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

EDISON PHONOGRAPH CENTENARY 1877 – 1977

MESSAGE FROM THE PRESIDENT

To those who are able to attend this, the 8th Convention of the Phonograph and Record Collectors held in Christchurch, 4th – 6th June, I would like to extend a very warm welcome. We hope you enjoy the visit to our fair city, and find the programme both informative and entertaining. We have learnt from past Conventions that meeting together with a common interest, meeting old friends and making new ones, seems to make the effort worthwhile. We wonder just what Thomas Alva would have said if he could see the progress we have made today with the presentation of both colour picture and sound, which is able to be transmitted around the globe.

For those who are not able to attend; in this issue we are featuring illustrations which are of historical interest to New Zealand collectors. We will be giving an account of the Convention in later issues, and hope it will be informative.

PETAL AND GEM HORNS

Would the long list of members waiting for the above parts, please note that the Society is still endeavouring to obtain supplies. We understand that the tinplate necessary for manufacture is still in extremely short supply in this country, and when available again, will be more expensive. We will contact members as soon as we have any information that stocks are coming to hand.

ILLUSTRATIONS

A Joy to Young and Old

These three photographs come from one of the scrapbooks of the late Mr Claude Woledge, whose collection of printed matter is owned by the Society. They are uninscribed, but date from c.1910 and were presumably taken in Christchurch by Mr Woledge. The machines are Edison **Standards**, the upper photo featuring a 2-minute Model B, the others Combination Model D's. All three, but especially the middle view, are delightfully spontaneous shots of the Edison Phonograph in everyday use.

Edison with his Favourite Invention

In chronological order these photographs are:

(1) One of the views taken on 18 April, 1878, in the Washington Studio of the great photographer Matthew Brady, by Brady's nephew Levin C.Handy. Edison was then 31.

(2) One of the shots of 16 June, 1888, taken after Edison's marathon completion of the Perfected Phonograph.

(3) A view of 1906 showing a **Triumph B** (or perhaps it might be an **Alva**, the electric model with a **Triumph** case?).

(4) A view taken in the fiftieth anniversary year, showing Edison with the original machine, returned to him that year by the British Government. The prototype had been sent to Britain c.1878 to support Edison's British patent application.

Glimpses of the Recording Scene

The phonograph in the drawing of a piano recording session seems to be an electric machine of the **Class M** variety, portrayed with artistic license – for one thing, the recorder/reproducer carriage appears to have no back. Artists unfamiliar with mechanical details have created some weird and wonderful pictures.

Although of poor quality, the photograph of a recording for a sound film is, we feel, an interesting reminder of Edison's longstanding ambition to combine film and cylinder. The violinist is W.K.L.Dickson, Edison's resourceful film assistant, to whose strains the two men at right are cheerfully dancing.

In the view of part of the Edison laboratory at West Orange, the figure at right appears to be Edison – certainly the clothes suggest the inventor. The machine is a **Triumph** A (1901-06).

Billy Whitlock seems to have been a studio rather than a music hall artist. Unless there were two gentlemen of the name, he was also a bell soloist. Electric Records were of course completely acoustic two-minute wax cylinders.

The Phoneries, Christchurch

Another Woledge photograph, luckily dated to January 1910. This was Mr Woledge's shop in Morten's Buildings, Cathedral Square (now the United Service Hotel building). Another photo shows the Tramway Board Ticket Office next door, so we assume that the emporium faced the Square. Behind the counter is the 24-year-old Claude Woledge. From left, the machines are:

(1) Unidentified internal-horn table model gramophone.
(2) Graphophone BC with brass horn.
(3) Edison **Triumph** *D (?) with black tin horn.*
(4) Internal-horn gramophone, possibly a 'Woledge'.
(5) Edison black handle-wind **Gem** *with aluminium horn.*
(6) Edison **Home** *or* **Standard** *– obscured.*
(7) Edison **Triumph** *B (?)*
(8) Edison **Fireside** *A.*
(9) Edison black handle-wind **Gem.**
(10) G & T/Gramophone Co. **Monarch Senior** *with brass horn.*

Amongst the cylinders on the right-hand side appear to be some 5-inch: these were still available on special order from the Edison factory for the very few remaining Concert enthusiasts. It may surprise the casual observer that such a shop stocked such a hotch-potch of makes and models, many some years out of date in 1910. Things took a long time to reach the antipodes then and anyway, Edison hadn't heard of planned obsolescence.

Australian Advertisement

This ad is typical of the sort of treasure to be found in old magazines – a fine engraving and a mine of information. The machine must be the largest of all 'front-support' horn disc machines and must have been made obsolete almost immediately by the 'back-support' tone-arm models. One example is known in New Zealand of this model or one almost idential to it. We extract a few interesting points from the text:

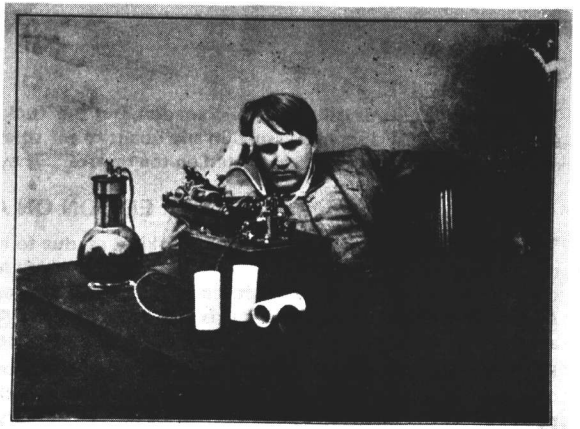
(1) The segregation of 'talking machines' and 'Gramaphones' (sic). The latter was still the copyright name for Gramophone and Typewriter machines.

(2) The presentation of the Graphophone as an 'Allan' machine, with the firm's own model name.

(3) The mention of 14-inch discs: these were lateral-cut, and short-lived because of their fragility. Even so, it is odd that none seem to have been found in this country.

(4) The extremely high price of Melba discs – they sold well, however, and are much more common now than many records a fraction of their price.

