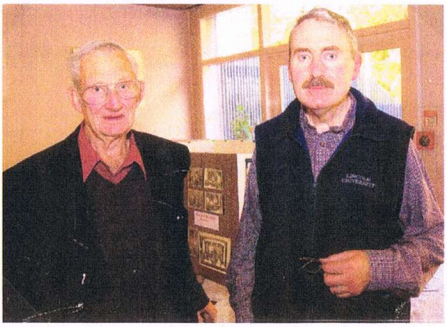
The Phonographic Record

Journal of the Vintage Phonograph Society of New Zealand

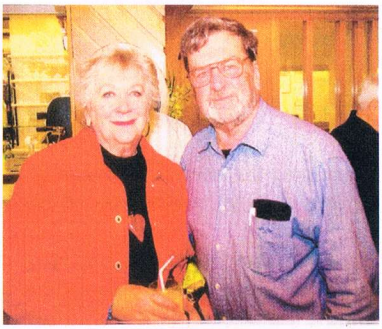
A Society formed for the preservation of Recorded Sound

Volume 43. Issue 3. May/July 2008

50th ANNIVERSARY OF THE SCRATCHY RECORD GROUP



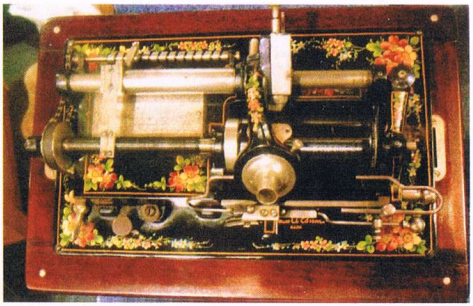
WALTER NORRIS & GAVIN EAST



BILL & JILL MAIN

AT DONELY'S SWAPMEET

TRADE MARK MODEL



DECORATED HOME PHONOGRAPH

COLLECTION OF TELEPHONES

THE PHONOGRAPHIC RECORD

VOLUME 43, ISSUE 3 **MAY/JULY 2008**

EDITOR: W.T. Norris
650 Two Chain Road
Swannanoa 7476
Rangiora RD 6
NEW ZEALAND

SECRETARY: Mrs S McGuigan
P.O. Box 19839
Woolston
Christchurch 8241
NEW ZEALAND

e-mail: nzphonosociety@hotmail.com

FOR YOUR INFORMATION

Please note the altered address and postal code for the Editor. This is due to changes in our area and the introduction of machine sorted mail.

We try to avoid mistakes but for some unknown reason in proof reading we always miss something. In our last magazine the issue number was left out, it should read Volume 43, Issue 2.

We are pleased to be able to introduce illustrations which have kindly been sent by members. And also to thank those who appreciate the items we print.

We look forward to hearing form you with your wants and discoveries.

We have had requests for someone who could make and repair cases.

Walter Norris
Editor

ILLUSTRATIONS

Front cover
I have had a struggle with these. Larry Schlick sent me so many it was hard to choose. Our front cover has photos taken at Wellington of the 50th anniversary of the Scratchy Record Group. Gavin and I were honored to attend (see report by Gavin) and was organized and managed by Bill Main.
The following three illustrations were taken at Larry Donely's Swap Meet.

Back cover
More illustrations of this year's swap meet at Larry Donely's and four record labels taken from Nauck's vintage auction. 'Paramount', 'Royal Record', a rare international Zonophone, a blue Zonophone of Enrico Caruso (I have not seen a blue Zonophone in New Zealand, this one is worth a mint), and a 'Standard' Sample record.

Lioret
We illustrated this model in a box last issue. $850.

Columbia Graphanola
Was the last over-horn Columbia produced. $3500.

RE Sinaphone
Music box and gramophone. Lovely machine, priced at $22,000.

Swiss Music Box
Ornate case, suggested price $8000.

WANTED TO BUY

HORN TYPE GRAMOPHONES or any large size Edison phonographs, anything considered.
Large floor standing Edison phonograph or gramophones made by HMV.
They had two large doors to the front and the numbers are
HMV 202-203 or HMV 193-194.
Or, do you know where there is one in any condition or I will buy the Horn and grill?
Distance no object.
I do have some Edison parts to swap.
Please phone me on freephone 0800 566 800 (work number, any time)
Or email me: mobilityscooters@xtra.co.nz
Tony McCarthy, Dunedin

WANTED TO BUY 78 RECORDS
Berliner records or any early one sided records.
Unusual labels or children's records.
Would like to correspond with any overseas record collectors.
Please phone me on freephone 0800 566 800 (work number, any time)
Or email me: mobilityscooters@xtra.co.nz
Tony McCarthy, Dunedin

FOR SALE

DIMOND DISC PARTS
One only 16" Horn and 13½" Horn possible for Amberola machine, plus turntable with a broken spring.

I have 50 doubles in the collection of Duo - Art rolls mostly in original boxes etc.
Offers on them please. A list of them is available on request.
Write: Melody Farm, 140 Muri Road, Pukeura Bay
or phone: Leon Clements 04 239 9307

Report of Meetings
By Will Boon
January 2008

The first meeting for 2008 was held at Gavin East's home at 4a Lyttelton Street, January 28th, with just Roger Brown, David Peterson, Walter Norris, Joffre Marshall, Wilf Boon and Robert Sleeman able to attend. In business, from the previous minutes read by David, it was noted that our end of year dinner was well attended and enjoyed by all at the Sequoia Restaurant, Redwood. But, on a sad note, we have to mention that our founding secretary Pam Rogers, who for some months had suffered ill health, passed away 19th December 2007. Several members were able to attend her funeral held 24th December 2007.

In other business, an amicable resignation was received from Paul Double of Kati Kati and the small problem of David Williams' (Surrey, England) Cyprus bank note, has finally come to a happy conclusion.

Walter brought an interesting 10" Regal 78 (with original cover) of the Barmy Brothers singing "Ain't it grand to be bloomin' well dead" but unfortunately, would you believe it, Gavin didn't have a machine set up to play it! The evening closed with admiring some of Gavin's unusual dusters and early postcards, one being of a Columbia cylinder machine, and finally listening to excerpts from some of his recent ragtime piano, played on CD.
Meeting closed 10pm with supper.

