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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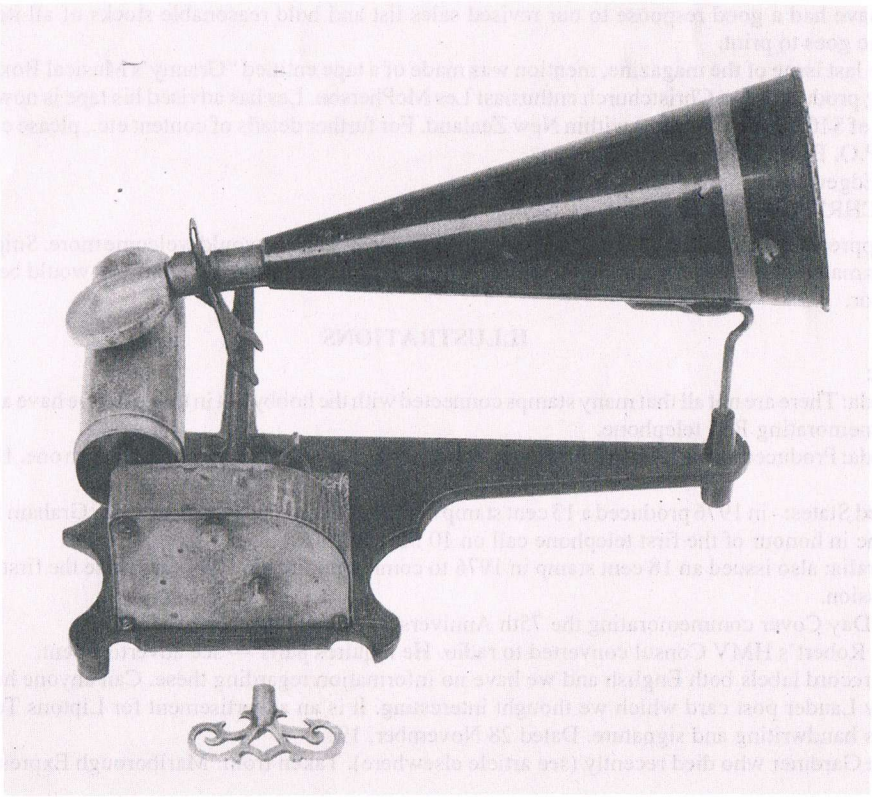


The Columbia Model A.Q

FOR YOUR INFORMATION

In every magazine put together, we try to provide a balance — something old, something new, something for the radio and stamp collector too. Included in this issue we have a little more on radio, which we feel will be of interest to those who collect them.

We are sorry to lose one of our part manufacturers who, because of his age and failing eyesight, has been forced to retire. On the other hand we have been fortunate to find that one of our own local members Tony Airs can take his place. Tony is both willing and able to supply us with parts of the same high standard we have had formerly.

It was agreed at our last meeting that subscriptions will stay the same for another year.

SECRETARY'S NOTES

Enclosed with the magazine are accounts for yearly subscriptions now due. The rate of $12.00 p.a. (New Zealand currency) remains the same and compared with similar type magazines is very good value. We would appreciate prompt payment to ensure continuation of the magazine being sent to members and a reminder that as bank drafts are expensive, personal cheques allowing for currency difference, are quite acceptable. Unfortunately postal orders cannot be cashed in this country, nor $1.00 and $2.00 Australian dollar coins.

We have had a good response to our revised sales list and hold reasonable stocks of all items as the magazine goes to print.

In the last issue of the magazine, mention was made of a tape entitled "Granny's Musical Boxes — Vol. II" being produced by a Christchurch enthusiast Les McPherson. Les has advised his tape is now available at a cost of $10.00 each (p. & p.) within New Zealand. For further details of content etc., please contact Les at:

P.O. Box 12-083,
Edgeware,
CHRISTCHURCH.

We appreciate material for the magazine sent to us by members and would welcome more. Snippets from overseas material, photos of unusual machines, in fact anything of interest to members would be of help to our Editor.

ILLUSTRATIONS

Stamps:

Canada: There are not all that many stamps connected with the hobby but in this issue we have a few more, all commemorating Bell telephone.

Canada: Produced a nice stamp of the first telephone, a candle-stick phone and a modern one. 1874 - 1974 8 cents.

United States: - in 1976 produced a 13 cent stamp depicting early patent of Alexander Graham Bell's first telephone in honour of the first telephone call on 10 March 1876.

Australia: also issued an 18 cent stamp in 1976 to commemorate the 100 years since the first telephone transmission.

First Day Cover commemorating the 75th Anniversary of amateur radio.

