle: Birth of British Broadcasting", told the fascinating tale of how Captain Peter Eckersley and his jolly team of wireless pioneers started broadcasting in a WW1 ex-army hut at Writtle, near the Marconi factory, in 1922. Tim's talk was actually given in the original hut, by courtesy of Elwyn Bishop, headmaster of the school which now uses it as a games hut. One of Tim's audience was none other than Eckersley's son, Peter, who is a member of the BVWS, and who with the rest of the party, listened to a recording of his father made in that very hut almost 70 years ago: "Hello CQ. This is Two Emma Toc Writtle testing..."

Diary Dates

Just a week before Harpenden is the South-East area Swapmeet at Southborough, near Tunbridge Wells, to which all members are cordially invited. It is being arranged as usual by John Howes who can be reached on 0892-540022.

New Museum

Douglas Byrne, well known to his fellow BVWS members as the founder of a fascinating museum on the Isle of Wight, where he is resident, tells us there are now two wireless museums on the island, both open to the public during the summer months.

One has been at Arretton Manor, near Newport, for the past decade, and features the original Logie Baird mechanical 30-line Televisor. It is open from 10a.m. to 6p.m. from Sunday to Friday and admission charges are included in the entry ticket for the Manor.

The new one, at Puckpool Park, near Ryde, was opened last year, and the public are admitted every afternoon, except Saturday. There is no charge. A popular feature is the amateur radio experimental station, using the special call-sign GB3WM, the initials of the Wireless Museum, which naturally creates considerable attention from hams throughout the world.

Both museums are now under the aegis of the Communications and Electronics Trust, a Charitable body, and are manned by volunteers, including Douglas, who is the Curator as well as being a Trustee.

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New Irish society

We are pleased to announce the formation of The Irish Vintage Radio and Sound Society, the aim of which is to foster an interest in preservation and restoration of crystal sets, valve radios, early recording machines and gramophones.

Members of the British Vintage Wireless Society, to which the new Irish Society is affiliated, are welcome to visit fellow collectors in Ireland and any help they can offer will be gratefully received.

In addition to the more well-known Dublin Radio Telefis Eireann wireless museum which was founded by BVWS member Paddy Clark some years ago, several small wireless museums have been set up by enthusiastic Irish collectors comparatively recently. The new Irish Society hopes to set up a museum of its own, from which a "Touring Show" of exhibits will be selected and this will eventually be taken round the whole country, as a result of invitations already received. A show they put on at a vintage car rally caused a lot of interest and they have been asked to mount an exhibition at Dublin Civic Museum.

We congratulate them on making such remarkable progress in so short a time, thanks to the enthusiasm of their chairperson Vincent Farrell, secretary Gerald McKeever, treasurer Terence Reynolds and other enthusiasts. We wish them well. Anyone who would like to help them should contact the Bulletin Editor who will supply membership and other information.

News from Norway

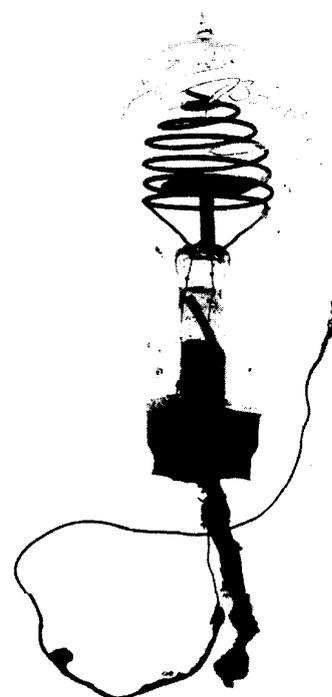
Tore Moe, Editor of the magazine of the Norwegian Vintage Wireless Society, says they are planning a seminar about broadcasting and television in Oslo on 14th and 15th October to which BVWS members are welcome. It will cover aspects of wireless and television in the 1920's, when a few Norwegian amateurs were experimenting with mechanical transmitters and receivers. Some of this still survive and it is hoped to demonstrate them, but the society needs a suitable neon bulb and a means of generating signals and some programme material. If any member can help with these or with advice, Tore would be very pleased to hear from them. His address is Norsk Radiohistorisk Forening, Postboks 465 Sentrum, 0105 Oslo 1.



Founders of the new Irish society: Vincent Farrell, Dave Hooper, Gerry McKeever and Ken Fleming with some of their equipment. The photographer got them looking rather serious, but they're actually a rather jolly lot. Photograph by courtesy of the Dublin Evening Herald.

At auction

At the auction rooms, in general, prices are getting higher and quality lower and poorly restored or partly non-original items are increasingly appearing. Less wireless equipment is being offered for sale, a phenomenon which reflects the general market, but some interesting things have been offered in London salerooms in the last month or two. They included several letters written by Baird in 1927 which fetched several hundred pounds each and a neon bulb, used in his early experiments, signed and dated, which raised almost £1,000. The items came from the collection of the late Victor Mills, a pioneer radio engineer of Hastings, who, in February 1923 was visited by Baird who was seeking assistance in the construction of a television. It was at Hastings that Mills helped Baird to construct his first effective apparatus, his fingers being the first transmitted image: "When I changed the bias (on the valve) Baird suddenly shouted out "It's here, it's here!" Only a tiny amount of Mills' collection has come to light and one wonders what has become of many important items which one would have thought deserved preservation in museums. At the same sale, a poorish V2 fetched almost £300 and a Primax cone speaker £150, but a lot which included a suitcase portable, a two-valver and an original 20's wireless box in which 30's components had been fitted, fetched only £60. At another sale, crystal sets raised around £75 each, an Ekco A22 in black £300, a Music Magnet £22 and a silver cigarette lighter modelled as Marconi's Disc Discharger £140.



This cheap late-twenties neon bulb, with the base broken off and wires soldered direct to reduce capacity, was sold for almost £1,000 at a London auction — but it bore Baird's signature etched on the glass.

Harold Leak

The death has been announced of Harold J. Leak, aged 82, whose post-war pioneering low-distortion "Hi-Fi" amplifiers are now popular "vintage" collectibles. He had no formal qualifications but built up a successful one-man business before the war, cycling round North London collecting sets for repair, calling himself "The Radio Doctor" and using the slogan "No Cure no Fee". When he sold his Hi-Fi manufacturing business in 1969 to retire to the Channel Islands, the business was worth £1 million.

● continued on next page

In Passing news, chairman's notes

Meeting places?

Now that the BVWS has become so large, there is a probability that we shall grow out of the space available at Harpenden Hall. Any suggestions as to a possible new venue would be welcome. We are also still seeking volunteers to run more regional meetings, large or small, for which official backing, insurance cover and general support and help is available.

Museum project

The museum service of the town of Chelmsford where Marconi set up the world's first wireless factory and Crompton pioneered electric lighting development, is currently investigating the possibility of dedicating a new museum to its rich industrial history. The famous Writtle Hut, used in 1922 as Britain's first regular broadcasting station, may be reconstructed with original and reproduction equipment as an important part of the new museum.

