



RADIO DISPLAY at the INVERCARGILL ARTS FESTIVAL

The city of Invercargill is in the habit of holding a biennial Winter Arts Festival which includes a Hobbies Exhibition. This year for the first time - guess what? - a Vintage Wireless Display was among the hobbies represented. Those southern stalwarts Ian King, Peter Lankshire and Arthur Williams between them were responsible for the display of over thirty receivers which ranged from a 1923 regenerative 2-valve set to a 1956 Philco roll-top portable. Also included were a selection of horn and cone speakers plus miscellaneous items.

The week-long display attracted tremendous interest and incidentally resulted in the acquisition of a few goodies by the trio. Those manning the stand made a point of emphasizing to spectators the importance of not throwing away any old radio gear. So successful was the vintage radio display that the group has been invited back next year. Good goingmen, keep it up!

time? \* \* \* \* \*

Speaking of Arts Festivals, I wonder how many Aucklanders remember the 1964 Auckland Festival Society's exhibition entitled "The Shrinking World". This exhibition which, incidentally, was arranged by the N.Z. Institution of Engineers, purported to trace the history of communications through the ages and how media ranging from clay tablets through printing and landline telegraphy to satellites had been used for the purpose. A small display of vintage radios was included in the exhibition and, as I recall, generated a considerable amount of interest even in those far-off days. Seems to me that it's about time that Aucklanders got cracking again and organised another vintage radio display. With the phenomenal interest that has arisen over the past few years in the area of 'collectibles' such a display could hardly fail to be of interest to thousands of people in the Auckland area.

J.W.S.

**CROSLEY**

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# N.Z.V.R.S. BULLETIN

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"The Ideal Home Companion"

This picture was reproduced from the original glass plate negative used to prepare a window display poster for a Wellington radio shop in September 1932. Note milady's snakeskin shoes and Marcel wave. Gulbransen was one of the best-known American radios sold in this country prior to WW 2. After the war the N.Z. agents arranged to use the name on locally-made sets.



# NEW ZEALAND VINTAGE RADIO SOCIETY

An organisation devoted to the preservation and restoration of early radio equipment and the collation of associated information.

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## N.Z.V.R.S. BULLETIN

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### EDITORIAL COMMENT

Amongst NZVRS members it is quite obvious that the majority list 'collecting' and 'restoration' as their main interests. This being the case it seems appropriate to devote most of the space in the Bulletin to these interests. However, those members who do not share the same interests will not be forgotten and it is hoped to include, from time to time, items of more general interest.

From the 'deep South' comes an interesting article describing his restoration techniques by Invercargill member Peter Lankshear. After reading of how he goes about it it is obvious that Peter is a dedicated restorer. I wonder how many other members go to as much trouble to maintain authenticity - I know I don't. That in itself is an interesting subject because what we are really talking about is authenticity of appearance, for it is virtually impossible to maintain authenticity of material. At the same time this raises the question of when does 'restoration' become 'rebuilding'.

Amongst vintage car enthusiasts I believe the accepted practice is that if the completed article contains more than 50% of non-original material then it is classed as having been rebuilt rather than restored. Perhaps vintage radio buffs could adopt the same procedure. Just a thought.

When it is considered that a restored receiver might have had all parts such as valves, resistors, fixed capacitors and wiring replaced plus transformers and coils rewound then the figure of 50% could conceivably be reached. Of course maintaining authenticity is one thing but exceeding it is another. And that raises the question of what to do if you know that an alteration to the circuitry could improve performance. Let well enough alone? For the extreme purist there can be only one answer, but speaking personally my answer would be - 'It all depends'.

So far I've not heard of anybody 'hot-rodding' or 'customising' an old radio and I hope I never shall! Who was it who said 'Beauty is in the eye of the beholder'?

J.W.S.

Regular meetings of the N.Z.V.R.S. are held on the fourth Monday of each month except December. Venue: 617 Dominion Road, Balmoral. opp Auckland Savings Bank, Balmoral. Time: 7.30PM.

## RESTORATION HINTS ON ATWATER KENT RECEIVERS

Peter Lankshear

Atwater Kents are justifiably popular with collectors because, apart from their well-finished chassis and rugged components, they covered radio's 'Golden Era' from the 1920s to 1936. Their solid construction coupled with their large sales volume has ensured that a goodly number have survived to become today's collectors' items.