R. L. Robert's HMV Consul converted to radio. He requires parts — see advertisement.

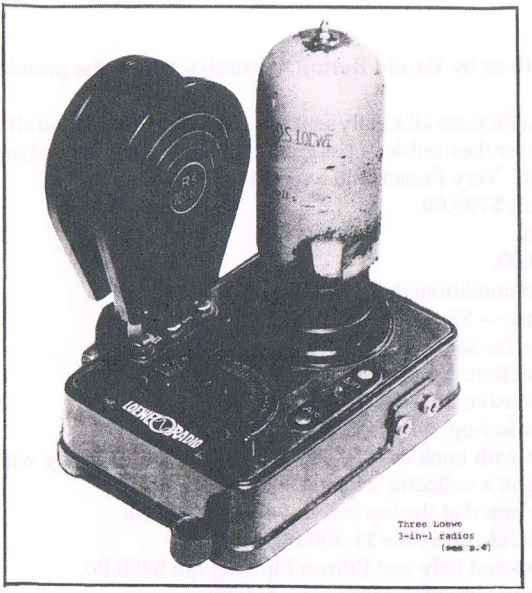
Two record labels both English and we have no information regarding these. Can anyone help?

Harry Lauder post card which we thought interesting. It is an advertisement for Liptons Tea and has Lauder's handwriting and signature. Dated 28 November, 1914.

Allan Gardiner who died recently (see article elsewhere). Taken from 'Marlborough Express' 13 June 1995.

Loewe Valve is well covered and we are grateful to John Stokes who allowed us to use material taken from his article in the New Zealand Vintage Radio Society Magazine "Bulletin".

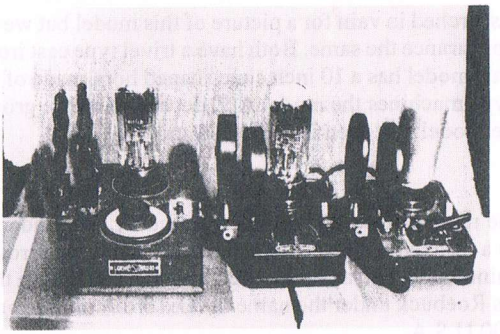
Columbia Gramophone picture taken from Fernihough Collection gives a different view from the one on the cover.



Photos
N.Z. Vintage Radio
Society

Loewe Valve

Floyd Lyons and John Stokes Left



Three in a Row

Coloured Record

Edison Spring Motor

Other Side

E.M.G. photos sent to us by Harold Burtoft, Australia, who is the proud owner of machine illustrated. See article by Harold.

Swap meet in U.S.A.: Pictures all kindly sent to us by Larry Schlick and all with the asked prices attached. We are grateful to Larry for the trouble he has gone to in photographing and supplying us with these pictures.

Cylinder Phonograph: Very French and expensive. No price.
Madam Hendron Doll $795.00.
Records $55.00 each.
Jumeau Doll $2,500.00.
Phono-Lamp — all reconditioned, $2,500.00.
Victor 'E', Rigid Arm — $2,100.00.
Unloading a machine for sale.
Tin Foil — a reproduction. No price.
Music Boxes — expensive $5,000.00 — $6,000.00.
Dog Patch Band — wind-up, no music. $650.00
Cabinet gramophone with book case $3,500.00 — without the pretty wife.
Standard 'A' leaving in a collector's hands.
Hexaphone. No sign board at the top but still cost $6,500.00.
Unusual upright with intricate case $1,500.00.
Picture of the old man and lady and Edison Phonograph $400.00.
Victor III wood horn in very nice order —$1,500.00.
These prices are all in U.S.A. currency.

1903 **COLUMBIA MODEL A.P.** **No. 23**

We have searched in vain for a picture of this model but we understand that the model A.Q. on the front cover is in appearance the same. Both have a trivet type cast iron base, model D reproducer and an exposed governor. This model has a 10 inch cone shaped horn made of tin and supported by a vertical rod. Like the early puck type machines the model A.P. depended on the grooves on the cylinder to drive the reproducer along. A rare model, not seen in New Zealand.

1903 **MODEL A.Q.** **No. 24**

This is the model illustrated on the front cover. We understand it is the same as the A.P. except this machine has a coarse feed screw to drive the reproducer across the cylinder.

The machine came with a brass-belled horn but could have the same horn as the A.P. our illustration has; sold by Sears Roebuck under the name of 'Oxford Junior'. Some have Sears decals on the trivet cast base. Sold for $3.00 U.S.A.