February 2008

As readers of the magazine will realize, our society's monthly meetings are held in the private homes of a few of our dedicated members, and so it was with much pleasure that my very supportive wife and I were able to host the February 25th meeting. It was a lovely warm and sunny evening with 11 members attending.

The meeting started 8.10pm with only three apologies from Derek Cockburn, John Hastilow and Shirley McGuigan. David Peterson then reported on the business from the previous minutes, stating that all the accounts for the 2005/2006 and 2006/2007 financial year are now with Gilbert and Associates for completion and auditing, so I think we must say a big 'thank you' to Gavin, and David for calculating the stock valuations, a very time consuming task.

It was mentioned that for those interested in our supply of Monarch Senior horns, the elbows have now been ordered and are now well under way. Our craftsman and tinsmith, Ken Jane, has had to overcome a problem with these elbows because of the new metal and its hardness that he is using, but he has managed to devise and build a new former to achieve the correct shape and so hopefully will be completed in the not too distant future.

During the evening Joffre Marshall displayed a model windmill he has built partly from Meccano, and also a model steam engine which will be displayed at the forthcoming fiftieth anniversary traction engine rally at Southbrook, Rangiora. Also the members showed a lot of interest in a new restoration project I have at the moment. It is an Aeolian Vocalion lateral cut disc machine lidless table model (79337) and in pretty poor condition - reproducer wrecked and the tone-arm useless, but I'm sure some TLC will bring it back to playing order again.

Finally in correspondence it was interesting to listen to Lyndsey Drummond read a letter received from Barry Williamson, England.
The meeting closed 9.10pm followed by supper, enjoyed by all.

March 2008

The March 31st meeting was very kindly hosted by Lyndsey and Bill Drummond with a total of 13 members present. To begin with, I'm sure the members will agree with me in thanking Lyndsey and Bill of maintaining, not only their interest with the society and correspondence with local and overseas members, but especially for inviting the society to their home annually for our interesting and informative meetings.

The meeting got underway 8.10pm with David Peterson confirming the notes from the previous meeting and continuing with the financial statements, which included arrangements that were discussed and later approved regarding the term investment which is shortly to mature.

In Correspondence Shirley McGuigan posted on to David some overseas magazines and a letter from the new secretary of the Phonograph Society of New South Wales. David read a most interesting letter sent to Walter Norris from one of our Canadian members Paul Dodington on the subject of a Canadian talking machine and recording history.

In General Business Walter read out two items (a) an article in an early Hillandale news listing obscure vertical-cut discs including Marathon and (b) the obituary for Pam Rogers written by Gavin and to be printed in the magazine.

Later, Walter presented two Edison diamond disc machine grilles, a new one for an oak Hepplewhite and a repaired on for an oak Chippendale made and repaired by retired cabinet maker Glen Walls, and lastly, Joffre reported on the enjoyable weekend he attended at the traction engine rally in Rangiora.

The meeting closed 9.50pm followed by a lovely supper.

A WARM WELCOME IN WELLINGTON

by Gavin East

On Saturday, 21 June 1958 Wellington's Evening Post newspaper carried an advertisement by a young collector named William (Bill) Main, soon to be know to the wider world as a distinguished historian of New Zealand photography. Bill had taken a liking to old records and wondered who else with similar interest might be "out there". The ad was worded, "Edison to electrical era, 1896 to 1925. Persons interested in the above historical recorded music period tel. ..." One who replied was the late Fred Spencer, a classic old time Edison enthusiast with an Opera and a large collection of Blue Amberols. From the ad came the nucleus of a group who began meeting monthly to list to, and talk about, old records.

From the outset the emphasis was on informality. The group has resisted occasional suggestions of an official structure with minutes, etc. By contrast, the Christchurch collectors who met in 1965 went the incorporated society way - but then we intended to print a magazine and make parts, so this approach was right for us. The Wellington policy has worked very well and after fifty years, with many comings and goings of members, what we now know as the Scratchy Record Group is still going strong.

Over the years many Wellington group members have belonged to our society, just as Christchurch record collectors have old friends among the group further north. When I was living in Wellington in 1978 while at Library School, I attended several meetings and even hauled my Pye Black Box out to Stan Northcote Bade's home to present a programme.

Walter Norris and I were touched to be invited to the group's fiftieth anniversary celebration lunch on Saturday, 21 June 2008. I booked our flights with the idea that we would leave Christchurch at 9am, reach Wellington at about 9.50, meet Bill, enjoy the day and fly home at 5pm. So much for the theory. 21 June is the shortest day in the New Zealand year and, although it is always said that the winter really sets in afterwards, travelling conditions can be dodgy. We arrived at Christchurch Airport at 8.30am to find long queues at every counter and our flight cancelled because of the previous day's fog. We eventually took off a little after midday, landed at Wellington about 1pm and shoehorned ourselves into a shuttle van. There seems to be some unwritten law that shuttle passengers first on have to be last off. After negotiating every narrow street in Te Aro and Kelburn the van pulled up outside the Sharella Motor Hotel and we unfolded ourselves in view of a bemused group of Scratchy Record Group lunchers.

It had been a bit of an adventure getting there (Walter may have been lucky to keep his pocket knife after it caused beeps from the airport metal detector) but it was worth it. Bill made us most welcome, the group were pleased to see us, we were in time for the meal (very nice it was too) and we settled down to enjoy the occasion. It was

great to catch up with Des Wilson, John Sutcliffe and many others who came over to our table. Bill had written a neat parody of the Gendarmes' Duet ("At seventy-eight - at seventy-eight - at seventy-eight, we are the Scratchy Record Group" etc.) which he and Roger Hart sang to the piano accompaniment of Peter Fry, the genial host of Radio New Zealand's Saturday night request session.

