

The Phonographic Record

The Journal of The Vintage Phonographic Society of New Zealand

A Society formed for the preservation of Recorded Sound

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FOR YOUR INFORMATION

It was agreed at the last meeting of the Vintage Phonograph Society, that at the annual meeting in September, a motion would be passed raising subscriptions from \$4 New Zealand, to \$5.

Mr Otley at present has a number of C.60 mono cassettes of Thomas A. Edison's message to New Zealand in production, and these will be available for sale.

SPECIAL NOTE TO ALL MEMBERS

We wish to advise that we hold good stocks of the following parts:—

Transfers: Edison, Gold Lines, Gem, Standard
Banner, Thomas A. Edison.

Leather: Horn Connectors (Elbow).

Driving belts: Now in long lengths.

Front fitting cranes: (Plated).

Cygnets cranes: (Suitable for Standard).

Speed adjustment screws:

H.M.V. turntable screws: (Suitable for Monarch etc.)

Gem lid screws: (Plated).

H.M.V. clamp and screw: (For holding down Horn).

Posters — phonograph: ("What Will you do on the
Long Cold Shivery Evenings?")

Edison light posters: (Priced at 20c each).

Slides: (Good selection available).

Grille: (For Amberola 30 Front).

Society badge: (A new supply just in).

Wood for Carrying Handles and Winding Knobs.

Christmas cards: We have two varieties available.

Gear guards: (For 2 min. Standards).

Edison reproducer elbow: (This is just a new release).

Instruction leaflets: (We have several in stock).

'The Phonographic Record': This is now available in complete sets. Special price of \$20.00 (N.Z.) for a set of 12 issues.

Gramophone needles: (In containers of 200).

THE SPEED ADJUSTMENT SCREW

by Joffre Marshall

We are pleased to advise all members that we have just placed into stock the Speed Adjustment Screw for the Standard 'A' Phonograph Model — the Early Banner Standard.

The control screws are completely machined and nickel plated. It is important that you let us know which one you require for your machine — the fine thread which is 3/16 BSF. or the coarse one which is 7/32 Whitworth.

It is hoped to complete a new up-to-date price list of parts at an early date, but in the meantime, we will advise you in the magazine of all new items which come to hand.

The price for the speed controls is \$2.60 (N.Z.) each.

Remember to place your order early with our Secretary.

EDISON BUSINESS PHONOGRAPH

This is an uncommon model and not often seen in New Zealand; not unlike the 'Standard' to look at, but, in actual fact, is quite different.

The two buttons in the bottom right-hand corner stop and start the mandrel with the motor running.

The mandrel is different to the 'Standard', and has a rounded end. The drive pulley is larger and uses a longer belt.

The feed speed is the same as for the 'Standard', two minutes, which is 100 threads to the inch. This is unusual for a dictaphone, as all Edison's later dictaphones use 150 threads to the inch.

We hope in the next issue to illustrate this model, complete with recording horn and stand.

WIZARD OR CHAMPION ELLISDON

So far we have had two letters in answer to our request for information on the Wizard.

One of these was from Colin Parker of Australia, who sent us a fine lot of clear photographs of a machine which he owns (see illustrations).

We feel this machine is identical in every way to the "Champion" owned by Walter Norris, and illustrated in the last issue. Colin Parker's machine has the original reproducer, but not the correct handle.

Larry Schlick also wrote and suggested that the "Wizard" was manufactured in the United States and thought that perhaps the "Champion" was manufactured in Europe.

The "Champion" which Walter Norris owns, has 'Made in U.S.A.' in gold letters stamped into the case. This disproves Larry Schlick's theory on the origin of the "Champion", and so we are still left in the dark.

We suspect that the name (Ellisdon) used on the case of Colin Parker's machine is one used by the Sydney firm that sold it.

Editor: — We would like to thank those who wrote to us sending photographs and information. We look forward to solving this puzzle as to who made these machines. Information please.

REPRODUCED FROM THE EDISON PHONOGRAPH MONTHLY. JUNE, 1911 HOW TO PUT IN A NEW MAINSPRING

To put a new mainspring in a Standard or Home Phonograph, unscrew and take the machine from the cabinet.