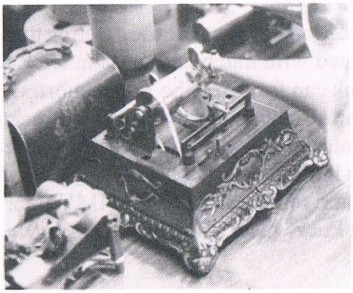
VINTAGE PHONOGRAPH SOCIETY MARCH MEETING

This was held on the 27th at the home of member Tony Airs. A total of nine members attended this, the second meeting for 1995. The new president Robert Sleeman, soon had the meeting underway and the usual business of correspondence, accounts, stock of parts, finance and membership were dealt with in efficient order. In the ensuing general discussion time some very interesting items were proffered by members for perusal and examination. One item was a catalogue of auction items by Koln in Germany. The prices paid reflect the value placed upon musical reproduction equipment by collectors world wide. Currencies were shown in Deutchmarks, U.S. dollars, and £ Sterling. 1936 Marconi combinations of radio and TV's, radios back to 1925 and a Loewe radio OE 333 of 1926 fetched $960.00. Pathé cylinder of 1905 fetched $1,584.00, a 1903 Columbia Disc $1,984.00, a penny farthing bicycle went for $5,000.00. There was a great range of gear sold.

The meeting finished at 8.45p.m., with supper to follow.

Report by B. A. Bisphan

Two views of EMG



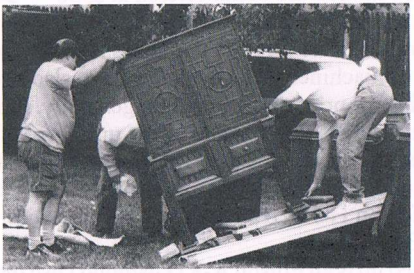
Very French

Madam Hendron s Doll

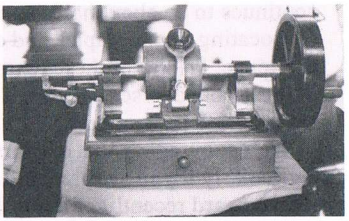
Phono Lamp

Photos courtesy Larry Schlick

Victor E



Unloading



Tin Foil Reproduction

MEETING MONDAY APRIL 24th, 1995 AT FERRYMEAD

A good turnout of local members of the Society gathered at Ferrymead Historic Park for the monthly meeting.

At about 8.00pm all boarded the former Brisbane electric tram No. 236, circa 1930, ably conducted by Alan Robb, from outside Curragh cottage in Bowman Street to the Tramway Historical Society's barn and workshop. A journey of about 1.5 km. Here, a working evening was under way, and we were able to inspect restorations in progress. A truly dedicated team.

From here, a short walk to the building which houses the legendary Dini collection of Phonographs and Music Boxes, and also our Society's parts store and packing area. Here, also is a small display of working machines regularly demonstrated, including Ariston and Polyphon music boxes, a Woledge portable Amberola, and a superb London upright Edison Disc machine.

The tram took us back Curragh cottage, where a large open fire warmed the candle lit sitting room, which like the rest of the building is furnished entirely in period style. The cottage dates from about 1859, was prefabricated in Scotland, and was moved to Ferrymead from its original site in Holly Road. There was an informal meeting to briefly discuss Society business, and hear about machines which had changed hands or appeared in local shops, and this was followed by supper which was prepared by Garth and Anita Beardsley and helpers from Ferrymead. An opportunity to inspect all the rooms was enjoyed by all. Before leaving for home we wished Bernie Bisphan Bon Voyage for his trip to England and the Continent.

MEETING, MONDAY MAY 22nd, 1995

Ten members journeyed to the Rangiora home of our Patron, Joffre Marshall. During the meeting the long awaited book on cylinder phonographs by George Frow was received with much enthusiasm. Dick Hills produced a Thomas A. Edison Bust Money Box and a Cola soft drink can featuring the Edison portrait and 1877-1977 commemoration. These were passed around. A number of machines have surfaced recently, including a Gramophone Co, "Grand" Sheraton style cabinet; an unusual console gramophone with early 'Gramophone Co.' works and morning glory horn (possibly custom built), an early black Gem, a Standard model A with shaver in very original condition, a very tidy Fireside, and some good original HMV floor and table models 1920's. In forthcoming auctions another Fireside and a Puck. After a lovely supper, Joffre and friends entertained us with some items on their harmonicas.

MARKET REPORT

The year started off fairly quietly on the phonograph and gramophone front in Christchurch. Local antique shops had the usual spread of more common portable and table model machines, although an increase in the retail prices asked was notable.

Currently, portable machines such as HMV, Columbia etc. are selling at around $180 — $220 in local shops and the same brand table top models are being offered at $350 — $400. The 'trade' or auction price continues to be about half these figures, where the normal, not too extreme tidying up is required.

Locating phonographs, and earlier, more rare gramophones is as always, a difficult but very enjoyable challenge. Prices for these types of machines when available have also risen markedly, with some serious interest from overseas buyers lifting the price on all machines generally. Edison Standards and Firesides etc. are retailing for around $1,200 and tidy Columbia and HMV uprights $600 — $700.

