The Phonographic Record

The Journal of The Vintage Phonograph Society of New Zealand

A Society formed for the preservation of Recorded Sound

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73 Flockton St., Christchurch,1. New Zealand.

TALKING OF CYLINDERS "An Odd Lot" A.J.R.

Those who attended our May meeting at Mr. Norris's home may have been surprised by one of the Blue Amberols we heard, "The Preacher And The Bear" by Arthur Collins, because it began with the announcement of the title and artiste, something usually found only on 2-minute wax records. I know of only three Blue Amberols on which an announcement is made - they are No. 1560, "The Preacher And The Bear," No. 23330, "Cavalry Charge," No. 28161 "Celeste Aida" by Florencio Constantino. Bill Dini tells me that this last record was announced by Constantino himself. There may be other Blue Amberols with announcements and if you have one of these oddities I would be pleased if you would drop me a line, giving me a few details including the superscript number.

I said that the announcements are "usually found only on 2-minute wax records," but here's another surprise; not all wax records had the announcement. From Wally Golledge, a Nelson collector, I have learnt that "all 2-minutes were announced up till approximately 10,000." If you have a 2-minute wax with no opening announcement have a look at the catalogue number on it and you will probably find that it is over 10,000. Although announcements were discontinued from this time, it was not permanent because for a while the 4-minute (wax) Amberols began with the usual opening announcements, but later these were omitted.

Most of the early makes of 2-minute cylinders - Columbia, Edison-Bell, Clarion, Sterling etc.,- had opening announcements of the title and make. In fact, this is the only way one can tell a Lambert cylinder as it is simply a plain, wax record. On the other hand, Bettini cylinders have an announcement of the song and singer, but not of the make of record. Another oddity is a 2-minute cylinder I have, No. 13377, "There's No-one To Say Goodbye" by R. Lloyd Morgan. This has the title and artist's name in white letters on the rim of the cylinder, but the catalogue number is moulded into the end of the playing surface as on the very early gold-moulded cylinders.

This represents a transition between the very early Gold-Moulded records which had only the catalogue number moulded onto the surface (and no title or artiste shown on the rim), and the later ones which had all details shown clearly round the rim.

TALKING MACHINE MEMORIES by C.E. Woledge THE EDISON COMPANY IN NEW ZEALAND

Our Patron, Mr. Woledge writes of the wonderful variety of Edison products which came on to the New Zealand market from 1910 and follows the Company's representation in this country until the American factory closed down. In 1910, Edison sent an inspector round the world to call on Edison dealers and to put over pep talks and get a general picture of the whole organisation. The inspector's name was Mr. Hewitson and he booked in at the United Service Hotel; at that time my shop was in the same building, so I saw a good deal of him and learned quite a lot. In particular he impressed upon me that the Edison Company would never lose its premier position in the Talking Machine World - he said that it would keep a leap or two ahead and had preparations in hand to cover all future possibilities. He would

not give me any details but assured me that good things were coming to hand. This was good news because the disc machines were making some headway and business was getting tough. Then almost immediately things began to happen and Mr. Hewitson's forecasts were becoming facts. I will try to remember the new goods which came to hand within the next few months.

The first was that of supplying the Gem with a larger horn with brass bell, at no extra cost. Then the improved 2-minute reproducer with a larger diaphragm to fit all instruments. Next came the supply of all instruments fitted with large floral horns without extra cost and a little later the introduction of the Cygnet Horn followed by the wooden oak Cygnet. Having these new items to offer gave a great lift to business, but even better times were ahead with the arrival of the 4-minute record with attachments to fit all instruments except the Gem. Finally a 4-minute attachment was supplied for this instrument; although this was a great boost to our sales, it was not entirely successful because the Gem motor, when not in first class condition would hardly see a 4-minute record through. To overcome this trouble a new and complete model was supplied with a stronger motor; although the price was increased £1 it put us in a position to hold our own against the cheap disc machines which had come on the market. Incidentally, at this time I was not with the Edison people but had a music shop of my own and handled disc machines and records; but my interest and energies were devoted to Edison and remained so for the fifty odd years I was in the trade.