George Boraman had offered to drive us back to Wellington Airport with a quick visit to his home on the way. After a ride in George's private cable car from street level up to the house (quite a novelty for two plains dwellers) we enjoyed a cup of tea in his comfortable living room, surrounded by machines such as a Chippendale diamond disc, Klingsor, HMV Lumiere and Brunswick, while admiring the sweeping view of Wellington Harbour. George treated us to a Columbia Grafonola recital with choice discs by Delmas on blue Zonophone, Klementiev on Angel Monarch (the early Russian label which kept the recording angel trademark instead of the dog), Bidu Sayao on Columbia and Tetrazzini on HMV.

George took us on to the airport, the flight back was on time and I was home in Lincoln by 6.30pm. I think Walter and I were a bit tired the next day but it had been a most enjoyable trip. We very much appreciated being included in the event and we hope to see our friends in Wellington again soon.

We will treasure our copies of the commemorative CD produced in a very professional manner by Bill, Des Wilson , Brian Blackford and others. It comprises vintage recordings selected by current members of the group along with tracks chosen in honour of earlier members no longer living. Our old friend the late Don Cameron is represented by Gil Dech's piano solo 'Remembrance' as Don knew Mr Dech, while Gladys Moncrieff features as the favourite "queen of song" of the late Ray Hedges.

THE EDISON DYNAMO, THE EDISON-HOPKINSON DYNAMO

FROM THE TECHNICAL EDUCATOR

Theoretically, a single magnetic circuit is best - that is to say, a circuit composed of a single horse-shoe electro-magnet, between the poles of which the armature rotates, as in the Edison dynamo; but for reasons of a purely mechanical nature the double form of the magnetic circuit - as illustrated in the Gramme and Siemens machines - is often preferable. For a given length of wire to be wound on the field-magnets, so as to enclose the largest possible amount of iron, the section of the core must be circular, since for a given periphery a circle encloses the largest area. Theoretical considerations, therefore, point to making the section of the field-magnets circular; but as this necessarily limits the length of the armature, they are often made rectangular, with the corners of the rectangles cut off.

The direction in which improvements have taken place in modern dynamos is strikingly illustrated by contrasting the Edison machines illustrated in Figs. 162 and 163 with the same machine as improved by Hopkinson, and illustrated in Fig. 164. The machine in each case is shunt-wound, and has an armature of the drum type. In Fig. 162, which is a 60-light machine, the cores of the field-magnet are very long and narrow, and are connected at the top by a comparatively light iron yoke. Fig. 163 represents a 250-light Edison machine. The form of the field-magnets is still the same, but six cores are used instead of two, and a considerably longer armature; the cross section of core thus obtained is only one-third that which would be obtained by winding the same length of wire on a single larger core of circular section. In his 1,000-light machine Edison used eight cores, and placed them horizontally; in other respects the machine was much the same. Fig. 164 represents this machine as improved by Hopkinson, and known as the 1,000-light Edison-Hopkinson dynamo. The mode of winding and the armature are unchanged, but the magnetic circuit is both modified and improved. The cores are very short and very thick, and are connected by an extremely heavy iron yoke. The whole stands about 6 feet high, including the bed-plate which is 5 feet 9 inches by 4 feet 5 inches. The efficiency of this machine is over 93 percent whilst the Edison machine illustrated in Fig. 162 is less than 60 percent.

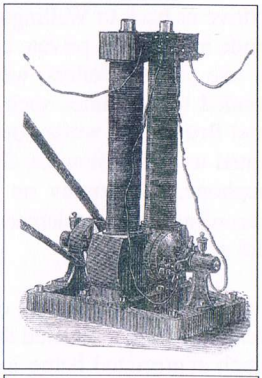


Fig 162.
Edison Machine

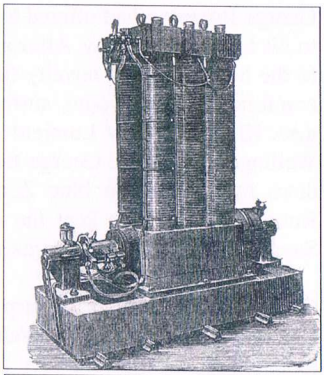


Fig 163.
Larger Edison Machine

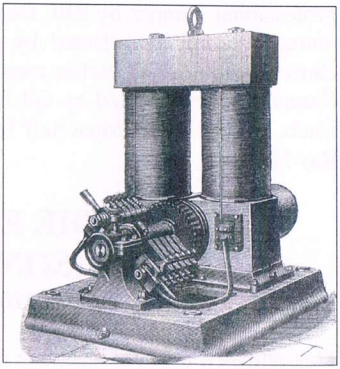


Fig 164.
Edison-Hopkinson Dynamo, with Bar Armature

In armatures of the drum type, the sections of wire wound between adjacent bars of the commutator may be looked upon as conducting rectangles arranged on the outside of an elongated drum, which revolves round its axis between the poles of a magnet. It is obvious that as this rectangle revolves, the only portions of it which are effective in cutting lines of force are the two sides of the drum, whilst those portions that cross the is joined faces of the drum are inert in this respect.

These latter portions are, however, necessary in order to connect the sides, but they interpose useless resistance into the circuit, this wasting energy and heating the machine without doing any good. In the Siemens machine these rectangles consist of wire of uniform section and often of many turns; in this case a large portion of the resistance of the armature is made up of useless wire.

In Edison's armature, which is the same as Siemen's in principle, a device has been adopted which simplifies the construction, and partially gets rid of the resistance due to the inactive portion of the winding. The portions of the winding on the side of the drum consist, in the larger machines, of copper rods of trapezoidal section; the parts crossing the faces of the drum are copper discs, to the edges of which the bars are fastened, and through which the currents flow from one side of the armature to the other with comparatively little resistance interposed in their paths. A section of the armature is shown in Fig. 165. The shaft is marked A, and on this is fixed a wooden bobbin, BB. Outside this bobbin is fixed the core proper of the armature, DD, and is comprised of thin insulated irons discs, threaded on the wooden bobbin and bolted together as shown. The copper discs are marked LLLL and L_1 L_1, and are carefully insulated and bolted together as shown. The commutator is situated at the part marked CC. Each section between the commutator-bars consists of a single rectangle formed by two discs joined by the two copper bars that lie along the sides of the drum. All these bars are the same length, so that the same number of lines of force are cut by each rectangle during the revolution of the armature, and the same E.M.F is therefore generated in each coil. The first disc on the commutator end of the armature is joined to the commutator and, by a bar, to the first on the other end, which in its turn by a bar at the other side of the armature to the second disc at the commutator end. This system of connecting the bars and discs keeps the lengths of the bars uniform, and, when completed, forms a closed circuit