It is encouraging, that machines still turn up at auction houses or for private sale at more reasonable prices, particularly if you are prepared to put the time and effort into tidying up a less than immaculate example. I have heard recently of a tidy Edison H-19 Heppelwhite Diamond Disc upright model which turned up privately as well as an HMV 163 re-entrant.

Another machine that has turned up is an Edison A-85 Diamond Disc machine. George Frow in his book 'The Edison Disc Phonographs' mentions this table model as being listed in some catalogues, but it appears to be uncommon in the Northern Hemisphere. He mentions in his book (written in 1982) that he knows of

only one, which has the serial number SM931, and this is in England. The machine which turned up recently was numbered SM1206 and another Christchurch collector has an A-85 machine numbered SM833.

It would appear that this model was possibly an export model, more common on this side of the world. Any members who have or know of other A-85 models in existence may like to write to the secretary giving information on their serial number etc. The author of this very informative book has not heard a lot about this model, and would no doubt be interested to hear of surviving models in New Zealand.

Other machines of interest in the last few months were a Puck phonograph which sold at auction for $850, an Amberolla 50 which was retailed for around $1,200, an HMV Monarch Intermediate at $1,500, and an HMV 163 re-entrant for $900. A Bing Pigmyphone is for sale in Christchurch for $450 at the time of writing.

As can be seen there has been quite a lot of activity, and a number of machines sold. It would be interesting to hear what is happening in other parts of the country, if anyone wishes to write to the editor or secretary for inclusion in the next magazine.

David Peterson

ALLAN GARDINER LEAVES LARGE LEGACY OF POPULAR MUSIC

A life-long love of music which touched the hearts of thousands of New Zealanders and Australians is the legacy of local identity Allan Gardiner, who died peacefully at his home on Saturday aged 72 years.

Mr Gardiner, who moved to Blenheim 46 years ago from Mataura with his wife Mollie, may be Blenheim's most prolific recording musician. During his career he recorded 21 LP records, and was awarded two gold and one platinum records for his achievements.

Appearing on some of those recordings are names like Bruno Lawrence, Gray Bartlett, Suzanne Prentice, Dave Fraser and Brian Hands.

While Mr Gardiner was recognised for his work in this country, he received more radio air play in Australia.

He will also be remembered for establishing the Modern School of Music teaching method.

Play Allan's Way is one of his most popular titles. In his system the melody was written note by note while the bass was written in chord form. Because of its simplicity it was popular with people of all ages, and he soon had about 600 teachers around the country. Fifteen years ago he was franchising his system in Australia.

Mr Gardiner is also known for running his own music publishing operation.

Along with his wife he also ran a music shop in Arthur Street for a number of years.

Mr Gardiner is survived by three sons, one daughter and seven grandchildren.

DR. S. LOEWE — Walter Norris

We have been fortunate in many ways, one to be given some early copies of 'Modern Wireless' (1928-29) and to collect a copy of Scott's Radio Handbook July 1928. In addition, we have permission to copy John Stokes' article from the Vintage Radio Magazine of 1987; this magazine we highly recommend. We have not been lucky enough to come across one of these valves but over the years have heard of them. They make one think of the modern integrated circuit.

We would be interested to hear from anyone that has one of these valves.

LOEWE IN NEW ZEALAND — by John W. Stokes

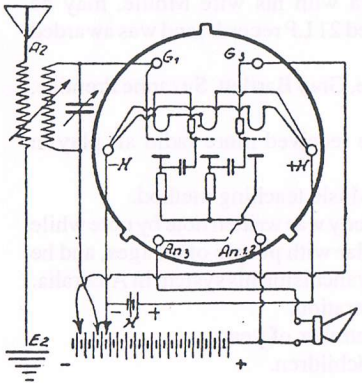
Although a certain amount has been written about Loewe tubes in recent years little has appeared concerning the Loewe receivers. In an effort to redress this state of affairs the following article has been prepared.

Loewe valves and receivers took their name from Dr Sigmund Loewe who founded the company which bore his name — Loewe Radio A.G. Berlin. However, the design of the unique Loewe multiple valves was not solely Dr Loewe's work because the well known Dr Manfred von Ardenne (of cathode-ray tube fame) was also involved in their development.