Prior to 1934 A K made nearly all their own components and these were often of unique construction. Even after that time the company policy was to make as many of their own components as possible. Thus for under-chassis restoration to be authentic a fair bit of effort is required but the results are well worth while. Before starting work it is recommended that the relevant circuit and service data be obtained. Vols 1 to 7 of Rider's manuals contain all the necessary information.

**Wiring.** The early AC models used wiring having cotton-braided insulation which is often still in good condition. The writer knows of no source of new wire but, if necessary, unwanted sets of lesser quality can be cannibalised. After 1930 rubber-covered flexible wiring came into use, together with the traditional 'rat's nest' appearance associated with it. An excellent replacement is neoprene-covered wire as used in some imported cabtyre power flex which can still be obtained. The older red, black, green plus the modern brown, blue, green/yellow gives a good range of colours.

A peculiar method of shielding audio grid leads was used in which the shielding consisted of a spiral wrapping of bare stranded wire around a rubber-covered central conductor. These leads invariably need renewing but remember not to use braided shielding or it will stand out like a sore thumb.

**Resistors.** Early models used very few resistors which, with the exception of some grid leaks, were generally trouble free. Some early resistors were similar to the ordinary 1-watt carbon stick type of the period but were minus the usual wire leads. Such resistors were soldered directly to tag boards and can be replaced by equivalent old-style 1-watt types with the leads and paint removed. The most commonly used resistors were the so-called 'metallised' types which had a white ceramic body and cast end caps. These can be replaced with the old I.R.C. metallised resistors which, if unobtainable elsewhere, can be removed from any unwanted receivers. To maintain an authentic appearance the paper label should be removed and the appropriate colour painted on the body. A listing of A K colour codes is contained in Rider's volume 3-1. It should be noted that the standard colour code (RMA) was increasingly made use of after 1934.

Unfortunately time has not improved these metallised resistors and many will have increased in value or even become o/c. In non critical situations such as AVC or grid circuits a 50% shift in value is not of much consequence but voltage dividers and plate resistors particularly should be suspect.

An A K speciality was their flexible 'spaghetti' resistors which, by the way, can be mistaken for the actual wiring. Low value resistors such as filaments centre-taps and pilot lamp droppers were simply lengths of resistance wire insulated by sleeving. These give little trouble apart from perished rubber sleeving. Higher values have heavy cotton braided insulation and terminate in cast



end caps. This type is trouble prone and the writer has not devised a method of repairing them. Best substitute to date is a string of  $\frac{1}{2}$ -watt resistors of appropriate value to make up the required resistance and length which are then covered with two concentric lengths of cotton spaghetti. The ends are terminated with "Helsyn" rubber sleeves fitted over chunky solder lugs.

Capacitors. Prior to the 1931 superhets only mica and paper capacitors were used. After this the filter capacitors were chassis mounted electrolytics, those with 'hot' cans being covered with black cardboard sleeves. Tubular black "Solar" electrolytics were used as H.T. bypasses in battery sets and as cathode bypasses in some A.C. sets. These can be fitted with new 'works' in some instances. Refurbishing the chassis-mounted units is a problem not peculiar to A K. Some purists have devised methods of opening up the cans and inserting modern tubulars. There is no best method of doing this and much depends on the skill and patience of the restorer.

The early A K paper filter capacitors were very good and unless shorted should be retained. These units are housed within a tin case which itself is enclosed by a brown metal box. They can be opened up if renewal is necessary and replaced by suitable polyester types.

Small paper capacitors in the early sets were mounted in "bath-tub" type cans and should be renewed if leaky. To do this simply unsolder the underside of the can and melt out the wax then fit suitable replacements such as the Philips 'lollipop' type. Where multiple section units are involved reference to the circuit diagram will probably be necessary. Any sections having connections to the full H.T. will need have a voltage rating of 400 V.

From 1931 to 1934 virtually all paper capacitors were included in a single container. Over the years successive servicings will have seen sections chopped out of circuit and replaced by external units. The original A K capacitors were true 'Mansbridge' types wound up like a bolt of cloth around a cardboard centre. The entire contents can be pulled out in one piece if the can is heated sufficiently heated to melt the wax. The inner cardboard core which carries the terminal connections can be re-used if the old capacitor is unwound. With care suitable flat polyesters can be accommodated on either side of the core and wired up to the original terminal tags. After refilling the can with wax the completed job will be indistinguishable from the original.