Bulletin "Extra"

Our promised special supplement to the Bulletin, which will make up the standard four Bulletin productions for volume 13, and is being produced by Pat Leggatt, is now well in hand and it is hoped to issue it to members soon.

Another magazine?

Hot on the heels of the launch of "Radio Bygones", comes news of another projected publication about vintage wireless, by "Short Wave" magazine which has just issued a modest pilot issue to test the market. Well, the more the merrier, we say.

Reminder

Readers are reminded that when writing to the officers of the Society, a stamped-and-addressed envelope is appreciated. It often speeds a reply.

New Society Badge

The new BVWS badge in gilt and real enamel colours of blue and white, is now available to members in the UK and Europe at £2.50. Cheques payable to 'BVWS' to Robert Hawes, 63 Manor Road, Tottenham, London N17 0JH.

Robert Hawes

Great Wireless Bores of today number 1: Fred Fagg



Everyone loves a bargain, but Fred's all-pervading interest is "getting gear cheap" and his sole topic of conversation. He is not a technical man: neither is he concerned with social history nor the art and design aspects of wireless. He knows the price of everything and the value of nothing, keeps his sources secret and has no interest in lending items for exhibition nor in helping his fellow collectors. Like an overgrown schoolboy, he likes acquiring "sets" of things and has all the round Ekcos, including a doubtful AD65 in aubergine with gilt trim. He can trap you in a corner for two hours and bore you to tears with tales of how he beat down the sellers of each one, but he seems to have a way with old ladies whom he can part from their "old junk" with peanuts.

Editor's note: Characters depicted in this series are entirely fictitious and any resemblance to living persons is entirely coincidental.

Looking back

From 'Wireless World and Radio Review' 3rd December 1930, 'Broadcast Brevities' 27/635.

Ideas for the Interval Signal

So the BBC can think of nothing more original for the proposed interval signal than the ticking of a clock. What an opportunity they are missing!

Use might be made of a continuous gramophone record breathing soft phrases concerning oscillation or the penalties attaching to unlicensed listening. It would be wise, of course, to confine the interval calls to unpleasant topics lest listeners should begin to prefer intervals to programmes.

From 'Wireless World and Radio Review' 2nd, July 1930, 'Broadcast Brevities' 27/25.

Farewell to Jazz?

I have it from Philip Ridgeway, the BBC revue producer, that the modern type of syncopation without melody is on the wane. In twenty years' time, however, we shall all be looking back at the 1930 music with the fondness that now marks our attitude to the songs of 1910.

Mr Ridgeway ought to know, for he has been developing his prophetic faculties in the preparation of the last revue of his present series, 'The Music Hall of 1950', to be given on July 5th.

Chairman's Notes:

Our International Meeting, covering June 24th-26th, was judged a success both by our visitors and by ourselves. We had excellent support from overseas, with representatives from America, Australia, Austria, Belgium, Canada, Eire, France, W.Germany, Holland, Italy, Norway and Sweden.

Thanks are due for generous help given by numerous individuals and organisations: to Roger Bridgman and Ann Moncrieff for the excellent display and talk at the Science Museum on Saturday morning; to Gerry Wells and his helpers for the much-appreciated Garden Party on Saturday afternoon; to Bob Hawes and his assistants for the biggest-ever Harpenden gathering on Sunday and to David Read for the impressive display he organised there; to the speakers who contributed to a lively discussion meeting on Sunday evening, and to the BBC for providing the film projector; to Roy Rodwell and Tim Wander who gave us such an enjoyable Monday at the Marconi Archive Centre and at Writtle, and to Elwyn Bishop, headmaster of the Chelmsford Primary School for allowing us to meet in the original Writtle hut; and to all who were present to make it a convivial farewell dinner on Monday evening. Appreciation also to our Treasurer, Desmond Thackeray, who had somehow to keep track of a flood of cheques from applicants for the various functions. And thanks finally to everyone who attended any of the events — without your support nothing would have been possible of course.

On the debit side, we missed three good friends. Iony Constable, having done most of the earlier planning, was not able to be present due to his current 2-year appointment in Oman. Secondly, Lauren and Joyce Peckham, President and Secretary of the Antique Wireless Association of America, had to cancel their trip owing to business and family commitments, which was especially disappointing since Joyce had worked very hard on complex travel and accommodation arrangements for the sizeable group of our American friends. But Bill Fizette and Ludwell Sibley, Editor and Assistant Editor of the AWA Bulletin, stood in splendidly as official representatives of the American Association and presented us with a framed plaque, elegantly hand-embroidered by Marilyn Sibley, commemorating the occasion: this will hang in a place of honour in our headquarters in Gerry Wells' Museum.

Pat Leggatt

Editor's note: Thanks are also due to Pat Leggatt, who with his customary modesty, has omitted to mention how much he himself did to ensure the success of the event!

Round the Collections

Society member Brian Maley, who runs an aerial service company in Whitstable, Kent has mixed ancient and modern in his shop, where he displays eighty of his vintage wireless sets— and he reckons he has 500 sets stored in his loft and elsewhere. Brian instals, sells and maintains aerial equipment. He will fix up satellite reception for you, erect a special mast and even install a 100-foot authentic 20's clothes-line-style system for you, but he won't sell anything from his vintage collection.

Brian has only been collecting seriously for the last six years, but was an enthusiast as a boy. He got a set from a second-hand shop at the age of nine and dismantled it to see how it worked. When he'd finished, it didn't. But he continued to take an interest in wireless, learning the theory and constructing his own sets, also learning a respect for the pioneers, who, like himself, had to build from whatever bits and pieces came to hand. He also acquired an early respect for Electricity itself, when he pushed a magnet into a light-socket and plunged his school into darkness. On leaving school he took a five-year apprenticeship with a television retail and repair shop. Then he went to work for Radio Rentals and one of the first sets he installed in his service area was for the famous Peter Cushing: a Baird model which the actor likes so much that he has implored Brian to keep it in working order for the past 21 years.

Brian enjoys his work in modern electronics, but his real passion is for early technology and as well as undertaking the huge task of restoring his own collection, he finds himself increasingly called upon to repair vintage wireless apparatus. What he does not enjoy is the recent plague of "Deco Freaks" who waste his time by demanding to buy anything he has that's made of bakelite.



Brian Maley in his workshop.
Mrs Ann Maley with one of her favourites: an Ekco A22. Next to it is a WW2 "1155" receiver. Also in the picture can be seen a KB "Toaster" set and a Goblin clock-radio.



Photographs by kind permission of the Whitstable Times.

Vintage Vision

Cutting from the Daily Express 1st Oct. 1929

'HEARING' A FACE BY WIRELESS.

TELEVISION "IN A
GLASS DARKLY."

2 L O EXPERIMENT.

EXPERIMENTAL television broadcasting by the Baird system started yesterday from 2 L O.

Listeners, except in a few instances, had no chance of judging the experiment for themselves, for, as a statement issued by the Baird Television Company said, "No televisors are available to the general public."