The first receiver to use the 3-in-1 type 3NF tube was the model OE333, the letters 'OE' being an abbreviation of the German word *Ortsemfänger* (local receiver). This set first appeared in Germany in 1926 and a few years later was seen on the British market. As early as 1927, however, both types of Loewe valves — the 2HF and 3NF — were being advertised here in New Zealand and the OE333 receivers were also available. Also in 1927 a New Zealand firm, the Direct Supply Co. of Christchurch was actually constructing and selling sets using these two types of valves.[1]

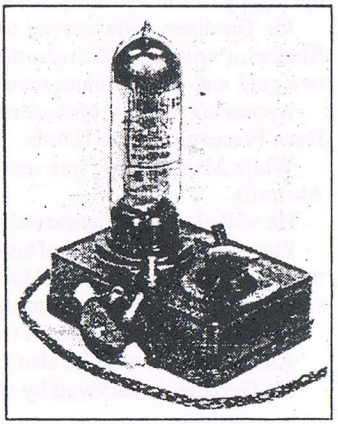
The original OE333 receiver had a wooden 'cabinet' which could be more accurately described as an enclosed baseboard. Later issues were fitted with a moulded bakelite enclosure. British productions of the latter differed in being fitted with the American and British standard honeycomb coil connections (one male, one female per coil) in place of the German 2-pin coil connectors. Both models used the same 3NF valve, the circuit being notable for the absence of regeneration and the use of 'anode bend' detection in place of the more commonly used 'leaky grid' type. As would be expected, the absence of regeneration resulted in appreciable loss of sensitivity but on the other hand it improved selectivity, a feature which was improved even further by the presence of a loosely coupled aerial coil.

It is interesting to speculate on the non-use of regeneration in the early models because 'detector and AF' receivers of the day invariably made use of it; possibly it may have had something to do with the American owned patent rights of the regenerative circuit. But, be that as it may, it was not long before a regenerative model was introduced.



Circuit of the original OE 333

Dr Sigmund Loewe



This is the Loewe triple-valve set, a feature of which is its extraordinary small size in comparison with the results given.

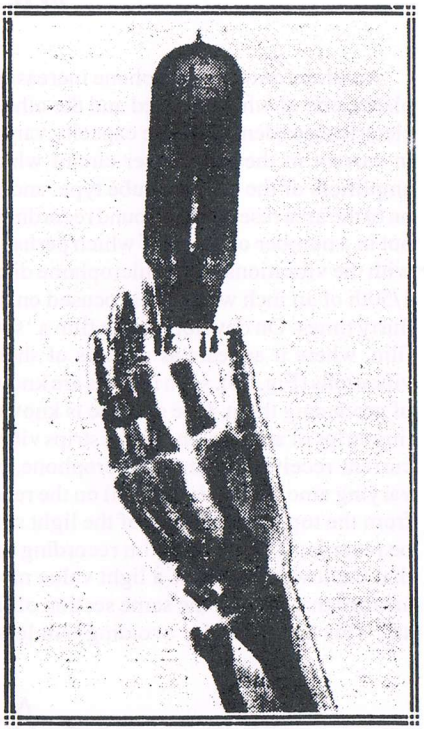
In 1929 came the type RO433 *(RO = Rückopplung Ortsemfänger,* which translates as regenerative local receiver) using a modified version of the 3-in-1 valve known as the 3NFB. In the same year this model was also produced in a newly established British factory using a valve designated type RNF7. [3,4] In order to incorporate regeneration the new valve was provided with an additional base contact to allow a connection from the anode to be brought out externally. A new type of grid coil having three pins was fitted with a feedback winding while the detector was changed to a leaky grid type, the necessary grid leak and capacitor being mounted outside the valve. A variable capacitor to control regeneration was mounted on the same axis as the tuning capacitor.

The RO433 appears to have been the last battery-operated Loewe set as at about this time AC mains were introduced. Although not as well known (or esteemed?) by present-day collectors there were actually a lot more different types of AC multiple valves and associated receivers produced in Germany by the Loewe company.

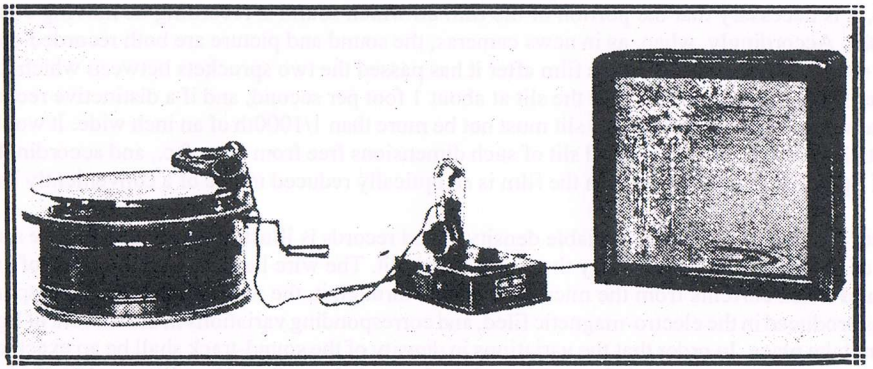
Acknowledgements: The writer acknowledges assistance received from Dieter Bardenheier in the preparation of this article and thanks Fin Stewart of Australia for the loan of one of the OE333 receivers.

References: 1. see advert Direct Supply Co., Wellington, *Scott's Radio Handbook* 1927, p.92.

