Market place

Members wishing to advertise in this space should ensure that their ads reach the editor by the 21st of the month preceding publication. Deadline for the next issue is 21st Oct. Please write or print plainly. There is no charge for this service. Note: telephone or verbal ads will not be accepted.

WANTED

Wooden knobs for Brunswick combination Radio with Panatrope model S31; circuit or info on HMV model 526 or 528 mantel radio. Don Collie, 2/452 Adelaide Road, Berhampore Wellington

Chassis for 'Minstrel' cathedral, chassis measures 14"X10" and has triangularly-spaced control holes spaced 8"X5"x5"; speaker to suit Philips model 2510; one E442 Eng base valve; one AF2 valve; Dial scale, pointer; knobs and speaker for American Bosch 574; Set of knobs for RCA model 128; dial glass, dial indicator needle (Gold) and set of knobs for Zenith 8S-129; Escutcheon, with or without glass and set of knobs for STC model 630; escutcheon and dial pointer for Madison model ABC. E.J.(Ned) Matich 38 James Laurie St, Henderson Ph.83-64400

Parts for Kolster Brandes model B-110 AC-110 , any or all; Info or pictures of Stewart Warner battery set, model no unknown, has slant front panel with gold lettering c.1926 Speaker unit to fit RCA 100A metal cabinet speaker; Wanted to borrow please, Vols 1 and 2 of Antique Radio Encyclopedia; dial scale for Philco model 38-10; Valves, Western Electric types VT1 and VT2. Don Strange, 10 Pendlebury St Titirangi, Auckland Ph.817-8611

Information on Air Force type R1082 receiver. George King, 42 Norbiton Road, Foxton

Dial scale for Courtenay model 36 and Columbus model 27N; Dial scale for Philips mod.465, (fits into recess in top of bakelite cabinet); Valves, AZ4, ABC1,AF3 (two),AL2, AK2, all are 'P' base types), Cabinet for Courtenay model 17. Doug Virtue, P.O.Box 18 Kingston, Southland

Knobs(3) for Atwater Kent model 84 Steve Heal, 67 Alexander Road Ramati Beach, Wellington

Schematic for Novatech 'Pilot Pal' RDF-402 transistor set Ca.1958 vintage, or details of aerial connections of same. Schematic for 'Palec' model VCT valve tester; Operating manual or instructions for Weston 771 valve tester. Arthur Williams, 26 Center St Invercargill, Southland

Cabinet for Atwater Kent 84, any condition; dial and escutcheon with glass for Pilot 63B. Bryan Marsh, 20 Rimu Road Mangere Bridge, Auck. Ph 667-712

Chassis, complete for Majestic 90, or bits for same - AF transformer and filter choke also dial escutcheon. Dieter Bardenheier, 50A Park Road Titirangi, Auckland Ph 817-7268

Parts for Amrad S522 battery set; Cabinet for STC model 53 or will consider look alike B.King,36 Flaxdale St Birkdale Auckland 10 Ph 438-823

Valves, type 6SG7, new or used but must have good emission Gordon Baker 110 Wood St Palmerston North

AVAILABLE

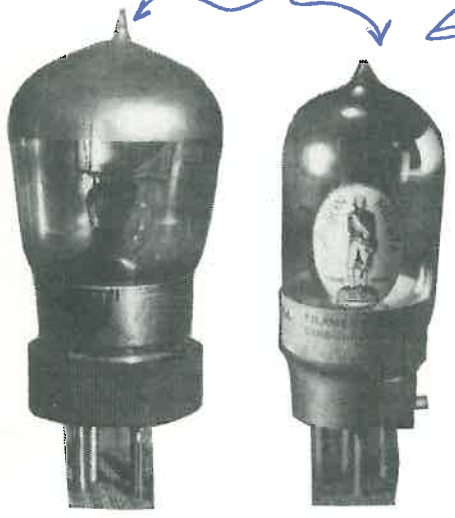
Philips 2510 complete with matching bakelite speaker in original untouched condition sell together or would split and sell separately. Alan Brehaut, 22 Cain St Timaru Ph 89501

Valves, 600 assorted types mainly octals and pre-octals e.g. 6D6, 75, 76, 77 etc, offers wanted or the lot for $250. Gordon Baker 110 Wood St, Palmerston North

MORE ADS ON P.15

NZVRS BULLETIN Vol.7 No.2 Aug.1986

NEW ZEALAND VINTAGE RADIO SOCIETY



SOME UNUSUAL VALVES

Two types of NELSON MULTI 3-filament valves. The one at far left has a knurled composition sleeve which is turned to switch the filaments. The other has a scissors switch under the base.

Below: These British CLEARTRON valves have metal name tags fastened with lead seals through a ring moulded on the side of the base.

NEW ZEALAND VINTAGE RADIO SOCIETY

A non-profit organisation devoted to the preservation of early radio equipment and associated historical information.

PRESIDENT: Bill Farmer
26 Irirangi Rd
One Tre Hill
Auck. Ph.665-549

SECRETARY: Don Strange
10 Pendlebury St
Auck.Ph 817-8611

TREASURER: Bryan Marsh
20 Rimu Road
Mangere Bridge
Auck. Ph 667-712

EDITOR: John Stokes
617 Dominion Rd
Balmoral
Auck.4 Ph.604-213

Editorial Notes

In this issue a correspondent raises the question of the eventual disposition of individual collections and expresses concern everything may one day end up in museums, leaving nothing in private hands. Because of this possibility our correspondent urges that private collectors do everything possible to retain existing collections in private hands,in particular by not donating (Gifting is the term museums like to use) to museums.

This suggestion immediately raises another aspect of the subject, the ethics of whether such things as important works of art should be in private hands. Even politics seems to be involved. In communist states one would notexpect to find wealthy private collectors owning priceless works of art.

But what of the humble collectible? My personal impression is that 'proper' museums tend to look down their noses at this class of artifact, but perhaps in another 50 years time it will be another story. By then our old radios will have become true antiques. How does that grab you?

At this point it is apposite to consider the essential difference between works of art and collectibles; the former are essentially 'one off' items, while the latter are are generally mass-produced items which were made in enormous quantities. Because of this it seems unlikely that there could ever be enough museums to absorb all the collectibles in the world. However, one thing that is happening is that the supply of existing artifacts is being spread ever more thinly as more and more collectors appear on the scene. Certainly new stuff is coming to light all the time, but the supply is obviously limited. This, in itself, does not necessarily mean that there will be no future generations of collectors, because existing collections must eventually find their way into other hands.