Spread a clean sheet of paper on the counter and lay the mechanism down so as to get access to the lower works.

The next step is to remove the governor shaft and the governor. This is done by loosening the pivot screw at the right end, so as to pull the governor pivot out, when the shaft can be removed.

Next take the small spring off the speed-adjusting lever.

There are four screws at the corners of the movement containing the gears. They hold the movement to the motor frame. Loosen the screws and lift the movement and spring barrel off the motor frame.

Now the barrel is to be taken apart from the movement so as to get at the mainspring which is inside. To do this, slip the screwdriver in between the winding gear and barrel. This will release the shaft from the rest of the movement so that the spring barrel can be separated. The top of the barrel will fall away readily, leaving the spring exposed to full view. The inside end of the spring has a hole which fastens on a hook in the winding shaft. The outside end has a hole which fastens on a hook in the side of the barrel. When the spring is wound, only the winding shaft turns. When it is unwound, the barrel turns and not the shaft.

If the spring in winding does not retain enough tension to drive the mechanism, it may mean that the spring is broken or slipped from the hook in the barrel or shaft, or that either hook is broken.

If the shaft hook is worn or broken, all that's required is to remove it, put in a new one securely, and slip the spring into place. There is no necessity for removing the spring.

If the trouble is in the barrel hooks being broken, take out the spring, drive out the part of the hook still in the barrel, replace and rivet, being careful not to batter the hook head.

If the spring is broken in two, a new one must be put in. To take the broken spring out, catch it firmly in the centre with a pair of pliers, hold it off a little way over a box or barrel in which a cloth or paper has been placed. Now give it a sudden jerk away from you, letting everything go into the box. This will allow the spring to uncoil in the box where it can do no damage, and at the same time will protect the gear from injury. The illustration is made to show the manner in which the spring unwinds, but it must not be held in the hand after starting.

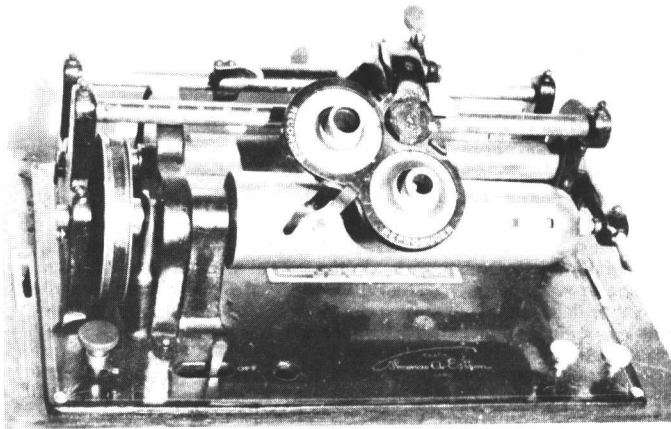
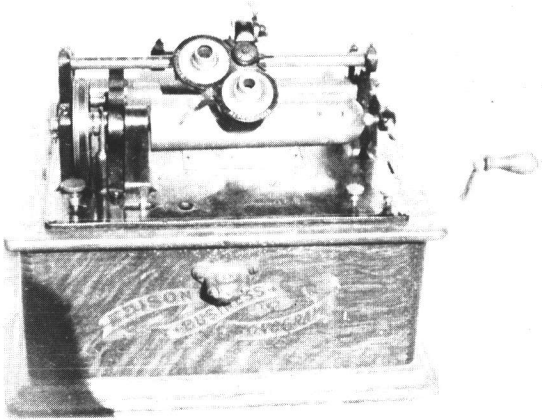
New springs come tied up with a stout wire. Lay the new one down with the outside end pointing to your left hand; with a hammer tap the wire down to within half an inch of the lower edge.

Next lay the spring in the barrel with the outside end of the coil pointing to your right hand. It will not work if it is put in pointing to the left.