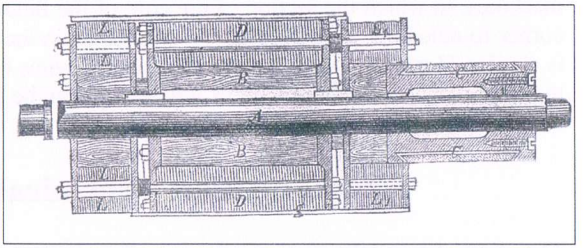


Fig 165.
Edison's Armature

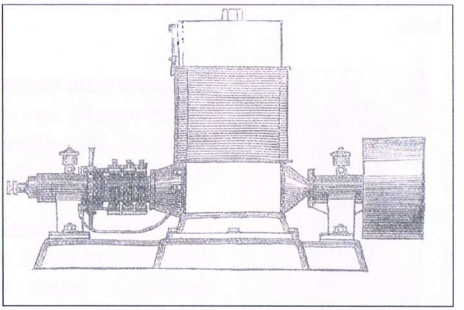


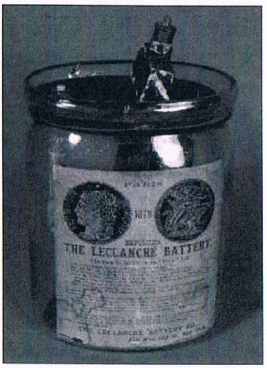
Fig 166.
Edison-Hopkinson Dynamo,
(side elevation)

which is joined at the end of each rectangle to a commutator bar.

In the Edison-Hopkinson machine the magnetic circuit is improved by the insertion of more iron in the armature, and as can be seen from Fig. 164, the connections of the coils with the iron bars are brought out spirally, so as to have the diameter of commutation conveniently situated. Fig. 166 shows a side view of one of these machines, in which the section of the core of the field-magnet is rectangular, with the corner rounded off. The armature is longer than in the other form, but its construction is similar. Hopkinson also introduced insulated wires of square section for winding on the field-magnets, as more wire of this section can be got into a give space than could be got if its section was circular.

The Electrochemical Cell

The first Electrochemical Cell was the Voltaic Pile described by Volta in 1800. This led to a great deal of experimentation with different electrode materials, electrolytes and physical construction. Other electrochemical cells were developed by Wollaston, Hare, Daniell, Grove, Bunsen, Callan, Smee, Walker, Davy, Meidinger, Minotto, De la Rive and Müller, Latimer Clark, Leclanche, and doubtless others.

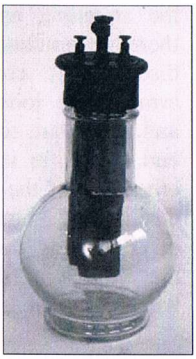


The Leclanche Cell

The Leclanche Cell was described by Georges Leclanche (1839-1882) in 1867. The two electrodes are carbon and zinc, with a sal ammoniac electrolyte. The carbon electrode is mixed with manganese peroxide. This battery was used mainly for intermittent service, such as ringing electric bells.

The potassium bichromate cell developed by Grenet usually has the characteristic bulbous shape of the glass container of the two examples at the right and left.

The centre electrode is a strip of zinc, and slides up and down on a brass rod to stop the electrolytic action when the cell is open-circuited. The two outer electrodes are flat strips of carbon, and the electrolyte is potassium bichromate.



This four-cell Leclanche plunge battery in the museum of St. Patrick's College, Maynooth, County Kildare, Ireland, was made by "Yeates & Son, opticians to the University, Dublin" about 1875. The cases for the individual cells are made of ebonite (hard rubber) and the crank and rod at the top allow the electrodes to be raised from the electrolytes. This is necessary because the zinc electrode material is eaten away by the electrolyte when the battery is unconnected to an external circuit.

Note the use of the word "battery" here to denote a series of electrochemical cells connected together in series. This comes from the nomenclature of early Condensers .

This is a home-made version of Crosse's water battery, which was used for charging Quadrant Electrometers and other high voltage and negligible current applications. It consists of a large number (100 in this case) of short glass test-tubes filled with water, and connected to each other by metallic jumpers. The jumpers are bimetallic: one side is copper and the other is zinc. The electrolyte is the water.

Andrew Crosse (1784-1855) was a country gentleman of independent means. He demonstrated his water battery at a meeting of the British Association at Bristol in 1836.

This example is in the apparatus collection of Kenyon College, and is the only one I have ever seen.

On the glass jar of this battery is impressed the words "Novelty Electrical Company of Phila." The 1896 catalogue of the Chicago Laboratory Supply & Scale Co. notes that this is a "Grenet Battery, American Form, 1 quart size, $2.00". The French form has the bulbous glass jar shown in the examples above.
The battery is in the collection of Franklin and Marshall College in Lancaster, Pennsylvania.

This handsome, six-element plunge battery is in the Jack Judson Collection at the Magic Lantern Museum in San Antonio, Texas. It is marked "C.H. Stoelting Co." of Chicago. (Pictured on next page.)