Before leaving the question of museums versus private collectors a 'plug' for the latter may not be out of place. Whatever may be said about them, private collectors have been, and still are, responsible for saving an enormous amount of stuff which would have otherwise have disappeared forever. This alone should be sufficient justification for their existence.

J.W.S.

Letters to the Editor

I have been particularly interested in the recent comments on the disposition of collections, especially the remarks of George Newlands on his bad experience in giving things to museums.

At 30 years of age I feel old enough, particularly on some of these winter mornings, but I expect I am one of the younger members of the Society. Fortunately I began collecting a few years ago and now have some items of which I am quite proud, but it is becoming increasingly difficult to add to one's collection. Personally, I am dead against giving things to museums and this is why.

Take the case of important works of art. Many art museums, notably in America, not only continue to receive works of art, but they have also built up substantial funds with which they can make purchases. This has become a worldwide trend. Through continuing donations of either money or items, the museums of the world are going to end up with the bulk ~~with the bulk~~ of the works of art of former years.

What is going to be left for private collectors and enthusiasts? Precious little, I fear. Now, scale this down for radios and associated bits and pieces, and we will arrive at a similar result. Anything retained in private hands and eventually passed on to other collectors ensures some continuity of supply. Without this, enthusiasm must eventually dry up and largely disappear. Museums will continue to do OK. It is the private collectors I am concerned about because it is they who will keep the hobby alive in the future.

If a collector wishes to ensure the most profitable disposition of his gear he should name in his will a trusted friend who would be willing to carry out his wishes. The equipment could be sold at public auction, preferably by a firm that would adequately advertise the sale. This would ensure the best current prices being realised and would make the equipment publicly available. Of course, any person could, during his lifetime, also dispose of any pieces from his collection in the interests of keeping them in private hands, thus ensuring a continuity of supply for for the future. If we, as members, do not do this there will be no future for those who may wish to follow in our footsteps. We should all try to keep as much material as we can in New Zealand and circulating in private hands.

Kerry O'Connor
39 Reimers Ave
Auckland 3

Kerry O'Connor paints rather a gloomy picture of the future for collectors but there must be others who do not share his views. Let's hear from you. Ed.

Would it be possible to publish a list of Courtenay and Columbus model numbers, together with the date each model was released? Browsing through 'Market Place' it appears much is being done to revive a good old NZ made performer, and I feel sure many members would wish to know if their model was made in the 1930s or 1940s. Perhaps a list of other NZ made sets could also be compiled and published in later Bulletins.

Doug Virtue
Kingston

Your request is being considered but in some cases there are considerable difficulties involved. For example in the case of Radio Ltd's products the fact that for many years the circuit diagrams did not carry model numbers but only descriptions such as " 1936 Dual Wave"are an indication of those difficulties. At this period many of the different brands made by Radio Ltd carried different model numbers for the same chassis. Furthermore,there are no circuits in existence for Ultimate sets made prior to 1934. Incredible as it may seem, there never were any,at least not in the form of service data. Former Radio Ltd employees have stated - "Jack Orbell carried most of it in his head."

Ed.

REPAIR WORK FOR BEGINNERS

By PETER LANKSHEAR

There are distinct differences between restoration, servicing and overhauling of radio receivers, and we will therefore consider each procedure separately.

True restoration is exacting work entailing bringing a radio back to its original state, as far as is possible. With very old equipment, particularly that built prior to the mid 1930s, this can mean locating or fabricating certain specialised components and entails complete dismantling and skilled refurbishing. Unfortunately much so-called 'restoration' work devalues the equipment. Such work, I believe, should be undertaken only by skilled and experienced technicians. Far better just to clean the artifact and leave it as is than to botch it up.

Servicing is often misunderstood by those who have never had to make a living at repair work. Occasionally the writer hears criticism of work a serviceman has done , or has not done, but it must be remembered that his job was to attend to a specific complaint - no more and no less. A garage mechanic who re-rings an oil burning motor when the owner asked only for a tuneup will soon be out of business. So it was for the radio serviceman. Certainly he could recommend that extra work should be done, but without a very convincing case it would be vetoed. 'Aspirin cures' as a cheap way out were often made, not that the repair man did not know better, but because it was the least costly expedient. 'Expense no object' is a relatively new phenomenon connected with the increasing value of old radios.

Overhauling, which particularly applies to radios dating from the standardised mass production era of the mid 1930s and later, entails checking and replacement of faulty components with modern ones which may not necessarily be physically identical to the originals. Generally these are out of sight under the chassis.

In this series of articles the writer will describe his his own system of overhauling. Other systems are just as valid, but all must be methodical. Overhauling can be divided into seven segments, which are:-

1) Mains and audio frequency transformers, chokes and loudspeakers.

2) RF and IF transformers and coils

3) Capacitors 4) Resistors

5) Valves 6) Hardware and wiring

7) Cabinets

Let us assume that you have arrived home with your latest 'find'. After removing the worst of the dust, grime and mouse nests you plug it in to see if it goes. STOP! What will this achieve? At best you will confirm that the set is going ; more likely you will confirm that it is faulty and you could well cause some damage to the receiver, and possibly to yourself if the wiring is faulty.

Your first step should be to assemble a tool kit if you do not already possess one. This can be quite basic, the essentials are:- A set of screwdrivers, long-nosed and side-cutting pliers. a small Crescent type spanner, soldering iron of medium wattage, a set of small socket spannerw or nut drivers and a drill with bits.

Absolutely essential is a test meter. There is a good range of multimeters available at quite reasonable prices . Look for a model which will read measure both AC and DC voltages up to 500 volts or more. Resistance scale readings should be up at least 5 megohms on the highest range. * Such a meter is likely to incorporate all the DC current ranges needed for general service work. A range of AC currents is not essential for ordinary service work, and in any case is likely to be found on only the most expensive instruments.

Before starting work obtain a copy of the relavent service, if at all possible. The Society has access to a wide range of such information which is invaluable for fault finding, checking voltages, parts location and locating unofficial modifications.

Having cleaned out any rubbish, the first step is to remove the chassis. Have a container for screws, knobs or other bits and pieces so that they won't be lost. Also take plenty of notes of any plugs, connections etc so that you will know how to put things back correctly. First remove the knobs, which may be either push-on types or have grub screws. Some Philips receivers have screws which go right through the shafts.

If you are lucky the chassis will have only a couple of large screws or bolts holding it down. Often dial mechanisms are fastened to the cabinet. Before dismantling note carefully the locations of pulleys, cursors etc. The servive data may be of help here. It may also be necessary to unfasten the speaker leads if no plug-socket is fitted or to remove the speaker.

What to do after the chassis is removed will be covered in the next issue.