There was a televisor at the company's headquarters, one at the General Post Office, and another at Mr. Baird's residence at Box Hill. A check receiver was also installed at 2 L O, Savoy-hill.

This is what the ordinary listener heard:—1. A speech by Professor Sir Ambrose Fleming. 2. A speech by Professor E. N. da C. Andrade. 3. A monologue by Mr. Sidney Howard. 4. A song by Miss Lulu Stanley. 5. A song by Miss King.

SEPARATE BROADCASTS.

Only one wave length is available from 2 L O at present, so that two separate broadcasts had to be made of each item.

First listeners had the speech, heard in the ordinary way. Then a buzz or hum. This was the face of the speaker sent through separately, but, of course, in the absence of televisors the face was "heard" and not seen.

The initial transmission came from the television headquarters in Longacre, W.C. Here a company of newspaper representatives anxiously awaited results in a top room, while the transmission was taking place in a room below. Land lines from one room to the other enabled the see-ers and listeners here to get the synchronised results.

Looking through a glass disc some ten inches or so in diameter, one could see first of all a long series of rapid black "flashes." Then came a clearance and the face of the speaker or singer appeared, the mouth moving in reading or singing, sounds and features apparently synchronising.

VARIED RESULTS.

The results varied. Professor Andrade's face came out quite well. Miss King would not have felt flattered.

The opinion was expressed at the B.B.C. that the transmission was "good as far as it went."

The object of the broadcast, it was explained, was "to afford the Baird Company wider opportunities than they have hitherto possessed for developing the possibilities of their system."

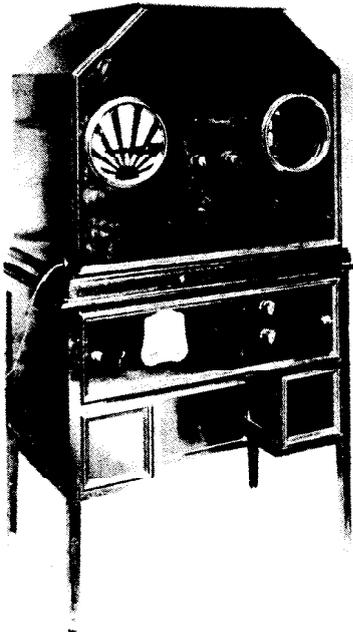
"Neither the Postmaster General nor the B.B.C." it was added, "accepts any responsibility for the quality of the transmission or for the results obtained."

Mr. William Graham, president of the Board of Trade, sent a message to be wirelessed. He forecast that the invention would eventually provide employment for large numbers of people and would open up a new avenue for educational development.

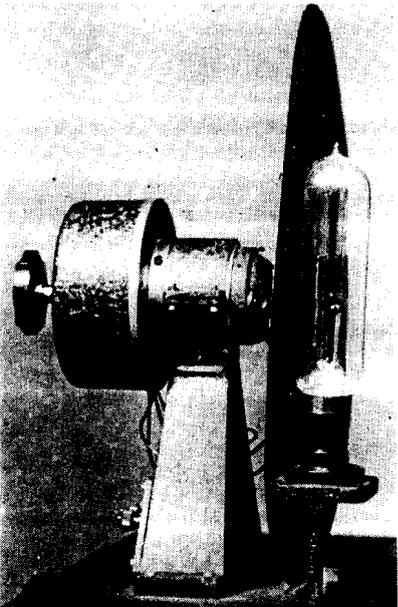
Television broadcasts will be made each day this month from 11.0 to 11.30 a.m. except to-morrow and Saturdays and Sundays.



Actual photograph from a 30-line televisor of the period: the sort of picture a "looker-in" would have seen during the 1929 broadcasts. It is of Baird's employee Connie King — one of the first television "stars".



A 30-line Televisor of the kind which engineers would have used to monitor the programmes.



Interior of the Baird Televisor shown at the 1929 Radiolympia show. It had a flat-plate neon and the synchronizing mechanism was in the circular end casing.

Famous Callsigns "On The Air" Again

Sixty years ago, on 30th September, 1929, the first regular television broadcasts in this country commenced from the Baird studios in Long Acre, London, and were transmitted from the BBC station 2LO on 361 metres. Up to that time only experimental programmes were available from the world's first television station operated by the Baird Company using their callsign 2TV which was issued to them in August, 1926. To commemorate the occasion members of the Baird Museum Amateur Radio Society will operate G2TV throughout the day on 30th September using 80 and 40 metres. The BBC Ariel Radio Group are intending to give G2LO an airing on the same day. It will be the first time since 1929 that these historic callsigns have been heard on the air together. Uniquely, G2TV will have two of the original operators to run the station, Ben Clapp ex-G2KZ and Ray Herbert G2KU. The latter is an honorary member of the BVWS and here writes about the anniversary.

Anniversary of the first regular television broadcasts

On 30th September, 1929, the first regular television broadcasts in this country commenced from the Baird studios in Long Acre and were transmitted by the BBC London station 2LO.

The opening ceremony started at 11 a.m. with Sydney Moseley reading a letter from the President of The Board of Trade and then followed speeches by Sir Ambrose Fleming and Professor Andrade. A professional artiste, Lulu Stanley, sang a popular dance band tune of the day called "He's Tall, Dark and Handsome", while Connie King, a member of Baird's staff, chose a more refined ditty "Mighty Like A Rose". Afterwards John Baird was persuaded to say just a few words.

Mention must be made of the Long Acre staff who contributed so much to the success of the occasion by tuning up at midnight over the previous months to put out experimental transmissions from the Baird station 2TV. Peter Birch carried out the duties of studio manager, Tony Bridgewater and Desmond Campbell looked after the technical arrangements, Reginald Shaw provided a variety of turns and Philip Hobson played the piano.

● continued on next page

Vintage Vision



A rare picture of Sir J. Ambrose Fleming with John Logie Baird in the studio during the first of the 1929 transmissions from 2LO. The object covered with black cloth above the microphone is a bank of photocells — covered up to protect it from the photographer's flashlight. Fleming, who appeared on screen said afterwards that he had been "very pleased" with the experiment.

● continued from previous page

At first there were no commercially manufactured Televisors available to the public but the radio amateurs had their home built equipment running well before the official service started. By April, 1930, the Baird Company were offering their Televisor at £26, representing about nine weeks wages at the time.

At that time separate transmitters were required for vision and sound and with only 2LO available the initial television programmes were silent until the Brookmans Park station came into use some months later. A compromise had to be made for the inaugural ceremony in order that the speeches could be heard. This involved a speaker or singer providing a duplicate performance, the first in front of the television scanner and then an immediate repeat for sound only.

Fortunately, several radio shops could supply the basic components enabling the home constructor to build a perfectly acceptable receiver for £3-£4.