1878



MR. EDISON AT THE CLOSE OF FIVE DAYS AND NIGHTS OF CONTINUED WORK IN PERFECTING THE EARLY WAX CYLINDER TYPE OF PHONOGRAPH. JUNE 10, 1888.
This is the longest continuous session of labor he ever performed.

1888

EDISON WITH HIS FAVOURITE INVENTION

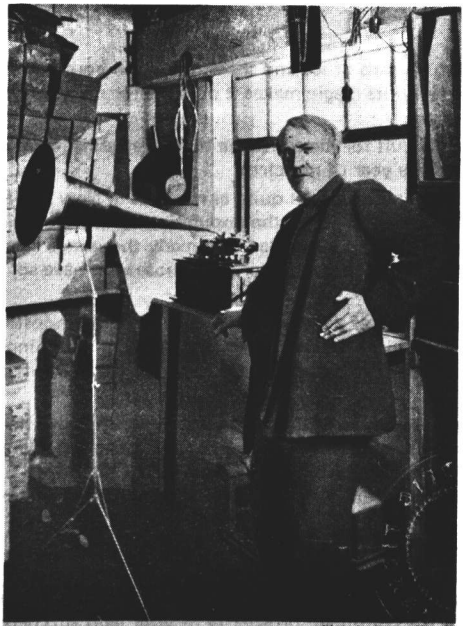


Photo by Byron, N.Y.C.

MR. EDISON LISTENING TO A PHONOGRAPHIC RECORD.

1906

1927

Postcards

The two picture cards call for no explanation, but the Tuck record cards must be, at 3½ inches in diameter, about the smallest discs ever issued in any quantity (of titles). The envelope illustrated contains Series I of four records: Series A-G are listed on the reverse. They play quite adequately.

THOMAS A. EDISON ON A DIAMOND DISC by Bill Dini

There are not many records of Edison speaking, as, due to his deafness, his voice was high-pitched and did not record well. Apart from the many laboratory tests which he must have made over the years, there seem to be only the 4-minute wax 1908 Electrical Exhibition Speech and the Blue Amberol/Diamond Disc *Let us not Forget* of c.1918. The 2-minute wax *Advertising Record* was by Edward Meeker, a studio singer and announcer. It is, I am sure, not generally known that Edison recorded another disc.

Recently I was given a 10-inch Diamond Disc of which Thomas Edison and his son Charles, had each recorded one side. The script on each side is exactly the same, Charles, of course, being the clearer and without the odd cough or two. These recordings were made on 11 February, 1928, and sent to Mr A.R. Harris of Christchurch to be played and broadcast at the opening of Radio Station 3YA. Mr Harris, besides being General Manager of the Radio Broadcasting Co. of N.Z. Ltd., was also N.Z. agent for Edison batteries etc. (but not phonographs).

Three copies of this disc were made. Some time ago, when A.R. Harris & Co. were shifting to new premises, the records were discovered. Mr Winston Harris, a son of the late A.R. Harris, gave all the copies to Mr Pywell, then Warehouse Manager. Recently, Mr Pywell gave one copy to me. He later presented one copy to the Vintage Phonograph Society of N.Z. (Inc.) and gave the last copy to our Treasurer, Adair Otley.

Details of the disc are as follows:- It has no index number, and has a gold paper label similar to that of the Long Playing Diamond Discs. The title is *A Personal Message to the People of New Zealand, by Thomas A.Edison, February 11, 1928.* The reverse side has the same title, except for "Charles" instead of "Thomas A." It runs for about three minutes each side. The text is as follows:- (we had some difficulty transcribing the disc (even Charles' side), due to its low volume – despite its late date, the recording sounds acoustic. The text we print is substantially accurate).

TRANSCRIPT

It is a far cry from my laboratory here in this Northern land in its garb of ice and snow, to you in your land of sunshine and flowers, under the Southern Cross. But science with its magic makes it possible for me to greet you with the spoken word some thousands of miles apart.

Surveying the progress of New Zealand in world affairs, it is difficult for me to realize that its establishment as a Colony of the mother country, is practically coincident with the year of my birth.

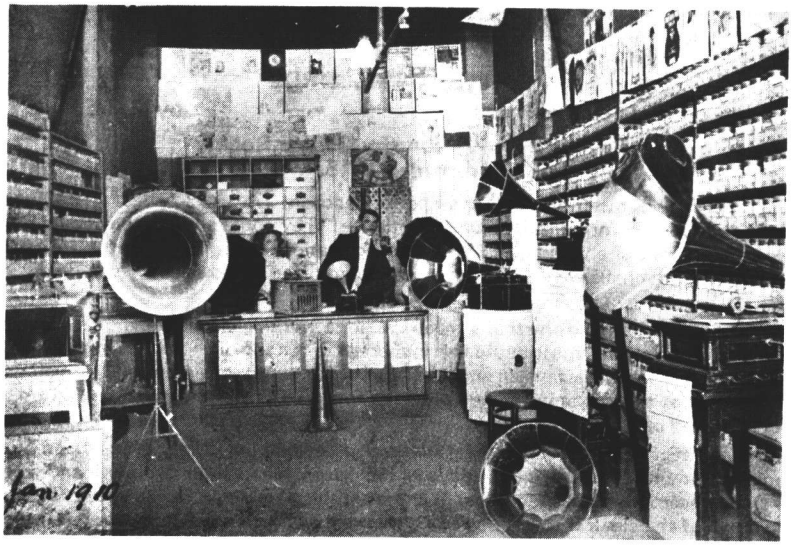
During my life-time I have witnessed many changes, but nothing impresses me quite as much as in New Zealand. From a handful of sturdy British amateurs, who established a Colony in 1840, the population of the Dominion now totals nearly 1½ million. The scattered farms of the colonists have expanded into many thousands of acres, teeming with agricultural activity; a remarkable monument to the grit and enterprise of those who have so rapidly developed the land.