The next to hand was the Fireside Model with 2 and 4-minute reproducer - this proved to be one of the best sellers we ever had; then almost immediately came the Upright Cabinet Model A 60, the sale of which was somewhat restricted simply because we could not get sufficient supplies. The Concert then came to light. The name of this machine was later changed to the Opera. Here again we could not get sufficient supplies and there was never enough to meet the demand. This instrument with its wooden Cygnet Horn, I believe, was as near to perfection as possible; that is with the first 300 titles of Blue Amberols. I mention these first numbers because they were superior to those which came later. The Royal Purples were, I think, the first of the poor recordings. To differentiate between them, inspect the ends, those with flat ends and with the title, being the best; those with sloping ends not being so satisfactory. The reason given was that of difficulty in securing sufficient carbolic acid during the war, but even after the war, they did not revert to their original standard.

To be continued.....

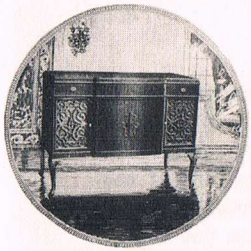
THE STORY OF SOUND RECORDING Part 1

HOW IT ALL BEGAN

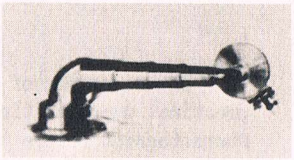
We would like to thank His Master's Voice (New Zealand) Ltd. for allowing us to use information contained in their pamphlet "How a Gramophone Record is Made." Our thanks are also due to Les. McPherson for his research into this subject.

The history of recording is as old as man himself. Even in prehistoric times, man attempted to capture for posterity the events of his day. The primitive man, by drawing pictures on the walls of his caves, tried to illustrate daily happenings - hunting for food or fighting off his aggressors. Later the Egyptians found it possible to write on the pulped and dried fibres of a plant called papyrus and so paper was discovered. All modern archaeological knowledge is found on inscribed tablets, wall paintings in tombs and buried palaces, and papyrus documents. After the introduction of paper came the typographic era, pioneered by men like Caxton and Gutenburg. And so progress flowed through the years until we found the urge, not only to make a record of events in writing, but also to record the human voice and our priceless heritage of music.

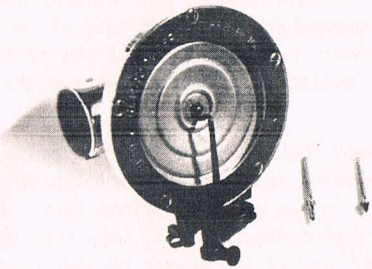
The CHENEY



Modern Georgian Model Cheney

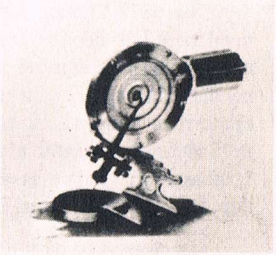


Needle Reproducer Showing the Octagonal Tone Arm



Forest Cheney

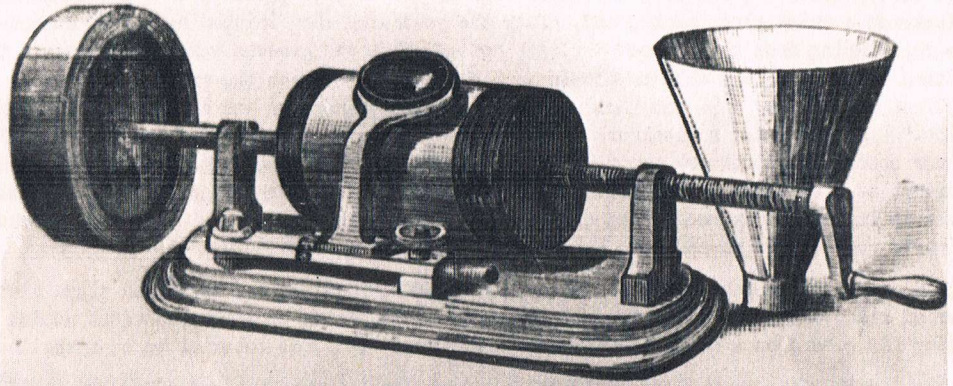
Reproducer with Jewel Points



Needle Volume Adjuster

HOW IT ALL BEGAN

Edison's First Tin Foil Phonograph



The Phonograph.

The recording of sound dates back to the year 1859 when Leon Scott de Martinville gave a practical demonstration of the theory of sound. He exhibited a mechanism known as the Phonautograph before the Royal Association. It consisted of a hog's bristle attached to a stretched membrane which was mounted on the narrow end of a funnel. The free end of the bristle just touched the lamp-blacked surface of a cylinder which could be revolved and transversed at the same time. Sounds made into the funnel disturbed the diaphragm and the vibrations were transmitted to the bristle, the tip of which "recorded" a wavy line on the blackened surface of the cylinder. Similar sounds gave similar traces. Sound recorders of various types have been constructed throughout the first half of the 19th Century, but the "Phonautograph" was the first success. However, like all its predecessors, it could not reproduce the sound recorded on its cylinder. Nearly twenty years were to pass before this important angle was developed.