From *Scott's Radio Handbook* 1927



The Loewe triple valve as seen by the X-ray camera.



The Loewe pick-up, used in conjunction with one of the multiple valves, gives ample loud-speaker volume.

"THE CINEMA TODAY"
by D. A. Spencer and H. D. Waley
SOUND RECORDING (Part 2)

Another form of microphone increasingly used for sound-film recording consists essentially of a pair of plates, one of which is fixed and the other movable under the action of sound-waves. These plates form an electrical condenser whose capacity varies as the distance between the plates varies. The minute variations in current in the condenser circuit which result from these alterations in its capacity are amplified by amplifiers of the vacuum-tube type, and are then used to modulate a beam of light which is then projected on to the area reserved for sound recording down one side of the moving film. This modulation can be carried out in a number of ways, of which perhaps the most obvious is to cause a glow-lamp to flicker in sympathy with the vibrations of the microphone diaphragm. The light source in the glow-lamp is a narrow line (about 1/50th of an inch wide); it is focused on the moving film by an optical system which reduces its area about thirty times. On developing the film a 'sound-record' is obtained which can then be printed on to a positive film, where it appears as a series of short parallel lines of varying opacity corresponding to the original vibrations (Fig. 16). such records are known as variable-density records, and there are several other methods of producing them. One of these is known as a light valve, which consists essentially of a slit between two tiny strips of aluminium. As the strips vibrate in a magnetic field which varies in accordance with the varying current received from the microphone, the width of the slit varies in a corresponding manner, allowing varying amounts of light to fall on the recording film. Obviously the film takes a certain fixed time to travel from the top to the bottom of the light slit, and any variation in sound occurring over this interval will not be recorded as such, the film recording the 'average' sound over this tiny interval. However, by arranging that the lower ribbon of a light value moves a fraction of a second after the upper ribbon it is possible to arrange that exactly the same section of film is affected by similar movements of the top and bottom of the slit. This technique for avoiding 'slit loss' is known as phase shift.

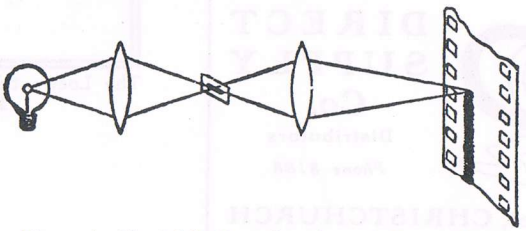


FIG. 16. Variable Density Sound Recording.

In order that each variation in intensity or area of the sound-controlled light source may be individually recorded, it is necessary that the portion of the film on which sound is recording be moving continuously past the slit. Accordingly, when, as in news cameras, the sound and picture are both recorded on the same film, the sound record is made on the film after it has passed the two sprockets between which its travel is intermittent. The film is moving past the slit at about 1 foot per second, and if a distinctive record of each individual wave is to be obtained, the slit must not be more than 1/1000th of an inch wide. It would be very difficult to keep an actual mechanical slit of such dimensions free from dust, &c., and accordingly the tiny thread of light which actually falls on the film is an optically reduced image of a conveniently large actual slit.

Another method of producing variable density sound records is illustrated in Fig. 17. Here a shutter, in the form of a taut wire, is used to vary the width of the slit. The wire lies between the poles of an electro-magnet, and when currents from the microphone flow through it, the wire moves aside in response to the vibrations produced in the electro-magnetic filed, and corresponding variations in the amount of light falling on the film take place. In order that the variations in density of the sound-track shall be an exact translation of the variations in pressure which formed the original sound, there should be a linear relationship between

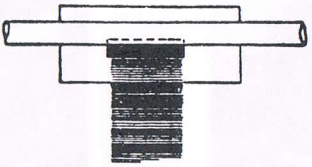


FIG. 17. Variable Density.

the brightness of the recording light and the photographic density of the corresponding record on the film. Unfortunately, this relationship is not linear over the complete range of densities which the film is capable of recording, since very low and very high brightnesses do not show an equal rise in density for each equal increase in exposure. Unless, therefore, the exposure and processing of the film are kept within very narrow tolerance limits, distortion of the sound-record becomes marked. More-over, when this sound-record is printed on to the positive film, the characteristics of the positive sound record are controlled by the fact that the positive film must be processed to give an acceptable picture, and photographer readers will appreciate that this may mean that the sound-track itself may not then lie, as it should, within the limits set by the straight-line portion of the characteristic curve of the emulsion. For these and other reasons variable density recording is gradually falling out of favour, the so-called 'variable area' systems taking its place.