Your harbours are filled with shipping, carrying products to all parts of the world, and are another demonstration of growth. Not so long ago, I saw some statistics issued by the United States Govt. at Washington, revealing the amazing fact that New Zealand occupies the conspicuous position of enjoying the highest export trade per capita of any country in the entire world – a marvellous showing.

This present day aspect of the country, active in its agricultural and industrial life, is a tribute to the dauntless spirit of the people of the Dominion – all this in practically the span of a single lifetime. We here in the United States, find much to admire in the growth of the simple schools of the early pioneer days in Wellington, to the present splendid educational institutions with their realistic application of the democratic principles of unlimited opportunity for the youth of the land.

Looking ahead into the future, one feels secure in predicting a country alive with agricultural and industrial growth, its rivers giving an abundance to power development, aiding its progress, and its people steadily and courageously pressing forward to make their land one of happiness and contentment. I am glad of this opportunity to greet you and to extend my cordial good wishes for the continued prosperity of your land and people.

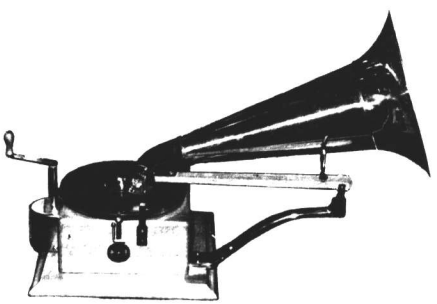
P.S. We would welcome readers' interest in the possibility of a cassette copy of Thomas' speech.



'THE PHONERIES', CHCH

AUSTRALIAN ADVERTISEMENT,
1905

A SPECIAL DIAMOND DISC



REPLICA 'DOG MODEL'

On this page, and the following one, is pictured a reproduction Berliner Gramophone. Recently produced in Japan, and distributed in the U.S. by Al Gerichten, Warren Crane, and Bill Endicia, this marks the first time Berliners have been made in 75 years. They are very close copies, and sell for $425. Collectors will have to decide how they will react to this latest news, and we would appreciate hearing your thoughts on this. Current serial numbers in use on these models are J 18425 on the reproducer, and 34371 on the motor housing. As demand exceeds supply, this may become an inevitable part of our hobby.

RECORDS OF RECORDS

or, Cylinders Studied and Discs Discussed **by G.B.E.**

No.1 (new series): *And that's that* (Robey), sung by George Robey. HMV 02607 (c 617), recorded 1915.

A friend of mine, after seeing (recently) Al Jolson's performance in *The Jazz Singer* (1927), noted the almost offensive versatility of so many music hall/vaudeville artists – 'They could all sing, they could all whistle, dance, play the piano, get a tune out of a violin ...' This is an exaggeration, but it is true that those who rose to the top in the tough world of the halls were artists of immense and often varied talent. None, however, could rival Robey.

'The Prime Minister of Mirth' came of neither a theatrical nor a working-class family. An engineer's son, he was born in London in 1869. So were most music hall immortals, but none of the others approached the stage via Dresden and Cambridge! Robey became an engineer but not for long. After amusing himself and his audiences as a hypnotist's assistant at the Westminster Aquarium, he appeared as a trial turn at the Oxford. That was in 1891 and he never looked back.

Photographs and song lists from the 1900's reveal Robey in a bewildering variety of impersonations. British history was somewhat embroidered as George played a Prehistoric Man, Oliver Cromwell and Good Queen Bess. It is some time since I heard his G & T recording of the latter, but the Virgin Queen's reaction to Sir Walter Raleigh's laying-down of the cloak is something like, 'I haven't had such a surprise since he gave me a moustache-cup for Christmas!'

The Robey most familiar, though, is the quasi-clergyman with enormous (and largely genuine) eyebrows, affecting a pained and righteous dignity before his shaking audiences. *And that's that* is typical of his songs – short bursts of patter conveyed with supreme timing and wonderful diction. The music hall librettists were not writing poetry, but their better efforts could paint detailed and memorable pictures with an enviable succinctness. Aim your optics at a verse and chorus of *And that's that*:

Now my wife is a strong-minded woman–
There's nothing on earth she's afraid of.
Whenever she's near me I'm quite overpowered,
She says I'm a worm, just a drivelling coward.
One morning she said to me, 'Horace!
My will-power I'm going to try.
On that bull in yon field I will now demonstrate
The power of the bare human eye.'

Chorus:

The wife fixed her eye on the bull ...
But her will-power that morning was flat.
The poor gal did her best – the bull did the rest –
There are no flowers by request – and that's that!'

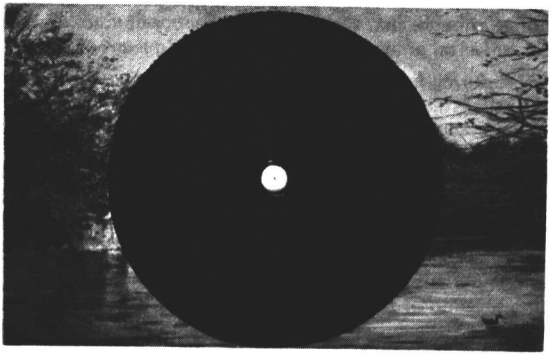
Most Robey discs have a section of spoken patter, but *And that's that* stands out amongst his recordings (or rather those with which I am familiar) in two respects. The monologue is the best example of his 'Desist from mirth' style, and it seems to be aimed at the staff and/or an audience in the studio:

"Oh, its no laughing matter I say – I say its no laughing matter. Look here I say, before we go any farther we may as well understand one another. I say, here, I-I-I've not come here to be made a laughing-stock of. Er-r-r, its hardly fair to me you know – I say its hardly fair to me. I don't think you know what you are doing, really. I'm sorry to have to chide you, but I'm afraid I must put it down to ignorance on your part. Ha-ha-ha-ha, yes its all very well. You don't seem to grasp the - er - what they call it - the er-r-r ... you are not aware of the er-r-r ... you are not cognizant of the facts (Ah! now I've said it, but you forced me to!). You know, I don't do this for fun. I don't think you know that – ah – I get things for doing this, you know, yes, added to which that I am asked to come here and sing into this tube. Mm! Yes – I know its all very well – I'm asked if I will kindly oblige by putting my face here and making myself ludicrous and then I'm made a laughing stock of – it isn't fair! So I think I will - er - proceed to carry out my nefarious design with the aid of the scraping of the hair of the horse across the intestine of the cat. You notice that I said intestine because I think GUT sounds so indelicate – and that's that!"