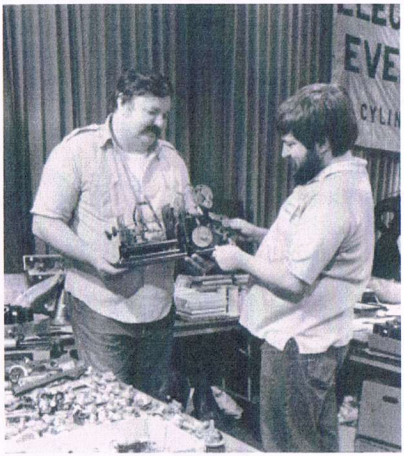
PICTURES FROM THE PAST FROM DONELYS

MIKKY PHONE

MUSIC BOX

THREE CONSOL MODELS

A FANCY HORN

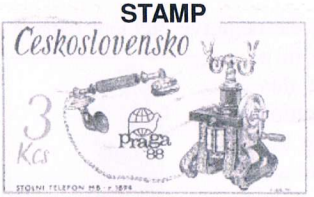


EDISON HOME PROJECTOR

CHARLIE HUMMEL

RECORD CABINET

STAMP

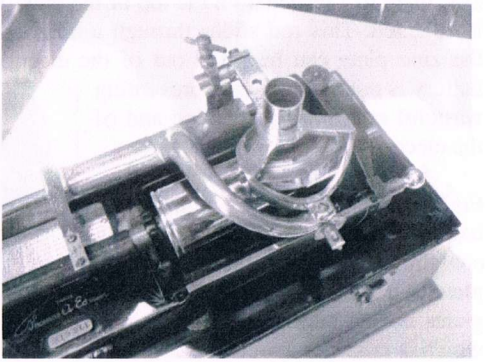


SKELETON TELEPHONE

SETTING UP

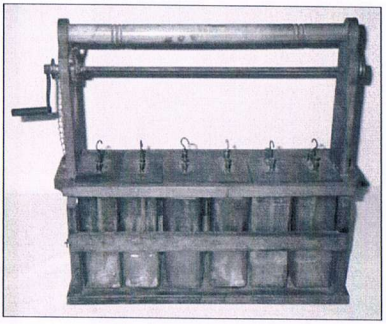
AT DONELYS

MACHINES ON DISPLAY



BETTINI REPRODUCER

The 1912 Stoelting catalogue lists a six cell plunge battery at $16.00. All of the cell tops holding the two carbon and one zinc electrodes can be lifted simultaneously by turning the crank; the flat ladder-chain drive at the left end lifts the sliding wooden frame holding the top of each cell.

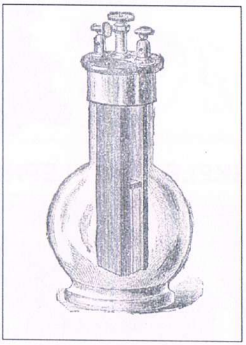


Or, one or more of the cells can be placed in use, with the electrodes of the others hooked over the horizontal brass rod to keep them out of the electrolyte.

BICHROMATE CELL

Years ago I obtained a little book on cells and how to make them. This prompted me to include a copy of some of the material in this and following issues. Walter Norris.

In the bichromate cell the positive element is zinc and the negative element carbon. The electrolyte is a solution of bichromate of potash in a mixture of sulphuric acid and water. A simple form of this cell is shown in Fig. 11, (right) which illustrates a "bottle" bichromate cell. It consists of a glass bottle containing the electrolyte and fitted with a lid from which the elements are supported.



There is a zinc plate in the centre, and two carbon plates, one on each side. The two carbon plates are both connected to the same terminal, thus forming a large negative surface, and the zinc plate to a terminal on the top of the brass rod to which it is attached. This rod slides through a hole in the lid so that the zinc plate can be lifted out of the electrolyte when the battery is not at work, thus preventing wasteful consumption of zinc and of the electrolyte.

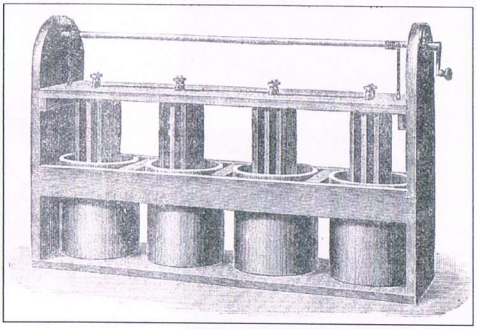


Fig. 12 (right) shows a bichromate-battery consisting of four cells, each containing one zinc and two carbon plates. It will be noticed that the plates are all attached to a cross-bar, which is raised or lowered as required by means of a small winding gear

affixed to the wooden frame-work. The electrolyte is prepared by first dissolving 18 ozs. of powdered bichromate of potash in 3 pints of cold water. To this solution is added 16 ozs of sulphuric acid, *great care being taken to add the sulphuric acid drop by drop.* If the acid is poured in too quickly the mixture will fly up with probably serious results to the operator. In place of this solution a mixture of 18 ozs of chromic acid in 6 pints of cold water, and 6 ozs of sulphuric acid may be used. Special chromic acid salts are also sold by many electrical dealers which only require dissolving in water, and do not need the addition of the sulphuric acid. The zinc plates must be kept well amalgamated (see Chap. III). Bichromate cells give a strong current, and are suitable for driving small, electric motors, lighting small lamps, working induction coils, etc. The E.M.F of a single cell is 2 volts.

HOW TO MAKE A BICHROMATE CELL

Chapter IV

A good non-polarizing bichromate battery of *constant voltage*, which is about 1.8 volts, may be made as follows:- Place porous pot in a battery jar close to the side, and opposite it place a carbon plate fitted with a terminal screw (see fig. 28). Now fill up the space between with lumps of coke as big as beans to within 1.2 in. of the top; next place some powdered pitch or marine glue in an old saucepan, and fill up to the top, taking care to leave a conical hole for pouring in and out the solution. Now roll a zinc plate round a wooden cylinder, leaving a tag for connection at the edge. Amalgamate this thoroughly inside and out by dipping in a dilute solution of sulphuric acid, and rubbing mercury on with a bit of flannel. Then place a drop of mercury as large as a shilling in the bottom of the porous pot, so as to keep the zinc well amalgamated, and the battery is ready for the solutions which are made as follows:-

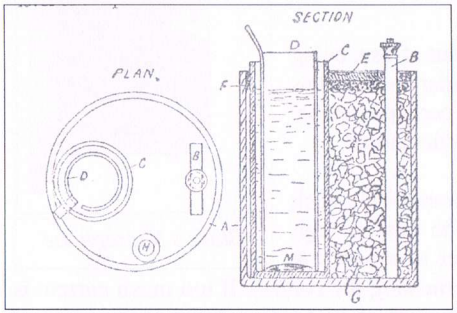


Fig 28 - Constant Bichromate Cell. A. Battery jar; B. Carbon plate; C. Porous pot; D. Zinc cylinder; E. Layer of marine glue; F. Layer of powdered coke; G. Lumps of coke; H. Conical hole; M. Mercury

Solution of porous pot.—make a saturated solution of sal-ammoniac, i.e., dissolve as much of the sale as possible in how water, and when cold pour off the clear solution, and pour it into the porous pot to the level of the powdered coke.