In 1877 Thomas Alva Edison proved that sound could be reproduced as well as recorded. He used a stiff needle instead of a bristle, and covered his rotating cylinder with tinfoil. The needle point recorded the sound as a series of indentations (cuts) of varying depth, and when the needle was again passed over the recorded indentations, they were reproduced as sound. Edison's apparatus was called the "Phonograph" and in the course of time these machines and their cylindrical records attained considerable popularity. Americans to this day still use the word 'phonograph' for a record playing machine, whereas we use the word 'gramophone'. The reason for this will be seen later.

In 1886 two men called Bell and Tainter filed a patent for the use of a wax surface for recording and a sapphire cutting surface, and their machine, under the name of the "Graphophone", was exhibited a year later. The word "graphophone" is still part of the registered title of the Columbia Company. In 1887 Emile Berliner, of Washington, entered the arena of sound recording. He was convinced that the up and down method (or, as it is now, "hill and dale") was not the ideal process. In loud passages the abrupt drive of the recording point caused distortion, and he reasoned that the only way to be certain of an even quality of recording was to have a recording track of even depth. He returned to the idea of the "Phonautograph" in which the sound waves were visible as a wavy line running from side to side. The use of wax being covered by patents, Berliner had to find another medium. First he used paper covered with soot, and fixed his tracings in a solution of shellac. Having secured some satisfactory tracings, he mounted them on a piece of zinc and etched the tracings in an acid bath. From this hardened sound track he was able to reproduce sound.

The next step was to design a machine with a turntable and the necessary screw to make the groove concentric i.e., run from the outer edge of the disc to the centre. Having done this, he blackened a thick glass plate, and, after the recording was finished he had it etched. While reproducing from this record Berliner noticed that the grooves were strong enough to guide the sound box, and he was able to eliminate the screw device from the apparatus which he called the "Gramophone". By 1894 the Berliner hand-operated gramophone was a practical "Talking Machine." A year later a clockwork motor was incorporated, and in 1897 a really reliable governor controlled clockwork motor was fitted. By this time the Gramophone had assumed the appearance of that shown in the H.M.V. trademark, and in 1897 a representative of Berliner arrived in England to introduce and market it. In 1898 The Gramophone Company was formed, and Berliner's coined word passed into the vocabulary.

Having secured a patent for his recording in 1888, Berliner had discarded glass plates in favour of zinc, and evolved a method of duplications by making electrotyped metal moulds and pressing his record on a softened material. He found the ideal material to be a shellac

compound and with this and his gramophone he founded the industry that has brought the finest of music into countless homes. The "His Master's Voice" Trade Mark Gramophone, as it is called to-day used a steel needle along the groove of the record and it vibrated the diaphragm of the soundbox. The resultant sound-waves made their way as well as possible around a leather crook-piece and burst upon an astonished world from the mouth of a small brass trumpet or horn.

MORE ABOUT REPRODUCERS

W.T. Norris

TWO LESSER KNOWN CYLINDER REPRODUCERS

COLUMBIA The Columbia Company also made a Lyric Reproducer for use on indestructible records only. It sold for $3.00 in March 1909. It has a genuine sapphire point and a metallic sunburst diaphragm. It was known as the "indestructible reproducer" for two reasons. "To bring out completely and unerringly all the wonderful variations of tone and colour for which Columbia Indestructible Records are remarkable, this reproducer is in itself indestructible, equipped with a metallic diaphragm."

The above information comes from Rod Cornelius of Dunedin who has such a reproducer and also the original box. We thank him for the information, part of which comes from a "Columbia Records Magazine." We would also like to thank Wally Golledge of Nelson for lending us his reproducer to be photographed.