POSTCARD, C.1903

POSTCARD, C.1903

GEORGE ROBEY



TUCK'S GRAMOPHONE RECORD
POSTCARD AND ENVELOPE,
C.1920

Times changed but Robey was not left behind. He became a star of revue, most notably of course in *The Bing Boys are Here* (1916), with Violet Loraine and Alfred Lester. His film career began as early as 1914 but his two most famous roles came much later – Sancho Panza to Feodor Chaliapin's Don Quixote in 1931 and the dying Falstaff in Olivier's Henry V (1945). Off the stage Robey did much more than rest - he played football with professional skill, made violins and collected Chinese scent –bottles.

By 1960 he was one of the few remaining stars of the great days – by now rather pathetic in his stage make-up as he sang, a relic from another era, to sympathetic but puzzled audiences. In 1954 came a knighthood for his distinguished service to entertainment - the same year, he joined most of his contemporaries.

Fortunately, Robey's recorded legacy is extensive. His Edison two-minute wax cylinders are rare, as are the G & T's of 1902 onward. He crops up most frequently on HMV and Columbia of c.1912-24. Listening to that cultured, admonishing voice, I like to think I have an accurate idea of Robey on stage. Denied the opportunity to see and hear him in the flesh, I may at least appreciate George Robey through the medium of 'the industry of human happiness. '

THE PHONOGRAPH'S FIRST PRIMA DONNA by R.Peggio

Who was the first famous opera soprano to record? In terms of surviving commercial recordings, the honour would seem to go to Marcella Sembrich (1858-1935), whose 5" Bettini cylinder of c.1900 is the only 'first-rate' example of its legendary make yet discovered. The St.Petersburg red G & T's of Medea Mei-Figner (1859-1952) date, according to Bauer, from 1900 or 1901.

'But what about Jenny Lind?', I hear you asking. The simple fact is that the 'Swedish Nightingale' died in 1887 at the age of 67. Unless she felt moved, in her last months, to leave the comfort of her English home and visit the workshops of Edison, Bell and Tainter or Berliner, the only recordings she could have made would have been sheets of tinfoil. Such relics may exist, but they do not explain the claims often heard. For instance, a local record collector recently encountered a lady who declared that she had had discs by 'Galli-curci, Melba, Jenny Lind – all those old sopranos'! The only answer I can suggest is that these people have been confused, despite themselves, by memories of Frieda Hempel (1884-1956) who made a great success with her 'Jenny Lind Concerts' for which she appeared in period costume.

If we forget about recordings known, commercial and in some form currently available, the prize goes to that elaborately-attired lady pictured singing gaily into a tinfoil phonograph. She was Marie Roze and she was one of the greatest of nineteenth-century singers.

Born Marie Ponsin (or Poussin - my references disagree) at Hippolyte near Paris on 2 March, 1846, she consolidated natural talent with a thorough training, winning First Prize for singing at the Paris Conservatoire in 1865. That year saw her début, on 16 August at the Opéra Comique, as Marie in Hérold's opera of that name. The Paris Opéra first heard her on 2 January, 1870, as Marguérite in Gounod's Faust. Many great French opera singers have been content to confine their careers to France (by and large) – one need think only of Lucien Fugère. Roze, however, soon captured Brussels and on 30 April, 1872, made her triumphant English début at Drury Lane, again as Marguérite. Rather than trot out the usual clichés, I prefer to let her achievements speak for themselves – it can be noted, though, that she augmented beauty of voice and appearance with acting ability. This latter was by no means universal among nineteenth-century 'queens of song.'

In 1874, during her stay in England, Roze married an American bass (or baritone), Julius Edson Perkins. Widowed only a year later, she married the famous impresario, Colonel Henry Mapleson, whose management further helped her blossoming career. Her first tour of the U.S.A., in 1877-9, coincided with the invention and demonstration of 'the wonder of the age'. She sang the rôle of Helen in the first American performance of Boito's Mefistofele, but it was her first appearance as Carmen, in America in 1879, that established her in the role subsequently identified with her. For Marie Roze was one of the Victorian period's three greatest interpreters of Bizet's tempestuous gypsy, the other two being Emma Calve (1858-1942) and Selie de Lussan (1863-1949), both of whom made commercial recordings.

Although her audiences demanded Carmen wherever she sang, Roze by no means spurned new challenges. As the leading soprano of the Carl Rosa Opera Company in England (1883-9), she conquered the dramatic peaks of Elsa in Wagner's Lohengrin and Leonora in Beethoven's Fidelio, as well as creating Massenet's Manon on its first English performance (Liverpool, 17 January, 1885). Throughout the 1880's she visited the U.S.A., sang with the Italian Opera Company in London, and undertook a certain amount of festival and concert work.'

Roze bid farewell to the operatic stage in 1890 and settled down to teaching singing in Paris. For a few years she gave concerts, but made her last tour in 1894. England heard her once more, at a concert given by one of her pupils in 1903. She died near Paris in 1926 at the age of 80.

References:

(1) *L.J. de Bekker, Stokes' Cyclopaedia of Music and Musicians (Edinburgh: Chambers, 1911).*

(2) *G. Davidson, Opera Biographies (London; Werner Laurie, 1955).*

WHAT ABOUT CHARLES CROS?

Some of Edison's Predecessors in Recording

by G.B. East

No, I am not going to succumb to the temptation to ramble on about Egyptian statues, Chinese bamboo tubes, mediaeval automata, etc. ... This cursory survey will be confined to Europe during the century before 1877.

As early as c.1785, Chladni used sound vibrations in an entertaining experiment. He sprinkled sand on flat plates of various materials, then drew a violin bow across these plates to produce patterns in the sand. Napoleon is reported to have been impressed by 'Chladni's figures'.