BOOK REVIEW ... E.H.Scott The Dean of DX, by Marvin Hobbs, pub Chicago 1985

The story of E.H.Scott, here at last in book form, is a most welcome addtion to vintage radio literature. The author, who was chief engineer of E.H.Scott Radio Laboratories from 1939 to 1947, also became Scott's right hand man and is thus well placed to write this book. Although Marvin Hobbs admits to having no first-hand knowl dge of Scott's activities prior to 1939 it is obvious that he has researched this period thoroughly.

To those people who automatically associate the name Scott with high fidelity and gleaming chromium-plated chassis the second part of the book's title - 'The Dean of DX' - may seem a little strange; the author explains his choice thus:- "....it best describes his expertise and the thrust of his career and interest in radio, at least until the late 1930s".

This book is in no sense a biography, nor is it meant to be; the author admits to having no knowledge of Scott's private life. It is, however, an extremely interesting and informative story, not only of the history of Scott's company but also of many contemporary manufacturers. In fact the amount of information included on the latter is quite surprising.

Because Scott was born in N.Z. his activities as a radio manufacturer in the United States will be of more than passing interest to many New Zealanders. During his career Scott returned to this country on three occasions, the first being in 1924-25 when he established the now well-known DX records whilst staying at Tasman near Nelson. This first occasion has become a sort of focal point for the author and is repeatedly referred to throughout the book. Because this reviewer came across the words New Zealand so frequently a note was kept as reading proceeded; the total amounted to 50 times. Not that there was anything in the book about N.Z., nor is there any reason why there should be, but reference to that first visit crops up again and again.

Scott's connection with the firm which bore his name ended in 1945, but the name was carried on by others for another fifteen years or so. This book tells the full story. Recommended to anyone having an interest in E.H.Scott and his radios.

J.W.S.

WHAT'S IN A DIAL?

Maybe there's some geography too in them there dials! Without straying into the exotic placenames found on some British sets, who has heard of Dacre or Opapa? Radio(1936)Ltd developed the habit, about 1938, of adorning the dials of their receivers with obscure N.Z. station names derived from remote transmitter locations, little known beyond their immediate areas. Hence - 4YZ Dacre, 2YH Opapa (meaning Invercargill and Napier respectively. But why not 2YA Titahi Bay, alisa Wellington? Also, who remembers 4ZC Cromwell?

Ray Knowles

SILENCE IS GOLDEN

A TALE OF KIWI INGENUITY

by A.M.J.BEARD

Here's a story of radio in the back country of Taumaranui during 1947-1952 before mains electricity arrived. In those days lighting was usually obtained by means of kerosene pressure lamps, or sometimes by means of 12-volt or 32-volt electrical systems. Petrol or water-driven generators were used to charge the batteries.

Radios were available as early as early as 1936 for use from such power sources, but shortwave reception was often marred by interference. Some radios were fitted with 'Genemotors' for furnishing the HT supply, one well-known American make being 'Pioneer'. Later on vibrator power packs arrived and were much more efficient. The writer, who was a keen DX-er in those days was plagued with a frustrating 'hash' caused by sparking commutators and vibrator contacts, and despite elaborate shielding this trouble persisted on certain shortwave bands, spoiling what would otherwise have been really good DX performance.

Battery drain was also a problem, with many genemotors drawing 5 to 7 amps and vibrator packs drawing about half that amount. Longer hours of listening requird battery charging while the set was in use in order to keep voltages and performance stable. The interference from all these sources required chokes and condensers plus experimenting with positioning beyond the wildest dreams on occasions. Because of this a plan was conceived to generate a totally 'silent' HT supply directly from water power by using a form of brushless alternator.

It all started when an old Ford model 'T' flywheel with its 16 permanent magnets was spied in a local sawmill, and then the stator ring with the 16 coils thereon was found nearby. These parts were taken home where much thought was expended in designing an alternator which could be driven from available water power. A friend was able to turn up a shaft 2¾" in diameter by 18" long with a 4" flange in the middle for mounting the flywheel on. The ends of the shaft were turned down to fit tapered roller bearings taken from an old truck differential. The housings for these bearings were laboriously cut from the differential housing by hacksaw, the job taking several days to complete!

A heavy frame measuring two feet square was made from 8"X4" timber, the pieces being bolted together using long bridge bolts. The bearing housings were bolted down on this timber frame, being enclosed by 1" deep metal trays containing oil into which the roller bearings dipped. An extension shaft of ⅞" diameter was screwed into one end of the main shaft and this was extended out through a sheet iron wall and carried a 10" pelton wheel. It was found necessary to fit a 'spinning disc' water trap to prevent water working along the shaft and contaminating the front bearing oil.

The original stator windings consisted of 16 coils of ¼" copper strip, layer wound on the projecting pole pieces. The output at normal engine speeds was 6 to 8 V AC at approximately 9 amps. It was decided to rewind these coils using 22 SWG wire.

Trial runs, using 40 ft of 2" water pipe fitted with a 2" nozzle and the machine installed at the foot of a waterfall some 18 feet high, produced 35 volts AC when running at 400 RPM. The output was lower than expected, due probably to the fact that the 16 magnets were last magnetised in 1915 during manufacture!

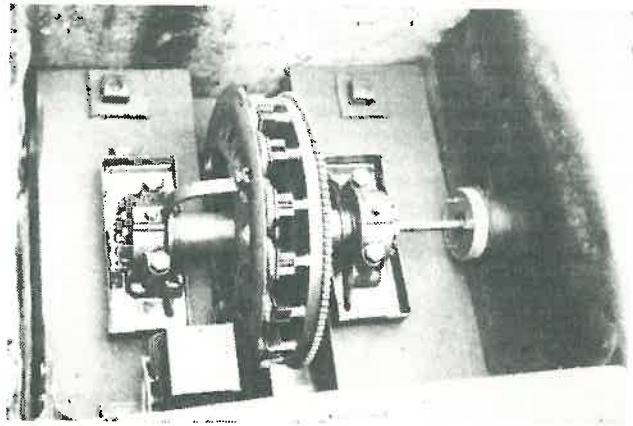
A step-up transformer of 8:1 ratio was then constructed to suit 30-volt input and having 240 volts output. In practice it was found that the free-running no-load voltage approached 400, so care was needed to keep clear of a good 'jangle' from this source.

As the waterfall was nearly half a mile from the radio shack, it was necessary to feed the current by twin wires running through the intervening bush. This was achieved by buying several rolls of 7/22 copper aerial wire and untwisting each 100 ft length with an 'egg beater' drill, finally joining up each wire singly to make 700 ft lengths of 22 guage line. Seven aerial coils (laboriously) later eventually brought current to the radio shack with the lines being strung on manuka poles and using electric fence insulators.

