

NOV 7 1898

THE PHONOSCOPE

A Monthly Journal Devoted to
SCIENTIFIC AND AMUSEMENT INVENTIONS
APPERTAINING TO
SOVND & SIGHT.

ENTERED AS SECOND-CLASS MATTER AT THE NEW YORK, N. Y., POST-OFFICE.

Vol. II

No. 11

New York, November, 1898

* * *

Principal Features of this Number

* * *

THE AMERICAN GRAPHOPHONE COMPANY VS.
NATIONAL GRAMOPHONE COMPANY

ANSWERS TO CORRESPONDENCE .

FOREIGN BUYERS FOR AMERICAN NOVELTIES

EXPORT BUSINESS. (Shipments Abroad)

NEW LITERATURE

WONDERFUL WORK BY MUTOSCOPE

EDITORIALS

TRADE NOTES

FREAKS IN SOUND

SPANISH LANGUAGE BY 'PHONE

NEW LITERATURE

OUR TATTLER

A TALKING MACHINE MARVEL

ITEMS OF INTEREST

SUBSTITUTE FOR PRINTING

X-RAY ITEMS

MR. SMILE'S PERPLEXITIES

EXHIBITIONS

NEW RECORDS FOR TALKING MACHINES! New Records
Manufactured by the Leading Companies

THE LATEST POPULAR SONGS. List of the Latest Metro-
politan successes

NEW FILMS FOR PROJECTING DEVICES

NEW TALKING MACHINE THE POLYPHONE



PATENTED

\$15.

TWO HORNS FURNISHED WITH ATTACHMENT

CAN BE ATTACHED TO ANY TALKING-MACHINE. ANY RECORDS CAN BE USED

GIVES NEW LIFE TO EXHIBITION BUSINESS

GLADLY SENT PRIVILEGE OF EXAMINATION

GUARANTEED
MORE THAN TWICE AS LOUD
AND MANY TIMES MORE
MUSICAL THAN ANY OTHER
TALKING-MACHINE



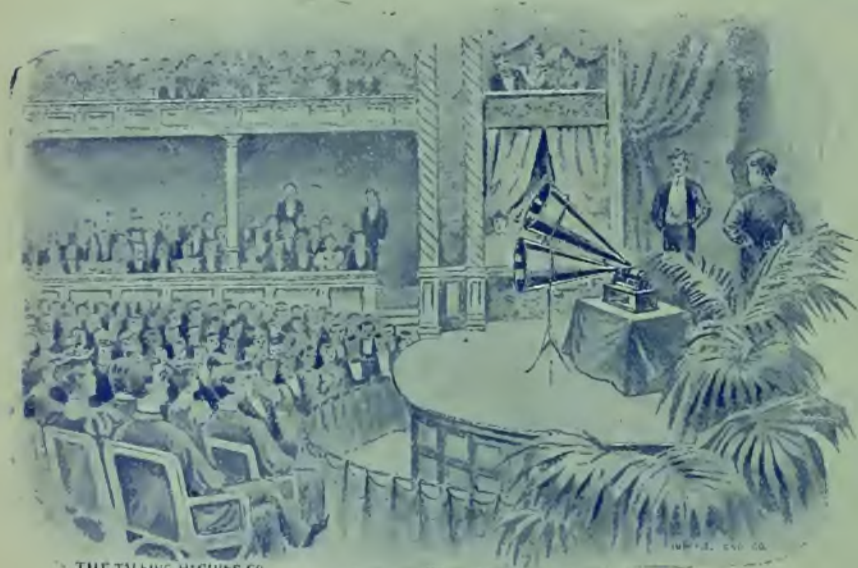
\$35.

THE POLYPHONE

AS SWEET AND NATURAL
TONE AS THE ORIGINAL
ORCHESTRA, BAND OR
SINGER

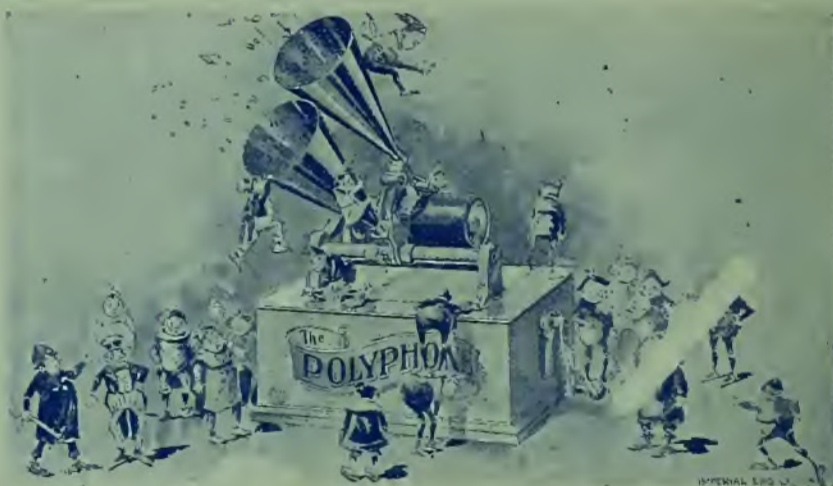
WE ALLOW YOU TO BE THE JUDGE

THE MOMENT YOU HEAR IT
YOU WILL BE CONVINCED



THE TALKING MACHINE CO.

POLYPHONE ENTERTAINING LARGE AUDIENCE
THE NEW WAY TO MAKE MONEY



THE VOLUME AND SWEETNESS OF THE MUSIC OBTAINED FROM
THE POLYPHONE SURPRISES THE BROWNIES

.....IT WILL SURPRISE YOU.....

We are Manufacturers and Sell to Dealers Only

Apply to Nearest Talking-Machine Dealer, He Can Furnish Them

The Polyphone Co.

107 MADISON STREET,

CHICAGO, U.S.A.

Cable Address, "POLYPHONE, CHICAGO."

The Polyphone is the Only Improvement in Talking-Machine Reproduction in the last twelve years.—LEON F. DOUGLASS.

HIGH STANDARD MASTER RECORDS

FOR

PHONOGRAPHS, GRAPHOPHONES AND TALKING MACHINES

MADE BY THE

Norcross Phonograph Co.

I. W. NORCROSS, Jr.. Manager

NOTE.—With the Edison Recording Diaphragm and the Norcross Attachment we produce an absolutely perfect record possessing a wonderful volume of tone. For exhibition purposes we make a special master record capable of entertaining an audience of 5,000 or more. All our records are high-grade originals—we have no duplicates to sell at any price.

OUR SPECIALTY IS

Metropolitan Band Records.



SIGNOR G. PELUSO, Director.

The Metropolitan Band Records are acknowledged the world over to be the very best grade of originals in the market. Each and every one is a master record, loud, clear and musical, and the perfect reproduction of a full military band of eighteen first-class musicians.

We also carry a full line of Vocal and Instrumental Solos, Talking and Descriptive Master Records. Our parlors are open day and evening for the accommodation of visiting customers and every purchaser has the privilege of hearing records played over for the purpose of making selections. Send for our latest Catalogue

RECORDS, \$1.00 EACH
\$10.00 per DOZEN

Exhibition Masters,
\$2.00 Each

ADDRESS ALL COMMUNICATIONS TO THE

NORCROSS PHONOGRAPH CO.

Rooms: 10, 11, 12, 13 and 14

New Zealand Building, Broadway and 37th Street NEW YORK CITY

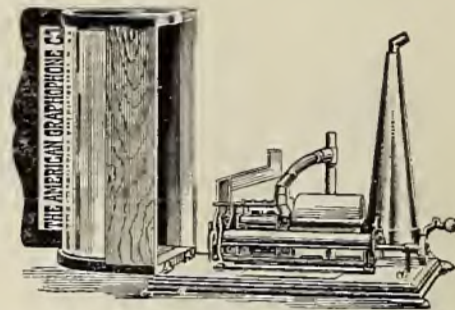
\$20 A COIN-SLOT TALKING MACHINE \$20

For Twenty Dollars



The Eagle Coin-Slot Graphophone

The Latest Thing in GRAPHOPHONES



View of Eagle Coin-Slot Graphophone open

The Combination of Coin-Slot Mechanism and the Eagle Graphophone has done it. The new machine is neat in appearance, and thoroughly and substantially made

A money getter and a great attraction for stores
GRAPHOPHONES WITH CLOCKWORK MOTOR

The Eagle Graphophone, \$10

The Columbia Graphophone, \$25

The Universal Graphophone, \$50

There are two Models of Graphophones made with special view to their use in the home; the "Eagle" and the "Columbia." The "Universal" Graphophone, while especially adapted to the needs of the office, is of so versatile a character that it can be used also for entertainment purposes. In fact, the new Universal Graphophone, equipped with a clockwork motor that will run about an hour at one winding, is an ideal machine for home entertainment or for giving exhibitions.

The Graphophone has been found to be the most satisfactory machine for exhibitors to handle. Outfits are arranged especially to suit the needs of the exhibitor. When a large amplifying horn is used the reproductions of music are loud enough to fill large exhibition halls.

This Company's establishment is manufacturing headquarters of the world for all Graphophone and talking machine supplies. COLUMBIA RECORDS have become famous because they are made under the direction of the most expert record makers. Our facilities enable us to supply records unrivalled in quality at less than the cost at which others can make inferior ones.

*Amplifying Horns, Musical and other Records and Supplies
of all kinds can be obtained at any of our offices*

WRITE FOR CATALOGUE B-N

COLUMBIA PHONOGRAPH COMPANY DEPARTMENT B-N

143-145 Broadway, Corner Liberty Street, New York City

Retail Branch: 1155-1157-1159 Broadway

PARIS, 34 Boulevard des Italiens
CHICAGO, 211 State Street
ST. LOUIS, 720-722 Olive Street
SAN FRANCISCO, 723 Market Street

PHILADELPHIA, 1032 Chestnut Street
WASHINGTON, 919 Pennsylvania Avenue
BALTIMORE, 110 E. Baltimore Street
BUFFALO, 313 Main Street



T. Herbert Reed maker of the only successful violin records
LOUD, CLEAR AND DISTINCT

REED, DAWSON & CO.

516 Broad Street

NEWARK, N. J.

RECORDS...

...RECORDS

We are surpassed by none for
strictly first-class ORIGINALS

We make everything

The most complete Laboratory
in the country



With increased capital and enormous sales we are enabled to offer you the best records in the market at lowest prices.

Send
for
new
Quota-
tions

They will surprise you.

Brass Band, Orchestra, Cornet, Clarionet, Piccolo, Violin, Piano, Banjo and Trombone solos, Brass Quartettes, Vocal Quartettes, Vocals of Stanley, Bott, Hiens, Campbell, Mahoney, Cal Stewart, Yankee Stories and Songs, Cornet Solos with Clarionet Obligatos, Minstrels, Drum and Fife Corps Records.

“He is well pleased that is well satisfied”

OUR SUCCESS is due to sending our patrons first-class goods ONLY

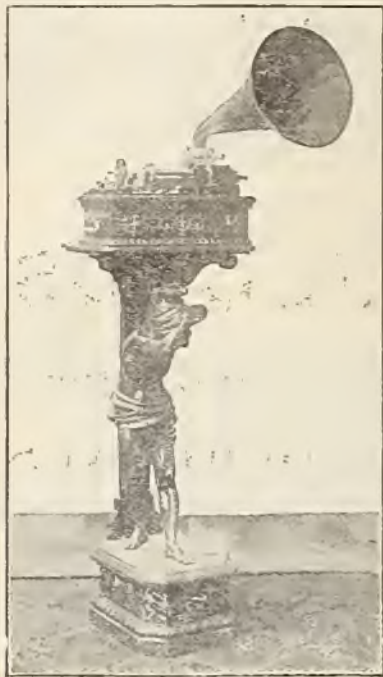
TRY US

*Our list on Minstrels and Vocal Quartettes, \$1.00 each
all others 75 cents each*

Send for Sample Order
Catalogue and Discount

Write Name and Address Plain

Dealers in Edison Phonographs and all other Talking Machines and
Supplies, Horns, Stands & Cabinets



BETTINI Micro-Phonograph Recorder and Reproducer
For the Edison Electric and Triple Spring Motor Phonograph

BETTINI Micro-Reproducer
(Special Model.) For Edison Home Phonograph

BETTINI Micro-Reproducer for Graphophones

The only diaphragms that indeed successfully record and reproduce female voices, flutes, violin, cello, etc. The most natural reproduction, clearer and louder than with any other diaphragms distinctly audible in large hall and theatre and yet with no metallic resonance.

BETTINI Special Reproducing Horns
In corrugated tin and aluminum, all aluminum and also in brass for Bettini Micro-Reproducer.

BETTINI Phonograph Speed Indicator

SPECIALTY HIGH-GRADE RECORDS, HIGH-CLASS AND POPULAR MUSIC
BY LEADING PERFORMERS AND WORLD-FAMED ARTISTS

A MOST COMPLETE OPERATIC REPERTOIRE

SEND FOR CATALOGUE

Edison's Phonographs, Graphophones and Complete Bettini Micro-
Phonograph Outfits

BETTINI PHONOGRAPH LABORATORY

110 FIFTH AVENUE, NEW YORK

From the N. Y. Evening Telegram :
* * * * Lieutenant Bettini has a most interesting laboratory in this city, and he has been much favored by the great European artists that have been heard in public in this country, both on the dramatic and operatic stage. I spent a delightful afternoon in his laboratory yesterday, and was astounded to hear in turn a reproduction, perfect in every detail, of the voices of these great artists: Mmes. Calve, Melba and Nordica; MM. Tamagno, Tasalle, P. Plancon, Maurel and Signori Aucona, Nicolini and Campanini, Tomaso Salvini, Coquelin, Sarah Bernhardt, Ellen Terry, Lillie Langtry, Mme. Rejane and her leading man, M. Maury, have each spoken into the Bettini Phonograph. Ex-President Benjamin Harrison and "Mark Twain" have each left a record of their voices behind them.