EDISON BUSINESS

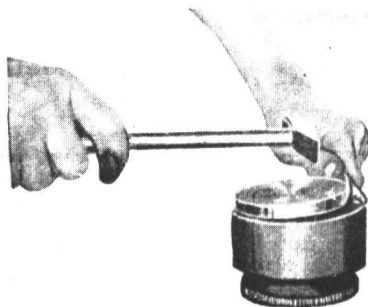
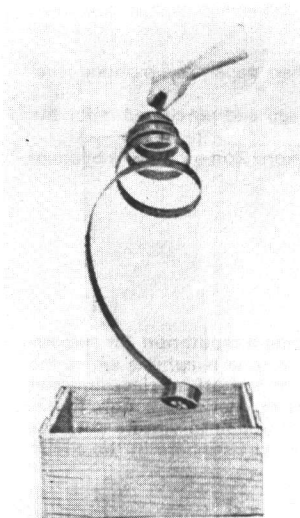
MACHINE

TWO VIEWS OF EDISON BUSINESS MACHINE



ZON-O-PHONE LABEL

SPRING REMOVAL



HOW TO FIT NEW SPRING

36.

It will not go all the way down because of the wire's being round it. Make the slot on the outside of the spring lie about an inch to the right of the hook on the side of the barrel. Place the screwdriver, or a flat piece of iron on the edge of the barrel under the wire, and knock the spring down with a hammer. Do not strike it too hard. Force it down and out of the binding wire by degrees.

After it slips in is a good time to apply graphite. Make a paste of graphite and oil, and lay right on the leaves of the spring.

Now place the top of the spring barrel on and twist it to the left. This will cause the hooks on the shaft and barrel to catch in the holes at both ends of the spring.

Put the mechanism back in place by the reverse of the method used in taking it apart.

— Refer photos page 35

WANTED TO BUY:

Reproducer arm assembly for Edison home, also reproducer suitable for blue amberols, and vintage radios, worn speakers, or any old radio parts or books. Required by young collector.

Steven Stipkovits,
22 Virginia Grove,
Brooklyn, Wellington.
Telephone 851-880.

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A quarterly journal dealing with all aspects of disc and cylinder phonographs and records. Subscription includes monthly ad sheet to all subscribers. Annual rate is \$7.00. Please send cheque or money-order to Mr Tim Christen, P.O. Box 265, Belmont, California 94402. U.S.A.

LISTEN! THEY'RE PLAYING MY TUNE

by Pamela G. Rogers

Memory is a strange thing. It can be triggered off so easily by any of the senses, for example — taste, touch, smell, hearing. One of the most common forms of provocation seems to come through the sense of hearing and the brain seems to subconsciously repeat the mood when a certain tune was matched with a certain situation. Not your 'background to the crunching of cornflakes' pop tune but sounds related to the higher or lower points of our emotional life. As a young secondary school pupil I remember sitting in the school assembly hall the day after a very severe earthquake, singing the hit song of wartime days, 'The White Cliffs of Dover'. Even to this day, that tune has me, in my memory, back in that hall, navy-blue gym frock and all. A vocal version of the Trumpet Voluntary has me walking across one of our city parks, the February sun hot on my back as New Zealand welcomed for the first time, Queen Elizabeth and the Duke of Edinburgh.

But these are my memories — my tunes. I don't doubt you have your own and if you are honest you too will admit to having a pile of records, the choice of which puzzles your friends as they seem foreign to the usual type of records you collect. And I wouldn't mind betting that, sometimes, when you can dream on your own, you too have a gloriously nostalgic time playing your tunes!

ZON-O-PHONE

by Walter Norris

The label reproduced on the photo page is owned by the writer. It is the earliest paper Zon-o-phone label produced by this Company that we have come across.

I came across it among some records in a little second-hand shop some years ago and purchased it for the large sum of six cents.

About it we know little, except to say it is single-sided, is announced, and the word Zon-o-phone is hyphenated. See illustration.

Further information would be appreciated.

The colour is green.