At the shack end the current was fed into a standard power transformer having a 280-V aside secondary feeding a 6X5GT rectifier which had its heater supplied from a 6-volt storage battery. After filtering in the usual way by choke and electrolytics an output of approx.250 V of smooth hash-free HT was obtained, which was more than sufficient for the 3-valve regenerative set being used at that time. When the receiver was not in use a home-made charger was used to keep the 6V 7AH motorcycle battery (used to supply DC to all the valve heaters) fully charged.

Problems were encountered atthe generator end when heavy rains brought down debris which blocked the water intake screen,and similarly in Autumn falling leaves caused havoc.
During one dry season the alternator ran for six weeks non stop and many happy hours were spent exploring the shortwave bands, with England, the Continent and America being heard regularly. A log book was kept of the alternator running and 35,200hours were recorded in the five-year period that it was used, and when finally dismantled the bearings showed no sign of wear whatever.

Finally, in 1952, the Loyd Mandeno system of rural reticulation, using 11,000 volts on a single wire with earth return, came into the valley bringing with it all the advantages of cooking, heating, lighting and powerful radio receivers. Now, all our troubles troubles were at an end. Not so! On rainy days and foggy nights the insulator leakage once again made DX-ing impossible. Good long-distance work was possible only in dry conditions when there were easterly winds and the humidity was really low.



The generating plant constructed and installed at Boulder Creek, Otataka in 1948 by the author. At 400 rpm the output was 32 volts at 0.75 amps. At the right where the shaft passes through the wall, can be seen the 'spinning disc' water trap.

ANOTHER N.Z. RADIO WITH VOLUME EXPANSION

Since writing my article in the May 1986 Bulletin on Radio (1936(Ltd's 14-valve 1937 de luxe all-wave receiver with volume expansion I have learned that this model was not the only N.Z. radio to provide that feature, although it was unique in 1937.

In the following year, the same firm produced a 'bigger and better' version of their earlier 'flagship' model featuring not only volume expansion but also inverse feedback and bass compensation. Increased audio output was obtained by using 6L6's in place of 6F6's and a 5Z3 replaced the 80 rectifier in the power supply. The volume expander circuitry was unchanged, as was the Rola G12 speaker, althoughthe set's full output must have been close to its rated limit of 18 watts.

Surviving examples of this 1938 model seem to be very hard to find, from which one might infer that few were ever made. Iwould be interested to hear from anybody who has one, or can recall having seen one.

Ray Knowles,
507 Wellwood St
HASTINGS.

MORE ON METAL TUBES

by Bill Chisholm

In the August 1985 issue of the NZVRS Bulletin there appeared an article on the introduction during 1935 of octal-based metal tubes, which at the time were considered to be a revolution in radio tube manufacture.

However, some of our members may not be aware that two years earlier, in May 1933, a series of metal valves were introduced to the British market. These were manufactured by the Marconi-Osram Valve Co and were sold under the labels 'Osram' and 'Marconi' and officially described as 'Catkins'. They were remarkable for their unusual construction which differed fundamentally from the normal design in which the electrode assembly was mounted on a glass pinch and the whole thing enclosed in a glass envelope, which, as everyone knows is very fragile. The Catkin was developed from a design common in transmitting tubes, in fact the name was coined by using the the initials of of the words cooled anode transmitting, in short CAT.

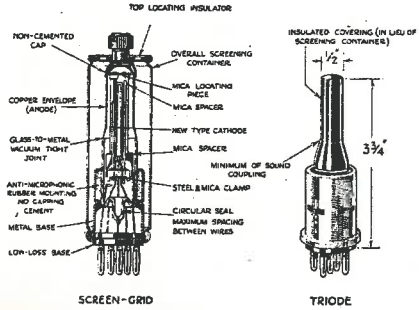
Constructional details were as follows: the electrode system is built up from its component parts consisting of the heater, cathode, and grid in the same way as for conventional tubes, but there the similarity stops. No bent wires are used to support the electrode assembly, each part fits into the adjacent electrode by the use of very accurately machined mica spacers so that the electrode clearances can be maintained to a far greater degree of accuracy than with conventional methods of construction. The final result of all this care in construction made the completed system a very rigid and compact assembly.

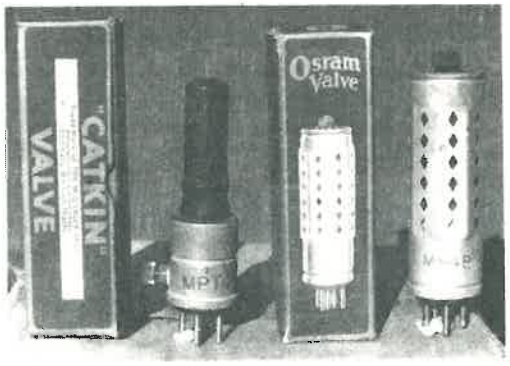
During assembly the straight electrode support wires, with mica insulation between them, were then pinched in a steel clamp by using a hydraulic press, which resulted in a construction involving no welds whatever in the grid and plate support system. The only welds used were those joining the heater wires to their lead-out wires. The lead-out wires were sealed in circular formation through the bottom of the glass portion of the envelope resulting in a seal with high insulating properties combined with low inter-electrode capacitances. The Catkins employed a tubular copper anode which was welded to the lower glass section using gas jets. When the assembly was completed it was fitted into a metal-shell base, not by using cement as in glass tubes, but by using a very tight-fitting rubber ring which imparted resilisiency and held the base in a lasting grip.

Only four types were released initially but others were added in 1934 which brought the total up to seven. Alas! although the Catkins were a complete break away from the glass tube construction, they were manufactured only until 1935, after which production ceased. At the time of their introduction in 1933 the manufacturers claimed that they had picked samples at random and subjected them to such rough treatment as hitting them with a cricket bat, dumping on to a concrete floor, throwing with enough force to break a plate glass window and jumping on them until the pins were bent in order to demonstrate the ir robustness, Very drastic treatment indeed but all the valves still worked afterwards.

It was left to the Americans to develop the metal tube in its more familiar form, which as we know, became very successful, but that is another story.

For those interested the illustration show how the Catkins were made and their finished appearance.





TINY RADIOS

by JOHN STOKES

Yes, you read it correctly, it's tiny, not tinny, though some of them may have been. Little things have an undeniable appeal and radios are no exception.