HARMS, KAISER & HAGEN

Besides having won the Gold Medal at the Pittsburgh Exposition for Violin Records, have won the heartiest commendation from the public for their

BRASS BAND AND
MALE QUARTETTE RECORDS

HARMS, KAISER AND HAGEN

18 EAST 22d STREET . . .

. . . NEW YORK, U. S. A.

MAKERS OF ORIGINAL RECORDS

OF THE HIGHEST QUALITY

Sole Agents for the Celebrated Kaiser Horn made of paper fibre on correct acoustic principles

SEND FOR CATALOGUE AND PRICE LIST

The Phonoscope

(Copyrighted, 1896)

A Monthly Journal Devoted to Scientific and Amusement Inventions Appertaining to Sound and Sight

Vol. II.

NEW YORK, NOVEMBER, 1898

No. 11

American Graphophone Company vs. National Gramophone Company

DECISION AGAINST THE GRAMOPHONE.

TEXT OF JUDGE LACOMBE'S OPINION GRANTING
PRELIMINARY INJUNCTION.

UNITED STATES CIRCUIT COURT,
FOR THE SOUTHERN DISTRICT OF NEW YORK.

AMERICAN GRAPHOPHONE CO.,
vs.
NATIONAL GRAMOPHONE CO., & ANO. } In
Equity,

Motion for preliminary injunction on U. S. patent to Bell & Tainter for Improvement in Recording and Reproducing Speech, etc. No. 341,214, May 4, 1886.

LACOMBE, Circuit Judge.

Although the notice of motion embraces claims 19 to 23 both inclusive, complainant has addressed its argument solely to claim 21—the others may be considered as withdrawn from this application. It is difficult to see upon what theory this Court can assume that Judge Shipman in the case of the same plaintiff vs. Leeds (87 Fed. Rep. 873) held the twenty-first claim not to be valid in view of the fact that the decree in that case expressly declares that the patent is valid so far as that claim is concerned. Nor is there anything in the opinion in the Leeds case which would require this Court to read additional elements into claim 21, thereby making it identical with one or more of the other claims which were also sustained. It seems reasonably clear that this Court did not entirely concur with Judge Grosscup. Certainly it held the claim for the loosely mounted reproducer, or gravity reproducer, or floating reproducer; to be valid; and in disposing of the present motion this must be taken as adjudicated—no new evidence of any weight being introduced.

The claim reads as follows:

"21. The reproducer mounted on a universal joint and held against the record by yielding pressure, substantially as described."

Defendants seek to escape infringement upon the theory that the sinuosities in their record which preserve and reproduce the sound waves are found in the walls of the groove instead of in the bottom; wherefore, as they contend, the reproducer is not held with a yielding pressure against the record, but is moved positively by the side walls. A careful perusal of the patent, however, indicates that the word "records" is not used to indicate solely that the particular part of the recording groove whereon the sound waves are recorded by elevations and depressions. Thus referring to the operation of the reproducer the specification says:

"No special care is necessary to insure its adjustment, for if the reproducer be allowed to rest against the record with the style upon the engraved line, the style will of itself gravitate to the bottom of the groove."

And again:

"Difficulties on these accounts are avoided by the loose or flexible mounting of the reproducer, the style automatically adjusting itself to the proper place on the record."

The earlier art shows a reproducer held rigidly—the "floating reproducer" was adapted to put itself in place and keep itself in place despite the various disarrangements of parts to which machines of this class are liable. And in defendants' machine this same automatic action is secured in the same way. Resting always on the bottom of the groove the reproducer is always in that part of the groove or record—held there by yielding pressure—where it can be acted upon by the irregular surface which preserves the sound waves, and it would seem to

make little difference whether that surface was located at the bottom or at the side of the groove—especially in view of the language of the specification:

"The reproducing-style mounted as just explained, is specially adapted for use in connection with a record in the form of a groove with sloping walls and this combination is specially claimed; but it may also be usefully employed in connection with other forms of record."

There seems to be no special equity in the circumstance that defendants have not heretofore been disturbed by suit; complainant has evidently been diligent in bringing suit against earlier infringers and was under no obligations to sue everyone at the same time.

Upon formally withdrawing the motion as to the other claims, complainant may take an order in the usual form as No. 21. After the order is entered, however, its operation will be suspended until January 25, 1899, in order to give defendants an opportunity to prosecute and argue an appeal if they be so advised.

UNITED STATES CIRCUIT COURT,

FOR THE SOUTHERN DISTRICT OF NEW YORK.

AMERICAN GRAPHOPHONE COM-
PANY, Complainant,
vs.
THE NATIONAL GRAMOPHONE COM-
PANY and FRANK SEAMANN. } In
Equity

DEFENDANT'S BRIEF ON MOTION FOR
PRELIMINARY INJUNCTION.

BY MR. GUSTAV BISSING.

May it please the Court:

This is a motion for a preliminary injunction against an alleged infringement of the Bell & Tainter Patent No. 341,214, and more especially of Claims 19 to 23 of said patent, which were recently sustained as valid by Judge SHIPMAN in the case of the American Graphophone Company vs. Leeds (87 Federal Reporter, 873), and two of which have been held valid by Judge GROSSCUP in the *Amet* case (76 O. G., 1273; 74 F. R., 789).

The validity of these claims, as we understand them to have been construed by Judges SHIPMAN and GROSSCUP is not contested for the purposes of this motion. The points urged by the defendant are, on the other hand, first, the fact that the construction which Judges SHIPMAN and GROSSCUP gave to these claims is such as to manifestly free the defendant's device from their control; second, that the questions necessary to be decided in order to bring the defendant's device within the terms of complainant's claims, if that were possible, have never been considered by any Court; third, that there is no infringement of complainant's claims, however construed, and, fourth, that under all the circumstances of the case, which will be set out at large, the grant of a preliminary injunction would be inequitable.

In order to properly understand the scope of the claims of the patent on which an injunction is asked it will be necessary to consider, briefly, the improvements which these claims are designed to cover, and to do this we have to consider the prior art.

The Edison Phonograph, as pointed out in Judge SHIPMAN'S decision, embodies a machine which both records and reproduces speech. The record,

in this case, was made by indenting it upon the surface of a yielding material, such as paper saturated or coated with something like paraffine and covered by a sheet of tinfoil. The tinfoil received an impression from an indenting point secured to the centre of a rigidly-mounted diaphragm. The difficulty was that the material of the tinfoil was pliable and that the indenting point bent the tinfoil down and around the point of contact and thus distorted the indentations. Besides, the record is said to have been perishable and easily obliterated and easily injured when removed from the machine, and after a short time the indenting process fell into disuse. Nevertheless, we have in Edison a record adapted for reproducing sound, in which the sound is represented by a groove with an undulating bottom, which undulating bottom gives motion to a sound-reproducing stylus in a direction perpendicular to the face of the record.

Bell & Tainter improved this device of Edison into the well-known Graphophone. They did this by discarding the tinfoil and using instead a wax or wax-like material into which the record was engraved or cut by boldly removing chips of the substance of the material, as distinguished from the process of indentation as used by Edison. The wax or wax-like material was, on the one hand, supposed to be soft enough not to offer any undue resistance to the engraving or cutting stylus in the act of recording sound, and was, on the other hand, considered by them so hard that the record should not be readily injured or be readily worn out by the reproducing stylus in the reproducing operation. The sound record on the wax cylinder of Bell & Tainter is found at the bottom of the record groove, just as in Edison. So, too, the vibrations are imparted to a stylus in a direction perpendicular to the surface of the record cylinder, just as in Edison. The operation of reproducing sound with Bell and Tainter's wax-like cylinder and with Edison's tinfoil-covered cylinder is precisely the same. Nevertheless, the difference in the material used by Bell and Tainter, wax as against tinfoil, and the difference in the method of cutting the record as distinguished from indenting it, have been held, so far as the question has yet been litigated, to have created such an advance in the art as to entitle the wax cylinder of Bell and Tainter, carrying their engraved sound record, to be regarded as a useful invention. As such it has been sustained by Judge GROSSCUP and by Judge SHIPMAN in the cases above referred to, and by Judge WHEELER in the case of the American Graphophone Company vs. Walcutt, 87 Fed. Rep., 551.

There was another thing necessary to be done in order to make the Phonograph of Edison successful as a reproducer of speech, and what this was will best appear from a study of the shape of the record grooves of Bell and Tainter's wax cylinder as manufactured by the complainant. A photograph on a very much enlarged scale, obtained by a process of micro-photography, is appended to the Lyons affidavit and is marked "Chapman Micro-photograph Graphophone Grooves." This photograph, it is to be understood, shows the appearance of the grooves of the Graphophone wax cylinder as they appear in cross-section, the cut being made not in the direction of the length of the grooves but across a number of consecutive grooves at right angles to the grooves, and in a direction parallel to the axis of the cylinder. The photograph shows that these grooves are exceedingly shallow and very broad in comparison with their depth. It furthermore shows that there are ridges between the grooves about as well defined as the grooves themselves, the sides of two adjacent grooves, in fact, coalescing into a more or less sharply defined ridge.

At this point we wish, once and for all, to insist upon a matter which completely disposes of com-

plainant's contention in his present motion. It is this: that no decision which has ever been rendered by any Court, sustaining the Bell & Tainter patent in suit, has gone beyond the specific wax-like material with an engraved record having sloping walls and having the record in the undulating bottom of the groove. In none of the adjudicated cases did any of the defendants use anything but such a wax-like record in which grooves, of the specified shape, were cut or engraved. Therefore, in none of the adjudicated cases was it necessary to decide more than the novelty of this one feature, and if more had been decided it would have been a mere *obiter*. But the fact is, and it will abundantly appear hereafter, that the Courts, in the adjudicated cases, did not attempt to go beyond the wax-like record with the engraved groove of the specified shape. This element, either by itself or in combination with another element, has been the basis of every decision sustaining the patent. No adjudicated case holds a device which does not employ such wax-like record as an infringement. We deem it unnecessary to repeat this matter again and again throughout the course of this brief, but insist here that this alone disposes of the present motion adversely to complainants, for the defendants employ neither a wax-like record nor has their record engraved grooves nor grooves of the shape of those used by complainant.

Now, with a wax record having a groove of the shape shown in the Chapman photograph, and, be it always remembered, with a sound record at the very bottom of the groove, it would manifestly be a very difficult thing to construct a machine carrying the diaphragm and stylus in a rigid and unyielding manner in which the construction should be so exact that the stylus would always rest at the bottom of this very broad and very shallow groove. Bell and Tainter, therefore, conceived of a simple method of overcoming the difficulty, which consists, in effect, in giving a very small amount of lateral play to the mounting for the diaphragm, so that when the stylus is placed within the purview of the record groove, whether near the top or near the bottom of the side wall, then by the simple process of tapping the wax cylinder, or by the jar incident to the motion of the cylinder, the stylus will of itself gravitate to the bottom of this groove.

This method of mounting the stylus, embodying a trifling amount of lost motion in a lateral direction, has besides the advantage that if the stylus, when placed upon the wax cylinder, should happen to rest on the ridge between two adjacent grooves, that then the same process of tapping the cylinder will cause the stylus to slide down into one or other of the two adjacent grooves. As the Graphophone wax cylinder in ordinary practice has about one hundred helical turns of the record groove to the inch, it will be seen, in order that the stylus may be able to effect the function which we have just described, of automatically gravitating to the bottom of a preselected groove, when the stylus is resting on the side walls of the groove, or of falling into one of two adjacent grooves, when the stylus is placed on the ridge between the grooves, that the amount of necessary lateral play is exceedingly slight, being at most one hundredth of an inch, though in the commercial construction it may be a trifle more than this. In the Patent No. 341,214 it is shown as effected by a small bit of rubber tubing, numbered 32, and well shown in Fig. 8.

That we have correctly stated the functions of this lateral adjustment of the mounting for the stylus appears on page 4 of the patent in suit, from which we quote as follows:

"No special care is necessary to insure its adjustment [meaning the reproducer], for, if the reproducer K be allowed to rest against the record with the style upon the engraved line, the style will of itself gravitate to the bottom of the groove."

Or again, from the same page:

"Difficulties on these accounts are avoided by the loose or flexible mounting of the reproducer, the style automatically adjusting itself to the proper place on the record."

The truth of the facts relating to the lateral adjustment more fully appears from the testimony of Mr. Charles S. Tainter in the Leeds case, who testifies that he was the Sumner Tainter who is one of the grantees of the patent in suit. In answer to question 7 of his direct examination, and in answer to questions 24, 25, 26 and 27 of his cross-examination, this patentee fully goes into this matter. While we consider it desirable that all of these questions and cross-questions be considered, we limit ourselves to a quotation of Mr. Tainter's answer to question No. 7 as follows:

Answers to Correspondence

All questions pertaining to Talking Machines, Picture-Projecting Inventions, Automatic Coin-in-Slot devices, Amusement Inventions, etc., will be cheerfully and fully answered in this column. Inquiries for this department should be addressed, Information Department, The Phonoscope, 4 East Fourteenth Street, New York, U. S. A. ❀ ❀ ❀ ❀ ❀

"J. W. G.," YOUNGSTOWN, O.