From 31st March, 1930, both sound and vision were sent out from the twin BBC transmitters at Brookmans Park. There were five half hour programmes each week, three in the morning and two at midnight. The timing of the late night transmissions provided an unexpected bonus. As they followed the dance band programme which terminated at midnight those listeners who did not switch off heard the peculiar warbling note characteristic of the 30 line vision signals. This became a challenge to many of them to turn these strange noises into a picture and in this way the new medium gained many devotees. These night time transmissions on 356 metres (later 261 metres) could be received over considerable distances and reception reports from Aberdeen to Guernsey soon began to arrive at the Baird offices. Surprisingly good pictures were being received on the Continent as well, in Holland, Belgium, Austria, Yugoslavia, France, Denmark, Czechoslovakia and Italy. Even 1600 miles away on the island of Madeira W. L. Wraight of the Madeira Electric

Lighting Company became a regular viewer.

The pictures were dim and very small with an apparent size of 2" x 3½" when viewed through a lens. In spite of the low definition of 30 lines (less than ½20th of that currently in use) the viewing public seemed well pleased with the results and there were some glowing reports on the detail seen in their pictures. As a means of obtaining some factual information on picture quality a competition was organised involving the transmission of 28 drawings each representing a word and carefully chosen so as to test the limits of resolution. Many people correctly identified the entire series and a similar test a few weeks later proved that these early pictures were not nearly as bad as is sometimes suggested.

An impressive array of well known personalities appeared on the tiny screens during the first year of operation — Gladys Young, Gracie Fields, Madeleine Carroll, Dorothy Dickson, Sybil Thorndike, Lupino Lane and Jack Hulbert to name but a few.

Book Reviews

Book Review

by Pat Leggatt

"The Radio and TV Collector's Guide Book: Volume 2" by Guy Biraud, France. The price of Volume II (and of Volume I which is still available) is 350Fr. An order form may be had from Editions SHR, 1 Place du Puits Lavaud, 85200 Fontenay-le-Comte, France enclosing an addressed envelope and international reply coupon.

This second volume continues the good work of Guy Biraud, whose first volume was reviewed in Bulletin Vol.12 No.4. Biraud's Volume II completes the coverage of radio manufacturers, those in the range P-Z, with the same thoroughness and high quality of illustration as before.

In addition to the coverage of radio sets, there are short sections on valves, power units, test equipment and miscellaneous components.

Loudspeakers get good treatment with a substantial section comprising nearly 150 excellent illustrations. A smaller section on frame aerials is also of considerable interest, the great variety of models showing that the French approached these devices rather more imaginatively than we are used to in the UK.

The section on early television is comprehensive, with many pages of illustrations of equipment and components from the four major centres of pioneering work — France, Germany, the USA and the UK.

The volume ends with an entertaining selection of postcards and advertising illustrations of the 1920s and '30s.

For collectors, especially those who are interested in French and other Continental vintage equipment, this book is well worth acquiring. The English version of the text is marred by rather numerous mistranslations and misunderstandings, but this is not too important since it is the illustrations which give the work its real value.

Book Review

by Robert Hawes

"The Markets of London" by Alec Forshaw and Theo Bergstrom. 170pp with many photographs and maps. Paperback Penguin, £5.99

Many wireless collectors will be familiar with the more well-known London street-market scene, where interesting items are still to be found (although, as with Nostalgia, it isn't what it was), but they may not be aware of the many peripheral markets detailed in this new Guide. It does not deal specifically with markets where wireless equipment can be found, but is a useful compendium of information for the enthusiastic matutinal scavenger, complete with maps, times and travel directions and gives clues to potential hunting grounds.



"It's just occurred to me — perhaps there was nothing on".

Books received: "What's on the Wireless" is an amusing and affectionate recollection of some of the popular programmes and people in broadcasting in the 20's and 30's, from Elsie and Doris Walters and Robb Wilton to Grandma Buggins and Tommy Handley. Well researched and nicely illustrated, it is written by BVWS member David Lazell and published in hardback at £7.95 (inc. pp) by Evergreen Books, PO Box 52, Cheltenham, Glos. GL50 1YQ. If you would like to contact the author, he is at 24 Carlton Crescent, East Leake, Loughborough, Leics. LE12 6JF (Tel: 0509 852731). It is hoped to review the book in our next issue. The cartoon above is from the book.

For readers interested in social history, the preface traces the development of open-air markets back to the Roman trading posts on London's river, reflecting the population and economic changes over the centuries which gave many markets their rich ethnic variety and merchandise specialisations. Markets traditionally catered for the poorer classes but there have been recent changes, fuelled on the one hand by the more affluent consumers who can afford to indulge in the current "Nostalgia Boom", and on the other hand by people whom sociologists are beginning to call the *nouveau-pauvre*, for whom street markets and charity shops have become an economic necessity. So paradoxically, the collectibles sought by the Yuppies to stimulate a Romanticized vision of the past are often the reluctantly relinquished treasures of old folk for whom "The Good Old Days" is a modern myth: the children of a present Throwaway Age are capriciously conserving and reproducing the junk of a less wasteful bygone Age, while slowly drowning in their own effluent.

Magazine Review

by Desmond Thackeray

New magazine "Radio Bygones", 32pp A4 £2.20 per copy. Published six times a year by G.C. Arnold Partners, 8A Corfe View Road, Corfe Mullen, Wimborne, Dorset BH21 3LZ, by subscription £12 a year by post (UK) or £13 overseas.

The *Radiophile*, known to many readers as the upgrade of the *Radiogram*, has metamorphosed again into **Radio Bygones** under the general editorship of Geoff Arnold. Radiophilists should not be dismayed that *Radio Bygones* will cost them £12 for the annual six issues

For the good news is that this first issue of *Radio Bygones* has a cover wrap in colour AND 32 A4 pages of text, etc., in 3-column format. This enables the subject matter to broaden, this first issue for example including an article by Joan Ham on the *Chalkpits Museum*, and a couple of "History" contributions. For the second (October) issue, "History of Magnetic Recordings" and "Vintage Years of Amateur Wireless" are scheduled (D.V. & w.p. of course). Use of the front cover to carry a colour photo of the R1155/T1154 World War 2 bomber equipment *in situ* (History article within written by Charles Miller) could well attract broader readership, in this case perhaps hooking a few ex-aircrew. "History" in this issue has a second slot filled by Tim Wander with material on that most improbably mobile radio, the Thorneycroft Steam Omnibus. The 'bus and the Marconi radio were well matched; the radio had a range of seven miles, while the 'bus carried enough water for a steaming range of 8 to 10 miles.

These additions apart, the subject matter and its presentation are much those of the upgraded *Radiophile*, with plenty of material tailored to those readers who are primarily interested in brown-boxed 5-valve superhets. It is a pity therefore that some of the photos and circuit diagrams lack the quality of the best that *Radio Bygones* now contains. The issue concludes of course with suitable irreverence for the subject over the signature of *Barnaby Hyndsyte*, including a hyperbolic column on the latest from his creation, the auction house of *Boggis & Hoskins*.

Editor's note: Since this review was written, Chas. Miller has announced that his own publication "Radiophile" will in future be published separately from "Radio Bygones". Subscribers are being informed of changed arrangements of which details may be had by writing to him at "Larkhill", Newport Road, Woodseaves, Stafford ST20 0NP.

