A RADIO FOR THE HOLIDAYS

R.A.Stevenson

About fifty years ago, a beginner in radio would probably have started with a "Hikers One", much publicised by the Lamphouse Co. of Wellington. As a boy I read every detail about it, but for a while could not afford the parts. However, my neighbourhood friend, having left the Seddon Tech. and now a woodworker, said he would build a cabinet and pay for the radio components if I would assemble a Hiker's One. This was soon done, the circuit by now using a fancy 1Q5GT output valve, and we made plans to bike to Orewa and camp there. My friend had a fairly new bike but mine had been rescued from a shed and had ancient tyres and celluloid handlebar grips.

The trip north was rather a nightmare as around about Takapuna my old perished tyres started to shed rubber. However we managed various kinds of patches and eventually arrived. The radio performed well on about 12 feet of wire aerial and was quite lively at night.

I often wonder why the 49 valve was first used in the Hiker's One*.

Several family holidays were held at Waiheke and as there was then no mains power, I usually built a battery set to listen to the news, which was quite exciting after D-day in 1944. Just after the war, while I was at Mt Albert Grammar, a keen teacher, J L D Woolloxall, returned from instructing radio operators in England and started a lively radio club. About the same time schools were given a selection of "war surplus" radio equipment and we received an example of the famous ZC1 transmitter-receiver. One of our students had passed his "ham" exam (ZL1WW) and made several contacts with an antenna wire strung across the school quadrangle.

We were given several boxes of miscellaneous valves which we could buy for sixpence (5c) each. Fossicking through these one day I came across a strange British valve with nine big pins and inside were two beautiful pentodes side by side. The type number was QP22A and I immediately thought that it would be a good basis for a one valve holiday set. In the Lamphouse Annual was a circuit for a "Rongotai Oneder" using a 1E7GT double pentode but I reckoned my "sixpenny oneder" would be just as good and it certainly cost much less.

The nine pin base was a problem as it was only used for a few valves, even in Britain. Not to be outdone I broke up some cheap 5 pin American wafer sockets and extracted the metal contacts which I reassembled as a 9-pin between two pieces of cardboard. Luckily the Auckland Public Library had a reference book which gave me the valve base connections. The circuit was virtually a Hikers One with a resistance coupled audio frequency stage to follow. A "B" supply was made up of torch batteries soldered in series. For the filament supply of two volts I used a two cell cycle lamp battery in series with a "junkbox" rheostat. At Surfdale with a small aerial the results were very good with headphones and I was able to keep the family up-to-date with various news items of postwar goings-on in Europe. Eventually I went on to build power amplifiers for record players and a valve electronic organ, but nothing matched the excitement of pulling in stations (later shortwave) using a simple one valve regenerative detector.

*. The "Hiker's One" was initially described in the May 86 bulletin (Vol 7 No1 p14) then revisited in August 94 (Vol 15 No 2 p6) where this question is explored in detail.. - Ed.

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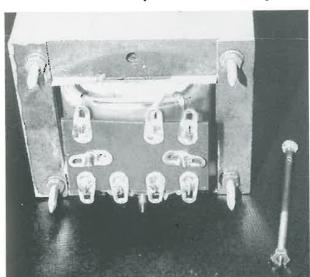
Ian Sangster

Sometime after completing my article on Ultimate FA and EA sets for the August Bulletin I was given an FJ console. The FJ is, in appearance, identical to an FA but has no radio frequency stage, that is, it is a six valve set. The set was branded Golden Knight and was in average original order.

On examination of the chassis it was discovered to have had a small fire in the vicinity of the power transformer and its tagboard. On removing the transformer for rewinding I found that the laminations were held together by through bolts which were threaded nails.

The date of the set would have been 1940 or 1941. Radio Ltd may have been rationed for hardware. The nails were flat headed with a chequered pattern on the head and retained their points. They performed their job well and after rewinding was complete were refitted. Bill Farmer's only comment was that in some cases where a transformer has got rusty these nail/screws become difficult to remove because of the difficulty in holding their head while applying the necessary amount of force to unscrew the nut. This was not so on this particular transformer.

Closer examination of the chassis showed other areas where nails had been used. The pulleys for the dial cord at the corners of the dial backplate spin on the shafts of cut off flat head nails whose heads are soldered or spot welded on to the backplate.