[In response to your inquiry for additional information with a view to overcoming any possible danger in using the Vitascopes, such information is herewith appended:

A few simple rules rigidly adhered to and the necessary amount of care and intelligence on the part of the operator will prevent all accidental fires. The operator should thoroughly understand all the mechanism, know just where the possible danger is, and be ever ready to remove or prevent it quickly. No boy without any sense of responsibility, no drunkard, or one addicted to over-indulgence in strong drink, and no careless lout, with no aim or purpose other than to do as little as possible during his waking hours, should be placed in charge of this apparatus. While the very highest order of intelligence may not be necessary in the operators, they should belong to a class above the ordinary; this is absolutely necessary where so much depends on their individual care and effort. If an arc lamp is used, it should be inclosed in a metal or metal-lined box (as a matter of fact this is done in all first-class machines). If it is in an open room, a large metal pan containing sand should be placed under it. The frame for the lens should be of metal. A shutter should be provided between lens and film, cutting off light from the frame when its movement is interrupted by accident or otherwise; it should close automatically and be held open by the foot of the operator when the film is in motion, or a glass vessel filled with a solution of alum water should be placed between the lens and the film. This last precaution should be taken in all cases where films less than the standard width are used. Films should be wound and unwound on metal reels, which should be kept in metal cases. Films not in use should be kept in metal boxes provided with self-closing covers kept securely closed, except when it is necessary to remove or replace these films. The lamps, reels, films, belts and pulleys should be contained in a cabinet of metal, or wood metal lined, the working side to have a door that could instantly shut in case of accident. The motor, controlling rheostat, switch and fuse-block, should be outside the cabinet. The resistance coils should be largely in excess of the current capacity of the motor, so as to prevent excessive heating and the electric wiring and fixtures should be done in accordance with the "National Code." The electric light is preferable to calcium, acetylene, or gas light, for the former requires neither match nor flame to light it.]

PHONOSCOPE PUBLISHING CO.

September issue of THE PHONOSCOPE just received, and as usual its contents are most interesting. We would however like to make one or two suggestions for what seems to us would add to the value of this journal. The Exhibitor's Directory—might not this with advantage include also Agents or Dealers, for instance we are not exhibitors but dealers, and would like to avail ourselves of your offer of the one-half inch (or inch) space, asking for offers of anything new in 'Phones or 'Scopes. If you are willing to extend this directory to agents and dealers please say what we are to add to the \$5 for extra postage to England and the price of double space, and also say when our present subscription terminates. I believe on a previous occasion we made a suggestion asking you to publish a monthly resume of all patents taken out in the United States, or better if including European countries also, relative to the recording and reproduction of sound and sight; it seems to us that such a list could be easily arranged and prove of immense interest and value to the trade. Regarding S. M. Prescott's letter addressed from Edinburgh, N. B. He is perfectly right in the conclusion he has arrived at respecting the result on the English phonograph business of the "Dog in the Manger" policy of the Edison Bell people;

it has been suicidal to their own, the English public and our—dealers—interests. However, there is some satisfaction to those whom they have injured by such folly, that they in the past have received their just reward, in absence of dividend, and now the Gramophone seems to be giving them the *Coup de Grace*. I should think there are more Gramophones sold in England at the present time in one day than Phonographs in three months. However, this will soon all be altered as the wax cylinder patents have only about a year or so to run. Wishing your publication an abundant success and hoping that you may soon be compelled to issue weekly, we are,

Yours truly,

J. N., PUTNEY, LONDON, ENG.

[1.—Any exhibitor, agent or dealer can avail themselves of the opportunity of advertising in our "Exhibitors' Directory" providing they pay the regular rate in advance, viz; \$5.00 for one-half inch space and \$9.00 for one inch space per year, which includes one year's subscription to this journal; foreign advertisers must add fifty cents for extra postage. 2.—Your subscription expires with December issue. 3.—Suggestion gratefully received, which will be acted upon in the near future.]

"E. E.," KANSAS CITY, MO.

[We do not recommend any individual or firm as making "the best" original records but will refer you to any of our advertisers, all of whom can be relied upon.]

American Novelties. The "Foreign Buyer"

Foreigners who are in the Market for 'Graphs, 'Phones, 'Scopes and novelties. Descriptive Circulars and Quotations, if sent to the following, may bring some customers

BICYCLES AND SUNDRIES.

Venezuela

Becker, Brun & Co., Sur 2, 26 Caracas.
A. Muñoz & Co., Este 2, 15 Caracas.
A. Santana, Este 4, 6 Caracas.
Santana & Co., Avenida Sur 31.
Kolster, Rocmer & Co., Puerto Cabello.
Mestern & Co., Puerto Cabello.
Seidel & Co., Puerto Cabello.
F. Brendel & Co., Valencia.
H. Gonzales & Co., Valencia.
Mestern & Co., Valencia.
Seidel & Co., Valencia.
Dominici & Hijos, Bolivar 24, Barcelona.
I. Valencia & Co., Juncal 32, Barcelona.

CLOCKS, WATCHES AND JEWELRY.

Ernesto Huth, Ciudad de Bolivar.
José Ramou Perez, Ciudad Bolivar.
Antonio Von Buren, Ciudad de Bolivar.
Felipe Henriquez, La Guaira.
Alberto Raimond, La Guaira.
Antonio Lartigue, Constitucion, Valencia.
J. Moser, Constitucion 85, Valencia.
Federico Stuve, Mercado, Valencia.
Gathmann, Hermanos, Bolsa á Mercaderes, No. 36 Caracas.
J. G. Ammé & Co., S. 4, N. 48, Caracas.
Adolfo Böttger & Co., S. 4, N. 46, Caracas.
Antonio Cachazo hizo & Co., S. 4, Caracas.
A Luisi & Co., Av. S. N. 15, Caracas.
George Newton, Av. N. N. 27, Caracas.
S. Picard & Co., Sucs., S. 4, No. 44, Caracas.
Antonio de Rosa, S. 4, N. 58, Caracas.
José Ventura y Macia, S. 2, N. 17, Caracas.
Pedro Vilardebo, S. 2, Caracas.

ELECTRICAL GOODS.

Olivella & Fabregat, Sur 4, No. 61, Caracas.
Venezuela Telephone & Electrical Appliances Co., Caracas.
American Electric & Manufacturing Co., Caracas.
Caracas, Valencia & Interior Telephone Line, Caracas.
Carlos G. Palacios, S. 6, Caracas.
Compañía del Gas y de luz eléctrica, O. 14, Caracas.
Jaime F. Carrillo, Caracas.
Prospero Suarez, N. 12, N. 25, Caracas.

MUSICAL INSTRUMENTS.

G. Valentiner & Co., Caracas.
Braun & Co., Caracas.
Santana & Co., Av. S. N. 31, Caracas.

Export Business

Talking-Machine Shipments Abroad as Reported by New York Custom House

NOVEMBER 1st to DECEMBER 1st 1898

ADEN		
Description	Quantity	Value
Phonograph Goods	2 Packages	\$200 00
Phonograph Goods	1 Package	18 00
Total		\$218 00
ANTWERP		
Gramophone Goods	2 Packages	240 00
Graphophone Goods	4 Packages	53 00
Phonograph Goods	3 Packages	53 00
Phonograph Goods	4 Packages	119 00
Phonograph Goods	5 Packages	82 00
Total		\$547 00
ARGENTINE REPUBLIC		
*Gra'phones	6 Packages	133 00
BARCELONA		
Graphophones	6 Packages	270 00
BELFAST		
Graphophones	3 Packages	169 00
BRAZIL		
Phonograph Records	1 Package	50 00
BREMEN, Germany		
Gramophones	1 Package	24 00
Phonograph Goods	1 Package	17 00
Total		\$41 00
BRITISH POSSESSIONS IN AFRICA		
Gramophone	1 Package	21 00
Gramophones	5 Packages	262 00
Graphophones	19 Packages	576 00
Total		\$859 00
BRITISH AUSTRALIA		
*Gra'phones	22 Packages	865 00
Phonograph Goods	12 Packages	550 00
Phonograph Goods	18 Packages	464 00
Total		\$1,879 00
BRITISH HONDURAS		
Gramophone	1 Package	39 00
BRITISH WEST INDIES		
Phonograph Records	1 Package	8 00
BRITISH EAST INDIES		
Phonograph Goods	42 Packages	1785 00
*Gr' phones	2 Packages	82 00
Phonographs	40 Packages	967 00
Gramophones	3 Packages	95 00
Gramophone Goods	2 Packages	67 00
Total		\$2,996 00
CUBA		
Phonographs	4 Packages	165 00
Phonographs	2 Packages	47 00
Phonographs	4 Packages	60 00
Total		\$272 00
CENTRAL AMERICA		
Graphophones	2 Packages	54 00
CHILI		
Gramophones	1 Package	126 00
Graphophone	1 Package	26 00
Total		\$152 00
CHINA		
Phonograph Goods	2 Packages	88 00
Phonographs	3 Packages	69 00
Graphophones	1 Package	46 00
Total		\$203 00

DRAMMEN		
Graphophones	5 Packages	150 00
ECQUADOR		
Gramophones	2 Packages	77 00
Phonographs	2 Packages	26 00
Total		\$103 00
GENOA, Italy		
Phonograph	1 Package	25 00
GIBRALTAR		
Phonographs	2 Packages	27 00
HAMBURG, (Germany)		
Phonographs	53 Packages	980 00
Phonographs	6 Packages	455 00
Phonographs	6 Packages	150 00
Phonograph Goods	12 Packages	249 00
Phonograph Goods	5 Packages	220 00
Graphophones	2 Packages	161 00
Total		\$2,215 00
HAVRE, France		
*Gra'phones	9 Packages	1,025 00
Graphophones	7 Packages	1,120 00
Total		\$2,145 00
LIVERPOOL, England		
Phonograph Goods	1 Package	75 00
Graphophones	2 Packages	35 00
Gramophone	1 Package	20 00
Phonographs	48 Packages	1,061 00
Total		\$1,191 00
MEXICO		
Phonograph	1 Package	30 00
Phonograph Goods	1 Package	20 00
Gramophones	4 Packages	100 00
Total		\$150 00
MILAN		
Phonographs	7 Packages	260 00
NEW ZEALAND		
Phonograph Goods	3 Packages	71 00
Phonograph Goods	2 Packages	43 00
Phonograph Goods	4 Packages	56 00
Phonograph Goods	5 Packages	132 00
Duplicator	1 Package	28 00
Total		\$330 00
PERU		
Gramophone	1 Package	60 00
Gramophones	2 Packages	10 00
Phonographs	13 Packages	114 00
Total		\$184 00
ROTTERDAM, Holland		
Phonograph Goods	1 Package	54 00
Phonograph Goods	1 Package	10 00
Phonograph Goods	2 Packages	15 00
Total		\$79 00
ST. GALL		
Phonographs	2 Packages	50 00
TRIESTE		
Phonographs	1 Package	50 00
UNITED STATES OF COLOMBIA		
Graphophones	2 Packages	43 00
Phonograph Goods	3 Packages	71 00
Phonograph Goods	4 Packages	56 00
Phonograph Goods	5 Packages	132 00
Phonograph Goods	8 Packages	88 00
Duplicator	1 Package	11 00
Gramophone	1 Package	28 00
Total		\$429 00
VENEZUELA		
Phonograph Goods	6 Packages	69 00
Phonograph Goods	8 Packages	156 00
Duplicator	1 Package	5 00
Total		\$230 00

SUMMARY

Phonograph Goods	9,767 00
Graphophone Goods	2,447 00

Gramophone Goods	1,145 00
Doubtful	2,105 00
Grand Total	\$15,464 00

*Owing to certain abbreviations and inaccuracies in the reports furnished by the Custom House it is impossible to determine, in this instance, whether Graphophones or Gramophones are intended to be specified. Abbreviations are here given verbatim as issued by Custom House officials.

New Literature

The Columbia Phonograph Company have issued a little leaflet containing the following hints:

1. A free Graphophone concert given once or twice a week is a great advertisement. The largest sized brass horn should be used.
2. A large display of horns, machines and records (even if empty boxes are used to increase the effect) will impress customers, and is important in creating a demand.
3. Have a shaving machine. An announcement that blanks will be shaved at a nominal cost, encourages the making of home records, brings customers frequently to the store, and affords a chance for your salesmen to call their attention to new records "just arrived," etc.
4. Salesmen should be impressed with the importance of a careful exhibition of the Graphophone. Specially selected recorders, reproducers and records, should be conveniently at hand, and judgement used in regulating the speed of the Graphophone.
5. In exhibiting the \$10, \$12 and \$15 Graphophones, a larger horn should be used than the one furnished with these types at the ordinary price, as it is of the greatest importance that the first impression produced on a probable purchaser should be the best possible.

6. A quiet place should be selected for exhibiting to customers, and every inquirer should be requested to listen through ear tubes to at least one record. Many are fascinated by the beauty of a record heard in this way, who are not especially impressed by the use of the horn.
7. Always give an exhibition of recording, which to all is more marvelous than reproducing.
8. Endeavor to sell each customer a box, case or cabinet for holding records. The more convenient it is for customers to handle records, the more they will use the Graphophone, and the more records they will purchase.
9. Always instruct customers carefully in the use of the Graphophone—so that they may get the best results. A good exhibition by a customer at his home, will suggest to some friend or visitor the idea of making a purchase.
10. A fine window display is one of the best means of attracting purchasers. Horns should be kept well polished, and machines bright and clean.
11. A continuous-running Graphophone playing popular selections, attracts much attention and excites interest.
12. Sending notices to customers when new assortments of records are received will increase sales.

Wonderful Work By Mutoscope

The public will soon be accorded the pleasure of observing the hitherto exclusive doings in the Vatican at Rome. Not Catholics alone, but all intelligent men and women, must be moved by the sight of the venerable head of the oldest of the Christian churches living and breathing before their eyes. It was through Mr. W. Kennedy-Laurie Dickson that the Mutoscope Company secured from His Holiness the appearances which the photographs reproduce. It was a peculiarly gracious privilege to extend, and indicates how ready is the sovereign of the Roman Church, most ancient of human institutions, to avail himself of the latest modern scientific inventions.

THE PHONOSCOPE

COPYRIGHTED 1396

PUBLISHED MONTHLY BY

THE PHONOSCOPE PUBLISHING CO.

4 EAST 14TH STREET, NEW YORK, U. S. A.

SUBSCRIPTION:

United States and Canada	\$1.00 per year
Foreign Countries	1.50 "
Single Copies	10c. each

Back numbers can be obtained at regular rates.