Whereas in variable density a beam of fixed dimensions has its intensity varied (glow-lamp recording), or a beam of constant intensity and length has its width varied, (light-valve recording), in variable-area systems a beam of constant intensity and width has its length varied. Here, again, there are several methods of bringing this about. Suppose, for example, that the wire of the system illustrated in Fig. 17, instead of being parallel with the slit, crosses it an angle, its vibrations will alter the apparent length of the slit so that the record on the film, instead of being of variable density, will be a wavy track of constant density but varying width— the width at any point being proportional to the amplitude of the original sound vibrations (Fig. 18). It is, in fact, a graph of the pressure component of the sound-wave at the microphone, its outline being a picture of the wave shape, on one side of which the film is uniformly black and the other side

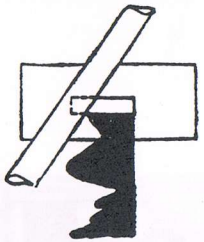
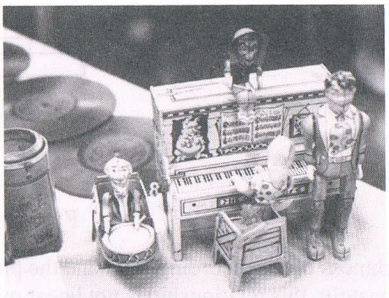


FIG. 18. Variable Area.

uniformly clear. The smaller the movement required of the vibrating parts of a sound-recording system, the smaller will be the limitations imposed by their inertia and the more likely, therefore, will be successful reproduction of high frequencies. One way of reducing the necessary movements to a minimum is to make use of an optical lever to magnify them. Accordingly, a tiny aluminium alloy mirror (less than one millimetre square) is suspended by hair-like wires between the poles of an electro-magnet whose field is modified by the current from the microphone. A triangular spot of light is reflected from this mirror on to a fixed slit, and as the mirror vibrates about its horizontal axis in accordance with the variations in the surrounding magnetic field, the reflected spot dances up and down across the slit (Fig. 19), and as a result there is a corresponding increase and decrease in the length of the slit image which is focused on the film. Moreover, it will be obvious from the diagram that the more acute the angle at which the slanting edge of the spot intersects the slit, the less the movements of the mirror which is necessary to produce the sound-track.

Music Boxes



Dog Patch Band

Cabmate Gramophone

Standard A

Hexaphone

Ornate Machine

Victor III

Photos courtesy Larry Schlick

The ideal variable-width record would be one made with a slit of negligible width and with an absolutely sharp border between exposed and unexposed areas. Owing to the width of the slit (about 1/1000th of an inch) there is a gradation of exposure over a minute distance, and when recording such high frequencies that this distance becomes an appreciable fraction of the wave-length, distortion becomes noticeable. An even more serious cause of distortion is the spreading of the photographic image as a result of light scatter in the emulsion. The photographic emulsion consists of a suspension of microscopic crystals of silver bromide in gelatine. So small are the individual crystals that many thousands could easily be accommodated on the head of a pin. So well dispersed are they in the gelatine support that the emulsion coating is barely translucent. Light entering this fog of tiny particles is scattered by repeated reflections, and as a result, a sharply defined hair-line of light becomes broader and less well defined the farther below the surface it penetrates. Emulsions vary very considerably in their light-scattering properties, but even the most carefully processed emulsion in unable to resolve lines whose images are less than 1/2000th of an inch apart. Since the scattering power of the emulsion increases with the depth to which the light penetrates, painstaking care, pre-talkie technique could not prevent every operation in the processing of the film from contributing its quota to the scratchy background noise, and development by inspection of films wound on racks like clothes-horses gave way to automatic processing.

(to be continued)

THE MAN WHO MADE JOBS FOR MILLIONS

Edison, known in his lifetime as a prophet of invention, who did more than any living man to make the world a better place to live in, has been raised by death to a place among the immortals.

"I consider Thomas Elva Edison the greatest single benefactor of the human race since the dawn of history," declares Dr. Lee DeForest, inventor of the grid vacuum tube, foundation of modern radio. Although Edison's genius has created billions of wealth and given employment to millions of men, Dr. Harrison E. Howe asserts that "the inspiration of his example may well be of more permanent value than any of his multitude of inventions."

"Edison's life is an inspiration to all young men who their own way to make in the world," declares D. G. K. Burgess, director of the bureau of standards. "His genius for leadership, his energy, and his tenacity of purpose, have contributed more to the progress of the world than those of any other person of his generation", adds Dr. Alexander Wetmore of the Smithsonian Institution.

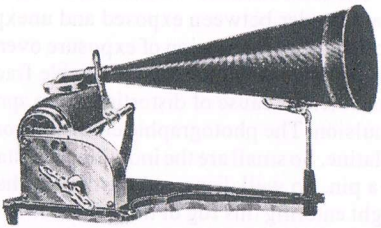
At the dawn of the electrical age, a little over fifty years ago, Edison appeared like a heaven-sent pioneer. In 1882, he created the electrical lighting system, which has not experienced an essential change since that time, thus laying the foundation for the electric-light and power industry.