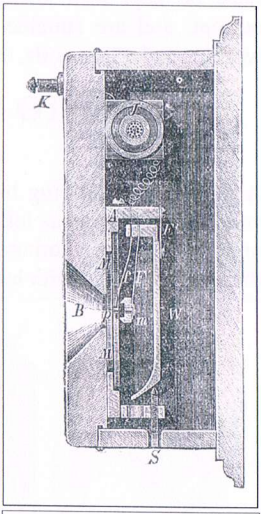
Solution for the jar:– Make a saturated solution of bichromate of potash, and mix with sulphuric acid (sp.g. 1.84) in the proportion of 1 part of acid to 5 parts of the bichromate solution, taking care to pour the acid into the solution, and *not vice versa.* Fill the outer jar with this to the same level as before, and the battery is ready for working.

BLAKE TRANSMITTER

Blake transmitter discussion, led by Bob Lewis at the Telephony Society's Annual General Meeting, held at Merv Sribniak's home, 174 Redgrave Drive, Weston, Ontario, on the 17th day of February 1973.

In 1880, the first Blake Magnetto Wall Telephone set was installed in Canada by the Bell Telephone Company of Canada. This telephone set got its name from the so-called wooden box transmitter which was invented by Mr Blake.

The most notable example of the single-contact transmitter is the once familiar Blake instrument. This transmitter, using a microphonic contact of platinum between the diaphragm and polished carbon button was the vast improvement over previous telephones. At one time this formed a part of the standard equipment of almost every telephone in Canada, the United States and abroad. Probably no transmitter has ever exceeded it in clearness of articulation, but it was decidedly deficient in the power in comparison with the modern transmitter.



Blake's Microphone

The Blake transmitter has passed entirely out of use, being superseded by the various forms of granular instruments which, while much more powerful, are not perhaps capable of producing quite such clear and distinct articulation.

The great trouble with the single-contact transmitter, such as the Blake, was that it was impossible to pass enough current through the single point of contact to secure the desired power of transmission without overheating the contact. If too much current is sent though such transmitters, an undue amount of heat is generated at the point of contact and a vibration is set up which causes a peculiar humming or squealing sound which interferes with the transmission of other sounds.

There are six forms of Blake Transmitters. The first four forms were first manufactured in 1878; the fifth in 1879; the sixth in 1880.

The Blake Transmitters with swinging arm No.2 for double desks was introduced after 1882.*

The Blake Desk Telephone was also introduced after 1882*.

** Contradiction of Historical Bell Telephone information prevents us from giving a specific year to these models.*

RAILCARS IN SUBURBAN AND COUNTRY SERVICE

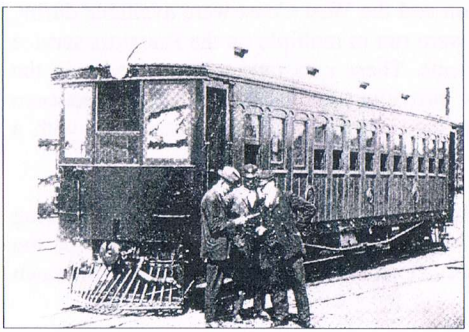
From Les Dew. The Country Commuter: the Regional Railway Network of Christchurch. 1988

As the years went by railway passenger services face increasing competition from other forms of transport. In order to keep ahead and possibly win back some patronage the Railways Department was always looking for ways to improve passenger comfort and cut running costs. There were several periods when attempts were made to achieve this in Canterbury by the use of railcars.

The "Buckhurst" railcar was created at Addington in 1925 and names after its designer, E B Buckhurst, a Christchurch engineer. A six cylinder "Hudson" motorcar engine was slung under an ordinary wooden passenger car and the end platforms were converted into drivers' compartments. The vehicle had a top speed of forty miles per hour and cruised comfortably at thirty four miles per hour.

This railcar made many experimental trips around Canterbury and ran a total of two thousand miles, including trips to Culverden. Although the car was comfortable from a passenger's point of view, it was not successful mechanically, and the experiment was abandoned. With the removal of the motor the railcar reverted to a passenger carriage once more.

In 1926 the Railways Department imported electrical equipment from the Edison Company of America and assembled an Edison battery-electric railcar at the Addington workshops. The body was built by Boon and Company, the well-known tramcar builders in Christchurch. This thirty two ton vehicle was fifty five feet long and seated sixty passengers. With a driver's cab at each end there was no need to turn the car, this saving time at the end of each run. Power for the four 30 horse-power traction motors was supplied by nickel-iron-alkaline batteries that were noted for their quick re-charging properties. Eight additional cells provided electric lighting for the car. Seven hours of charging gave the car five hours of running, attaining a top speed of fifty miles per hour.



The Edison battery-electric railcar was an instant success and passengers loved it. It was clean, comfortable, quiet and fractionally faster than the steam trains it replaced. In fact the only criticism of the car was from country folk who found its luggage compartment too small for their needs.

The railcar was first used on the Lyttelton Line, before electrification, in an attempt to eliminate the smoke nuisance in the tunnel. However, because of the large number of steam trains also using the tunnel, smoke still entered the railcar. It was later transferred to the Rangiora and Little River services.

The working timetable of 1927 shows the car's daily trips as follows:

Origin	Departure Time	Arrival time	Destination
Christchurch	8.05 am	9.14 am	Little River
Little River	9.20 am	10.27 am	Christchurch
Christchurch	12.10 pm	12.56 pm	Rangiora
Rangiora	1.05 pm	1.52 pm	Christchurch
Christchurch	4.00 pm	5.09 pm	Little River
Little River	5.20 pm	6.27 pm	Christchurch

These times differed on Wednesdays to cater for the saleyards patrons and on Saturdays for sports enthusiasts but this table gives a good indication of how hard the railcar was worked. As all this added up to more than five hours running per day it is obvious that the railcar must have been "plugged in" during its stops in Christchurch, where it had its own shed near Waltham Road.