ADVERTISING RATES FURNISHED ON APPLICATION

All communications must be addressed to The Phonoscope Publishing Co., 4 East 14th Street, New York City, to insure prompt attention.

THE PHONOSCOPE is the only journal in the world published in the interest of Talking Machines, Picture Projecting and Animating Devices, and Scientific and Amusement Inventions appertaining to Sound and Sight.

Correspondents in London, Paris, Berlin, Amsterdam, Madrid, Alexandria and Constantinople, Australia, South America, Central America, Canada and 108 cities in the United States.

The Publishers solicit contributions from the readers of THE PHONOSCOPE, and suggest that any notes, news or items appertaining to sound and sight would be acceptable.

Fake Records

The legal fight between the Graphophone and Gramophone Companies seems to engender much spleen. The Gramophone Company advertises largely in a New York daily newspaper. This newspaper, sometimes respectable, seems willing to do almost anything for the paid coin of its advertisers. They have even condescended, so it appears to do the dirty work for the Gramophone. An article of three columns, evidently inspired, was recently printed attacking the companies which use wax cylinders for records instead of rubber plates. That the article referred to was an effusion of Gramophone interests there can be no question, when the fact obtains that the companies are bitter enemies and especially so just now because of the suit. The article referred to was captioned "Faked Records."

Now, a word as to fakes. A wax record can be made easily and can be reproduced instantly. A rubber record can be made by a complicated process and be reproduced in about two weeks. Which is deceptive? Which the fake?

What must a man do who has a Gramophone and who wants to make a record? He must be disappointed. When he discovers that this machine has been palmed off on him, one that will not make a record, he will probably use an axe or take an easier method of throwing the Gramophone into the well where it belongs.

A wax record is reproduced by a small ball tracing a groove in the velvety surface of a wax cylinder. A rubber record is reproduced by the scratching of a carpet tack or some similar device, in the granulated groove eaten by acid on the rubber disc. The one must be and is pleasing to the ear. The other sounds first like escaping steam. You listen more attentively hoping for better things and you are next reminded of the rumbling of a horseless carriage. Finally, when the attempt to reproduce a voice is begun, you are forcibly compelled to liken the noise from the Gramophone to the braying of a wild ass.

Of all the devices the Gramophone is the least skillfully constructed. Its looks are not very inspiring. Its blasty, whang-doodle noises are not desired by citizens of culture. There is one Gramophone in use, however, in the coal mines at Carbon-dale. It is properly used by the miners there.

As to the matter of records it may be well to state, and that truthfully, that the wax record-makers hire the very best artists available and pay them the highest prices, viz, \$1.00 a round, which is much more than the Gramophone people pay.

Not every wax record is of high intrinsic value. Wax records are not intended to be so loud as to blow off the side of a man's face; but wax records are pleasing to the ear.

* * *

"All That Glitters is Not Gold"

Early last spring there burst upon the Phonograph world in New York the brilliancy of a diamond shirt stud and a roll of bills almost as large as the man who flashed them. The individual who carried such indications of prosperity had just

arrived from Europe bringing Phonograph orders of considerable magnitude, accompanied by cash from several large foreign dealers. These orders were placed with various houses here in the city, Mr. F. M. Prescott handling the greater proportion. This looked like good times for all and the dealers felt that it would be interesting to continue the acquaintance of the new arrival. For a few weeks he dropped out of sight, but was finally heard from in Providence, where he had established himself as a buyer for the foreign market, doing business under the name of F. P. Moore. From this point the orders came with regularity and the dealers began to think they had "a good thing." His introduction to the community had been so favorable that he had no difficulty in getting credit. But before long some of our dealers found that the debit side of his page in their ledgers was painfully out of proportion to the credit side, and orders were thereafter sent to him C. O. D. For reasons best known to himself he then attempted to do business under the name of the New England Phonograph Company. But there were parties who proved to his entire satisfaction that they had a better right to that name than he, and when he found that they were lawfully confiscating all mail coming to him under the name of this company, he prudently changed his plans. In July the rumor became current that he was going to Rio Janerio to conduct his business from that point. Again the Kohinor blazed upon New York and the wearer was supposed to be settling his accounts with his creditors previous to his departure. But, alas, they were woefully disappointed, for before he spread any money around he vanished from sight and not even a ray from his shirt front could be seen to indicate his whereabouts. But the old stand in Providence was still sending out orders, a concern known as the Allen Phonograph Company having apparently bought out Mr. Moore. The manager of this concern, Mr. R. Allen had never been seen in New York, but he was extended a liberal credit by all dealers. When questioned by parties interested as to what had become of Moore, his reply was that Moore was in a sanitarium, but just which one he did not know. This, of course, was the one important fact sought for by F. M. Prescott, G. Bettini, Norcross Phonograph Company and others who were anxious that Mr. Moore should remember them in his will. Meanwhile the operations of the Allen Phonograph Company and the correspondence of Mr. Allen began to seem like "the memories of former days," and Mr. Prescott was the first to suspect that R. Allen and F. P. Moore were both walking under the same hat. With this thought in mind he undertook to solve the mystery, and after persistent energy and dogged perseverance he has at last proved that his suspicions were correct. The story of how Mr. Prescott accomplished this and of how he obtained a full settlement of his claim is interesting but too long to be given here in detail. He developed the facts that this man has been severally known as F. P. Moore, alias Paul Wilson Moore, alias F. Paul Moore, M. D., alias Dr. C. Percy Allen, alias Robert Allen, alias Dr. Gilbert. He operated a Phonograph Company in Paris with a capital of 1,000,000 frs. (?) in which he was president, secretary, treasurer and board of directors. He has also traveled as trance medium, mind reader and hypnotist, and has practiced as a doctor in several cities.

We give the above sketch to advise our readers that any business transaction with this many-named personage is apt to be unsatisfactory.

* * *

A Talking Machine Injunction

Judge Lacombe in the United States Circuit Court for the Southern District of New York, has granted the motion for a preliminary injunction against the National Gramophone Company on the suit brought against that company by the American Graphophone Company. Judge Lacombe delivered an opinion holding that the Gramophone infringes a fundamental patent of the American Graphophone Company. The suit involves the right to the use of important devices which, it is claimed, are essential to any practical talking machine. In the affidavits filed with the bill of complaint, the American Graphophone Company asserted substantially that the Gramophone was of no practical value until devices covered by the Graphophone patents were adopted as part of its mechanism. The interests involved in the suit are extensive and important.

* * *

It was impossible to obtain a full list of premiums in time to publish in this issue as promised, but will give full particulars as soon as list is completed.

Trade Notes

The Emperor of Japan has purchased a Graphophone Grand.

Piccolo solos by Frank Mazziota are becoming very popular.

The Edison Phonograph Toy Co., of Chelsea, Mass., has suspended.

The only objection to the Polyphone is that the demand exceeds the supply.

The Columbia Orchestra went to Bridgeport recently and made records at the factory.

The picture of Miss Mann singing into three horns has been printed in many western papers.

A celluloid film of the Magniscope caught fire and did \$1000 worth of damage recently as Dillon, Mont.

Free Graphophone exhibitions are given every Thursday evening at No. 1117 Chestnut Street, Philadelphia.

A phonograph is regularly used to assist in the church services at St. Paul's Cathedral, Nanimo, British Columbia.

Graphophone entertainments are being given in Christian Church, Ingleside, N. Y., to raise funds for a new church organ.

T. H. MacDonald, of the Graphophone factory, is one of the leading members of the swell Algonquin Club of Bridgeport.

Roger Harding is placing some new specialties on the market, among them a "Tough Girl" series which will be very popular.

Mr. John Bazant has recently returned after a very successful business trip South for the National Phonograph Company. He reports prospects as very bright.

Prof. W. C. Roentgen, the celebrated inventor of X-ray photography, has been tendered a chair in the Faculty of Philosophy in the University of Leipzig. He will accept the call.

We understand that I. W. Norcross has been very successful with his new diaphragm. He has received some flattering offers from some of our prominent Phonograph firms.

Vocal duets by Miss Estella Mann and Mr. Madeira are worthy of special mention. The voices blend together with harmony. Demands for these records are extraordinarily large.

Neat record carrying cases are placed on the market by Mr. Petit, of the Edison Company, Newark, N. J. It is claimed that for beauty, finish and cheapness these cases excel any yet manufactured.

The Guy Furniture Company of Worcester, Mass., are doing a large business selling Graphophones on the installment plan and are confident that "THE PHONOSCOPE" will be of great value to them during the coming year.

Dr. J. C. Phillips, of Milwaukee, used the X-ray process successfully in searching for a bullet which had lodged in the eye of J. D. Lyons. The experiment was conducted in the studio of Lynde Bradley before a score of interested spectators. The patient felt no pain.

The Phonograph parlors of Peter Bacigalupi, of San Francisco, were destroyed by fire November 23. The destructive fire included the Hotel

Baldwin and the total loss was over a million dollars. Mr. Bacigalupi has the sympathy of all because of his loss.

We understand that the Edison works have already started the manufacture of the large blanks for the new "Graphophone Grand" and have made the first delivery of 100 to a Chicago firm. Thus do the American Graphophone Company meet competition at the start.

The Western Phonograph Company of Chicago hereafter intend devoting their whole time to the handling and operating nickel-in-the-slot Phonographs, Graphophones and other similar devices. They are just completing a new nickel-in-the-slot electric battery machine.

Mr. F. M. Prescott, with his usual enterprise, has secured the delivery of the first five of the new "Graphophone Grand" machines. If you want to be the first to secure the latest novelty in the talking machine or animated picture line place your order with Mr. Prescott. He is always up-to-date.

The Greater New York Phonograph Company, whose advertisement appears elsewhere in this journal, are kept busy supplying the demand for their new adjustable horn crane and fibre diaphragm. Every possessor of a talking-machine should send in a sample order for these goods. They are giving perfect satisfaction wherever used.

Harry Braisted and Stanley Carter have received from J. W. Stern & Co. the sum of ten thousand dollars on royalty for their song "She Was Bred In Old Kentucky." Stern's certainly is the "house of hits" in the music profession. Judging from sales there can be no doubt but that the song "She Was Bred In Old Kentucky" is the most popular piece in America to-day.

Several new surprises are in store for us by Mr. G. Bettini. We are very sorry to state that he was unable to prepare the copy for his advertisement in time to be represented in this issue as we are confident the holiday buyers would appreciate them. Our representative had the pleasure of seeing a new talking-machine with his latest attachment. Large sales are predicted.

Commissioner Scott, of the Internal Revenue Department has rendered the following decision.

"Although the public is not charged for admission to the parlor, hall or place where Phonographs are exhibited yet, as the Phonographs are kept there for the purpose of making money they are to be regarded as shows for money within the meaning of the law and special tax must be made for such exhibition hall or parlor."

We feel obliged to say a good word from Santa Claus to our most esteemed friend known as "Uncle Josh Weathersby" (Cal Stewart). Mr. Stewart is undoubtedly the most popular man amongst our talented friends and we know of no one who gets a better word from all than he. He has all friends, seemingly, and no enemies, and we know we have the consent of all when we state that we all wish him a merry Christmas and a happy New Year.

The American Biograph scored a big success some weeks ago by showing a view of the Grenadier Guards as they marched through Westminster on their triumphal return from Egypt. The reproduction was put upon the screen in just eight hours after the event occurred. The feat was duplicated a few days later with views of Lord Kitchener going aboard the steamship at Calais and landing at Dover, exhibited on the evening of the day he crossed the channel.

Mr. Atwood Twitchell is one of the new Phonograph artists whom Harms, Kaiser and Hagen have introduced and made an impression on lovers of the instrument. Mr. Twitchell possesses a high class baritone voice and his musical education is superb. In a recent interview with Mr. John Kaiser he submitted a letter from Vice-President Hobart which read as follows: "Gentlemen, your records received and I was very much pleased with the same especially those by Atwood Twitchell."

Miss Estella L. Mann, whose sweet voice has electrified some of the most brilliant audiences in America, entertained an Evansville audience recently. She was not present in person but her beautiful selections as recorded in the Phonograph were enjoyed. The members of Evansville Council No. 786, National Union, gave an entertainment and E. H. Mann, assistant superintendent of the L. & N. Railroad Company, was present with a Phonograph and gave some of his daughter's latest songs. Miss Mann was formerly connected with Sousa's band.

A splendid feature in an original record is a vocal quartette and all makers of records will know what a hard task it is to take the same. Harms, Kaiser and Hagen have introduced the famous Imperial Quartette and have been successful with the same. They are preparing a supplement list containing about forty selections sung by these gentlemen, the demand for them being larger than expected. Mr. Hager, the celebrated violinist, has also added some new selections to his now expansive repertoire and can be seen at the laboratory of Harms, Kaiser and Hagen striving to supply the large demand.

We have seen a sample blank manufactured by an enterprising firm in Paris which is equal to any American blank. These blanks are sold at wholesale in Europe for 65 centimes each (7 cents) a price which has not been known on blanks here. This shows what blanks may be sold for where patents do not prevent competition. This same firm are also manufacturing Eagle Graphophones and selling at \$8.00 at retail with a corresponding reduction in wholesale prices. The Bettini Micro attachment has also had their attention and is selling at less than \$5.00 for each complete Micro-Graphophone attachment. Mr. Bettini is already trying to meet this new competition.

Chief Hale, of the Kansas City Fire Department, has worked five years on a Telephone-Graphophone combination. When tested a few weeks since, the apparatus, which cost about \$300 to construct, correctly announced "Fire on the main floor Jones Bros. dry goods store, Sixth and Main Streets." The Chief's residence is protected by the ingenious device and if a fire should break out in the attic the instrument would repeat for a space of three minutes "Wake up fire in the attic." The house is also wired so that if a burglar appeared the instrument would say "Burglars on second floor windows, north side or east side as the case might be."