Looking under the chassis one sees many saucer shaped earth points spot welded at their centres to the chassis, with component leads soldered to their upturned rims. Alf Veart has an interesting theory that these are metal army buttons less the holes for the thread!

John Stokes reports some sets used large six inch nails, threaded, as chassis hold down bolts.

Rewound power transformer showing the threaded nails.

Mention slatted satisfies in chassis used to accomplate selve holder will verying my halet

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This index is arranged under key words (such as manufacturers names) which it is anticipated members will use when searching for information, The lower case letters after an entry refer to;

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TARANAKI VINTAGE WIRELESS GROUP

AUGUST MEETING 2003

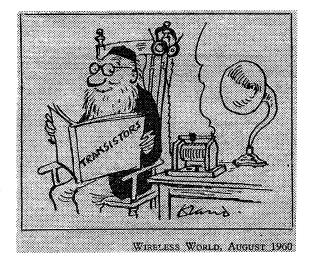
This months meeting was held in the home of Brian & Sue Tipler at Stratford. After a quick hello we moved off to a location where Brian had arranged for us to be the lucky owners of some rather elderly radios and associated bits and pieces, some were well worn, others quite a bit of a bargain, there was a lot to sort through. The owner ran an auction, and at times the bidding was quite competitive. Needless to say we all came home happy and with a car full.

Suzie Lowe came with us and the rest of the Ladies under Sue Tipler's guidance went to Lavender Lane, a Stratford craft shop, then they did a tour of Stratford. I think the radio bits were nicer! We travelled back to Brians and had afternoon tea with the Ladies, as usual, a really good spread.

During the afternoon tea, we decided to regularise our meeting time and date. This was set at the second Sunday in the even months of the year, this will also be for the Taranaki open weekend. Mark your diary for this event next year: February 7/8 2004. The 8th being the second Sunday.

Our December meeting will be on Sunday the 14th and will be a Pot Luck Tea hosted by Bill & Pat Campbell.

Contact either; Graeme Lea phone 06 758 ~5344, or, Bill Campbell phone 06 753 2475



22/4/24

Filaments and reactivation m.d

1931 Official Stations

Call Licensee				Frequency	21	Antenna Input	
					kHz		Watts
1YA	Radio	Broadcasting	Company,	Auckland	. 910		500
2YA	11	000	11	Wellington	720		5000
3YA	11	425	. 60	Christchurch	980		500
4YA	17	.0	9	, Dunedin	650		500

Above list taken from the NZ Radio Guide and Call Book, 1931

1931 Private Stations

Call	Licensee	Frequency kHz	Output Power Watts
1 ZB .	La Gloria Gramophone Company, Auckland	1090	18
1ZQ	L.R.E. Keith, Auckland	1190	13
1ZH	G.S.Anchor, Hamilton	630	50
1ZJ	Johns Limited, Auckland	1320	26
1ZM	W.W. Rogers, Auckland	1210	10
1ZR	Lewis Eady Ltd., Auckland	1090	40
2YB	North Taranaki Radio Society, New Plymouth	1230	100
2ZD	W.D. Ansell, Masterton	1180	2.5
2ZE	G.R.S.Allen, Ekatahuna	1210	5
2ZF	Manawatu Radio Club, Palmerston North	1050	150
2ZH	C.B. Hansen and Company, Napier	1260	15
2ZL	Sutcliffe's Music Store, Hastings	1330	15
2ZJ	C.T.C. Hands, Gisborne	1150	20
2ZK	D.A. Morrison and Company, Wanganui	600	120
2ZL	Lockyer's Piano Store, Hastings	1330	15
2ZM	Atwater Kent Radio Stores, Gisborne	1150	110
2ZO	J.V. Kyle, Palmerston North	1050	10
2ZP	E.A. Perry, Wairoa	820	4
2ZR	Radio Specialties Ltd, Wanganui	600	150
2ZU	Gramophone and Radio Company, Dannevirke	1100	7.5
3ZC	3ZC Broadcasting Service Ltd, Christchurch	1200	250

Above list taken from the NZ Radio Guide and Call Book, 1931

1) Where wavelengths were originally shown in metres, for uniformity, I have converted them to the equivalent frequency.