The Rise and fall of the Five Triode Portable

by Ian Higginbottom

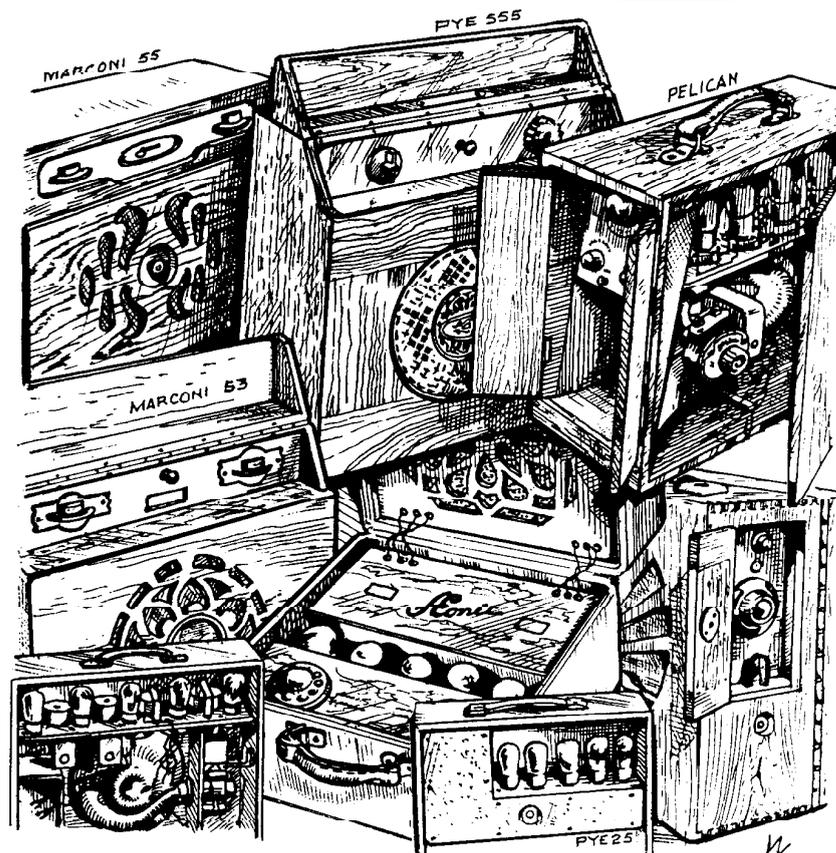
Some collectors may have more examples of these receivers than they care to own, and the numbers still surviving reflect their great popularity during the late twenties and early thirties, when they were not only the standard type of British portable but in many households became the regular domestic receiver.

The portable seems at this time to have been a peculiarly British concept; indeed *Wireless World* of 5 June 1929 (a Special Portable Issue) asserted that there were then no foreign portable sets, but perhaps our overseas readers can challenge this surprising statement.

Although so-called portable receivers existed virtually from the start of broadcasting in Britain, they were at first made in small numbers and were not popular. Generally they were far from self-contained and some required separate frame aerial, battery box and loudspeaker units. To work a speaker, an additional amplifier might even be needed. These sets were little different in concept from a conventional domestic receiver fitted with a carrying handle.

However, in late 1925 things changed suddenly and completely self-contained receivers began to appear, characterised by a specific type of circuit. The first *Wireless World Buyer's Guide* (10 February 1926) already listed models by eight makers.

The trend seems to have been set by the "Pelican" (Pell, Cahill & Co.) which was shown in a four valve form at the N.A.R.M.A.T. exhibition in September 1925. This soon received a second RF stage and this version was singled out as "interesting" in the *Wireless World Show Review* of 15 September 1926. Only the frame aerial was tuned, and the two RF stages (un-neutralised triodes) were aperiodically coupled to the leaky-grid detector by high frequency chokes having flat-topped resonance curves peaking at 1600m. This was the wavelength of Daventry, which opened on 27 July 1925, and no doubt the resulting availability of near-national coverage at high field strength stimulated the sudden vogue for the portable. Moreover, Daventry operated on a frequency that allowed some



degree of amplification to be retrieved from the highly inefficient aperiodic form of coupling. Significantly, one 1926 portable (Pye 555) was pre-tuned to receive Daventry only.

The Pelican, whether or not it was first in the field, certainly typified the British 5-triode portable, with its single tuned RF grid circuit, two choke-coupled aperiodic RF amplifiers, leaky grid detector and two transformer-coupled audio stages. This configuration (2v2) survived in commercial designs for at least ten years and the Marconi type 55 of 1929/30 can be considered representative. The circuit is shown here.

From the information given in successive issues of the *Buyers Guide* and in the *Wireless World* special portable numbers, one can see that the type gained steadily in popularity from its introduction in 1926 to the Spring of 1929, when about 80 different models were available. Thereafter it showed a decline but since the *Buyer's Guide* was not produced after the end of 1930 the final stages of the process are not easy to reconstruct.

The popularity of the design owed everything to its cheapness and ease of operation, there being only one tuned circuit, a special attraction in the days before effective ganged tuning. The directional properties of the frame aerial could compensate for some loss of selectivity and it was therefore usual

to pivot the receiver on a simple turntable. A few early models used untuned RF transformers, some (e.g. Marconiphone Type 53) with iron cores, in place of chokes. But these offered no real advantage against the overwhelming inefficiencies of aperiodic coupling and the cheaper choke soon became the norm. Stability of the RF stages, in the absence of neutralising, was achieved at the expense of gain, which was typically only about 1.5 to 3 per stage at "broadcast" frequencies. This was due to the effect of stray capacities in diverting most of the amplified signal. The ability of the RF stages to pass on amplified signal voltages depends on a useful voltage being developed across the coupling chokes, which must therefore have a high impedance relative to that of the valves, a factor of about three being a commonly-quoted optimum. Although the impedance of chokes at radio frequencies has a high inductive component (i.e. reactance), it inevitably has also a capacitive component which is low at these frequencies. Thus they are to a large extent shunted by their own self-capacity and most of the amplifying potential of the stage is dissipated. The effective impedance of the average choke at 200 metres is only about 10,000 ohms, about half that of the typical RF valve, or one-sixth of the optimum. To make things even worse, the predominant effect of the capaci-

● continued on next page

Historical Research

● continued from previous page

tive compared with the inductive component of the impedance means that signals fed back through the internal capacity of the valve are 180 degrees out of phase, giving a reverse reaction effect. Careful choice of RF valve can improve matters, because the choke/valve impedance ratios can be enhanced by lowering the valve impedance providing its magnification factor is not sacrificed. This of course means increasing the mutual conductance, so that it is quite in order to find valves of HL or L type in the RF stages of some sets.

To compound the difficulties still further, yet another source of inefficiency arises because the self-capacity of the first RF valve shunts its grid circuit. This creates enormous damping, which must be compensated by massive injections of reaction. Without this, these circuits are silent, in spite of the two RF stages!