In later production sets A K used tubular waxed paper cases for their coupling and bypass capacitors. In this case defective units can be repaired by gently heating when the contents can be pulled out like an old time fly-paper! A tubular polyester can then be inserted and waxed in. Even where double units are encountered the same method can be used. The voltage rating of the replacements should be appropriate to the particular position in the circuit.

# ATWATER KENT SCREEN-GRID RADIO

*Tone, Selectivity, and Range  
that has amazed the World*

Misc  
(L)

## A VACATION IN DOWN UNDER LAND

by Floyd Lyons, San Francisco.

I had been going to sea as a Merchant Marine staff officer, better known as a purser, with Moore-McCormack Steamship Lines for a number of years on the Pacific Coast. Then they up and sold my happy home to another company in August 1966, but that is another story. I figured here was a good time to finally take a much-postponed vacation and what better time could one choose for rest and rejuvenation than approaching spring in Australia and New Zealand?

We duly arrived in Sydney, Australia and found Australians to be fine hosts intent on making your stay a pleasant one. But this came as no surprise for I had had the good fortune to visit Australia a number of times in 1944 and '45 during the war when I was stationed at Biak, New Guinea. I happened to be in Townsville, Queensland the day that President Roosevelt died. People stopped me on the street to extend their sympathy and say how sorry they were.

I had been corresponding with Fin Stewart who lived in a suburb of Sydney. After he got off from work he came by the hotel where I was staying and it was nice, at long last, to meet him in person and chat about our common interests. I later spent a full day as their house guest and got to see his famous collection. He now has a fine museum, having added much since then.

A flash-back here is in order. Sometime around 1962 a friend of mine brought up to San Francisco a friend of his called Grote Reber so we could meet and he could see my modest museum. Grote, as many of you already know, is a foremost radio astronomer who has done much of his research in Hobart, Tasmania. On parting Grote invited me come visit him if ever I got to Tasmania.

Well, one morning while still resting in bed in Sydney, it suddenly dawned on me — heck, I'm not too far from Tasmania, so I gave Grote a call. His immediate questions were, "Where are you?" and "You're coming to Hobart, aren't you?". With hospitality like that I said "Yes". Then he proceeded to give me leads on where to go in Sydney and look at goodies. Many swaps and outright gifts resulted from his kind efforts. I shall always be grateful.

I flew to Hobart via Melbourne and found it to be a delightful spot — free from pollution and truly where you can see for ever. This, of course, was one of the reasons why the Radio Astronomy Project was set up here in the first place. Spent two days in Hobart where Grote introduced me to a new contact of mutual interest. Came away with more early tubes and light bulbs. By this time I was getting loaded down so mailed home a large parcel of acquired goodies.

Stopped over in Melbourne where I acquired six Nernst-type glowers (an early type of electric lamp). Also visited their fine Museum where I received a most pleasant welcome and got to visit 'The Caves' where they store all sorts of gear, including bulbs and tubes, which seldom get displayed due to lack of space. In brief, they have a 20-year cycle whereby they rotate various categories of displays — so it all gets 'upstairs' at least once every 20 years. Some mint gear down there just begging to be displayed.

Moving along, we made another short stop in Sydney to say our goodbyes to so many people who had been nice to this Yank.



Then it was on to Auckland, New Zealand for a visit with John W. Stokes, a member of our Antique Wireless Association. We, too, had corresponded for a number of years and he had invited me to stop by for a few days so we could swap yarns etc. New Zealanders parallel the Australians in their friendship and hospitality. You can go from one country to the other and feel like you never left home, so to speak. John is a very knowledgeable man on tubes and tube history. He is at present writing a book on this subject. Prior to my arrival John had notified the Auckland newspapers that a "collector of early light bulbs and radio tubes" was arriving from San Francisco. What a surprise! Photos, interviews, the whole bit. It turned out to be a very pleasant happening. I would climb into a cab or call some museum and, as soon as they heard my American accent, would immediately say "I'll bet you're that bloke from San Francisco.". Well, now, that may not be construed as a compliment we have to admit. But it certainly was recognition.