The American Projectograph is the name of a new slot machine which is attracting great attention wherever exhibited. The feature of this new machine is an ingenious contrivance by which photographs in natural colors of living subjects are shown by means of electricity. It is far superior to any machine ever exhibited both as to its mechanical arrangements and also as to its finish and attractive appearance. The cabinet work is of an exceedingly artistic workmanship being of mahogany and in the Empire style of finish attracting the eye of the public immediately. Mr. George M. Rogers, the inventor of the machine, has devoted considerable time and has spared no expense in perfecting the machine in all its details and has undoubtedly the finest machine of its kind before the public.

Harry B. Norman has been connected with some of the leading opera companies of the country for a number of years, notably the "Emma Abbott," the "Chicago Church Choir Company," the "Boston Ideals," etc., as well as some of the best farce comedy companies. He has for the past two years appeared in the leading vaudeville houses of the west in imitations of the late John Kelly, better known as "The Rolling Mill Kelly." Mr. Norman is given credit as being the nearest approach of the late Mr. Kelly that has appeared since the death of that popular favorite. So great has been his success that at the solicitation of friends interested in the record-making business he has decided to devote his talents to the making of a series of stories to be known as the "Rolling Mill Kelly" series. After several trials he has proved very successful in his undertakings.

Messrs. Reed & Dawson, of Newark, N. J., have made large improvements in their record plant. Increased capital and large sales have enabled them

to accomplish this. They not only confine themselves to taking vocal and orchestra records, but have also commenced taking band records. Being a thorough musician and playing three distinct instruments, Mr. Herbert Reed has the advantage over other record-makers, who cannot distinguish when the musician makes a mistake or false note. Mr. Reed has also been successful with his quartettes; one worthy of mention is entitled "The Old Homestead," the effect being very fine. The cornet and clarinet are two very hard instruments to be taken together, but Mr. Reed has succeeded in blending these instruments which are played by Mr. Sweet and Mr. Tuson. This firm have lately received an order from Australia for 1,000 records.

Mr. C. M. Carson, of the Universal Phonograph Company, hails from Ohio and came East in '93 on a pleasure trip. He became thoroughly interested in the phonograph business and finally decided to place his large farms in the hands of agents and remain East for the time being. He was first engaged with the United States Phonograph Company, of Newark, N. J. He has been with the Universal Phonograph Company, of New York since its organization and has proved himself to be an indefatigable worker for the best interests of the firm.

In his former home he was a politician of considerable note, serving as post-master during Cleveland's first administration and has held numerous minor offices. In the fall of 'ninety, with Campbell heading the Democratic State ticket for governor, Mr. Carson was chosen as candidate for representative in the State Legislature, but the opposing ticket being headed by Wm. McKinley backed by Hannah capital, it is not surprising that the entire Democratic ticket was defeated.

Mr. Carson was one of the youngest soldiers in the late Civil War and still when health permits, thoroughly enjoys marching with his G. A. R. comrades.

Business with F. M. Prescott seems always to be prospering. He has gradually increased his office room and force in the Edison building until December first sees him occupying the entire front end of of the New Street side of the fourth floor of the Edison building with a force of eighteen clerks. Besides this extensive suite of offices on the fourth floor, he has a large exhibition room for showing animated pictures on the second floor, while at 71 Broad Street, nearly opposite the Edison building, is a large storehouse and shipping department on the ground floor. The new room on the fourth floor has been fitted up as an exhibition, sales and waiting room. A capacious tier of shelves surrounding nearly two-thirds of the room holds a complete stock of records of all kinds which Mr. Prescott lists. The exhibition tables also show off to advantage sample machines of each type of Edison and Columbia including the new "Graphophone Grand." This room is in charge of Mr. N. P. Prescott. The next room in the suite is the private office of one of the brothers, Mr. J. O. Prescott, who conducts the French and German correspondence besides a large correspondence in English. Following this is the office of Mr. J. D. Gonell, the Spanish correspondent. Mr. F. W. Woodbridge, the genial traveling salesman also has a desk in this room. Mr. Prescott's private office is between this office and the last one in the suite, which is occupied by Mr. R. L. Cornin (formerly of the National Phonograph Company) and his corps of assistants. Mr. Cornin has entire charge of the orders and shipments and his five years' experience in the Edison works makes him a valuable acquisition to Mr. Prescott's force.

There is always the appearance of plenty of business and hard work in the office and we prophecy for Mr. Prescott the success which he so well deserves. Mr. Prescott stands preeminently among those who have made the talking machine business a success.

A Warning

We wish to warn the trade against the wiles of the City Electric Works of Little Falls, N. Y., supposed to be managed by one Miller who seems to be an all around skin. To our positive knowledge he has fleeced the National Phonograph Company, Norcross Phonograph Company, Lyric Phonograph Company, F. M. Prescott and doubtless others whose misfortune has not come to our knowledge. Those having information against the Little Falls concern who will send it to us will aid one of the above companies in prosecuting a just law suit.

Freaks in Sound

Oddities Discussed at the National Convention of Architects

Why does a woman absorb more sound than a man? It is a fact that she does so, if credit be given to the statement made by Professor Sabine of Harvard, at the meeting of the National Association of Architects in Washington last month.

Professor Sabine says that his experiments have proved that a man in a lecture hall or other auditorium absorbs one and eight-tenths per cent of the sound wave that strikes him, whereas a woman absorbs two and two-tenths per cent of them. This is a new mystery of acoustics, which branch of science has developed so many puzzles.

Mr. Edison has devised an instrument for talking a hole through a plank. This sounds like a joke, but it is a fact, nevertheless, and it affords one of the most interesting illustrations of the power of sound waves. When the wizard was in Washington a while ago, an examiner of patents spoke to him casually on the subject, and struck by an inspiration, he sat down and drew a sketch of the apparatus in question, which consists primarily of a diaphragm, a ratchet and a toothed wheel. When one talks at the diaphragm its vibrations cause the wheel to revolve, and, through the familiar contrivance called a "worm gear," a gimlet is turned, which bores its way through a board.

Indeed, the device here described has been patented by Mr. Edison, but not for the purpose above described. It appears in the records of the patent office as a contrivance for winding a clock. All you have got to do, in order to wind this sort of clock—a class of apparatus notoriously obstinate and untrustworthy—is to swear at it a bit and call it some names. Without any more to do, the obedient timepiece starts itself agoing and is good for twenty-four hours.

Mr. Edison's authorship of the Talking-machine is undisputed, but some Phonographs have been patented which were entirely beyond his notion. One of these operates with a record blank which has the shape of a cone on which the record is engraved in the form of a spiral. A top, containing a diaphragm, is spun in such a way as to run down the cone, following the spiral, and, in pursuing this course, it reproduces the singing or talking that has been recorded.

Another curious Phonograph depends upon photography for its effects. The vibrations of its diaphragm are photographed, and the resulting camera-print is converted into an etching on metal by a process commonly used in every newspaper office. This etching is the record, capable of reproducing the original sounds in the customary way. Still another species of instrument uses blank cylinders that are covered with a certain chemical. A sharp-pointed stylus is connected with an electric battery, and, at each of its vibrations, the current decomposes the chemical, which eats into the cylinder and makes the sound-record.

It has been suggested that Mr. Edison's invention for causing the human voice to accomplish a boring might be utilized to advantage in the Congress of the United States, where the long speeches of certain members would serve not merely to wind the Capitol clocks, but also to run much of the elaborate machinery required to ventilate and otherwise manage the building occupied by the National Legislature. This idea is susceptible of indefinite expansion, but it has remained for an Elkhart (Ind.) man to conceive a scheme of a vastly more remarkable description. It may be said of him that he will exalt his horn far above the rest of mankind, inasmuch as he proposes to erect at the Paris Exposition a tube with a mouth diameter of fifty feet. As he expresses it, he proposes that all the world, before the great French fair is over, shall know that he makes horns. The tuba will be blown by a steam engine and will produce music audible at fifty miles.

This reminds one of the machine recently patented which, it is claimed, will be employed to great advantage in the next big war. Slits are made in a steel ribbon at such intervals, and with such an arrangement, that steam blown through the holes in the metal strip, as the latter passes over openings provided for the purpose, roars out words actually with a loudness calculated to put to shame the shouts of the warrior Stentor who, according to the Homeric account, could make his voice heard above the din of the most noisy conflict before the walls of Troy. This interesting instrument is so constructed as to be played upon like a typewriter, so that the commanding general of an

army can make his wishes known all over a battlefield, without resorting to the slow and awkward method of despatching aide-de-camps with messages to subordinate officers.

Just as without an eye there would be no light, so there would be no such thing as sound without an ear to hear it. In a vacuum, too, there is no possibility of noise, because there is no air or other substance to vibrate. The most powerful steam siren on the moon would be absolutely inaudible, inasmuch as that interesting satellite possesses no atmosphere. On the summit of Mount Blanc, in the Alps, the firing of a pistol is no louder than the popping of a firecracker at sea-level, because the air at that great height is so much thinner. When the human lungs are filled with hydrogen, which is only one-sixteenth as dense as oxygen, the strongest voice is reduced to a mere squeak.

The philosophy of sound in a general way being so well understood, it seems surprising that the study of the subject to-day should offer so many puzzles. Take the matter of acoustics, for example, which was the chief subject of discussion by the architects aforesaid. One might suppose that by this time a scientific builder could construct a theatre or other auditorium on such lines as to insure absolutely certain results in regard to sound effects; but it is not so at all. The chief trouble seems to be that usually a given hall that has proved a success acoustically is taken as a model and reproduced in respect to shape and proportions, without the slightest regard for absolute dimensions. If this was a correct idea, a theatre or a lecture room modelled on the lines of a violin would represent absolute perfection. Nothing equal to a violin as a producer and conserver of sound has ever been discovered.

This mistake is chiefly accountable for the many disappointments regarding auditoriums constructed on definite models, such as that of La Scala Theatre at Milan. But there are other points of importance respecting which popular ignorance is profound. Some materials absorb more sound than others. This applies not only to woods and metals, but also to woven fabrics. Experiments have shown that hair cushions on seats absorb somewhat over two per cent of the sound waves that strike them, while Oriental rugs take up one-half of one per cent. Primarily the acoustic properties of a hall depend upon the arrangement of the surfaces that reflect back the sound waves that strike them. This statement does not refer merely to the walls and ceiling, but to the furniture, etc. Rough, polished or fluted surfaces throw back sound in different ways, and something depends upon the arrangement of the people in the audience. Everybody knows that an empty room responds much more noisily to the voice than the same room full of people. This is because the people, and the clothes they wear, absorb much of the sound produced by a speaker or singer. Now, whereas a man sitting in a group absorbs about one and eight-tenths of the sound that strikes him, he takes up only one and three-tenths per cent when sitting in an isolated position.

So it appears that every object struck by sound-waves takes up some of them and "sheds" the rest—i. e., reflects them back. This brings up the subject of echoes, which are reflected sounds pure and simple, and in this connection it may be worth while to speak of the so-called "ærial echo," which remains a mystery to the present day. Why is it that, when a blast from a powerful fog-horn is blown out toward the sea from a station on land, a reply is made four or five seconds later, from the horizon opposite with a counterfeit blast gradually diminishing in loudness until, after eight seconds or so, it ceases? Nobody can answer that question, though it is thought that perhaps the response is returned from the ocean. It is easy to see why primitive man always regarded the echo as a supernatural voice; knowing nothing as to the nature of sound, he could hardly take any other view. Obviously, it was hostile, because mocking. But then, from the savage's view-point, nature in general is an enemy and her arts are only to be resisted by the help of the mystery-men or priests—liberally paid to that purpose.

Some of the inventions relating to sound, recorded at the Patent Office, are decidedly interesting. One of these consists in covering the walls of a hall with wire strands to prevent echoes; another is a wire screen stretched across a Gothic roof inside of a building, vertically, for a like purpose. To help deaf people to hear, an immense number of contrivances have been devised. One of these is a sort of pocket telephone, with a receiver that looks like a watch and can be held in the hand while the deaf person is listening. There are fans made of hard rubber and other materials, the edge

of which is to be held between the teeth, and these are now very extensively used; for it is a fact that one can hear through the teeth, the sound waves being conveyed through the maxillary and temporal bones to the internal ear and the auditory nerve. On the same principle is the working of metal plates of peculiar construction, which are placed inside of the mouth. Also there are several kinds of artificial ear-drums, which are placed in the ear, as well as applications of the ear-trumpet principle to hats. One of these hats has a sound-receiving chamber in the brim, with which is connected a tube that leads to the ear of the wearer; another hat has a front of wire gauze which is the open end of a receiver, and in this instance likewise there is a rubber tube communicating with the ear.

It has been ascertained that the lowest number of vibrations per second audible to a human ear is eight; the highest number audible is 38,000. Thus the range of aural perception may be said to embrace eleven octaves, but the practical range of musical sounds is only seven octaves. The above statement represents the limit, some people possessing a much less extended range. There are persons who cannot hear the shriek of a bat or the chirp of a cricket. Tyndall said that it was astonishing to see two individuals, neither of them deaf, one complaining of the painful shrillness of a sound, while the other declared that there was no sound at all. Doubtless there are sounds made by some insects which are above the range of any human ear, and a whistle has actually been made which produces a sound audible to a dog, though no man can hear it.

An invention on file at the Patent Office has for its purpose the helping of navigation on bays and rivers in a fog. It provides for sound-reflectors, to be placed at known points on shore, these points being indicated on a chart in the possession of the skippers of steamboats. The reflectors are to be so arranged as to give, in response to a whistle on a steamer, echoes distinctive and recognizable. Thus, if one reflector were put fifty feet behind another, the echo produced would be double. In this way the mariner need only toot his whistle in order to find out where he is. Another patent is for a telephone which connects the engineer of a railroad train with all the cars, so that he can communicate with the conductor at any time, the tubes of the air-brake system being utilized for the purpose. Somewhat in the same line is a tube running from the platform to the middle of a car, where it expands and distributes through the vehicle the announcement of the name of the next station, shouted by the brakeman, so that all may hear it.