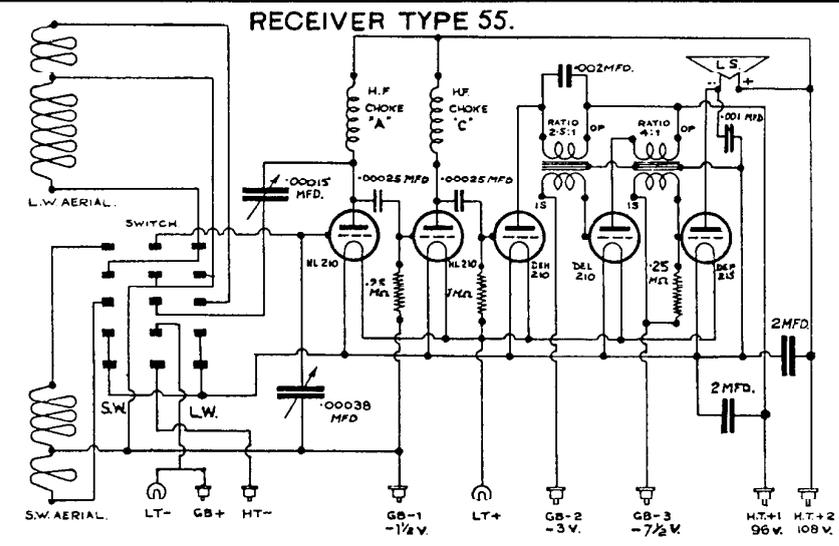
On the long-wave (Daventry) band the inefficiencies of the circuit are rather less severe because the chokes begin to approach resonance and their impedance rises, typically to 100,000 ohms or more at 1000 metres. The 2v2 portable therefore was nearly always a good performer on these lower frequencies. In spite of its shortcomings, the design was remarkably resistant to the introduction of the screened-grid RF tetrode, because before the use in Britain of effectively ganged tuned circuits another tuning control would be needed, usually for a tuned anode form of coupling. The high amplification factor of the screened-grid can only be exploited when it feeds into a tuned circuit; aperiodically coupled screened grids are scarcely better than triodes. However, the extra tuning control conflicted with the cheapness and ease of operation which were the most popular features of the design and it was about 1931 before screened grid portables began to displace the 5-triode receiver.

Which was the last five triode portable to be made? Perhaps someone else knows? All I can say is that a solitary example, the Burgoyne Portable Five, appears in the 1935/6 Slonetric catalogue which the BVWS reprinted a few years ago. Did the type survive until World War Two? I doubt it, but would very much like to know more.

References: Given below are *Wireless World* issue dates relevant to various themes: *Buyer's Guide* 10/2/26, 10/11/26, 16/11/27, 14/11/28, 20/11/29, 19/11/30. *Special Portable* Nos. 14/4/26, 26/5/28, 5/6/29, 11/6/30. *Aperiodic HF Amplification* 2/7/30, 4/7/30. *HF Chokes* 26/9/28. *Pelican* Reviewed 15/9/26 p.382. Also: *Raising a Portable* *Wireless Magazine Supplement* May 1929. *Harmful effects of inter-electrode capacity*, *Experimental Apparatus*, Sept. 1928.

Acknowledgements: I would like to thank Pat Leggatt and Geoffrey Dixon-Nuttall for their help with technical comment on illustrations.

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Letter

from John Brown

Litz coils

The comments on coil design and Litz wire in the *Everyman Four* were interesting. One may add that the shape of the old plug-in wave-wound coils (What are the Wild Waves saying) did come close to the geometry recommended by Butterworth. While the ideal shape in isolation from metal chassis and screens gave maximum Q, practical considerations of installation in a set of reasonable size warranted the use of length/dia ratios around 2:1.

The comments on aerial damping and the effect of regeneration are most relevant. I recall my own obsession with High-Q coils until experience tempered enthusiasm. The value of Litz wire in some cases still applies: some of the latest high-frequency switch-mode power supplies use a form of Litz in the transformers to reduce copper losses. A recent article on the construction of a MW loop antenna gave details for making litz, using an electric drill to twist strands, ignoring the "formula" for Litz.

The best Litzendraht starts with twisting three wires together, then twisting three of these triplets together to make nine strands, then three of these to make 27, and so on. Hence the specification of "27/42" etc. Some users economised in manufacturing cost by twisting 7 strands together, and this was popular in IF coil design. (I still have a reel of 7/48 DSC).

The Germans made much use of Litz wires in their radio sets and transmitters in WW II. My treasures include a large Litz-wound variometer taken from a German aircraft set, a fine example of coil design.

High Q circuits cut high-frequency

audio: one tuned circuit with effective Q of 100 will have a 3-dB bandwidth of only 2 kHz at 200 kHz (a noticeable reduction in quality of Droitwich sound), and with more tuned circuits, as in a 1-V-1 TRF receiver, "top-cutting" on the MW band reduces claims to "Hi-Fi". Users of high-Q loops for MW DX find the added selectivity useful as well as the ability to null out interfering stations on the same channel. My first experience of this was with the James Super back about 1936. Plug-in 110 kHz IF coils in shiny copper cans and a Hex-shaped Wearite Litz-wound Frame aerial gave what was then astonishing selectivity and my first American stations on the medium wave band. Ah! such nostalgia... the essence of Antique wireless.

Pentone

I have one or two small points arising from reading Issue 2/vol 14, "Valve notes" p.18 re Pentone. I have a new, boxed Mullard EL91 also stamped CV/136. The inscription on the valve is: (BVA) MULLARD EL91 "PENTONE" Trade Mark. So the name was in use in 1945 or even later.

I note in several reproduced adverts for old crystal sets, eg: in Gordon Bussey's *Vintage Crystal sets 1922-1927*, claims made for range "15 to 20 miles and Morse signals from a much greater distance". CW reception with oscillating valve detectors was known then, but Crystal set users would only have been able to hear Spark or MCW signals. I wonder if any reader recalls Morse reception on a crystal set? One must discount the unwanted reception of Morse and other signals due to the "rusty nail effect" which I recall was reported back in the 30's, when valve type radio-grams and other sets lacked screening or other protection against interference.

Pye demonstrated their "Black Box" record-player at the 1953 National Radio Show as "The most exciting magical development in the history of music, claiming it was "Hi-Fi" and without the slightest distortion, rumble nor wow". There was a lot more hyperbole too, to match it's hand-painted black Chinese-lacquer case and price-tag of 63 guineas — equivalent to the cost of a large colour television today. They sold only 250, then brought out a cheaper version in a mahogany box which sold in thousands. Rarer than the Chinese-style player is the FM switched FM tuner produced in 1954 to match it. It is hardly a real "vintage" item, but is interesting to collectors because it was possibly the only example of a switched crystal-controlled tuner offered on the British domestic market and it didn't last long.