Unfortunately the Edison railcar was destroyed by fire in 1934 and its services were once more run by steam trains. Had this car survived and similar cars been built, the railways may have been in a better position to meet the increasing competitions of road transport.

From 1954 railcars were once more used successfully in a suburban service in Canterbury. At that time diesel-powered, articulated, Fiat railcars, seating eighty eight passengers, were imported to replace the provincial express trains.

Railcars which ran a daily service to Picton and the West Coast were available during the morning and evening peak hours and were run in multiple on the Rangiora service providing one hundred and seventy six seats. These cars ran a return service in the morning and evening and as well as providing a commuter service between Christchurch and Rangiora they also provided North Canterbury passengers with a connection to the 7.10 pm Boat Train.

The railcars were not a great success mechanically and by the late 1960s were proving expensive to maintain. Railcar services were reduced from that time. One of the victims of these cuts was the Rangiora service, from which railcars were withdrawn on July 3, 1967.

FROM A LETTER FROM LARRY SCHLICK ON DONELY'S SWAP MEET

We started seventy five years ago when nine of us (I was in that first show) set up on the grass behind one of the buildings. I was glad it didn't rain. We went from there to a tent, then a larger tent, then two tents, then a larger building, then an extra wing on the building and now to an expanded building and a tent. Now there are about 160 dealers, most, if not all, are also collectors. Space rent is $150 upwards depending on the size of the exhibit. It is opened for dealers on Friday and the show is open to the public on Saturday and Sunday. If you are not a dealer, but wish to enter the show on Friday while the dealers are setting up there is a $40 early entry fee. Each year there are special events one can attend. One presentation was Jean Agnard who made a replica of the Phono-Autograph machine and a demonstration on the Archeophone recording by Megan Haennessey (for which she received two Grammy awards) these she made on the Archeophone on cylinders and discs.

A short note...a Mr Son form Korea was present. He is reputed to have the largest collection in the world. He is president of the Gang Won Do Museum in Korea. I was quite shocked by the prices, the dealers all understand that I quote only the asking price. There isn't a lot of action on set up day and even on Saturday. That doesn't mean there isn't much bought, quite a bit is sold, but many buyers and dealers wait until Sunday - hoping other dealers don't want to carry it back home. I asked Larry his reaction to the prices, he said it was good to see. I guess he has a point, I just don't see how an average collector can deal with the expense. There is almost no machine below $500 and the top range exceeded $30,000. I would like to mention my two favourite items, that is, if I was still actively collecting, I would have bought both... although I have never spent that amount of money for anything. The first was the Berliner tall floor model record cabinet. The asking price of $5000 was a little pricey but I could afford it, BUT I have no place to put it. The other was a large interesting phonograph out of Florida. It had a 98 Edison Home with Mobly Automatic reproducer.

PAUSE TO REMEMBER THE MAN BEHIND THE REMOTE

Timaru Herald 22nd February 2007 - Supplied by Bryan Blanchard

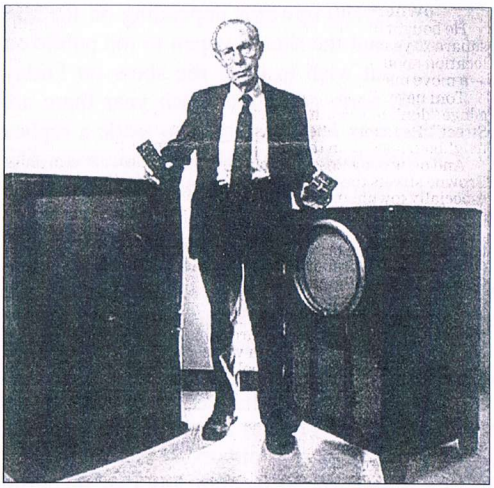
Hit the mute button for a moment of silence: The co-inventor of the TV remote Robert Adler, has died. Adler, who won an Emmy Award, along with fellow engineer Eugene Polley for the device, died on February 16 of heart failure at a Boise nursing home at 93, Zenith Electronics Corp said. In his six-decade career with Zenith, Adler was a prolific inventor, earning more than 180 US patents. He was best known for his 1956 Zenith Space Command remote control, which helped make TV a truly sedentary pastime.

In a May 2004 interview, Adler recalled being among two dozen engineers at Zenith given the mission to find a new way for television viewers to change channels without getting our of their chairs or tripping over a cable.

But he downplayed his role when asked if he felt this invention helped raise a new generation of people too lazy to get off the couch.

"People ask me all the time, 'Don't you feel guilty for it?' And I say that's ridiculous," he said. "It seems reasonable and rational to control the TV from where you normally sit and watch television."

Various sources have credited either Polley, another Zenith engineer, or Adler as the inventor of the device. Polley created the "Flashmatic," a wireless remote introduced in 1955 that operated on photo cells. Adler introduced ultrasonics, or high-frequency sound, to make the device more efficient in 1956.



Zenith credits them as co-inventors, and the National Academy of Television Arts and Sciences awarded both Adler and Polley an Emmy in 1997 for the landmark invention. "He was part of a project that changed the world," Polley said from his home in Lombard, Illinois.

Adler joined Zenith's research division in 1941 after earning a doctorate in physics from the University of Vienna. He retired as research vice president in 1979, and served as a technical consultant until 1999, when Zenith merged with LG Electronics Inc.

During World War II, Adler specialised in military communications equipment. He later helped develop sensitive amplifiers for ultra high frequency signals used by radio astronomers and by the US Air Force for long range missile detection.

Adler also was considered a pioneer in SAW technology, or surface acoustic waves, in colour television sets and touch screens. The technology has also been used in cellular telephones. The US Patent and Trademark Office published his most recent patent application, for advances in touch screen technology, on Feb.1.

His wife, Ingrid, said Adler would not have chosen the remote control as his favourite invention. In fact, he did not even watch much television.

"He was more of a reader," she said. "He was a man who would dream in the night and wake up and say, 'I just solved a problem.' He was always thinking science."