1785 may seem early enough for the study of sound vibrations, but more startling is the suggestion, only twenty-two years later, of a device incorporating some features of the phonograph. Thomas Young (1773-1829) was an English physician of awesomely wide interests. To mention but a few of his achievements, he made a major breakthrough in the decipherment of Egyptian hieroglyphics, analysed yellow fever and explained the polarisation of light waves. In 1807 he built a recording machine which, he wrote in his A Course of Lectures on Natural Philosophy and Mechanical Arts, "... can easily be used to measure the number and amplitude of vibrations of resonant bodies by connecting them to a sensitive stylus which describes an undulating line on a revolving cylinder." Neither the device nor an illustration of it seem to have survived, but Young is known to have attached a needle to a tuning-fork, drawn a violin bow across the fork and let the needle trace the resulting vibrations on soot-covered paper wound round a cylinder. Although his apparatus had no diaphragm, Young had anticipated his successors to a quite remarkable extent: indeed, he recognised the superiority of a parabolic horn for the collection of distant sounds.

Amongst those who followed Young, we find Wilhelm Weber (fl. c. 1835) who attached needles to vibrating solid objects and recorded their frequencies on soft material. Duhamel, active c.1850, noted the frequency of vibrating string by attaching a pin to it and pulling some soft material past it. Wertheim reverted to the tuning fork of Young, but Lissajoux, our next experimenter, was more original. He not only studied the movement of a spot of light reflected by a mirror attached to a tuning-fork, but also seems to have set the fork vibrating by electricity.

These enterprising experiments culminated in the work of Léon Scott. Edouard-Léon Scott de Martinville was a French typographer and amateur scientist of Scots descent, who in 1857 applied for a patent on a sound-recording device which he called the phonautograph. The illustration and diagram are self-explanatory, but Scott's patent application is worth quoting, since it appears to include features not found on surviving phonautographs. The four principal parts of his machine were:

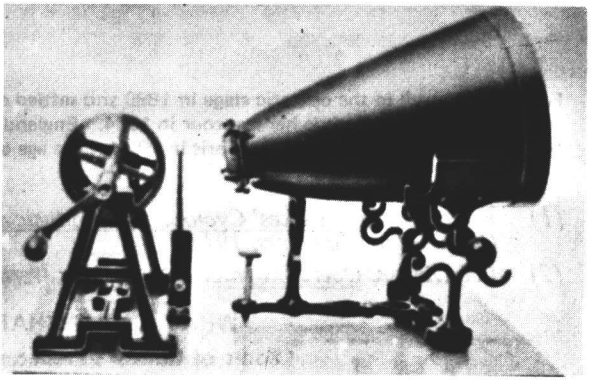
(1) A 'crystal cylinder' covered with 'an opaque layer (even, but excessively thin) of lamp-black'. This was a traversing cylinder, like the mandrel of an Edison Opera: it revolved, according to this first description, at one metre per second. Motive power, at least for later models, was a hand crank or weight-driven clockwork.

(2) A 'non-resonant trumpet' having 'at its narrow end the diameter of a five-franc piece'. This horn was fixed in position by 'a system of suspension like that of a lens-holder, designed to allow adjustment'.

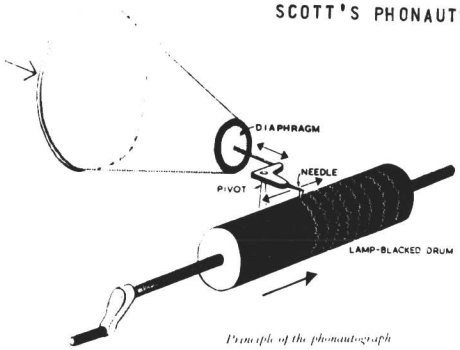
(3) A 'diaphragm or drum of English gold-beater's skin, very pliant and thin', fitted to the narrow end of the horn next to an outer membrane. By means of adjusting screws, the air between these two membranes could be compressed as desired.

(4) A 'stylus to inscribe': this was 'a boar's bristle, one centimetre or less in length but suitably stiff', fixed to the centre of the outer membrane by a drop of modelling wax.

CHARLES CROS



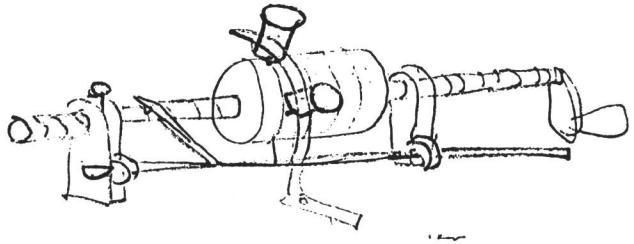
SCOTT'S PHONAUTOGRAPH

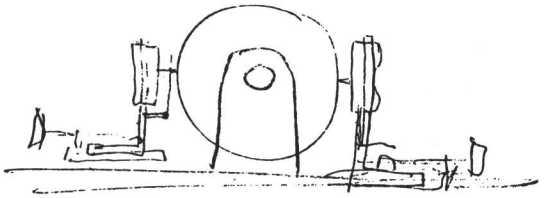


Principle of the phonautograph

JOHN COATES AS TRISTAN.

JOHN COATES





EDISON'S FIRST SKETCH OF
THE PHONOGRAPH, 29/11/1877

The previous list is surprising in at least two respects:

(a) Scott mentions two diaphragms and the compression of the air between them. The inner membrane, of fine calf-skin, he likened to a human ear-drum: since he compared the outer one (to which was attached the stylus) to a window, it may have been of glass. The parchment diaphragm of some descriptions may have been confined to commercial machines.

(b) The brief account from which I have translated my quotations (see References) does not specify the connection between diaphragm(s), stylus and cylinder. Since Scott states clearly that the phonautograph traced a wavy line, the transmission must have been via a pivoted arm as illustrated.