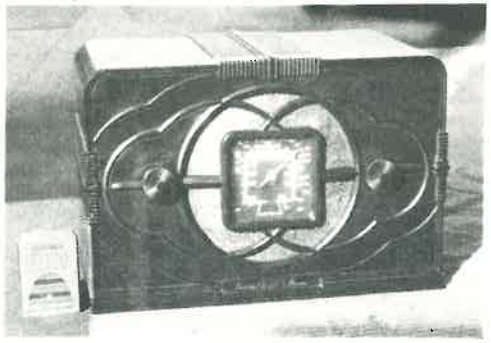
It is becoming increasingly evident that there is a specialised interest developing in the collecting of the tiny and often gimmicky 'sub-midget' sets which first appeared in the U.S. in the early 1930s. They were mostly 4-tube AC/DC TRF models with the tube heater chain being supplied by what was known as a 'line cord' resistor. Such sets were seldom encountered in this country as the N.Z. Wiring Regulations prohibited their use, but returning travellers sometimes brought them home, occasionally with an additional 230 to 110-volt line cord resistor. For the record however, it is known that at least one company imported and sold such sets as the writer has one bearing an ARTS&P sticker and complete with a separate 230-110 line cord. How such a set got on to the local market will never be known, for it certainly didn't comply with regulations.

In the U.S. some of these little sets were intended for use in children's rooms and for this reason the cabinets were often decorated in a manner calculated to appeal to juvenile listeners. In 1933, for example, Emerson produced a model,known as Mickey Mouse, in which the speaker grille took the form of Walt Disney's screen character of that name. That this particular mouse became one of the most enduring of Disney's creations is now a matter of history; the words themselves have passed into the English language.

Some years after Emerson's Mickey Mouse radio was launched the idea was taken up by the Australian firm of Radio Corporation Pty Ltd of Melbourne who produced a set under their 'Astor' brandname bearing the name Mickey Mouse. The set itself bore no resemblance, either internally or externally, to its American counterpart. Whereas the Emerson was a 4-tube AC/DC TRF the Astor was a 5-valve AC superhet. So successful was this venture that the firm continued to develop and produce further Mickey Mouse models.

The 1938 model EC, which used American metal tubes, was housed in a nicely proportioned bakelite measuring only 8½" wide by 6" high and 5" deep. As may be imagined, everything was very tightly packed inside, but because of the comparitively large power transformer and the fact that the valves arranged in a straight line along the back of the chassis coupled with the use of an open-backed cabinet, ensured that the temperature rise was minimal. A feature contributing to cool running of the valves was the use of a low HT voltage of only 125 volts. Of interest was the use of a type 25A6 valve in the output stage with its 25-V heater running from a special tap on the power transformer, the remaining valves being 6.3-volt types. It was stated that this particular valve was chosen as being the only one which could provide adequate power output when operating on such a low plate voltage.

Presumably because the mouse is a very small animal, Mickey Mouse radios were usually small sets;but in 1936 Astor produced a larger model known as the Mickey Grand. As in the case of some other Astor models, it had provision for using a plug-in shortwave converter known as the 'Oversea-er'. In 1940 a 4-valve battery-operated Mickey Mouse was released using the then new 1.4-volt 'all-dry' series of valves.



(Fred Pond collection)

D.C.DAYS

by ALAN ROYCROFT

By the very early 1930s if you did not own a radio that plugged in, rather than having to fool with all those batteries (A,B&C) you could (a) leave town or (b) join another group of friends who had no radios.

The earliest 'All-Electrics' were usually in metal cabinets and had a separate speaker, not much different to the older battery types in appearance except that the latter usually had wooden cabinets. There were a few shockers with higher audio power, the high-impedance speaker connections could bite. The Stewart Warner 950 had tip jacks for the speaker field connections that were 200 volts above ground; some early Crosleys had connections for a cone speaker (Oh! those Crosley Musicones), or low-impedance voice coil connections with exposed 200-V terminals for the field coil connection.

All this was fine if you had AC power, but if you were on DC you kept the battery deal and continued burning the carpet with battery acid.

Then a brave local dealer imported some Colonial DC sets (model 32) which had 2.5-V tubes that required 1.75 amps to heat them. This was not too bad as the speaker field coil was also in the series-connected heater circuit, plus a 15-watt dial bulb that showed the way. Including the gram motor,the whole contraption took 500 watts, 300 of which were dissipated in heat!

By around 1933 we had the 6.3-volt tubes which required only a third of an amp to heat, so the type 43 output tube arrived with the same 300mA heater rating. In those days the conversion of standard AC sets to D.C. operation was commonly done by removing the power transformer, rectifier and output tube, series connecting all tube heaters, including the new output tube, adding a wire-wound dropping resistor or a 75-watt lamp bulb to set the correct heater current. The series-connected dial bulb(s) had to be shunted with a resistor so that 'cold heater' surge did not blow it. The resulting illumination was anywhere from dim to very dim.

Because the set originally had around 380 volts HT at the rectifier, which was dropped to around 250 volts after passing through the speaker field coil, the DC version was always quite gutless in comparison. With 230 volts DC from the mains the B+ voltage usually dropped to 160 volts after filtering. This helped the 180-V rating of the 43 but did nothing for low speaker field excitation. In the city distant reception was impossible, nearby lifts, trams, refrigerator motors plus sundry clicks and bangs saw to that. In Auckland one had to be satisfied with 500 watts of 1YA in Karangahape Rd, 150 watts from Lweis Eady's 1ZR and, if you lived near the harbour, you could try for Radio Ltd's 1ZS, 50 watts in the mornings. The 50 watts of 1ZJ, 25 watts of Atwater Piano Co's 1YZ and Grenadier Guardsman W.W.Rodger's 1ZM out in the wilds of Manurewa were strictly 'out to lunch'.

Electrical Regulations covering DC radios gave the impression that you would live longer with a gramophone. Double-pole disconnect switch to be mounted away from other controls gave the idea that the the likely event of a meltdown, the owner/operator would have time to disconnect the power before fleeing the ensuing conflagration. Control shafts had to be fitted with insulated sections so that knob grubscrews could not be the cause of a tragic electrical connection between the chassis and and the operator. Isolation of the external aerial and ground connections were detailed in two pages. If you moved a set from room to room a reversible connector was required as the polarity of the wall socket was a variable thing, you plugged in and waited; if the set lit up but no music came you reversed the reversible connector and waited again. This could keep you occupied for some time until you discovered that the volume had been turned down.