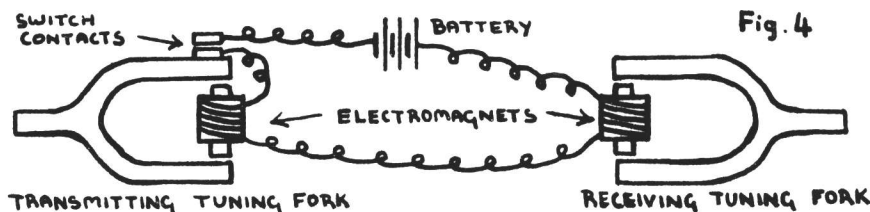
THE TRANSPORT OF SOUND

by N. Johnson

Continued from last issue.

In America during the 1870's, Scottish born Alexander Graham Bell was building a reputation for successfully teaching deaf children to speak. In his spare time, Bell constructed a form of tone telephone where the tiny oscillatory movement of a vibrating tuning fork was used to rapidly switch on and off an electromagnet which was placed alongside the tuning fork so that it exerted on it an intermittent magnetic attraction. In this way, once the tuning fork had been tapped, it became self-energizing and would continue to vibrate until the battery was disconnected. If a second tuning fork and electromagnet were connected elsewhere in the circuit

(as shown in the diagram) this second fork would automatically start vibrating whenever the first fork vibrated, but only if it was of the same pitch as the 'transmitting' fork.



It occurred to Bell that several forks could be connected into a single telegraph line, so that they all transmitted a different musical note. He decided this could be a means of sending several telegraph messages simultaneously through the same line. Each note could be broken up into the short and long spaces of the morse code, and extracted at the receiving end by a tuning fork which responded to that, and only that note. Bell worked at his multiple telegraph idea, but was never able to perfect it. (Possibly because of the harmonies which such a system would generate.)

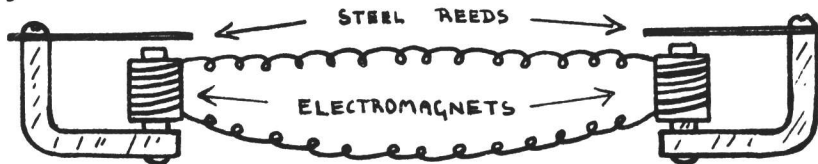
The electrically-maintained tuning fork was not Bell's invention. It had been most closely associated with Hermann Von Helmholtz who had used several different forks vibrating simultaneously to create artificial vowel sounds. Bell decided that if he combined Helmholtz's experiment with his own multiple telegraph idea, he would be able to transmit vowel sounds along a wire.

He planned to replace the tuning fork with thin strips of magnetized steel, which would be arranged like the metal reeds of a music box, so that each was tuned to a different pitch. If musical sounds were made near the reeds, they would vibrate just the same as if they had been tapped, and their vibrations would be in harmony with the original sounds.

Below each reed would be placed an electromagnet, and since the reeds were magnetized, their vibrations would generate oscillating currents in the coils of the electromagnets. (A moving magnetic field generates an electric current in a coil. This is in accordance with the principle of electromagnetic induction, discovered by Michael Faraday in 1831). As each reed was tuned to a different note, it would vibrate at a certain rate, and so each coil would have generated within it a vibratory, or oscillatory, current of a certain frequency.

All these different currents would combine into an oscillating current of complicated waveform which would flow through the one wire to a similar "electric harp" apparatus at the other end of the line. There the process would work the other way around so that the oscillating currents would energize the electromagnets, pulling the reeds into vibrations which reproduced the original sounds. With a sufficient number of reeds, it seemed reasonable to expect the device to be capable of reproducing speech.