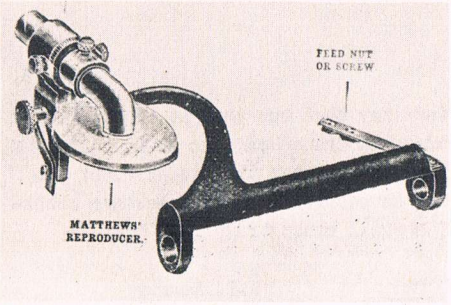
LAMBERT I first heard of Lambert, when, on a visit to Adair Otley, he played me a tape he had received from an American. On this tape, the narrator told of a man by the name of Lambert, who had once worked for Edison and discovered how to make an indestructible cylinder which he went out of his way to produce. These, said the American, are pink in colour and are much prized by phonograph and cylinder collectors. Whether this part is true I do not know, but I have been able to discover that Lambert took out a patent on August 14th, 1899, for a pink indestructible cylinder made of celluloid. He manufactured both pink and black cylinders all having a turned-in edge and made in both standard and concert (5 inch) size. These are considered rare in any country but both sizes and colours have been discovered in New Zealand.

In this issue there is a picture of a Matthews' reproducer, this being copied from a cylinder slip of the type put in Lambert cylinder boxes. About this reproducer we know very little other than the information shown on the slip. This is a combination reproducer designed to fit an Edison Home phonograph, but they were also made to fit Edison Gems and Standards. Prices of these reproducers were 17/6, 21/- and 22/-. They were also fitted, it appears, to Lambertphones. These reproducers had what was claimed to be a simple and easily repaired diaphragm plus what seems an almost everlasting sapphire stylus. This was also claimed - that the Company tested every cylinder made by playing it through once. In doing this a girl would average 500 cylinders per day, or 2,700 per week; but even after months of constant use the sapphire stylus showed no signs of wear.

HILL AND DALE DISC REPRODUCERS

Many collectors have asked these questions? With which reproducer do I play my hill and dale discs? What was used when the records were being regularly issued? Many companies manufactured these types of record and many made reproducers for them.

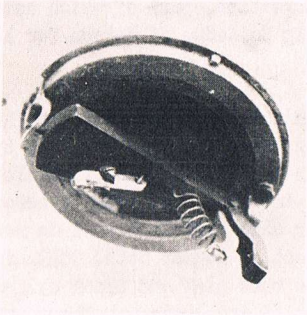
CHENEY Not a great deal seems to have been written about the Cheney Company, but set down is the information available. This Company, like the Brunswick Company, was formed in the U.S.A. and was the brain-child of Forest Cheney. Forest Cheney was a music teacher specializing



from
The Lambert
Cylinder Slip

An Early Phonograph
Shop in New Zealand

The
Columbia
Reproducer

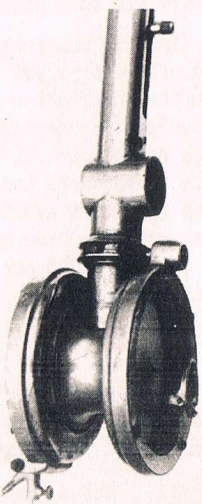


The
Nicole
Record

THE
BRUNSWICK

Single Ultona
(left)

Double Ultona
(right)



in the violin; he dreamt of a machine which would reproduce the fine quality of the violin and the piano, as well as the orchestra. Much experimentation was made by him before the production of a machine with an internal horn of seasoned violin woods. His reason for the latter being his interest in the violin and his desire to have a perfect reproduction of its music. His needle reproducer had a metal diaphragm and was claimed to be free from blast. It was attached to a tone arm of octagonal shape. He also designed a needle volume adjuster which was in the form of a through drilled needle holder so that the needle itself could be fitted with either a short or long part of it protruding; thus the sound would be correspondingly either loud or soft. Cheney also devised a reproducer that was supplied with most of his models; this had a ball point sapphire for Pathe discs and a needle point for Diamond Discs. Several members possess a Cheney machine and have found that it gives excellent reproduction. Such a machine is also a handsome piece of furniture in itself as the polish and finish is extremely good.

BRUNSWICK The first production date of this Company in connection with gramophones seems to be in doubt but was apparently 1916-1920. One story of their beginnings is that although they were large manufacturers of billiard and bowling equipment they were making cabinets for Edison and it was not until a shipment was refused that the Brunswick-Balke-Collender Co. decided to produce machinery to fit the cabinets. The records produced were lateral cut only and can be easily found but the Company did produce two models of reproducer; one known as the Single Ultona which would play Pathe Discs and needle-cut discs; and the other known as the Double Ultona which would play all three types of records, that is needle cut, ball sapphire Pathe type and Edison Diamond Discs. These reproducers are commonly called multihead Brunswicks by most collectors; they have a large diameter diaphragm made of mica. Because of the excessive weight the reproducer had to be balanced by a counterweight which was easily adjusted to suit the record being played. The head itself was made in such a way that it could be revolved to bring into position the required type of stylus. Several of these have been found in New Zealand and the Double Ultona is ideal for playing both types of hill and dale discs. The master agents in New Zealand were Farmers Union Trading Co., Auckland.