2) The powers shown, especially before 1930, should be regarded with caution as it is not clear whether they are input to the final power amplifier or power delivered to the antenna.

3) In addition to the 1923 list shown above there were a number of licensed amateur stations which broadcast programmes intermittently throughout the country

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This index is arranged under key words (such as manufacturers names) which it is anticipated members will use when searching for information,

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Golden Knight Console circa 1930

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CAMPBELL ISLAND IONOSONDE

Peter Ingram hoped to write an article on the C-4 ionosonde which was operational at Campbell Island when he was there but has had difficulty in getting technical info so has given us a few of his own observations. - Ed.

The 1975/6 Antarctic programme booklet states - "a panoramic ionosonde, designed and constructed in New Zealand, sweeps from 1 to 22 MHz in 24 seconds at 15 minute intervals to provide data to be used at world centres for the prediction of radio operating frequencies. lonospherics is under the aegis of the Geophysical Observatory, Physics and Engineering Laboratory, DSIR, Christchurch." Well, that body, I should think, is now well and truly out of existence - by that name and location, anyway.

The C4 was a spectacular cracker of a thing, standing about as high as me with a thundering great 35mm movie camera strapped to the front to catch the CRT imagery. Its great sawtooth products were to be avoided when on sked with overseas tolls, for all got blanketed out until the beast had had its way with the 24 second bursts. At least one had warning of its coming, by its harmonic utterances. On World Day (once a month), the wretched thing blasted off every five minutes with additional activity around the hour on every single minute. The mast was an aerial wonder with holes punched in the pressed steel sections, so that a tune was mournfully played in westerly gale situations - and earned the structure the title of "Moaning Minnie."

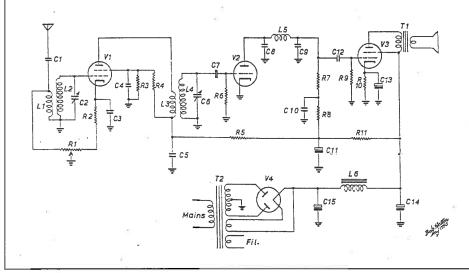
Reading the resulting film (after the chore of developing) was highly labour intensive, each photographic frame having its results coded up and then transmitted to Wellington by CW in a daily collective (one needed a telegraphist then as one of the two observers, the other fellow being the technician). The data would then go on to the World centre in Washington, DC, I believe. On Campbell Island, the installation was some distance from our tech building, so I paid it only the odd social visit and took no note of it technically, unfortunately.

On The Purpose, Function and Value of Components - part 1

George Newlands

(This article first appeared in the Wellington Vintage Radio Notes)

It has always been the impression of this writer that amongst radio enthusiasts, radio amateurs and not just a few radio professionals, the understanding of radio components varies considerably. Resistors are fairly simple. Current flows through them when a voltage is impressed upon them and this current is governed by the voltage and the resistance. This is basic Ohm's Law. Also, if a current is made to flow through them, a voltage is developed across them. This also is generally not questioned. Capacitors, on the other hand, are a little different. They seem to pass AC and even that's dependant on capacity and frequency. Radios are full of them so we have to accept it. But coils! Now, here's a Black Art! Who dares mention Impedance, Reactance and Inductance? (And no, Reactance is not the thing that makes the set squeal when you turn the reactance control too far round.) Hopefully this article will give many readers a slightly enlightened idea of why the various components of a receiver are there and what they actually do.



The circuit shown here is intended to be theoretical only but it would work in practice if suitable values of components were installed. It is drawn to show the components commonly found in a simple Tuned Radio Frequency (TRF) receiver of 1930s vintage with a view to describing those components - what they are, what they do, how they do it and their likely values.

C1. This is the aerial coupling capacitor and is included here only for explanatory purposes. It is unlikely that a set having an aerial coil winding (L1) on the first tuned circuit would include this capacitor but they were commonly used in antique circuits where the aerial was connected directly to the first tuned circuit (L2). This capacitor serves to couple the aerial currents to the receiver and also reduce the aerial capacity at the set. It is a compromise between these two functions and the latter will be discussed first.

All aerials have some capacity to ground. The reasons and causes of this are too numerous to mention but this capacity always has some effect on the first tuned circuit of a receiver. The trick is