Fig. 5 BASIC PRINCIPLE OF THE "ELECTRIC HARP"

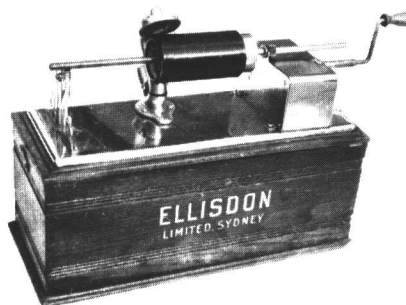


Because his electric harp would be complicated to build, Bell postponed the construction of a prototype. But he incorporated the idea of the magnetized reeds into his multiple telegraph experiment, and during June 1875, he succeeded in transmitting clear musical tones using the reeds. In contemplating the operation of the device, there gradually occurred to Bell the suspicion that the complex sounds of the voice might be able to be transmitted and reproduced by a single reed, if that reed was attached to a flexible membrane, or diaphragm, like the diaphragm in the phonograph that he had used in his studies into deafness.

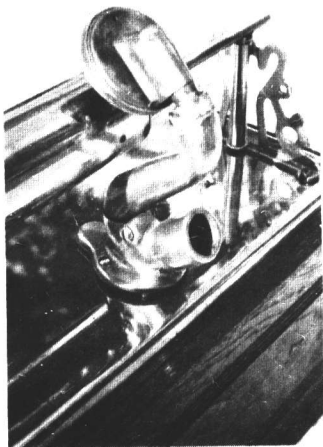
Bell gave his assistant, Thomas Watson, the plans to make a telephone comprising an electromagnet, and a reed attached to a diaphragm of tightly stretched animal membrane. During July of 1875, two instruments of this design transmitted and received the sound of the human voice so successfully that the words could almost be understood!



ENCLOSED



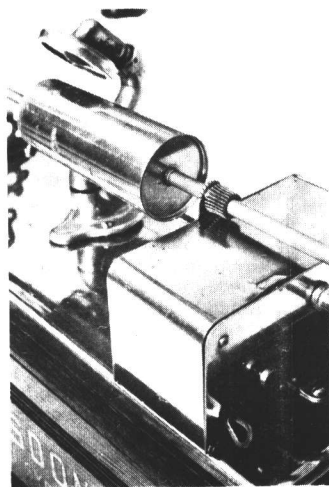
FRONT VIEW



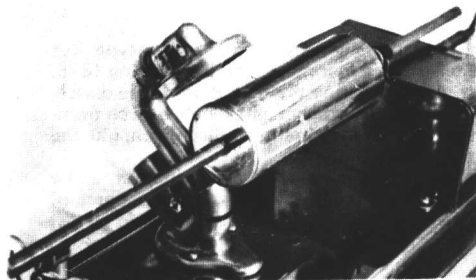
REPRODUCER



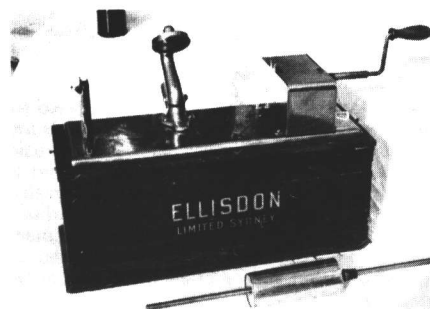
END VIEW



REPRODUCER FRONT



CLOSE UP MANDREL



MANDREL REMOVED

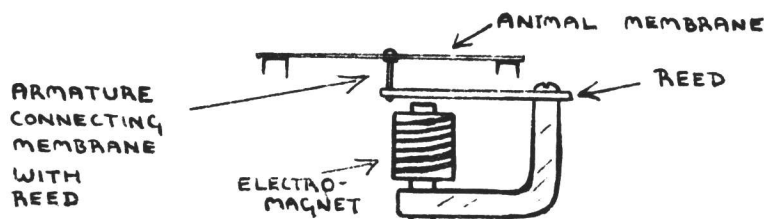


Fig. 6
THE
FIRST
SUCCESSFUL
TELEPHONE

The experiments continued for several months, during which time Bell and Watson also designed an alternative telephone. This was the liquid-resistance telephone, where the vibrations of the diaphragm pushed a tiny metal rod in and out of a small metal cup containing liquid. The telephone was connected with a battery so that the resistance of the liquid prevented much current flowing. But when the diaphragm was spoken into, and the rod vibrated in and out of the liquid, the resistance varied, so that the current flow was directly proportional to the vibrations of the diaphragm.