When we compare the simplicity of the tinfoil phonograph to the relative complexity of the phonautograph, with its pivoted arm converting vertical impulses into lateral, it is tempting to say, 'If only Scott had thought of vertical-cut recording on a soft surface.' But of course Scott had not thought of reproducing his records — he sought and achieved a visual record of sound. After all, the tinfoil phonograph, like so many things, seemed obvious only after Edison told Kruesi to make one.

Scott took out his French patent (No. 31.470) on 25 March, 1857, and in 1859 reached an agreement with the acoustician Koenig for the phonautograph's commercial development. The latter fitted a parabolic horn to the machine: Henry Seymour (see References) alone states that the phonautograph had a horn of plaster-of-Paris. The commercial model(s) appealed greatly to contemporary enthusiasm for scientific and 'improving' lectures — among those fascinated by the novelty were Queen Victoria and the Prince Consort. As well as its transient popularity, it found a niche in the laboratory, where it was used (albeit unreliably) for sound analysis. An example was placed in the Smithsonian Institution, where Edison might have seen it. As for Scott, he is reported to have claimed priority over Edison when the latter's machine appeared. He died, forgotten, in 1879.

It is, of course, highly improbable that New Zealand, despite its two known tinfoil phonographs, will produce from some attic a phonautograph — having said which, I shall expect Bill Dini to have found one within the month.

And so to Cros . . .

Charles Cros (1842-1888) was another man with fingers in a multitude of mental pies. Like Thomas Young, he was something of a 'dabbler': unlike the Englishman, his enthusiasms extended to (or perhaps rather began in) literature. A poet and leader of Bohemian Paris, he studied medicine, chemistry and philology. He devised a radiometer and, c.1869, a system of three-colour photography.

In April 1877, Cros worte a paper entitled Process for the Recording and Reproduction of Phenomena Perceived by the Human Ear. Although the dates vary between accounts, it seems that he completed the paper on 18 April and on 30 April deposited it with the Academie des Sciences. This body is an approximate equivalent of the Royal Society and has the right to examine patent applications. Between the two dates, Cros is said to have tried, unsuccessfully, to acquire the backing of the instrument-maker Breguet. Unable to afford a proper patent application, he merely enclosed his description in a sealed envelope. On his demand, the paper was read to a meeting of the Academie on 3 December, 1877.

What was his idea? Cros proposed to record a lateral tracing on a lamp-blacked disc. The suggested machine would comprise:

(1) A lamp-blacked disc 'animated by a double movement of rotation and rectilinear progression'.

(2) A diaphragm (material not specified in my sources).

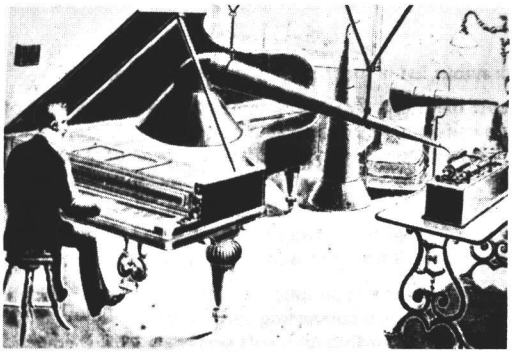
(3) A stylus ('wire, pen-knib, etc.')

Where Cros made his mental leap was in his idea of converting the tracing into a permanent and resistant form capable of bearing a reproducing stylus and diaphragm (my sources make no mention of a horn). How could this be done? It is well known that Cros proposed to photoengrave his tracings on to tempered steel and that this method was later found excessively difficult by Emile Berliner. His paper, however, mentions the theoretical alternative of producing the sound-track in relief on a disc. Whichever form was employed, the reproducer was to be held in position by a spring.

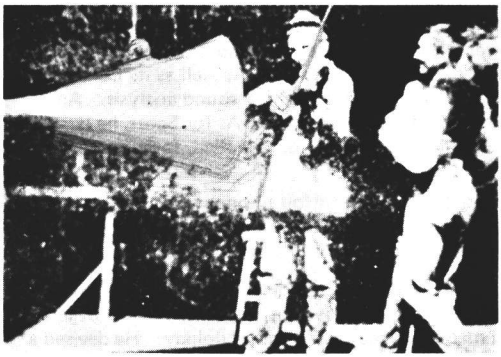
Cros seems to have been aware of the disc's bugbear of surface speed decreasing towards the centre: he envisaged both centre-start and edge-start recordings. 'In any case,' he ended, 'the helical tracing on a cylinder is much preferable and I am actually engaged in achieving the practical realisation of this.'

The Phonograph in operation.

MARIE ROZE



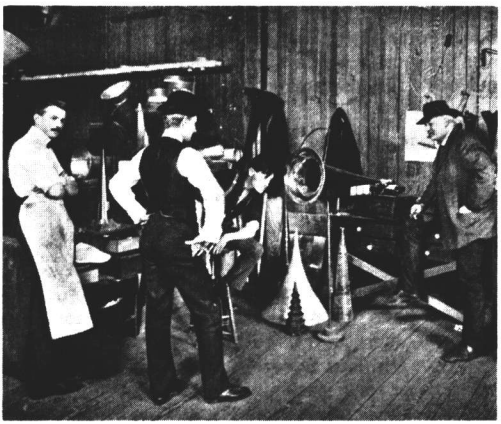
MAKING A PIANO RECORD,
C.1890



EXPERIMENTAL SOUND
FILM, 1893

Early days: Billy Whitlock recording a laughing song by means of the horn. (Note that the back and front of the pianoforte has been removed and that it is raised on a platform to be near the recording horn; also that the singer is hidden from the accompanist.)

A TYPICAL RECORDING
STUDIO, C.1905



A CORNER OF THE EDISON
LABORATORY, C.1903

GLIMPSES OF THE RECORDING SCENE

What did Cros call his imagined machine? An enthusiastic article in the 10 October 1877 issue of the Semaine due Clergé (edited by Cros' friend the Abbé Lenoir), which talks of electroplating the records, refers to the device as the 'phonograph', but Cros termed it the palaeophone, 'voice of the past'.