"GHOST" VOICES FORM ODD COLLECTION

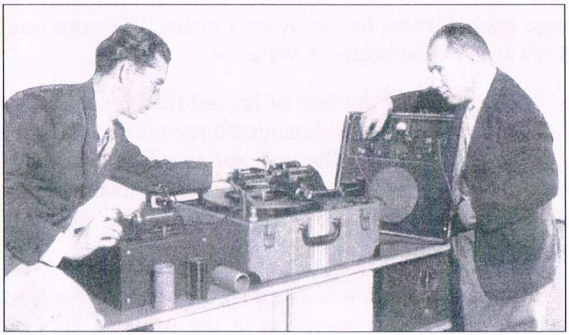
from Popular Science

Salvaged from dusty attics and cluttered basements, more than half a thousand old-time phonograph records form the unique "voices of the past" collection of Robert Vincent, of New York City. William E Gladstone, English premier under Queen Victoria; P T Barnum, the great American showman; Henry M Stanley, the explorer who found Livingstone; Robert E Peary, discoverer of the North Pole; Thomas A Edison, Theodore Roosevelt, and a host of other noted persons speak out of the past through Vincent's fascinating and historically invaluable file of old records.

As he plays them, you hear General John J. Pershing make an address to the American people from the battlefields of France; you hear the American statesman, William Jennings Bryan, give his celebrated "Cross of Gold" speech; you hear Florence Nightingale, patron saint of nursing, bid farewell to her comrades of the Crimean War; you hear the first telephone conversation between New York City and Washington, DC.

Every president of the United States since Grover Cleveland is represented among the records of Vincent's collection. Rudolph Valentino, the movie idol; Sarah Bernhardt, the French actress; A Conan Doyle, creator of Sherlock Holmes; Count Leo Tolstoy, the Russian writer; Emperor Franz Josef of Austria; General Nelson A Miles, the Indian fighter, are also on the list. The voice of every member of Franklin D Roosevelt's' present cabinet has been recorded for posterity.

Vincent was only twelve years old when he obtained the first record of his collection. Theodore Roosevelt, unable to address a boy's club Vincent had organized near Oyster Bay, NY, recorded his speech on a phonograph record and sent it in his place. That historical cylinder, said to be the only authentic existing record of Roosevelt's voice, is the No. 1 item of Vincent's "library of voices".



Robert Vincent, right, and his assistant, William Savory, re-recording one of the "voices from the past" in his unique collection.

Working like a detective, Vincent spends his spare time tracking down forgotten phonograph records. These antiques in wax have come from Europe as well as from various parts of the United States. Almost every week, the collector adds some new treasure to his ever-expanding library.

With the aid of an assistant, Vincent re-records the voices of the past on modern

permanent disks. Special problems, often times, arise in connection with this work. The grooves on the different cylinder records vary and special sapphire needles, some 4/1000 of an inch in diameter and others only 4/10,000 of an inch in diameter, have to made for the re-recording. Some times the ancient records come in warped by heat, pitted by oxidation, nibbled by rats or mice, cracked from ill usage. Then, various tricks have to be resorted to to get the best reproduction of the "ghost" voices on them.

When a record is cracked, fine wire or silk is wound tightly around the ends to hold it solid. If mold or oxidation has pitted the surface of a cylinder, mineral oil is rubbed in the depression to permit the needle to slide over without scratching. When a record is warped or "egg-shaped" instead of round, the re-recording is done at one quarter normal speed to eliminate distortion. Speed is also varied to make the voice deeper or higher.

One record that brought manifold difficulties was an ancient "sleeve" cylinder made by the American humorist, Artemis Ward. The early wax records, like those on modern dictating machines, could be shaved off and used for other recordings. At first, they had to be returned to the Edison laboratories to have this done. An innovation which eliminated this trouble was a celluloid sleeve which could be put on over the cylinder, and on which an additional recording could be made. However, the innovation brought troubles of its own. The celluloid grew brittle and cracked and deteriorated with age. Vincent and his assistant, William Savory, worked for days before they licked the problems of re-recording from the half-century-old "sleeve" on a modern disk.

At present, Vincent is recording directly the voices of some of the celebrated people of today. The latest record of the sort is one of Dan Beard at the age of eighty-nine telling of the founding of the Boy Scouts of America.

Probably the most unusual record of historical interest in his collection is one that reproduces the call of the very bugle which sounded the charge of the Light Brigade at Balaklava, in the Crimean War. The record was made by Kenneth Landfrey, the trumpeter who sounded the charge made famous by Tennyson's poem. The same bugle had also been used by Wellington's army at the Battle of Waterloo.

One windfall, which has given Vincent some of the best of his old-time records, came as the result of a "phonogram", a letter dictated on a phonograph record, which Edison sent to his London agent, Col. George E Gouraud. The inventor asked his assistant to record the voices of several of the great men of the time. The resulting records, found among historical relics at the Edison works, have given Vincent the voices of Gladstone, Barnum, Florence Nightingale, and others.

Years before Vincent was born, Thomas A. Edison was asked by the editor of the *North American Review* to write an article giving his conception of the value of his latest invention, the phonograph. The article which appeared in 1878, said in part "It will henceforth be possible to preserve for future generations, the voices as well as the words of our Washingtons, our Lincolns, and our Gladstones. His prediction is becoming reality in Vincent's collection.

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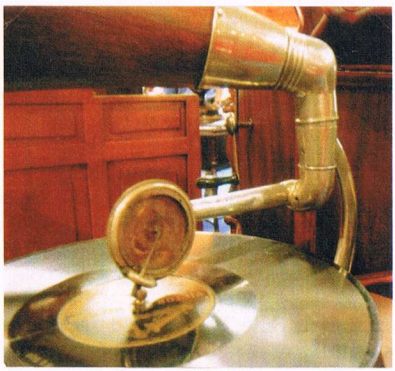
DONELY'S SWAPMEET 2008

LIORET

COLUMBIA BII ZONOPHONE GRAPHANOLA



GRAPHANOLA

REGINAPHONE 1904

SWISS MUSIC BOX