Vintage FM and the Pye Black Box

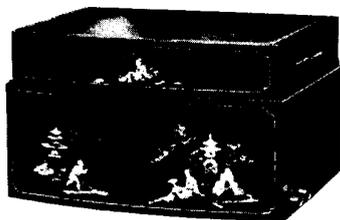
by Desmond Thackeray

Frequency modulation is certainly vintage radio, even if one goes back no farther than the Armstrong patent of 1933. But the fantastic feet-dragging which followed, meant that it was more than 20 years after that before the BBC broadcast its scheduled sound output on a permanent basis as VHF-FM.

One can see that there was bound to be little or no commercial involvement by radio manufacturers in the UK until the expiry of the Armstrong patent at the end of 1950. And even then PYE produced a red herring in the form of a VHF-AM converter (mentioned in Jon Hill's book) before coming up with an FM tuner for their "Black Box" record player. As far as VHF products were concerned, Pye Radio was disadvantaged by distance from Wrotham and Alexandra Palace. Nevertheless their early TV sets performed well enough to sell well, which can be ascribed partly to technical experience gained during World War 2. One can't however see any particular evidence of this in the design of the FM tuner, and its relative saleability must have been hampered by the price tag of 30 guineas. Though launched on a sea of "hype", with words like "luxury", "high fidelity", "low distortion" and "efficient" used in the Advanced Information Leaflet for the tuner, the sounds produced by the Black Box did not earn universal praise. The leaflet gives an adequate basic description of the tuner circuit which uses a single additive conver-

Photograph from the original leaflet advertising the rare Chinese-lacquer version of the record-player, which was still called "The Black Box" when it appeared in the later brown mahogany version.

THE BLACK BOX



Traditional model in plain Mahogany finish.

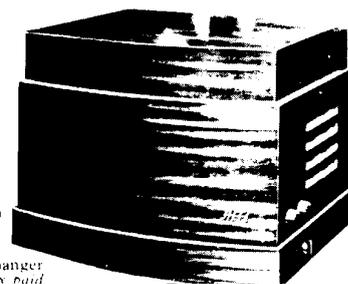
Automatic Changer

41 gns. tax paid

Single Player

39 gns. tax paid

Luxury model in hand-painted Chinese Lacquer finish.



Three preset switch positions cover the FM programmes from any of the new transmitters. Freedom from "drift" and complete accuracy in tuning is ensured by precision crystal control of the Unit. 33 gns. tax paid

The Pye Black Box Hi-Fi Record Player is a compact unit providing high fidelity reproduction with a room-filling quality of sound. It plays all speeds of records and changes them automatically.

Automatic Changer 41 gns. tax paid

Single Player 39 gns. tax paid

sion direct to a very low IF (200kHz is claimed) amplified by two EF80s, followed by two double-triodes as amplitude limiters and a "counter-diode frequency detector" to extract audio from the frequency-modulated signal. An EF86 provides audio gain. The local oscillator frequency is obtained by multiplication from a crystal-controlled oscillator at one-eighth the required frequency, using three switched crystals.

Though this circuit had little in common with most other FM tuners, it does appear to derive in most part from designs published in *Electronics*, July 1953 and May 1954, and the discriminator from *RAC Review*, 1942, referenced in Scroggie's *Wireless World* April 1956 article. But Scroggie's own realisation, published in the June 1956 issue, dispenses with crystals and triode limiters and uses two diodes in the discriminator.

The *Pye Service Data Sheet* for the Black Box F. M. Tuner of December 1956 contains the circuit diagram, which was a great help when dealing with a surviving example of the hardware.

Though "dead on arrival", the lack of output was found to be due to no heater supply to half of one of the double-triode limiters, the split connector for that particular valve-pin having only one prong or tine. That repaired, and all the valves plugged in-and-out and rocked to establish better contact, life returned; and Radio 2, 3 and 4 were received with a usable signal-to-noise ratio on the in-built aerial, a multi folded dipole of complicated aspect.

A check with a signal generator showed that the limiters operated for signals over a wider IF bandwidth than

the minimum necessary for standard frequency deviations, particularly at the low-frequency end of the FM band where the RF gain was larger. Reception of unmodulated carrier was therefore possible over the following bands:

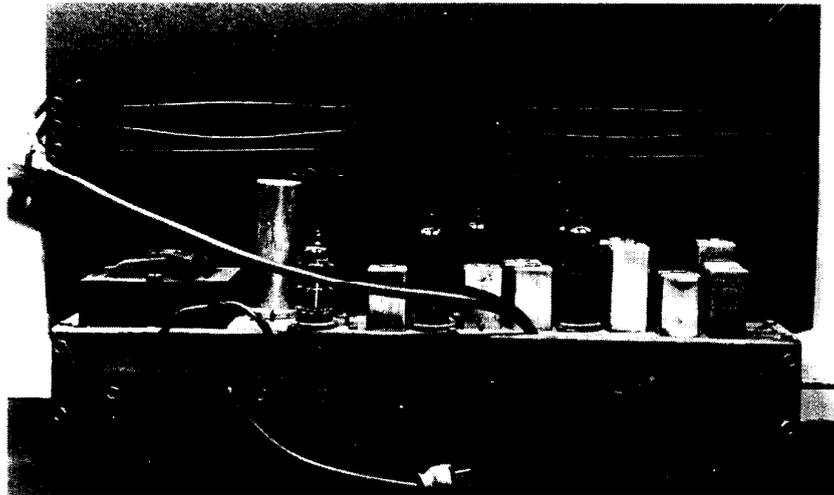
Oscillator Crystal	RF Input
11181.25 kHz	88.9 to 89.3 MHz 89.6 to 90.00 MHz
11368.75	90.5 to 90.8 91.15 to 91.45
11731.25	93.4 to 93.65 94.05 to 94.25

Thus the present London area frequencies of 89.1, 91.3 and 93.5 MHz are well within band. Since the leaflet clearly indicates an intermediate frequency of 200 kHz, and the crystals are ground to a quarter of a kilohertz and are certainly on frequency to the nearest kilohertz, it seemed likely that the wide spread of the IF might cope with the carrier frequencies of transmitters for other regions.

Direct measurement of IF response showed a broad, droopy characteristic from about 100kHz extending up to 500 kHz or so, and adjustment of the three tuning slugs produced only minor changes in this, consequences of the unusual damped inductance couplings used here for the I. F. stages, rather than the traditional video amplifier design with shunt or series peaking to provide exact compensation for the natural high-frequency droop. Although the wide RF response provides an open door for a host of potentially interfering VHF sources such as image signals, it has the advantage that no retuning is required for any carrier within the IF bandwidth after conversion.