Finally, in the late 1930s, the Auckland Electric Power Board gave a timetable of changeover from DC to AC for those consumers still living in the nether world. As a pink-cheeked teenager, I was employed with a company that had a contract to convert DC sets to AC, the AEPB subsidised the bill and lots of fun was had by all. There were two ways of doing the conversions; you could plunk in a series-heated rectifier,add a couple of new electrolytics, nail on the back and go,or when a set deserved the full treatment, fit a power transformer, rectifier and parallel-heated output tube. It was a pleasure to tickle up one of these and install it in the home where DC interference no

longer had the upper hand and tune in 2FC sydney at midday for the happy customer.

Of course there were devils too. Finding a record player that would fit in place of the original DC unit, getting automatic tuning motors (we had no simple solid-state diodes). Then to hear the customer say - "We bought this lovely set at Harrods for the DC current. Youv'e spoilt the original tone". God help me, all I had done was to put in a larger pentode and increase the plate supply voltage etc.

As a parting memory of DC power I will never forget an urgent call to someone's hotel suite, someone who had just got off the *Monterey* or *Mariposa* bringing with them a cute little 115-V AC set. What the 230 volts DC did to those little charmers was remarkable, a charred bedside table was the least of the damage.

Back at the workshop my last act as a free person before joining the RNZAF was to do something I had always planned to do, make up a short jumper cord with a standard 3-pin AC plug on one end, a 'T'-type DC plug on the other. Then with my teeth gritted, I stood at my old bench at Chancery St and plugged the AC into the DC and very promptly departed.

The radio illustrated in this 1933 advertisement seems hardly an appropriate choice for it looks more like an AC model than a battery set. By 1933 the market for radio batteries was only a fraction the size it had been in earlier days. Within the next few years battery advertisements in New Zealand radio periodicals had ceased.

GETTING STARTED

by G.R.GILBERT

This is how the heading of Bob Gilbert's article in the May issue of the Bulletin should have looked. The material was printed exactly as received from the author who had (bashfully?) omitted to include his name at the masthead.

C1

WITH THE COLLECTORS

(1) Fred Pond

My radio collecting started when an old neighbour from Glasgow visited me about five years ago and during her visit dropped a large ornament accidentally (I think) through the dial scale of a British Pye PE80 which I kept by my bedside as an oasis of sanity away from Tv or Radio Hauraki which reigned supreme in the living room.

Around about this time I spotted an advert in the local wine shop for a exhibition of vintage valve radios, so, wondering whether I might get some information on the possibility of obtaining a replacement dial scale for my precious PE80, along I went.

To cut a long story short, I was talked into joining the NZVRS and, fired by all I had seen at the exhibition and realising by now that my PE80 could be quite uninteresting by comparison with with an Atwater Kent, I was 'hooked' to put it mildly. On the way home I purchased my first collectable radio, a Pilot model G584, for $30 not going! In those days I thought 'not going' would probably only mean the price of a valve or two, but this Pilot had a burnt out power transformer and speaker field coil, which left me quite a bit poorer but not any wiser. After that, like a lot of other collectors, I bought anything with valves in it, which after a couple of years meant I had cull drastically to make room for later and wiser purchases.

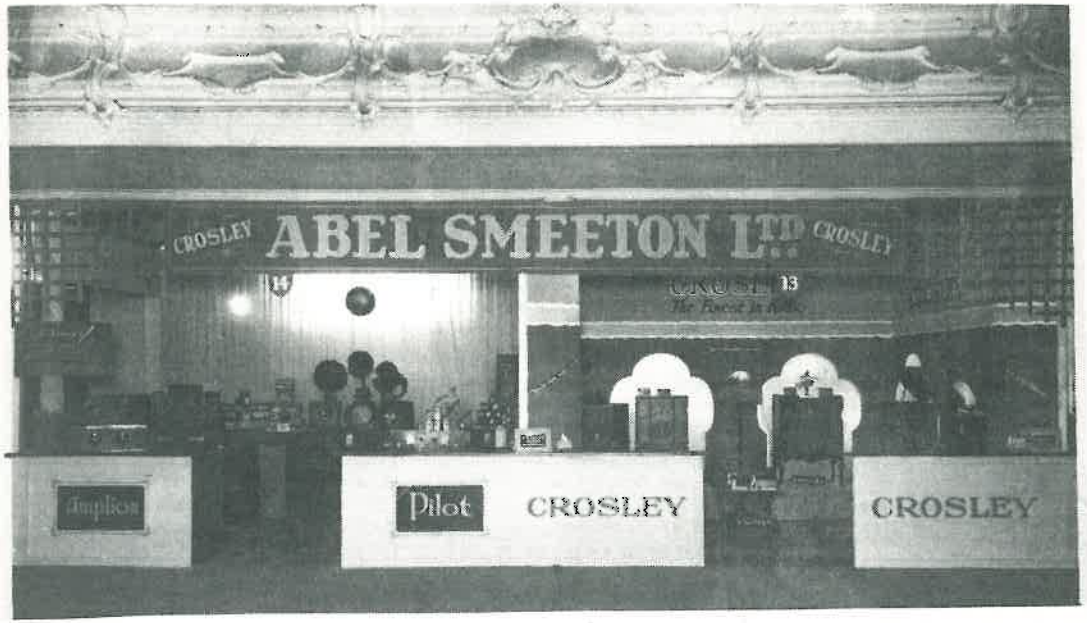
Part of Fred Pond's collection. Bakelite cabinets are much in evidence.

Five years later my collection is now fairly comprehensive, covering the period from 1931 to 1960, though it reveals a soft spot for bakelite cabinets and art deco styling.

As storage can be a problem in any home, my eye was always on one the childrens bedrooms for use as a likely radio room, and when eventually one became vacant I was in like Flynn and had shelves up on the first weekend after the room was vacated. Alas! like the best laid plans of mice and men, my plans came unstuck when the Prodigal Son returned home a year later to claim his old room back. Now he and the radios have to share the space.

Where cabinet refinishing has been necessary I have successfully used the hated polyurathane,which when applied with care can produce first-rate results. As for repairs to the 'works', I have to rely on people more skilled than I, as apart from replacing a rectifier valve or a dial lamp, the technicalities of radio repairing are another of life's mysteries to me.

Finally, to other radio collectors, I would like to suggest that to collectother items as well can add to their pleasures. I myself collect old cameras and display them together with the radios. But almost anything from the past can add to ones enjoyment, be it cameras, clocks, phonographs, kerosene lamps or china; in fact almost anything that is old and interesting or is not made anymore. It can also give an added interest to chasing round secondhand shps or garage sales when looking for that missing rare radio for your collection.