In 1930, the electric-light and power industries added 550,000 customers and $850,000,000 to their investment, giving employment to increased thousands. Today, seventy per cent of American homes are wired, comprising 20,000,000 homes and 650,000 farms.

The volume of manufactures produced per person in this country increased fifty per cent between 1900 and 1931. To a large degree, this increase is due to Edison's electrical inventions, and they account also for America's supremacy in the markets of the world. Although we maintain the highest wages and standards of living, American made products sell faster in open competition than those of any other country. And the reason may be found in these vital statistics: The annual current output of the world one year ago was 300,000,000,000 kilowatt-hours, averaging 153 kilowatt-hours per capita. But in the same period the United States alone had 1,019 kilowatt-hours per capita, which accounts for America's productive efficiency.

It is impossible to say exactly what part of America's $90,000,000,000 annual income derives from industries founded on Edison's inventions, but one-fifth of that amount, or $18,000,000,000 is a conservative estimate.

Edison's inventions, it has been estimated, have created $35,235,000,000 in wealth. But that figure is based only on the investment, or capital, of certain industries in America. It is impossible to calculate how



COLUMBIA GRAMOPHONE 1903

Stamps

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many millions of jobs and hundreds of billions of dollars this one man created out of his own brain. The moving-picture industry over the world involves no less than 500,000 people and the investment probably runs up to $5,000,000,000. The world carries on 35,000,000,000 telephone conversations annually through a system which involves an investment of another $2,000,000,000. The electric railways of the world are steadily displacing all other forms of rail transport. Their value approximates $15,000,000,000. The phonograph has suffered by the advent of radio; nevertheless, the world has invested $200,000,000 in that industry. The manufacture of dynamos and motors involves another $3,000,000,000; the cement industry, $1,000,000,000, and telegraphs, $2,000,000,000.

The epic of frozen music and speech began with Edison and invention of the phonograph. He was experimenting with a telegraphic repeater when he heard a musical note. A strange idea sprang into his head, and before he could forget, he wrote, "there's no doubt that I shall be able to store up and reproduce automatically at any future time the human voice perfectly."

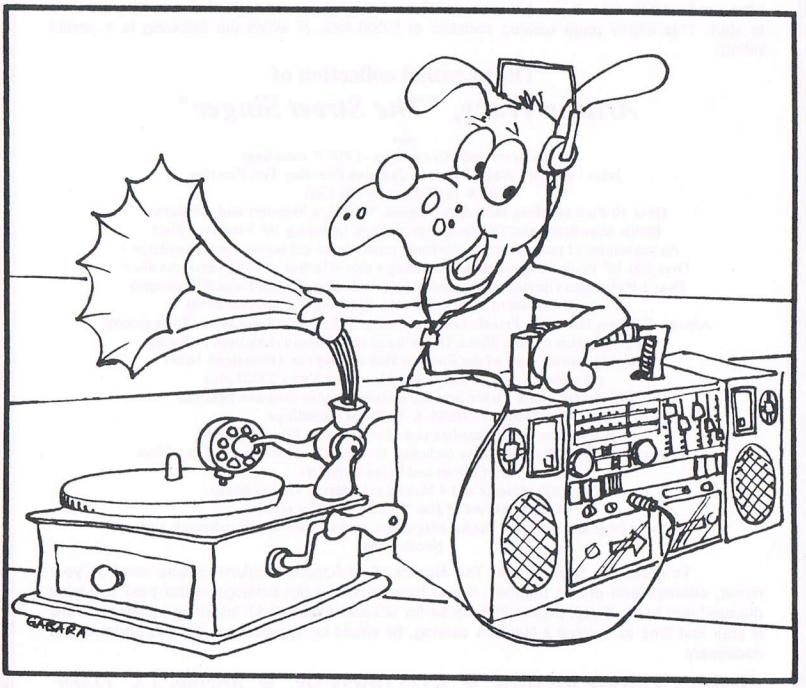
Towards the end of his days, when Edison was asked how he felt, he said, "Like a two-shift man always feels — well! My philosophy of life is work. Bringing out the secrets of nature and applying them for the happiness of man. Looking on the bright side of everything."

Only the human tributes of his fellow men can best express mankind's debt and its appreciation of Edison.

Walter P. Chrysler says: "Service to humanity is the ideal of modern civilization — Edison is greater than any material thing he has ever put together, and the example of his life has a higher value than any of his achievements."

Owen D. Young: "Edison is the personification of the industry. A vision of a great service to be performed; a faith that it could be done. Unremitting toil, unexampled ingenuity; persistency and patience, finally crowned with accomplishment. Work, work, work!"

Popular Mechanics



Christchurch Press

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