The IF output is then limited by the double-triodes in cascade, each arranged as a long-tailed pair. The squared off waveform passes to a low

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constant CR coupling shunted to earth by a single diode, which acts here as an FM discriminator if the intermediate-frequency component is filtered off by means of a suitable de-emphasis circuit. This latter seems to be inadequate at 16½ microseconds time-constant, but the treble loss is augmented by the capacitance of the screened cable to the amplifier, no doubt. It would be interesting to consult contemporary reviews of the tuner, to discover whether the curious frequency response and small filter time constant drew any comment at the time. Probably the 22 Megohm grid resistor in the audio stage produces bias from the audio current, an unusual method in high-fidelity equipment! Curiously, the IF gain is so high that noise is sufficient to operate the limiters in the absence of any signal, which makes adjustments and measurements on the tuner difficult and uncertain. A preset IF gain control would be a simple and useful addition for any owner keen to put a tuner into operative condition, in addition to replacement of all the small Hunts capacitors. Though the RF is fixed-tuned, it could perhaps be returned to

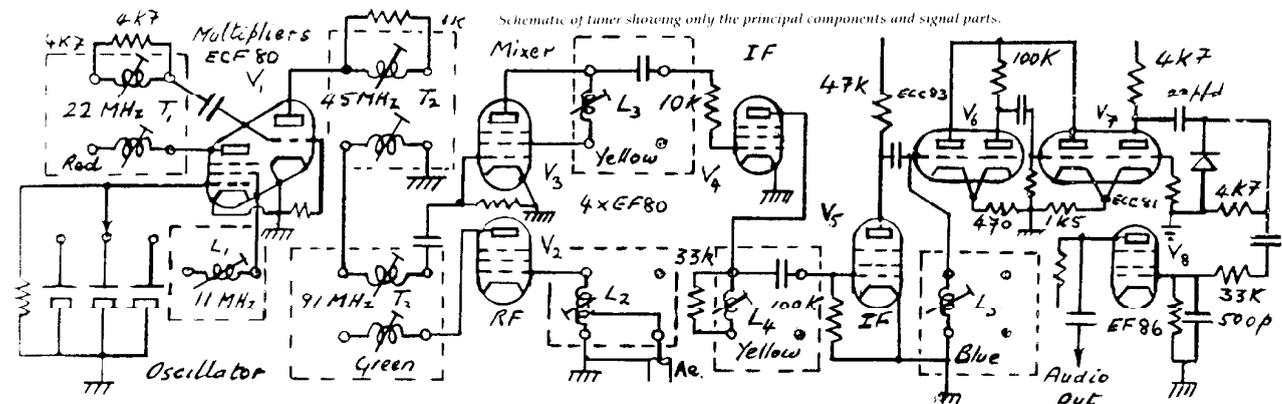
cover other parts of the FM band, a few MHz in width, with adequate sensitivity. But a cheaper way to increase the number of received stations than buying additional crystals would be to construct a small stable VFO and feed this to a pin on the crystal socket.

Ten years later, the advent of transistors had put a new face on old circuits, and opened the door to miniaturisation in receivers such as Clive Sinclair's MICRO-FM, and decoder compatibility in Frost's *Wireless World* December 1965 design, both of which used "pulse counting" discriminators.

Further information: The "Black Box" record-player was first released in 1954 and was followed by a 2-speaker version until 1957, sold at 63 guineas in a black Chinese lacquer version (a production run of 250) or 39 guineas in sapele mahogany finish (10,000). Between 1957 and 1960 it continued with 4 speakers. It was an American CBS design Anglicised to use only Mullard valves. In 1954, the crystal-controlled FM tuner was introduced and no production figures are available for this, although it seems not to have exceeded four figures in total.

(The above information has been supplied by Gordon Bussey. Copyright is retained by him and the information is to be used in a forthcoming publication by Gordon Bussey and Keith Geddes.)

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Letter
from D. Gough
Layer Batteries

Regarding the "Pocketphone" and "layer" battery issue, readers may like to refer to p86 "Radio Physics Course" by Ghirardi (pub: Murray Hill NY 1933) which shows the construction of a layer battery economising in space over conventional batteries of cylindrical section in square boxes. The elements of this layer battery were practically the same as those of the conventional cylindrical cell battery: carbon and zinc separated by an electrolyte, but the internal resistance was less and the life extended.

Letter
from Ivor Abelson
S.G. and "personal" sets

I was struck by the juxtaposition of these topics in one issue (14/1). In 1938 I built a personal receiver using only 9 volts HT. I used a pentode: G1 as oscillator and G2 as control grid. "Grid Leak" could have improved on his set if he'd been fortunate enough to have my education, for a high-voltage layer-battery would not have been necessary. I beat the BVA by using Sylvania "low drain" octals from the US. Despite the low HT, results were good even outside London, but in town I used a wire and crocodile clip connection to the coil for an increased aena. The idea of working valves on low HT came to full fruition in the late Fifties in car radios, when suitable RF transistors were not freely available, so a hybrid valve/transistor circuit was evolved. It would be interesting to have details of this.

Apologies to Desmond Thackeray for an incorrect drawing of a coil (top), in his article "Some thoughts on the *Cornman Four*" in Bulletin 14/2. In making the drawing, the Editor put the spots representing windings on the wrong sides, creating a contradiction between article and illustration. The corrected drawing is shown (bottom).

This traditional shape is copper hungry



The corrected drawing is shown (bottom)

RADIOCRAFT

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*PROFESSIONAL STANDARDS AT A
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HARRODS and
other leading stores.
Customers include
leading collectors,
and the B.B.C.

Prop. Stephen Ostler
(BVWS Member)

RADIOCRAFT

THE VINTAGE WIRELESS BOOK LIST

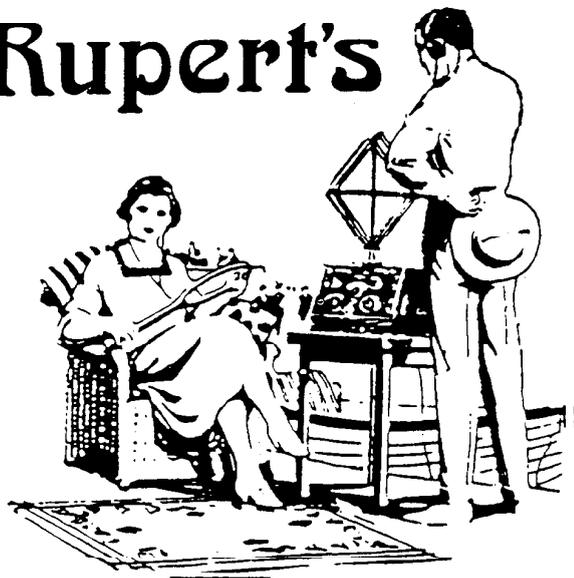
A regular listing containing hundreds of out-of-print, old and collectable wireless and television books, magazines and associated printed items. Send 2x1st Class stamps for next issue or PO/Cheque for £1.50 for next four issues. We operate a free wireless book search service including circuits and manuals. We always wish to purchase secondhand wireless and television books and magazines and any associated printed items.

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Rupert's



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Quality broadcast receivers, pre-war television, plus components, valves etc. We buy and sell wireless sets and associated items: cash and exchange.

Telephone (01) 567 1368. BVWS Member.

WANTED
For private collection



EDDYSTONE RADIO SETS

Made by Stratton and Co. Limited in Birmingham between 1923-1940

Also any original or photocopy literature, magazine articles or advertisements pertaining to these sets or the company.

All costs will be paid. Please write or phone (day or evening, except weekends) 021 556 3324.

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