Sound is affected by wind in a very curious way. Moving, as it does, at the rate of 750 miles an hour, it seems strange that the fastest hurricane should be able to affect it. This was long a puzzle, but it is now known that sounds moving with the wind are thrown down toward the earth and so made audible, while sounds moving against the wind are thrown upward so as to pass over the head of the observer, being inaudible on the surface of the earth, while audible, perhaps, at an elevation of several hundred feet.

Some freaks of sound have never been adequately explained. A steam siren may be audible with great distinctness two miles from shore, and then become inaudible until a distance of four miles is reached, and there will be a succession of such areas of alternate sound and silence. These so-called "ghost spaces" may be due to a rebounding of the sound waves from the surface of the sea, so that at certain intervals they pass over the head of the observer.

Sound moves 4,700 feet a second through water, 5,800 feet a second through gold, and 17,000 feet a second through iron, but these figures vary with the temperature of the media. If one end of a long iron bar is struck, while the observer puts his ear to the other end, the latter hears two sounds in succession, one through the bar and the other, much later, through the air. This has been tried elaborately with the iron water pipes at Paris.

RENE BACHE.

The Spanish Language by 'Phone

The recent war has been a boon to teachers of the Spanish language. In this city thousands of young men and not a few women, are learning the tongue of Castile and Aragon. One teacher, who has more pupils than he could personally instruct, now utilizes the Phonograph in his work. The day's lesson is recorded upon wax cylinders. The pupil takes it to his home, places it in the proper place in the machine, and, text book in hand, proceeds to the work of mastering terminals, reflexes and accents.

Our Tattler

A Gentleman living in Virginia, having heard someone remark that machines are now made to "bottle up sound, recently wrote to the Columbia Company, to send him "C. O. D., with right to examine the following goods—six bottles of talk with corkscrew."

Mr. Edison found, in looking over his mail recently, a very interesting letter from a gentleman in India. In some way he had gotten hold of photographs of the process of electrocution where the culprit sits strapped in a big chair with straps and wires running all about him. The Indian was told that this illustrated Mr. Edison's process for raising the dead, and believing that Mr. Edison could do anything he desired to do, he asked Mr. Edison for particulars and catalogue for machines for raising the dead and added "don't forget to quote me prices in large lots as I believe I could sell many such machines here."

A Thoughtless Husband

A gentleman having heard that messages are frequently sent on wax cylinders to be reproduced by recipient on a Graphophone thought he would surprise his wife in St. Louis by a message of this kind. He dictated a fine letter, and he then remembered that he had left his Graphophone at his club after a recent exhibition and added this dictation to the cylinders: "If you cannot find the Graphophone on which to reproduce this look under the billiard table: if it is not there send John to the club, perhaps I left it there, and he will bring it home for your use."

Mr. B is still wondering why Mrs. B does not reply to the contents of that message on the wax cylinder.

Scene on Edison's Corner

Three colored ladies, not graduates of Vassar and not possessing any very definite ideas of the use of 19th century novelties, once stood before the enormous plate glass windows of the St. James building at 26th Street and Broadway. Electric fans, Phonographs, dating stamps, etc., were on exhibition, and all three Dinahs joined in an impassioned lingo concerning the use of electric fans.

Chloe: "I 'vise you dat de 'operation displayed by de whizzin' operation is for to 'sist sick folks and rich peoples to breve."

Hannah: "I saw such buzzers worked for to keep de butter cold in General Grant's cellar 'fore de wab."

Sarah: "White folks is lazy—too lazy to draw der own brefe. I don't 'spect quality folks to work habd but deres such a thing as kyahin' luxury and ease too far for respectability. I don't blame white folks to get rid of cookin', an' cleanin' and passin' dishes at dinner but when dey gets so dey's got to set up a machine to help 'dem breve, I tells ye chile, deys got clean past limits of gentility."

A boy about ten years old stood by the side of a penny-in-the-slot machine in one of the elevated railway stations recently, weeping bitterly.

"What's the matter, son?" asked a man.

"I put a cent in this slot," blubbered the boy, "and it was the wrong slot. I didn't get any gum."

"Is that all, my boy?" said the man. "Show me the right slot and I'll drop one in for you."

"I'd ruther d-drop it in for myself," sobbed the urchin.

The sympathizing citizen gave him the coin and hurried up the stairway. And when the sympathizing citizen came back from downtown ten hours later, that boy was still standing by the side of that penny-in-the slot machine, with his pocket full of one-cent coins and still blubbering.

The Board of Health has received a complaint from a jeweler in Eighth Street.

It seems that the jewelry store is located next door to a Phonograph establishment that has for the purpose of attracting passers-by a Phonograph going all day long. At first the machine efforts at wit, amused the jeweller, and he used to laugh heartily at the comicalities, but these were repeated with such deadly persistency that they began to pall, and from being amused the tradesman grew into a negative desperador.

One day the climax was reached when a customer, who looked like "ready money," came in

to buy a diamond ring. For some reason the machine next door was quiet for a while, and the jeweller was just on the point of closing a highly profitable sale when the shrill voice of the Phonograph began to sing "Get Your Money's Worth." The amazed customer hesitated, and finally told the jeweller he would call another day.

Brother, be careful how you use the Phonograph. If carefully chaperoned, it is good company, but otherwise its conversation becomes more shocking than that of a sailor's parrot.

In taking a Phonograph out into polite society, see that the gelatine rolls are censored, otherwise mistakes will happen. It is also well to run them over alone in the privacy of your woodshed before turning the batch loose for the benefit of your guests. A very amusing thing happened not a thousand miles from St. Paul the other day which will prove the wisdom of this advice.

On the porch of a cottage a gentleman was entertaining some ladies and gentlemen in a feast of music and things to eat. The music gradually drew the other cottagers to their front doors, and soon half the neighborhood was listening. It was Sunday night and everything had been hushed to a proper stage of hushness. Sounds carried unexpectedly long distances, and when the host brought out the Phonograph, its notes could be plainly heard 400 or 500 feet. Listening to the music was the family of a well known divine. Rollicking dance steps went humming from one end of the neighborhood to the other. Dance followed dance, song followed song, and occasionally the Phonograph varied the programme with a dialogue.

One was a stunner. A humming sound with a rising inflection warned the listeners that the machine was getting in action. Then came the introduction, in which a voice announces that the piece would be a dialogue. Every one expected something clever and they got it. The dialogue turned out to be a greeting between two old male friends who had not seen each other for a period of months. The meeting was evidently unexpected. There went floating out under the trees, penetrating to the ear of the farthest listener, even as far as the steps of the preacher, in a loud shout of boisterous delight:

"Well, ———, if that isn't my old pal Joe. Well, I'll be ———"

There was a shriek from the ladies, a banging of doors and a closing of windows, in a trice the neighborhood was deserted. Gospel hymns could be heard coming from all parts of the neighborhood very soon after that. The host must have told an ingenious tale to square himself, for the next evening he had as many guests as ever.

A Talking-Machine Marvel

The new machine recently perfected by the American Graphophone Company will soon be placed on the market. Results from this machine are truly marvellous. A private exhibition of this remarkable talking-machine was given recently at the offices of the American Graphophone Company in the Bowling Green building. The exhibition was in every way successful. This new machine is scarcely larger than the ordinary Graphophone. It has a giant's voice, but not a giant's body. It is called the Graphophone Grand. A song can be reproduced by it with such volume as to be heard above the voices of a large congregation singing. A speech can be reproduced so as to be heard as far and further than the human voice can carry sound. An exhibition was given at the same time with an ordinary Phonograph in order to make comparisons. The new machine reproduces not only with great volume, but with greater naturalness and purity of tone than any talking-machine yet devised. This has resulted from experiments made by Mr. T. H. Macdonald, manager of the factory of the American Graphophone Company, along the lines laid down by Bell and Tainter. It is carrying the Graphophone principle to a higher perfection. The new machine, because of its cost, will not displace the ordinary Graphophone, which has volume amply sufficient for home entertainment. Mr. Philip Mauro of Washington introduced the exhibition, pronouncing the new machine "the greatest of all mechanical achievements."

Items of Interest

Call at the office of the Phonoscope Publishing Company, No. 4 East 14th Street, New York, and hear the Polyphone.

Megaphones are used with fine results by the announcer at the Park Street station of the subway in Boston. Travelers have no trouble if they follow directions which are clearly enunciated through the horns.

The Philadelphia *Press* of November 27th gives a whole page to the explanation of the teaching of Chinese by the Rev. F. Poole of 920 Rose Street. This method was explained at length in the last edition of THE PHONOSCOPE.

John Barclay was married to Miss Lillian Armitage and Harry Pringle was married to Miss Edna Claverton Thanksgiving day in Winnipeg. The novel part of the ceremony was the lack of a parson. The routine questions were asked by a Phonograph and answered by the parties as usual.

R. P. Winne, who controls the numerous slot Phonographs in the ferryhouses has a card on each one stating in effect that if any person should drop a cent into the machine and it failed to operate, the cent will be returned upon application to the head office, No. 202 Broadway. The joke of the matter is that every day applicants enter the office and ask for the return of a cent.

If the time ever comes, and indications point to the successful solution of the difficult problem, when a noiseless machine can be set in operation behind a sofa or in a drawing room to catch the utterances of parties to a dispute, etc., the usefulness of the Talking-machine will be doubled in value. Some very queer requests come to dealers for machines for such purposes. One farmer had expected to propose to "his girl" at a certain time and wished a record of her hesitating speech in reply. He really desired to catch her "yes" on the machine without her knowing it. Another man thought his wife a little too free with a boarder and he was anxious to have an exact record of their solitary "tete-a-tete." Applications for this sort of service are received every day. Such a machine will some day be perfected.

A Substitute For Printing

George Isambard, a Frenchman, has taken out a patent on a process which, he thinks, will revolutionize the art of printing. He proposes to use photographic paper to receive the impressions produced by his system. And he does his work by means of X-rays. A plate is prepared by tracing on paper with ink which is proof against this form of radiance whatever words or designs it is desirable to reproduce. Where the screen has not been protected by ink the rays go through and make an impression on the sensitive paper, turning it dark. But where the ink shuts them off the paper remains white. Thus the copy obtained shows the writing and pictures in white on a dark ground.

M. Isambard would arrange his printing paper in packages several layers deep, so that a number of impressions can be obtained simultaneously.

This idea is ingenious, but no publisher is likely to sell his presses immediately in consequence of M. Isambard's invention. The scheme has many drawbacks. It costs a good deal to sensitize paper, and the price of books and newspapers produced by this method would be greater than now. The intensity of the X-rays diminishes with distance, and the rear layers of paper in a package would not be so strongly impressed as the front ones. It would be hard to regulate the time of exposure so as to get good results in both places. The process would require more time than is spent in printing by the old method. There are newspaper presses that turn out twenty-five thousand or fifty thousand copies an hour. It would take a week or a month by M. Isambard's method to get that number of impressions.

X-Ray Items

Roentgen rays have become of great value to dentists, as by their means a permanent image of the teeth, gums and jaw can be obtained. By this means not alone can an outline of the teeth be obtained, and the connection of their roots with the jaw, but also the canals, relative location of fillings and an outline of the gums. The use of the electric current for dental purposes seems to be nearly limitless, for, among many other applications, "any drug that has been previously used without electricity within the mouth to produce specific effect, may now be electrically used with tenfold its former power for good."

An action has been brought in the Supreme Court by Max Meyer of New York City to recover \$10,000 damages from the United States Electrical Supply Company, which he seeks to hold responsible for the loss of his whiskers, and also the hair on the right side of his head.

Meyer was engaged by the company at the Electrical Exhibition in Madison Square Garden last May. He had charge of the X-ray exhibit, and handled the fluoroscope. After about ten days he felt a peculiar itching sensation all over the right side of his body. He thought nothing of it at first, he says, but he became alarmed when his face began to shrivel, and his hair, mustache, and beard on the right side to drop off.

Then he says his arm began to pain and swell up. He went to his physician, who, after a thorough examination, told him that the right side of his body had been cooked. He at once left the employ of the electrical company. He thinks the company is liable in damages because no warning was given to him of the danger that he incurred in exhibiting the X-rays.

Meyer has had several photographs taken of his face and body since then, and, compared with photographs taken before his employment, they show him to be a different man. They will be used in the trial of the case.

The wonderful X-rays, whose discovery startled the scientific world only a few months ago, have proved of great service to humanity in the late war with Spain. By their assistance many wounded men, whose cases would have been hopeless ten years ago, have been successfully treated, and are now recovering. The hospital ship Relief, when it arrived in New York City with 150 wounded soldiers from Sautiago, was equipped with a very fine X-ray apparatus, and it was used very many times to great advantage. The medical staff of the Relief said that the X-ray was invaluable, and that, except for minor wounds, it has done away with the probe, thereby rendering the work of the surgeons more accurate, thorough and rapid. Dr. Gray, a government expert who accompanied the Relief as an operator of the X-ray apparatus, regarded it as absolutely indispensable, and it is certain that the use of the X-ray in army surgery will become more general and that all of the army hospitals, on land as well as afloat, will soon be equipped.

Owing to the very high velocity of the bullets fired from modern arms, and their great penetration, it is well nigh impossible to find the bullet in the body of the wounded man. To probe for a modern bullet would do more damage than to leave it alone, and it is not always possible to probe, so the discovery of the X-ray came just in time to do a great work for humanity in this war. One of the wounded men brought North on the Relief was Louis Carlisle of the Seventy-first New York. He was shot in the shoulder with a Mauser bullet, and that the little piece of lead would never have been found with a probe, was made evident when an X-ray photograph of the man disclosed the bullet lodged in the spine in the lumbar region. After striking the shoulder the ball glanced downward, and was found two feet below the point where it entered the body. Dr. Gray says that without the X-ray the ball would never have been found, and that the man would have either died or else have been paralyzed for the rest of his life. With the X-ray the ball was found in a very short time, the point for making the incision was accurately known, and the bullet was removed within a few minutes after the operation had been commenced. Carlisle will recover and will experience no permanent injury.