E

STANDS 13 and 14 AT THE

1930 AUCKLAND RADIO EXHIBITION

NEW MEMBERS

Beard,A M J	Taupo
Burns,W	Auckland
Collie,D	Wellington
Challinor,M J	Auckland
Dilner,B H	Auckland
Fletcher,R E	Lower Hutt
Goodman,L D	Hastings
Grubner,N	Woodville
Hall,D A	Invercargill
Heal, S	Wellington
Henry, A	Nelson
Lyford,A D	Auckland
Nicholls,P J	Greymouth
O'Dea,P J	Hamilton
Page, V	Palmerston Nth
Poster, H	N.J. USA
Prescott,G R	Christchurch

An updated membership list is available from the treasurer at a cost of one dollar. Bryan Marsh
20 Rimu Road
Mangere Bridge
AUCKLAND

B2

NEW BOOK ON THE WAY AT LAST

John Stokes' long awaited new book on the history and development of domestic radio receivers is now at the printers and should be available before the end of the year.
This book, which is of similar format to his earlier '70 Years of Radio Tubes & Valves', tells the story of radio manufacturing in New Zealand and provides much information on the history of the larger companies and the receivers they made. A great deal of information on many of the best-known imported sets and the companies who produced them is also included, with the main emphasis being on the 1930s period.

With over 700 illustrations of American, Australian, British, Canadian and New Zealand radios this will be a 'must' for vintage radio enthusiasts.

A descriptive leaflet will be available shortly, write for details to : John Stokes, 617 Dominion Rd
Balmoral, Auckland 4

TO ALL MEMBERS

When paying subscriptions or ordering back issues of the Bulletin or sending payments for whatever reason, PLEASE makes cheques payable to the N.Z.Vintage Radio Society and NOT to individuals. Thank you.

MU AND Q

Apart from their legitimate uses as scientific or technical symbols the letters μ and Q seem to have held a special appeal which led to their being used as advertising gimmicks by several early manufacturers of radio products. The Greek letter μ has long been used in vacuum tube terminology as a symbol for amplification factor; in English it is written and pronounced as 'mu'.

As early as 1923 the firm of A.H.Grebe Inc began using the figure of a ficticious Chinese gentleman by the name of "Doctor Mu" in their advertisements for Grebe radios.

Following this, in 1927, came the Browning Drake Corp who used a winged μ symbol as a logo on the panel of their model 5R receiver. Just what it was supposed to symbolise is anybody's guess. Maybe it was just a flight of fancy!

It was the coming of the 'variable-mu' tube in 1931 which provided the next opportunity for a manufacturer to exploit the symbol again. The Arcturus Radio Tube Co promptly pierced the μ with an arrow as a quite appropriate indication of the variability of the 'mu' of their new type 551 tubes. The symbol was used both in advertising and on the tubes themselves.

The earliest example of the use of 'Q' as an advertising symbol occurred in 1926 when Hammarlund-Roberts Inc marketed a 5-tube kitset known as the "Hi-Q". Later, in 1929, came the first of a range of AC receivers, starting with the Hi-Q 29 and ending with the Hi-Q 31. In this case the term Hi-Q was an appropriate way of indicating that the coils used had a high 'Q' factor. Later the Hammarlund Mfg Co used the prefix 'HQ' in connection with the model numbers of their amateur communications receivers.

But what about the British firm of Lissen Ltd which during 1936-37 marketed a vernier dial described as "Hi-Q" ? Here, one can only assume, the ad men had become hypnotised by the magical letters. This wasn't the end of it, however, for in the early post-war years another British firm got Q-minded by using the name 'Q-Max' for their products. Although their main products were coils assemblies they also made Q-Max chassis punches.

Here in New Zealand the firm of Inductance Specialists Ltd used the words "Q High frequency Inductances" to describe their RF and IF coils. Fair enough. But when, in the 1950s they commenced marketing kitsets in addition,the glass dial scales were disfigured by having a gigantic Q emblazoned fair and square in the middle. Just what did the 'Q' stand for?,purchasers of custom-built receivers wanted to know.

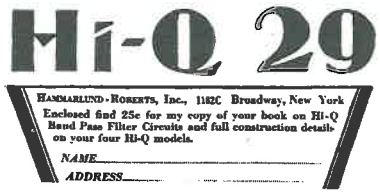
"If a house is crammed with treasures of gold and jade, it will be impossible to guard them all."
—Lao Tzu

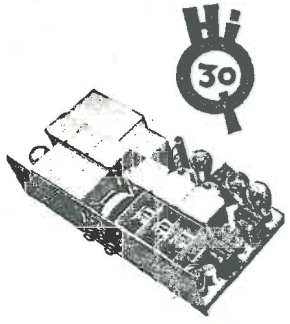
Of worth far greater than things of gold and jade is your Grebe Synchrophase. Highly will you treasure it; zealously will you guard it.

Doctor Mu

TYPE 551
VARIABLE-MU TUBE

ARCTURUS TUBES
The **TUBE** *with the* **LIFE-LIKE TONE**





AVAILABLE

Free to a good home, chassis and speaker for Colonial 8-valve model AC32,Ca 1929,as is.
Arthur Williams, 26 Centre St
Invercargill

Radio News (USA) many issues for 1931, 1932, 1933
all in excellent condition $3 each. John Stokes, 281C Hillsborough Road
Mt Roskill, Auckland 4, Ph 656-615 (Evening)

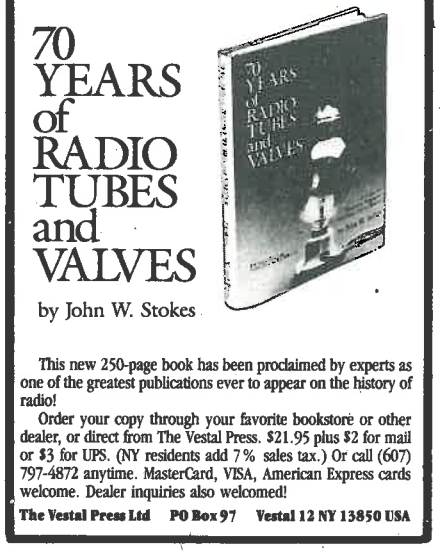
GEC Chassis, complete,model unknown 9-V PP,3-band,horiz glass dial probably ex gram; Engraved front panel for 'Henry Lyford' battery set; Crosley 125 chassis,good nick has gang and coils but stripped of small components; Gulbransen (Wells Gardner) 7J chassis complete but needs work; For swap (and consideration?) front panel and believed top and bottom timbers of a Freed Eisemann NR20 Neutrodyne, swap for Kolster 6D chassis, or swap Kolster 6D front panel and top for Freed Eisemann NR20 chassis; cabinet for NZ Philips 666,good condition.
Paul A.MacDiarmid, P.O.Box 643
ROTORUA