THE NICOLE RECORD

The record illustrated this month has similar beginnings to the Klingsor record described in the September issue. The makers were the Nicole Frere Company who were music box manufacturers, forced by the growing popularity of the talking machine to manufacture both machines and records. The sample in the photograph is 7" in diameter and like other sizes, has a cardboard base covered by a brown substance. The 10" size is the most commonly found, but none were of very good quality; the needle being very prone to cut through the surface into the card itself.

HOW THE PHONOGRAPH WAS DISCOVERED

Like many incidents which, while relatively small in themselves at the time of happening become important because of later events, the invention of the phonograph has become the subject of much controversy. We print below two versions, both originally published in early articles, and in our illustrations we picture the first phonograph.

By Mr. Edison from a book published on February 18th 1879.

The phonograph was discovered - "by the merest accident!" "I was singing," says he, "To the mouth piece of a telephone, when the vibrations of the wire sent the fine steel point into my finger. That sent me to thinking. If I could record the actions of the point and then send the

point over the same surface afterwards, I saw no reason why the thing would not talk. I tried the experiment, first on a strip of telegraph paper, and found that the point made an alphabet. I shouted the word HALLOO!.HALLOO! into the mouthpiece, ran the paper back over the steel point and heard a faint halloo!.halloo! in return. I determined to make a machine that would work accurately, and gave my assistants instructions, telling them what I had discovered. They laughed at me and I bet fifteen cigars with one of my assistants, Mr. Adams, that the whole thing would work the first time without a break, and won them. That's the whole story. The discovery came through the pricking of a finger."

How the phonograph was invented as told in another account runs as follows and is best told in Mr. Edison's own words. In an article on the "perfected Phonograph" which was written for the North American Review in 1888, Mr. Edison calls attention to the well known effects of certain musical notes and chords upon sand, when loosely sprinkled on a sounding board; in response to the sound waves, the sand sifts itself into various geometric curves, differing according to pitch and intensity. He speaks also of the fine line of sand that is left high up on the beach, as each breaker spends its force in its uttermost ripple and then recedes. He draws the following parallel:-

"Yet well known though these phenomenon are, they apparently never suggested until within a few years, that the sound waves set going by a human voice, might be so directed as to trace an impression upon some solid substance, with a nicety equal to that of the tide in recording its flow upon the sandy beach..... My own discovery that this could be done came to me almost accidentally while I was busy with experiments, having a different object in view. I was engaged on a machine intended to repeat morse characters, which were recorded on paper by indentations that transferred their message to another circuit automatically, when passed under a tracing point connected with a circuit closing apparatus. In manipulating this paper, I found that when the indented paper was turned with great swiftness, it gave off a humming noise from the indentations, a musical rhythmic sound resembling that of human talk heard indistinctly. This led me to try fitting a diaphragm to the machine, I saw at once that the problem of registering human speech so that it could be repeated by mechanical means as often as might be desired, was solved." T.A. EDISON.

These two versions while alike in many ways differ from each other in some of the detail; whatever the factually true story is let us be thankful that the invention came about at all.

MAINTENANCE AND REPAIR OF MACHINES No. 4.

REPAIRING THE SHAFT GEAR OF A "HOME" PHONOGRAPH W.T. Norris

I have often found an Edison "Home" Cylinder Phonograph which would not work because of a broken gear. This gear is made of brass and pressed on to the shaft. Being narrow, the gear often splits and will be found in two pieces in the bottom of the case. I have found that the smallest Meccano cog is the right size except for the hole which has to be drilled out to fit the shaft on to which it is then pressed. Sometimes the teeth of the gear have to be filed, to make it mesh and run sweetly.

OLD DANCE TUNE Wanted - Disc or Cylinder or sheet music of date 1920, named by old-time dancer as either "Tender Memories" or "By The Blue Lagoon." Or has anyone any information about it? Write Harry M. Sansum, 94 Daniell Street, Wellington S.1.

WANTED TO BUY 78's, 45's, and 33⅓'s of Brass Band Music, particularly marches and polkas.
FOR SALE National Turntable arm with magnetic variable reluctance cartridge. £15 or offer.
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