Dr. Gray tells of many other interesting cases. George Parker of Company E. Twenty-fourth

Infantry, was picked up with his right leg apparently smashed to pieces. The surgeons advised amputation at once in the field hospital, but Dr. Gray put the leg before a Crooke's tube and looking at it through a fluoroscope discovered two Manser bullets imbedded in the leg, and the tibia almost split in two by one of them. The bullets were extracted, the wound is healing rapidly, the X-ray shows that the bone is knitting, and thanks to the wonderful invention Parker will have a good right leg instead of a wooden one. Dr. Gray took photographs of these and a number of other cases, a report of which is now in Washington.

In the Civil War many a veteran received a bullet in his body, which the surgeons were unable to find by probing, and they carry the lead in their bodies to this day. That will not be the case with the veterans of the Spanish war. A bullet which hit one man in the hand, was found in his knee cap, a bullet which struck one man in the breast was found in the calf of his leg, and scores of other cases just as peculiar were noted by the surgeons. It hardly seems probable or possible that a bullet striking a man in the hand could run up his arm, strike the shoulder, and glancing downward finally find a resting place in the knee, but the X-ray photographs of the case show it to be a fact. If this man had received such a wound ten years ago he would have had to carry the ball in his leg, but with the X-ray it was located and cut out in the short time of ten minutes.

The following effort is attributed to Mr. Russell Joy of the Columbia Phonograph Company. If Mr. Russell Joy had Mr. Russell Hunting's voice he could probably make some very meritorious humorous records as the following is exceedingly clever.

Mr. Smiles Perplexities

DEAR MR. MANAGER:

Here is the result of trying to dictate a letter while salesmen are waiting upon customers in the same room.

I am beginning to ask myself "Where am I at?" and "What must I do to be saved" from a lunatic asylum?

Yours, in great affliction,

SAMUEL SMILES,
Correspondence Clerk.

MR. JONATHAN WAYBACK,
KALAMAZOO, MICH.

DEAR SIR:

We are in receipt of your favor of

(SWEET ROSIE O'GRADY)

the 17th and trust that ere this you have received (THE GIRL WITH THE NAUGHTY WINK) the balance of your order.

We note what you say about

(SELECTIONS FROM MOTHER GOOSE)

the diaphragms having been in

(THE DOG FIGHT)

the tissue paper instead of being packed into

(THE LITTLE ALABAMA COON)

a box.

The screw driver will probably be found mixed in with

(THE TEN COMMANDMENTS)

excelsior; and the oil-can you will find in the

(TWO LITTLE GIRLS IN BLUE)

compartment of the cylinder case.

We would caution you about taking

(A HARD BOILED EGG)

special care of the

(HEN AND THE DOOR KNOB)

recorder.

My experience has been that

(WHEN IT'S A BOY)

it's a

(GIRL WANTED)

good plan always to place the recorder in the

(RABBIT HASH)

box after using.

We very much regret the delay in shipment of Miss Brown's order, but

(YOU DON'T HAVE TO MARRY THE GIRL)

in the holiday rush

(SHE MAY HAVE SEEN BETTER DAYS)

some allowance for delay should be made.

(AS YOUR HAIR GROWS WHITER)

You will find yourself

(NEARER, MY GOD, TO THEE)

swamped

(UPON DE GOLDEN SHORE)

with orders within a few weeks; and we would respectfully remind you that

(YOU'RE NOT THE ONLY PEBBLE ON THE BEACH)

proper display of goods in your window will bring increased trade; but kindly remember that

(NOTHING'S TOO GOOD FOR THE IRISH)

we cannot now ship goods the same day the order is received and that

(YOU CAN'T FOOL THE DUTCH)

in

(THE BAGGAGE COACH AHEAD)

all cases cash must accompany

(CASEY SERENADING HIS GIRL)

all orders.

We are sorry to learn of the death of your partner, Mr. Angel, but no doubt he

(HAS GONE TO HIS LAST FIRE)

is better off.

We omitted to ask you, in our last letter,

(WHAT DO YOU THINK OF HOOLIHAN)

for duplicate copy of Mr. Slow's order.

If you do not wish the sample shaving knife you may

(TAKE BACK YOUR GOLD)

return it to us.

Your father called at this office last week and was at once recognized by our Mr. John Holmes from the

(LITTLE BUNCH OF WHISKERS ON HIS CHIN)

striking resemblance to yourself. Noticing the crowds of purchasers in the office, he said to Mr. Holmes

(JACK, HOW I ENVY YOU)

I will call again.

When you reach New York take a car

(TRIP ON THE BROADWAY CABLE CAR)

and say to the conductor

(PUT ME OFF AT BUFFALO)

that you wish to get off at the Columbia Phonograph Company's building.

Yours very truly,

COLUMBIA PHONOGRAPH COMPANY.

By S. S.

P. S.—We would caution you about the unpacking of goods. When small articles such as screws diaphragms, etc., are supposed to be missing, they are usually found in

(THE PUMPKIN PIES THAT MOTHER USED TO MAKE)

the excelsior.

C. P. CO.,
S. S.

Exhibitions

OSWEGO, N. Y.—A fair-sized and appreciative audience attended the Graphophone social given at the West Baptist chapel to the boys of the church by the pastor, Rev. Geo. F. Love. Many beautiful and unique selections were reproduced, those deserving special mention being the playing of "Marching Through Georgia," and a selection, "Yield Not to Temptation," by St. Peter's chimes at Albany. The whole was a most profitable and pleasing entertainment.

SHENANDOAH, PA.—The Animatiscopic and Phonograph entertainment in Robbin's Opera House Oct. 21st, for the benefit of the First Baptist Church, was a pleasing and instructive affair. It was witnessed by a large audience and everybody left the hall satisfied with the exhibition. The pictures shown by the Animatiscopic were new to the people of this town and those bearing upon the recent war between the United States and Spain gave the audience an insight to the methods and effects of warfare on sea and land.

RIDGEBURY, N. Y.—A Graphophone concert was given in the Public School building last month. The proceeds went towards the purchase of a new flag for the building.

Exhibitors' Directory

Kaiser, John,
18 East 22d St., N. Y.
Brooklyn Talking Machine Co.
1182 Bedford Avenue
Brooklyn, N. Y.

Phonographic Exhibitor
Moving Picture Exhibitor
"Sim Hedley" (Originator of Sim Hedley's Trip to Boston.)
"Nuff Said," Now is your chance. Send for list and prices
of records. Orders filled promptly. Address
SIM. HEDLEY, FRESNO, CAL.

THE SILVER DIAPHRAGM FOR THE GRAPHOPHONE
The Composition Diaphragm for the Phonograph im-
proves the Tone, Lessens the Harsh and Blasting Noises, can-
not Break. Sent by mail for 30 cents. Inserted in Repro-
ducer for 40 cents.
Silver Diaphragm Co., Greenfield, Mass.

Wants and For Sale

Special "Want" and "For Sale" advertisements will
be inserted in this column at the uniform rate of
three cents a word, each insertion. Answers can
be sent in charge of "The Phonoscope" if desired.
All letters received will be promptly forwarded
to parties for whom intended, without extra charge.

FOR SALE.—Complete talking machine outfit
consisting of 1 Eagle Graphophone with carry-
ing case, 6 master records, 3 blank cylinders, 2-
way hearing tube, horn, 1 bottle of oil and 1 oil
can. Price \$15. J. W., care Phonoscope, 4 E. 14th
Street, New York.

FOR SALE.—Records, Records, Records. We
will act as Purchasing Agent for those desiring

records of any description: Regular rates; satis-
faction guaranteed. Address, G. W., care of
Phonoscope, 4 East 14th Street, New York.

FOR SALE.—Brassine, the latest and finest liquid
for cleaning all kinds of brass, copper, silver, etc.
(positively no acid) makes no dirt only the labor,
also new Phonograph oil, send \$6.00 and receive
one-half sample bottle of each with one dozen
selected records for your Phonograph or Grapho-
phone. Address Greater New York Phonograph
Company, 61 West 11th Street.

FOR SALE.—Now ready, bound copies of THE
PHONOSCOPE Vol. I. Price \$2.00. Address
Phonoscope Publishing Company, 4 East 14th
Street.

WANTED.—Second-hand talking-machines, must
be in good condition and cheap for cash. B. I.,
care Phonoscope, 4 East 14th Street, New York.

ARTISTIC WHISTLING SOLOS BY

JNO. YORKE ATLEE

WITH PIANO ACCOMPANIMENT

Mr. AtLee is the most famous whistler of the present day. His runs and trills
are marvelous. For finish and brilliancy his execution has never been equalled. The
records are all clear and enchanting. They are the most unique and striking contri-
butions ever made to our art and command astonishment and wonder.

- | | |
|--|---|
| Anvil Chorus | Marching Thro' Georgia (ending with
Yankee Doodle) |
| Annie Laurie | Medley of Popular Coon Songs, (rag
time) |
| Bischoff's Bobolink | Sleeping, I Dreamed Love |
| Birds of Spring Yorke | Suwanee River |
| Cavalleria Rusticana (Intermezzo) | Sweet Bye and Bye |
| Chirp, Chirp, Polka | Sylvan Reveries (Waltz) |
| Devil's March (Suppe) | The Mocking Bird (preceded by bird
imitations) |
| Golden Robin Polka | Riding thro' the Glen (Schottische) |
| Home, Sweet Home | When will the Birds come Back, (Waltz) |
| Intermezzo Russe (Franke) | Would I Were With Thee |
| La Szarina (Mazurka Russe) | Whistling Minstrel (Caprice) |
| Love's Golden Dream is Past
(Waltz) | |
| Lullaby, from Erminie | |

VOCAL SOLOS, WITH WHISTLING REFRAIN

- | | |
|---|--|
| Dat Whistlin' Yaller Dinah (with
Clogs and Shouts) | Whistling Crazy |
| Ma Jasper and his Whistle | Whistling Susanna (with Clogs and
Shouts) |
| Our Whistling Servant Girl | Imitations of Birds, Animals, etc. |
| The Whistling Coon | Laughing Song |

All Talking-Machine Companies can supply records from the above list
PERMANENT ADDRESS: Care PHONOSCOPE

THE NEW GRIP FOLDING HORN STAND



This cut represents the latest and most
practical Horn Stand ever yet invented.

SIMPLE IN CONSTRUCTION
DURABLE, BUT LIGHT WEIGHT
ORNAMENTAL, BUT CHEAP
Supports Smallest Size, as well as the
Largest 56-inch Horn

A trial will convince you that this Folding Horn
Stand has advantages which will commend it to you
as a useful and superior article.

The downward movement of the legs causes a grip
on the sliding rod which holds the stand firmly at any
height required to hold the horn. **NOTE—THE
HEAVIER THE WEIGHT THE HARDER IT
GRIPS. PRICE \$1.50**

It is made of Special Metal, Highly Polished, Full Nickeled.
The old style umbrella stands so long an abomination can now be
superseded by this new grip stand which can be folded and takes much less
space in packing for shipment.

By substituting our New Sheet Music Holder, this stand can be used by
bands and for all such purposes as well as for amplifying horns.

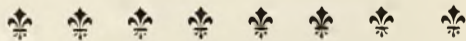
Remove the half-ring and music rack will be held in same manner.
F. M. PRESCOTT,
44 BROAD STREET, (Edison Building,) NEW YORK

EXCELSIOR AND MUSICAL PHONOGRAPH CO.

57 WEST 24th STREET, NEW YORK

ORIGINAL HIGH GRADE MASTER RECORDS ONLY

We carry a large stock of Excelsior Quartettes and Duets,
the Best in the Market.



Solos, by Mr. Wm. F. Hooley, the famous Basso

Mr. S. Holland Dudley, Baritone, whose Records stand First in Clearness
and Perfect Enunciation

Mr. Cal Stewart's Yankee Dialect Stories

Cornet Solos, Loud and Musical by Mr. W. Paris Chambers

Whistling Records by John Yorke AtLee

Orchestra Bell Solos, Banjo Duets, Excelsior Band and Orchestra
Records

Violincello Solos, German Songs, Italian Songs, and other Novelties

SEND FOR CATALOGUE

"A LITTLE SPICE NOW AND THEN
IS RELISHED BY THE WISEST MEN"

RECORDS RECORDS

ALL RECORDS "ORIGINAL," "no duplicates," made one at a
time, every word guaranteed to be clear and distinct, and
we are the only parties now making them. Send for list and
prices. Address,

JOHN MONROE,
254 1/2 Morrison St., Portland, Ore.

AMERICAN PHONOGRAPH CO.

567 Broad Street, NEWARK, N. J.

Write for Price List & Discounts

Our Records are the Best on the Market. We Guarantee
them to be so.

Price 50 Cents and \$5.00 per Dozen

CHIME RECORDS A SPECIALTY

All the popular songs by Gaskin,
Quinn, Porter, Myers, Minstrels,
Trios, Etc., Etc.

(PATENTED APPLIED FOR)

INDESTRUCTIBLE DIAPHRAGM

(FOR RECORDING AND REPRODUCING)

For Graphophone or Phonograph

It is not Glass. It is not Silver. It is not Linen Fibre
Guaranteed more than twice as loud as any other Diaphragm now in use
No blast, blare or tinny sound as sweet and natural tone as the
original band, talker or singer.

LONGER USED THE BETTER AND LOUDER IT GROWS
Remember it is INDESTRUCTIBLE will last as long as the machine
PRICE 75 CENTS EACH

TALKING MACHINE SUPPLY CO.
FREEPORT, NEW YORK

THE PHONOSCOPE

PUBLISHED MONTHLY BY

The Phonoscope Publishing Company

4 East 14th Street, New York, U. S. A.

SUBSCRIPTIONS

	United States and Canada . . .	\$1.00 per year	
✻	Foreign Countries	1.50 “	✻
	Single Copies10 each	

ADVERTISING RATES ON APPLICATION

THE PHONOSCOPE will be of special interest to you, as we publish news from all parts of the world in reference to Talking-Machines, “Screen” Machines, Automatic Coin-in-the-Slot Devices and all Scientific and Amusement Inventions Appertaining to Sound and Sight, also giving you a list of the Latest Films, New Recods for Talking-Machines and a List of the Latest Popular Songs.