Alas for poor Cros! Lacking the facilities and resources of Edison, he could not interest potential backers in an impracticable harebrain contraption which emitted its equivalent of 'Mary had a little lamb' only in Cros' mind and on paper. Early Pathé catalogues claimed, on the basis of Cros' paper, that 'the phonograph is therefore a French invention.' While nothing can diminish the achievement of the Wizard of Menlo Park, we might spare a thought in this centenary year for a very different man whose mind was (if you will pardon the expression) on the right track.

References:

(1) *A.Coeuroy et G.Clarence, Le Phonographe (Paris; Krs, 1929).*
(2) *O.Read & W.L.Welch, From Tinfoil to Stereo (Indianapolis; Howard Sams, 1959).*
(3) *J.Cain, Talking Machines (London; Methuen, 1961).*
(4) *V.K.Chew, Talking Machines 1877-1914 (London; Her Majesty's Stationery Office, 1967)*
(5) *H.Seymour, The Reproduction of Sound (London; Tattersall, n.d.).*
(6) *L.Marcus, 'Recordings Before Edison', High Fidelity, Vol.27, No.I, January 1977.*

MARCH MEETING REPORT

G.East

Barry Sheppard spoke briefly on his future plans. He is moving to Auckland (a remote settlement on our largest off-shore island) where he hopes to work in a 16 mm film exchange. We wish him all the best for the future.

It is not surprising that the eyes of those interested in unusual machines turn almost automatically to the hoard at the Antigua Boatsheds. Bill Dini's choice this month was a Puck phonograph, well enough known but infrequently seen in New Zealand. His model has a nickeled 'witch's hat' horn and a levelling screw on one of its three feet. A tension spring on the horn pivot increases the pressure of reproducer on cylinder and thus increases volume. As the President commented, Pucks play exceedingly well for their absurdly low original cost.

An auction of donated 78's occupied the rest of the programme. These included several late-period instrumental sets by such pianists as Malcuzynski and Lipatti; of no antiquarian interest as yet but a great opportunity to buy fine performances of the classics very cheaply.

APRIL MEETING REPORT

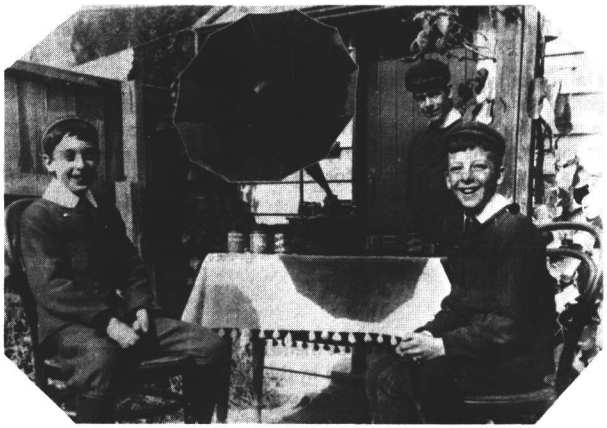
G.East

Our meeting was held on the evening of Anzac Day which (in case some overseas members may wonder) commemmorates the landing of the Australian & New Zealand Army Corps at Gallipoli in the Dardanelles on 25 April, 1915. The function of the anniversary has since expanded to cover New Zealand's contribution not only in 1914-18 and 1939-45 but also in 1899-1902 (our South African War Veterans' Association has not long given up its annual reunions!).

Adair Otley marked the occasion fitly with a compilation of three short films dealing with World War Two. The first, an American newsreel summing up events of 1939, was interesting for its indication of the relative lack of concern apparently felt by many in the U.S.A. before Pearl Harbour: 'Second World War Disrupts Europe' preceded by 'Chile Devastated by Earthquake' and followed by 'Huge Grain Elevator Fire in Chicago'. The second film, 'Lightning War', showed the stunning effect of the Nazi blitzkrieg, while the third eulogised the late Field-Marshal Viscount Montgomery of Alamein. A commendable combination of topicality and adherence to the Society's aim.

For this month's machine demonstration, Bill Dini produced his Electrola portable of c.1935. The immaculate machine had been owned by a lady who was, by her own account, the last Jewess to be allowed out of Hitler's Germany. The remarkable feature of this portable is its spring/electric motor, so constructed that the spring can, in a power failure, take over from the electric motor without affecting a record being played. Vice versa, the electric motor will, if plugged in, automatically take over from the spring if the latter breaks. Reproduction is acoustic, through the equivalent (Electrola being German HMV) of a No.4 reproducer.

A JOY...



TO YOUNG...

... AND OLD.

POINTS FROM LETTERS

We have received a number of letters in reply to an article we printed entitled "The Radio Collector" by J.Whitley Stokes (see page 18 Issue 3). In this article the writer stated that as far as he knew, no one had found it worthwhile to produce reproduction gramophones.

It has been clearly pointed out that this is not the case. One member from the U.S.A. had kindly sent us advertisements along with illustrations of a Japanese built Trade Mark model. This reproduction is faithful in every detail, is spring driven and sells in the U.S. for 425 American dollars. We have included an illustration of the reproduction among the illustrations in this issue.

We also have a letter re an article "Did John McCormack record for Edison?"

This reader points out that we omitted to mention a two minute wax cylinder recorded in London, Number 13191 "Believe me if all those endearing young charms."

Editor: We are very pleased to hear from members who can supply additional information or can point out mistakes we have made. These help us no end to sometimes fill in many blank spaces.

JOHN COATES – INTRODUCTION

Gavin East

I first saw the name years ago and thought "Another dreary British tenor." I was very young and starry-eyed over my first Caruso and Chaliapin records - dreaming of the exotic and thinking of founding the League for the Suppression of Evan Williams. A little later, my piano teacher gave me a copy of AM I TOO LOUD? (1962), the memoirs of the great accompanist Gerald Moore (1899 –), in which Coates figures prominently. By now curious to hear the man, I was thankful not to have found and dismissed any of his records before.