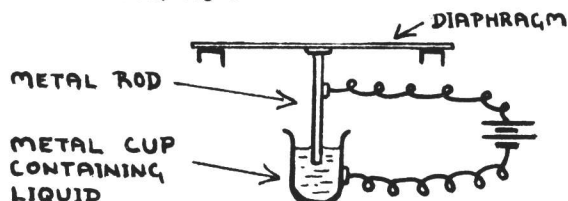


Fig. 7
THE
LIQUID-RESISTANCE
TELEPHONE

Bell decided that he was getting close enough to success to file for a patent. On 10th March 1876, three days after the patent was granted, Watson and Bell successfully transmitted a few words from one room to another. For the first time, distinct speech had passed through wires — the telephone had been invented.

For the next few years, Bell and Watson worked hard at both improving and promoting their telephone. Many scientists were surprised that a successful telephone should have turned out to be such a mechanically simple device. It became even simpler in early 1877 when Bell used a thin, flexible, metal diaphragm to replace the reed mechanism and its associated armature and membrane. He also removed the iron core from the coil of the electromagnet replacing it, to advantage with an ordinary permanent magnet.

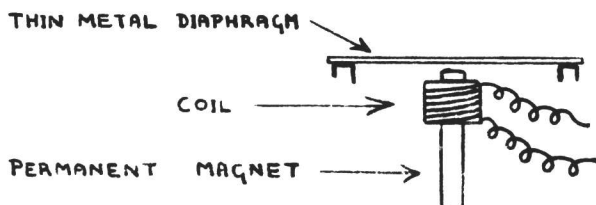


Fig. 8
THE
BASIC
BELL
TELEPHONE

It is interesting that as early as 1854, a Frenchman, Charles Bourseul, had suggested a telephone using an electromagnet and a flexible metal plate. However there is no evidence that he understood the need to supply the telephone with a continuous but fluctuating current instead of the simple interrupted current that the experimenters of his time used.

But another inventor came much closer to almost cheating Bell of the fame that has become attached to his name. Elish Gray, of Chicago, filed his telephone patent a mere two hours after Bell. Gray's invention worked on the same principle as Bell's liquid-resistance telephone, and although the idea proved unsuitable for practical use, the technique of using a diaphragm to alter the resistance of a circuit proved essential for the successful development of long distance telephone systems. This was because the Bell telephone, with its metal diaphragm and electromagnet, acted as a generator of a tiny alternating current whenever it was spoken into. This current was sent along the wires to a similar telephone, where it affected the electromagnet so as to vibrate the diaphragm and reproduce the original words. But the current generated by the telephone was too feeble to travel far over a long distance line.

The solution to this problem came only a year after Bell's invention. In 1877, Professor David Hughes described the principle of the microphone, where the resistance of an electrical contact was varied whenever that contact was subjected to vibrations, such as those produced in the air by speech. This fluctuating resistance was used to vary the output of a battery, and fluctuating current which resulted was fed to a Bell telephone which reproduced the speech. In the same year, Thomas Edison patented his carbon transmitter, which was a

form of microphone in which the variable resistance was provided by a soft piece of carbon. A similar microphone was also patented in 1877 by Emile Berliner. The first investigations on varying pressure and resistance had been carried out by Du Moncel in France over ten years before.

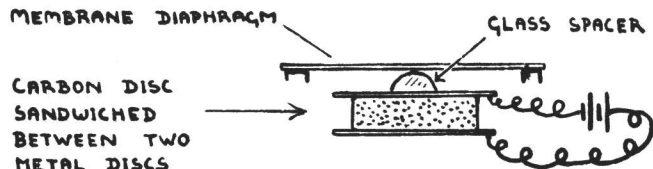


Fig. 9
EDISON'S
CARBON
TRANSMITTER

The microphone and battery gave a far greater output than did the Bell telephone, but of course, unlike the telephone, it was not capable of acting as a receiver as well. That is, it was incapable of re-converting the fluctuating current into speech. So the microphone became the mouth-piece of the telephone, and Bell's invention became the ear-piece.