Should this Journal prove of interest to you, we would be pleased to have you favor us with your subscription.

ESTABLISHED 1891

PHONOGRAPH SAPPHIRE CO.

(Judge Building)

110 FIFTH AVENUE

NEW YORK

Manufacturers of the famous “Jones” Jewels

Known all over the world as the finest Jewels Made

Sapphire Recorder and Duplicating Styluses,
 Reproducer Balls and Shaving Knives (High
 and Slow Speed) for all Talking-Machines

REPAIRING JEWELS AND DIAPHRAGMS A SPECIALTY

We have the Sole Agency for the French Dia-
 phragm Glasses. Has been acknowledged the finest
 glass by the Phonograph Trade.

SEND FOR PRICE LIST

SAMPLE ORDERS SOLICITED

NOTICE

Hereafter make all checks payable to the “Phonoscope Publishing Co.” No credit will be allowed by this Company for money paid to individuals without authorization.

Address all mail to

PHONOSCOPE PUBLISHING CO.

4 East 14th Street, New York

Lyric Phonograph Company

ORIGINAL RECORDS ONLY

Signature Stamped on End of Each Record Original
FOR PHONOGRAPH AND GRAPHOPHONE

ONLY COMPANY MAKING

GRAND OPERA, COMIC OPERA, STANDARD AND
POPULAR, COMIC AND COON SELECTIONS WITH
FEMALE VOICE

THE ORIGINAL LYRIC TRIO

Miss ESTELLA LOUISE MANN,
Mezzo-Soprano

Mr. JOHN C. HAVENS, Tenor

Mr. WM. F. HOOLEY, Basso

Don't be deceived by other so-called
Trios. There is only one

The Original Lyric Trio

...TALKING RECORDS...

OF THE LATE J. W. KELLY, THE ROLLING MILL
MAN AND THE MULCAHEY SERIES BY
HARRY B. NORMANN

Lyric Phonograph Co.

114 WEST 34th STREET

(ELEVATOR) NEW YORK CITY, U. S. A.

SEND FOR CATALOGUE



ESTELLA MANN



.....BRANCH STORES.....

277 MARKET STREET, PATTERSON, N. J.

132-134 NORTH AVENUE, PLAINFIELD, N. J.;

14 BROAD STREET, BLOOMFIELD, N. J.;

SEND FOR CATALOGUE AND

PRICE LIST

...OUTFITS...

\$10 to \$300.

YOU GET YOUR MONEY'S WORTH
IN ANY CASE

ESTABLISHED 1893

A. P. PETIT, Sec.

INCORPORATED 1898

THE EDISONIA Co.

(TRADE MARK)

NEWARK, N. J., U. S. A.

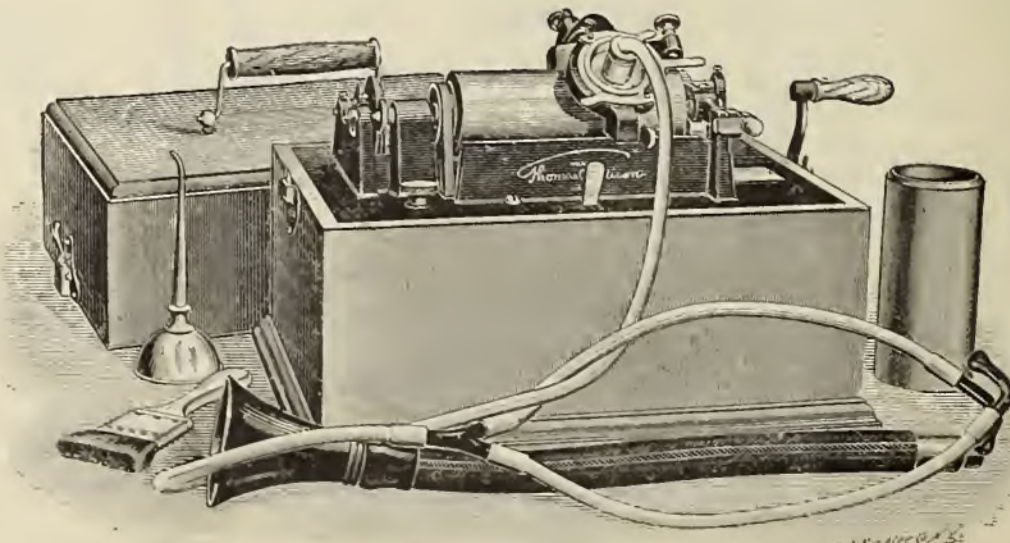
Headquarters, Cor. New & Halsey Sts.,

DEALERS
IN

PHONOGRAPHS AND

GENERAL SUPPLIES

WHOLESALE & RETAIL



\$20 THIS IS THE EDISON STANDARD \$20

TEL. 2232 "B"

A. O. PETIT, General Manager



The Eagle Talking Machine, \$10.

THE Greater New York Phonograph Co.

61 West 11th Street

NEW YORK CITY

SUPPLIES AND ACCESSORIES FOR ALL KINDS OF TALKING-MACHINES

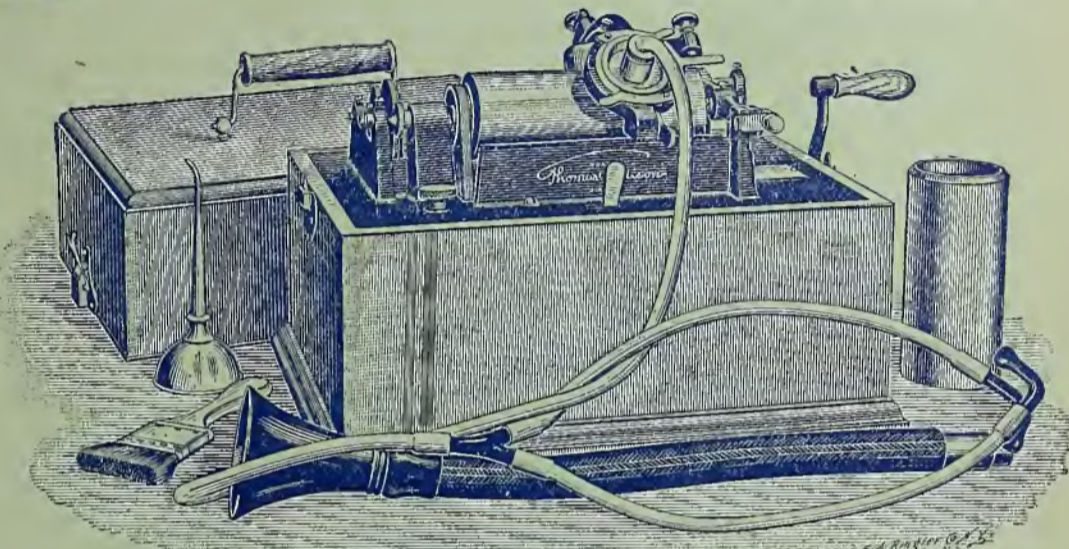
SEND FOR CATALOGUE

SELECTED RECORDS

Originals \$1.00 each
\$10.00 per doz.



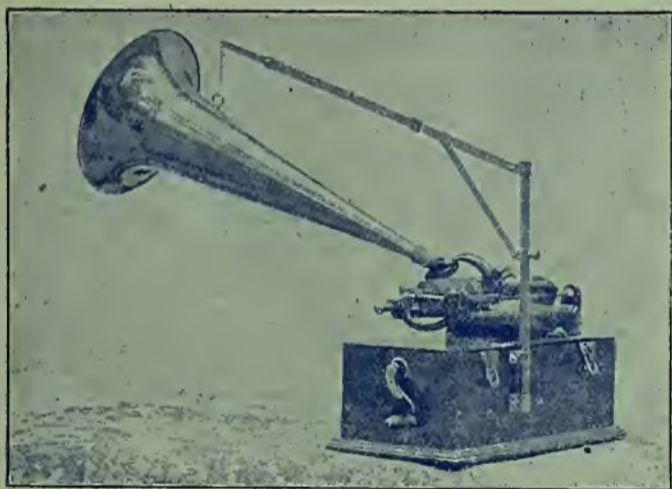
Duplicates 50 Cents each
\$5.00 per doz.



New Standard Phonograph, \$20.

STANDS

STANDS



Why have that large Stand for your Horn, which is always in the way when you can have a neat, nickel plated contrivance which can be attached to any talking-machine and increase to the beauty of the same? Can be detached from the machine and folded up instantly. Does not interfere with machine in any way. Strong, durable and attractive. Will hold any size horn on the smallest machine.

Send for Sample \$1.50 Each Special Discount in Quantities

THE Greater New York Phonograph Co.
61 West Eleventh Street

STANDS

STANDS

.. BEWARE OF IMITATIONS .. Chemically Prepared Linen Fibre Diaphragm

FOR PHONOGRAPH OR GRAPHOPHONE

A Diaphragm that will successfully record, without any previous experience and is especially adapted to the female voice and violin. They are indestructible and are not affected by any climate.

Aware of the success attained by this Diaphragm base imitations have followed. When buying one be sure and secure the original. Test it by dipping in water. See that it does not swell.

IMITATION IS THE SINCEREST FLATTERY

Endorsed by the Trade in general both for Recording and Reproducing

THE NORCROSS PHONOGRAPH CO., New Zealand Building
NEW YORK, August 3, 1898.
J. BASANT, Esq.,
DEAR SIR.—In reply to your inquiry concerning the fibre diaphragms sent me for trial will say that I am very much pleased with them. They give a highly satisfactory reproduction with the Edison Automatic and from what tests I have already given them in recording, I find them exceedingly fine.
Yours very truly,
I. W. NORCROSS, JR.

MUSICAL PHONOGRAPH RECORD CO., 57 West 24th Street
NEW YORK, June 27, 1893.
J. BASANT, Esq.,
DEAR SIR.—I have given the fibre diaphragm you so kindly sent me a thorough test, and found it all you claim it to be. It gives a smooth, loud reproducing without blast, takes away the nasal quality, and is equally as good for recording purposes.
I am sure that all phonograph dealers will recognize its merits upon the first trial.
Sincerely yours,
ROGER HARDING.

THE PHONOSCOPE PUBLISHING CO., 4 East 14th Street,
NEW YORK, July 28, 1893.
JOHN BAZANT, Esq.,
DEAR SIR.—The diaphragms which you sent us for trial are very satisfactory in every respect for reproducing, being free from blast and giving the tone a round and natural sound with no metallic resonance.
THE PHONOSCOPE PUBLISHING CO., Per E. IMANDT.

—AND MANY OTHERS TOO NUMEROUS TO MENTION—

IF YOU DO NOT ALREADY POSSESS ONE OF THESE DIAPHRAGMS, SEND TO
THE GREATER NEW YORK PHONOGRAPH CO.
SOLE AGENTS

61 West 11th Street, New York
PRICE 50 CENTS EACH Special Discount in Quantities



EDISON BUILDING

Our Office and Showrooms
Fourth and Second Floors

F. M. PRESCOTT

Edison Building

44 Broad Street New York, N. Y., U. S. A.

GRAPHOPHON
PHONOGRAPHS
GRAMOPHONES
RECORDS
BLANKS
SUPPLIES
PROJECTOSCOPES
FILMS
X-RAY APPARATUS
BATTERIES

WHOLESALE

RETAIL

EXPORT

All orders shipped promptly from large stock constantly on hand in New York. Ten years' experience in the export trade gives me a special knowledge of handling this trade to the customers advantage and saving. Finding by experience that our American prices have been too high to meet foreign competition on talking-machine supplies such as horns, stands, carrying cases, multiple hearing tubes, batteries, projectoscope films, etc. I am prepared to quote to dealers prices that will meet any competition on the above goods.

Correspondence solicited and prices cheerfully quoted on large or small quantities.

New Catalogues and Price List Just Out. Write for them

PRESCOTT'S MASTER RECORDS

Sixty pages of all popular and latest records including one page of popular English songs.

Supplementary catalogue (13 pages) of **new Bettini micro records**.

Illustrated price list of coin-in-the-slot gram-o-phones \$50.00 just out and the best slot-machine on the market.

New Catalogue and reduced prices of Prescott's films. \$7.50 per fifty feet. Projecting apparatus and lantern slides.

Prescott's fifty cent records, over 1,000 titles containing a greater variety of selections than any other fifty cent list extant. Quality A1.

New bulletin and revised prices on all talking-machine supplies.

Bulletin of the **Polyphone** or double speaker attachment for Graphophones and Phonographs, price \$15.00 **The best loud speaker yet**, doubles the sound.

Circular of the new Graphophone **Grand** the new talking-machine that reproduces louder than the natural voice.

New catalogue of **Columbia Records**.

New catalogue of Graphophone outfits and Supplies.

New catalogue of Phonograph outfits and Supplies.

Prescott's clutch horn stand see advertisement on page 16

Emerson's Time Dating Stamp \$6.00, Office Clock, Paper Weight, Time Stamp, and Dating Stamp all in one

If you are interested in the above goods it will pay you to write us even if you are in no immediate want of goods. Make our acquaintance now. Send for our catalogues and prices and know how and where to buy to best advantage when you get ready

We are abreast of the times and it will pay you to keep in touch with us if you want the latest ideas and inventions.

F. M. PRESCOTT

EDISON BUILDING, NEW YORK, N. Y.

CABLE ADDRESS: FUSE, NEW YORK
LIEBERS, A1, A. B. C. DIRECTORY
HUNTINGS AND PRIVATE CODE USED

LOCAL AND LONG
DISTANCE TELEPHONE
CALL 1510 BROAD