The opportunity soon arrived. Looking through a fellow collector's disposal pile, what should I see but a 12" pink Vocalion by Coates, Balfe's Come into the garden Maud coupled with Coleridge-Taylor's Eleanore, two concert platform warhorses if ever there were any. On listening to the disc, I was captivated by the beauty and freshness of the voice, the admirably clear diction and the sensitivity of interpretation. Noting Coates' birth date (1865) and dating the disc, as an acoustic Vocalion, to c.1922 it was difficult to believe that the singer was nearly sixty. While continuing to build up the basis of some sort of collection of European vocal recordings, I now had a relatively unworn path to explore – I was now a Coates enthusiast, out to know as much as possible about the man and to hear all his records. Since then I have found out something of his story and have found several of his records. Before attempting to discuss either, could I ask any reader at all interested in Coates to drop me a line? Within the limits of short articles, I'd like to do him something like justice, and if there are a few more similarly discriminating collectors out there (nothing like modesty), we might succeed.

The First Year of the Phonograph.

29 Nov.	*1877 –*	*Edison finishes sketch of proposed phonograph, gives it to workman John Kruesi to build.*
6 Dec.	*1877 –*	*Charles Batchelor, Edison aide, notes in his diary that 'Kruesi finished the phonograph.' Edison tests machine with Mary had a little lamb.'*
15 Dec.	*1877 –*	*Edison executes U.S. patent application.*
22 Dec.	*1877 –*	*Scientific American publicises phonograph.*
	–	*Edison in letter, mentions a working disc tin-foil phonograph.*
24 Dec.	*1877 –*	*Edison's patent application filed.*
January	*1878 –*	*English newspapers announce phonograph.*
11 Feb.	*1878 –*	*Edison, in letter to acoustician Alfred Mayer, sketches disc tinfoil phonograph.*
19 Feb.	*1878 –*	*Edison's patent application granted.*
18 April	*1878 –*	*Edison photographed in Brady's studio, Washington, D.C.*
April	*1878 –*	*Edison, in Washington, demonstrates phonograph to National Academy of Sciences and to President Hayes.*

24 April 1878 – Edison Speaking Phonograph Company formed in Norwalk, Connecticut. This Company

(a) bought Edison's U.S. patent for $10,000;
(b) agreed to give him 20% of the profits;
(c) leased phonographs to exhibitors;
(d) sold phonographs at $10 each.

15 Nov. 1878 – Edison signs contract with Edison Electric Light Co., whereby he agrees to give up work on phonograph.

We recommend readers to the justly famous Tinfoil to Stereo, now once again available after years out of print, and to Allen Koenigsberg's Edison Cylinder Records, 1889-1912, for detailed accounts of the early decades, including the confused period of the early 1890's.

Note: Some readers may be curious as to why we have not included the well-known sketch of the tinfoil phonograph inscribed 'Kreusi Make This – Edison – Aug. 12/77'. As explained by Koenigsberg, this drawing was made by Edison after the invention and given to his associate J.U. MacKenzie. We jump forward to 1917 and the phonograph's fortieth anniversary, when Edison was asked to supply a sketch to a dealers' convention. For some reason he still had the 'MacKenzie' drawing, on which he now wrote the words quoted above, mis-spelling Kruesi's name. Possible Edison's memory betrayed him – certainly this 'fake' sketch was an unnecessary confusion for historians.

FROM THE HORSE'S MOUTH – Edison's own account of the Tinfoil Phonograph

Mr Edison's own account of the invention of the phonograph is intensely interesting. "I was experimenting", he says, "on an automatic method of recording telegraph messages on a disk of paper laid on a revolving platen, exactly the same as the disk talking-machine of to-day. The platen had a spiral groove on its surface, like the disk. Over this was placed a circular disk of paper; and electromagnet with the embossing point connected to an arm travelled over the disk; and any signals given through the magnets were embossed on the disk of paper. If this disk was removed from the machine and put on a similar machine provided with a contact point, the embossed record would cause the signals to be repeated into another wire. The ordinary speed of telegraphic signals is thirty-five to forty words a minute; but with this machine several hundred words were possible.

"From my experiments on the telephone I knew of the power of a diaphragm to take up sound vibrations, as I had made a little toy which, when you recited loudly in the funnel, would work a pawl connected to the diaphragm; and this engaging a ratchet-wheel served to give continuous rotation to a pulley. This pulley was connected by a cord to a little paper toy representing a man sawing wood. Hence, if one shouted: 'Mary had a little lamb,' etc., the paper man would start sawing wood. I reached the conclusion that if I could record the movements of the diaphragm properly, I could cause such record to reproduce the original movements imparted to the diaphragm by the voice, and thus succeed in recording and reproducing the human voice.

"Instead of using a disk I designed a little machine using a cylinder provided with grooves around the surface. Over this was to be placed tinfoil, which easily received and recorded the movements of the diaphragm. A sketch was made, and the piece-work price, $18 was marked on the sketch. I was in the habit of marking the price I would pay on each sketch. If the workman lost, I would pay his regular wages; if he made more than the wages he kept it. The workman who got the sketch was John Kruesi. I didn't have much faith that it would work, expecting that I might possibly hear a word or so that would give hope of a future for the idea. Kruesi, when he had nearly finished it, asked what it was for. I told him I was going to record talking, and then have the machine talk back. He thought it absurd. However, it was finished, the foil was put on; I then shouted 'Mary had a little lamb,' etc. I adjusted the reproduced, and the machine reproduced it perfectly. I was never so taken aback in my life. Everybody was astonished. I was always afraid of things that worked the first time. Long experience proved that there were great drawbacks found generally before they could be got commercial; but here was something there was no doubt of."

No wonder that honest John Kruesi, as he stood and listened to the marvellous performance of the simple little machine he had himself just finished, ejaculated in an awe-stricken tone: "Mein Gott im Himmel!" And yet he had already seen Edison do a few clever things. No wonder they sat up all night fixing and adjusting it so as to get better and better results – reciting and singing, trying each other's voices, and then listening with involuntary awe as the words came back again and again, just as long as they were willing to revolve the little cylinder with its dotted spiral indentations in the tinfoil under the vibrating stylus of the reproducing diaphragm.

Continued next issue .....