The Bell receiver, was widely copied by many inventors who made small alterations to the design in order to secure patents, and most of the multitude of telephones "invented" during the latter part of the 19th century were but variations upon Bell and Watson's original. During the 20th century the Bell receiver has been supplemented with other speech-reproducing devices used as ear-pieces or loud-speakers. Some are based on different fundamentals, but most bear an obvious relation to the basic principle embodied within the wood and brass mechanism which Thomas Watson put together during June of 1875, and through which, on 1st July 1875, he heard Alexander Graham Bell's voice so clearly, that he could almost distinguish the words!

RECORD LISTENING POST NO. 25 by Barry Sheppard

Five recent releases have come my way recently and all in one beautiful boxed set. The title — "The Rock 'N' Roll Years", which covers 106 original rock 'n' roll hits. Listening to this mighty set of five stereo l.p. recordings, I found each track a collector's item as the albums cover such a vast range of music, and a great number of recording artists which I'm sure many people will have forgotten about. Such old favourites as "Rock Around the Clock" (Bill Haley), "Roll over Beethoven" (Chuck Berry), "Ahab the Arab" (Ray Stevens), "Happy Organ" (Dave Baby Cortez), "Lawdy Miss Clawdy" (Little Richard), "Charlie Brown" (The Coasters), plus 100 other well-known all time classics. "The Rock 'N' Roll Years" is a must for the collector as it covers so much material all beautifully boxed as one set, giving details of each track on the reverse side of the colourful box. 106 original all time favourites is marketed right here in Christchurch by Music World Ltd so be early and don't miss out on a one time offer.

Recent releases from RCA are next on our review stand with three albums which I hope will please some of our readers. First, "The Best of Spike Jones" — Volume 2 (RCA-ANLI-2312). Listening to this album, I found all tracks very clear, especially as many of them go back many years. Old timers, such as "That old Black Magic", "The Bubble Gum Song", "Riders in the Sky", "Yes, we have no Bananas" and others. I think for many people who buy this l.p. they will be buying another collectors item as sooner or later this type of recording will disappear from our shops. I know I got a lot of enjoyment out of it as it brought back so many memories of the old '78.

From Spike Jones, we move onto RCA's second release, that of John MacDonald. This album (Fireside Scottish Accordion — RCA Victor-VPLI-4069) gives a true example of what can be played on the piano-accordion. Born in Cromarty, a seaside village, the north side of Scotland, he first developed a keen youngster's interest in the drums, then he progressed to piano, making his ultimate choice of the piano accordion when aged 12. Such numbers which cover this pressing are "Bonnie Dundee Jig", "Flowers of Edinburgh", "Ramblin Rose", "Amazing Grace", "Turkey in the Straw" and "Tipperary Tribute". Listening to this bright little album, I found all tracks very clear sound wise, and I think the production department has done a fine job with their selection of material. By the way, this is John's first Australian l.p. for M7 records.

RCA's third recent release up for review has the title "The Legendary Jim Croce" (Lifesong — VPLI-4070). At the time of his tragic death in a plane crash on the 20 September 1973, Jim Croce's career was just starting to blossom. Two songs which Jim Croce recorded in 1971, "Time in a Bottle" and "You don't mess around with Jim" made headline news, and both of these numbers are included on this album. I think people who like C & W recordings will enjoy this one as I did, as many of the tracks reminded me of the late Jim Reeves.

My final album up for review comes from Phonogram with the title "Wonderland of Opera" (CBS-CBTV-1) played by that well known orchestra of Andre Kostelanetz. Listening to this beautiful album, I found all 16 tracks a real dream to listen to. Such well selected material, and recorded in full stereo, the listener is taken by sound to many of the leading opera houses in the world. Tracks include music from "Tales of Hoffmann", "Faust", "La Boheme", "Madam Butterfly", "Rigoletto", "La Traviata", "Aida" and many others. A wonderful selection of orchestral music, which I'm sure will delight even the younger listener and played by a master of all time, Andre Kostelanetz.

Well, until next time, happy listening O.O.