WANTED

Driver unit for Gecophone horn as pictured in Bulletin Vol 5,No 2,p.14; Output trans box for AK 55,condition immaterial; Info,photos or drawing of mounting of cabinet etc for Philips 7-sided bakelite speaker with 11" cone with woven wool border, driver unit mounted at front on 'U' channel; cabinet,dome-top or chest for RCA R28p,any condition considered; wanted to borrow or pay for copy of circuit and other info for Solartron oscilloscope 10Mhz single beam model CD.523S.2
Paul A.MacDiarmid
P.O.Box 643, Rotorua

Dial scale for Columbus model 173 (push buttons); transformer and speaker for HMV (RCA) model 85T1
Leo Robertson, 12 Essex St, Stratford Ph 6834

Old valve sockets to suit 6E6 and 59 valves, wafer or Amphenol type. Ian Cook,85 Fox St
Ngaio,Wellington



Any members (new or old)who are thinking of buying a copy of this book are advised not to delay as stocks are nearly exhausted. A review appeared in Vol 3,No 4 of the NZVRS Bulletin. Price is $32 post paid. Order from John Stokes 617 Dominion Road,Balmoral, Auck 4.

OBITUARY

BRUCE ARKLE HOLMES

Although a fairly recent member of the NZVRS, Bruce Holmes was an old timer who had owned a radio business in Hamilton for many years. As well as having an interest in old-time radio Bruce was perhaps even more interested in astronomy and organs. At the time of his death, in May of this year, he was finishing work on an electric organ.

MEMBERSHIP LISTS

Anyone requiring an up to date membership list should send one dollar to the Treasurer: Bryan Marsh
20 Rimu Road
Mangere Bridge
AUCKLAND

APPEAL TO HIGH COURT

"Mickey Mouse" Radio Case

Judgment Reserved

BEFORE the High Court in Melbourne last week, Radio Corporation Pty. Ltd., of Sturt Street, South Melbourne, manufacturers of Astor radio receivers, appealed against the decision of the Registrar of Trade Marks (Mr. B. Wallace).

Radio Corporation had applied to the Registrar of Trade Marks for the registration as trade marks of the words "Mickey Mouse" and "Minnie Mouse" for use in respect of radio receiving sets and kits.

Opposition to the applications was from Walter Disney, Walt Disney Productions Ltd., and Walt Disney Enterprises Ltd., all of Hollyoowd, U.S.A., and others.

The Registrar upheld the objections and directed the Radio Corporation to pay the costs, and the High Court is now hearing an appeal against that decision of the Registrar.

Mr. Arthur Dean, counsel for the appellant company (Radio Corporation) said the applications were lodged in November, 1933. The grounds of opposition were that the alleged trade marks, "Mickey Mouse" and "Minnie Mouse" were so closely associated with the opponents that use of them by Radio Corporation was calculated to deceive and cause confusion in trade and the public mind.

The names were not registered trade marks, Mr. Dean added, but their creator had some rights. In 1928 Walter Disney created a new character in fiction in the form of drawing which he styled "Mickey Mouse." In 1929 the drawings were photographed and screened all over the world.

"Mickey Mouse" was also depicted in various newspapers. Comic strips of him were syndicated. Disney introduced an extensive system of licensing under which certain people and companies were permitted, for a consideration, to use his figures.

In November, 1933, the Radio Corporation Pty. Ltd. put on the Australian market a small radio receiver known as "Mickey Mouse." At first the figure was used by the company as well as the name, but the company no longer used the figure commercially.

(Continued on Page 26.)

Mickey Mouse Trade Mark

Walt Disney-Radio Corporation

IT will be at least a month before judgment is announced in the dispute which has arisen between Walt Disney, famous American creator of Mickey and Minnie Mouse, and Radio Corporation Pty. Ltd., of Melbourne, who wish to use the names of Mickey and Minnie Mouse as trade marks for radio sets.

Radio Corporation Pty, recently made application in Canberra to the Registrar of Trade Marks (Mr. B. Wallach) to register the names of these famous screen stars as trade marks for radio sets. The application was opposed by Walt Disney and by a number of Disney's associated companies, for whom Sir Robert Garran, K.C., appeared. The Radio Corporation was represented by Mr. A. Dean.

On behalf of Disney, Sir Robert Garran stated that Mickey Mouse was so famous that he was regarded almost as a living personality. He even received "fan" mail. Quite apart from the cinema, his adventures could be followed in newspapers, his voice heard over the radio and his name seen on blankets, tooth-brushes and certain articles of clothing.

For the applicant company, Mr. Dean contended that Disney and his companies had confused their trade mark rights and their copyright; that in law they had no valid copyright and that even if they had, it was no ground for refusing registration of a trade mark. Mr. Dean also claimed that those opposing the application had no trade mark rights because all they had was the right to license people to use the Mickey Mouse figures.

It was submitted also, on behalf of Radio Corporation Pty. that the words "Mickey Mouse" did not describe the person making the film, but the nature of the film.

The grounds on which the application is opposed are that Disney and his companies are the owners of the trade mark "Mickey Mouse" in respect to films, books, cartoons and other goods. It was desired to prevent the public being confused into the belief that goods sold under this trade mark were the goods of the Disney companies or that the Disney goods had some connection with the radio sets.

Mr. Dean stated that the Disney companies were attempting to organise a big commercial enterprise to expand their copyright protection beyond its legal limits.

"The way in which this case is put is something in the nature of a local silly symphony," declared Mr. Dean. "They are so used to dealing in unrealities that they had been led to make the reckless and extravagant claim that "Mickey Mouse" is almost a human personality. The opponents should not be allowed to intrude into the law of trade marks."

In reply Sir Robert Garran contended that it was immoral and unethical that the applicant company should deliberately lift words which were the invention of Walt Disney and around which a great and profitable business had been built up.

Mr. Dean agreed that it would be ridiculous to suppose that an artist like Disney would manufacture radio sets, but he submitted that though Disney had an artistic copyright to the character he had created, he did not have a copyright to the words "Mickey Mouse." The name was not composed of original literary words, but was merely a combination of two well-known names. No ingenuity or skill was required in putting them together.

Finally, Mr. Dean claimed that there was nothing immoral or unethical in the use of the name "Mickey Mouse," and he pointed out that if the applicant company had paid a fee of £50 a year they would have been permitted to use the name. This showed that there was no deception practiced on the public.

Decision was reserved.

There are two legal points involved which may lead to an alteration in the law relating to the copyrighting of trademarks.