John was a member of the Museum of Transport & Technology at that time and he suggested that I contact one of the wheels at the Museum to see what they had to trade. More swaps were made here with them getting some hard-to-find tubes and me acquiring some available tubes they had in duplicate. John took me to the Hobson St sub-station of the local Power Company where one of the employees gave me a rare German Loewe 3NF tube. And he told me why. He said he was one of the many New Zealanders stationed at Biak during WW II and the Yanks were always so good to them. And, he continued, this was his way of saying thanks to all of you Yanks for those pleasant memories.

As I headed for home I reflected upon all the pleasant meetings with all these nice people, and on all the juicy gear distributed over this globe and I considered myself fortunate indeed to be enjoying all of this. On the way back I stopped over in Honolulu and Waikiki Beach for three days to sort of unwind from the jet lag. Then back home to San Francisco, a month to the day since my departure. A happy vacation that I shall always remember.

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This article was reprinted from the CHRS Journal, the official organ of the California Historical Radio Society, by kind permission of the editor and the author.

## KNOW YOUR SLOGANS (17)

Here are some of the advertising slogans used by the makers of American radios in the years between 1930 and 1940. Although they were not all used continuously and some were changed over the years the following is a typical selection. How many do you know?

1. "You're there with a ....."
2. "Radio's Richest Voice".
3. "The Radio You Are Proud to Own".
4. "There is Nothing Finer Than a ....."
5. "Fine Things Are Always Hand Made".
6. "The Royalty of Radio".
7. "Mighty Monarch of the Air"

1. Crosley. 2. Spaton. 3. Colonial. 4. Stromberg-Carlson. 5. Scott. 6. Zenith. 7. Westinghouse. 8. Emerson.

## WHAT SPARKED MY INTEREST IN VINTAGE RADIO COLLECTING

by Ernie Wilson, Victoria Park, Perth, W.A.

For many years past I have had an interest in the older type radios, mainly I think because of my childhood association with them since the age of seven years.

One set I particularly remember was a home constructed kit-set built by a farmer's son who lived near us in Taupiri in the Waikato district in 1928. This receiver was a 4-valve regenerative type with a not too smooth regeneration control. It had no cabinet and sat atop a kerosene box which had shelves added to accommodate three big 45-volt batteries and the little 'C' battery. The 2-volt accumulator was placed on the nearby kitchen bench to allow easy access to the battery charger and its power point (mains socket).

To complete the setup a length of cord, which seemed to me at seven years of age to be at least 50 feet long, reached to the other end of the house where the speaker was placed in the lounge. Now this is where the amusing part lies: our farmer friend would tune in a station with some difficulty and then walk through to the lounge to enjoy the programme. Then - you guessed it! - all at once the set would burst into oscillation causing our friend to beat a hasty retreat to make the necessary readjustment. At this everyone would laugh, much to his embarrassment, while my mother used to call the offending receiver a 'cat-a-wauler' wireless.

Later my dad owned a 1934 Fada and because I was a lad who was always eager to learn I wanted to know how this fascinating gadget worked. At the age of 18 I got my first chance to learn something about radio. Many years later while working at a house I noticed a discarded N.Z. made 'Pacific' radio. As the owner no longer wanted this set he let me have it for the purpose of restoration.

This was the event which sparked me off! I really enjoyed working on the old set and afterwards it looked like new again. I thought OK, from now on I'm going to collect as many sets as I can and restore them for my own private museum. I had actually collected 52 and restored 12 when my hobby came 'unstuck' because I had remarried and then had no room to store all the sets. Regretfully I had to sell most of them off to other collectors but retained three of the oldest. Nevertheless I am not 'finished' and intend to start again as soon as the opportunity presents itself.

I have no hesitation in recommending this hobby to all who are interested enough to learn something of radio circuitry and acquire the necessary skill in the use of hand tools. 'Id radios are disappearing fast so let us preserve as many as possible. Get to it club members!

## "IMPORTANT NOTICE"

For your own safety and the safety of other drivers, we strongly recommend that you use your automobile radio only when the car is stationary. With road conditions the way they are you should concentrate on driving and not have your attention distracted by musical programs or talks while the car is in motion. To prevent a wave of accidents it is likely that State legislature will make radioing while you drive illegal."

Guess when that was written. The quotation marks embrace the title too because that was exactly how the warning appeared at the time.

from Radio Design  
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Summer 1930