

APR 27 1899

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THE PHONOSCOPE

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

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Vol. III

No. 2

New York, February, 1899

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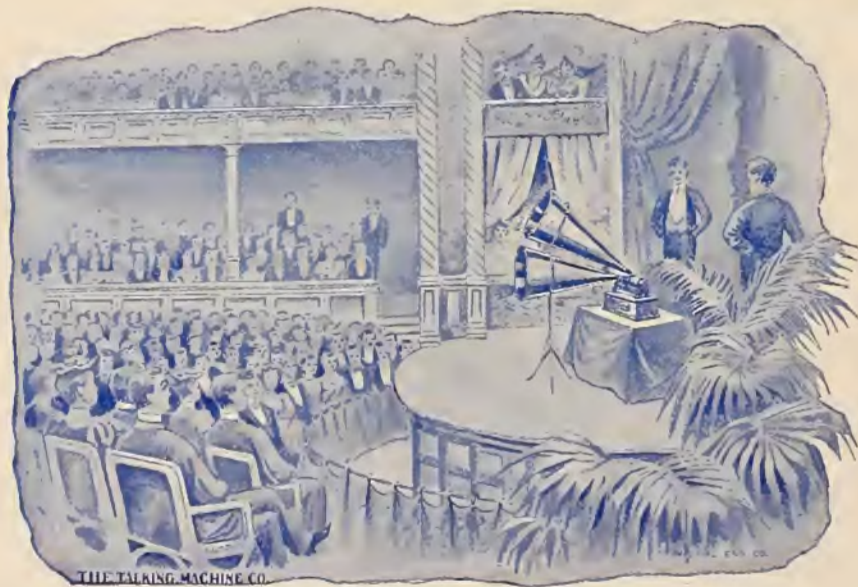
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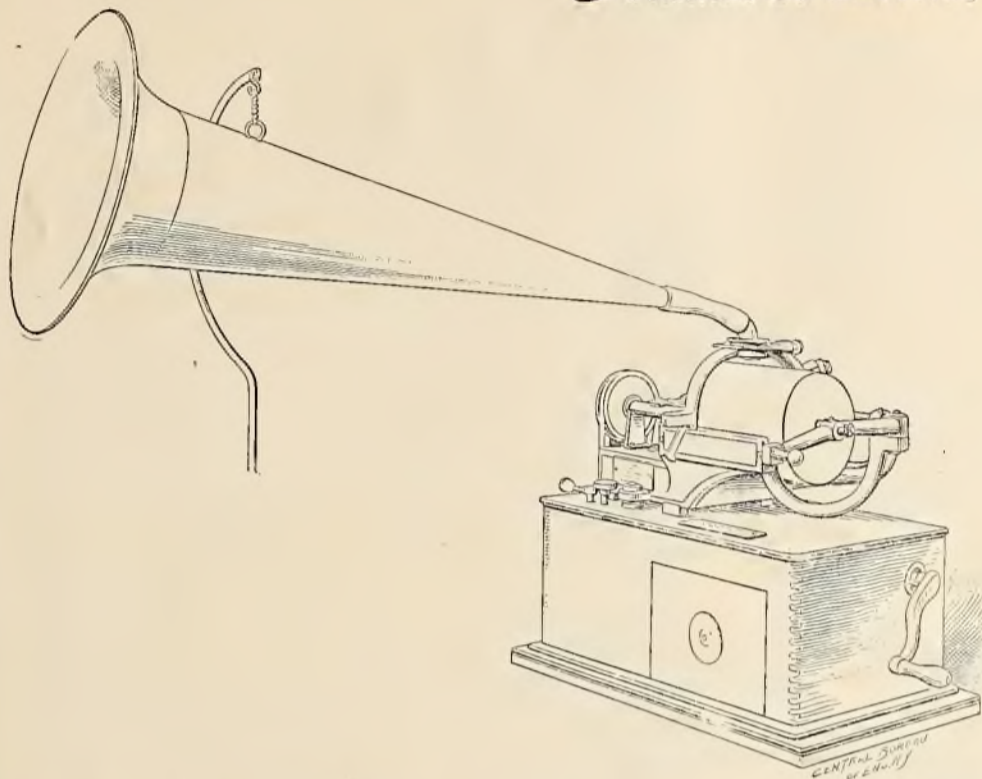
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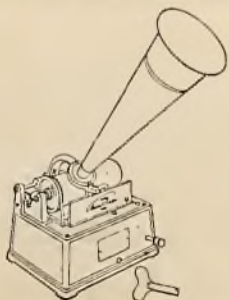
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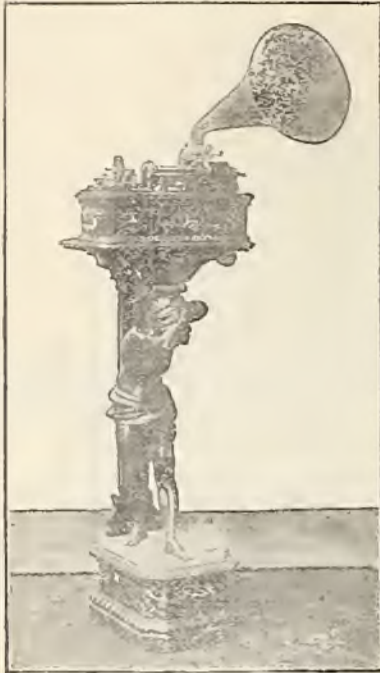
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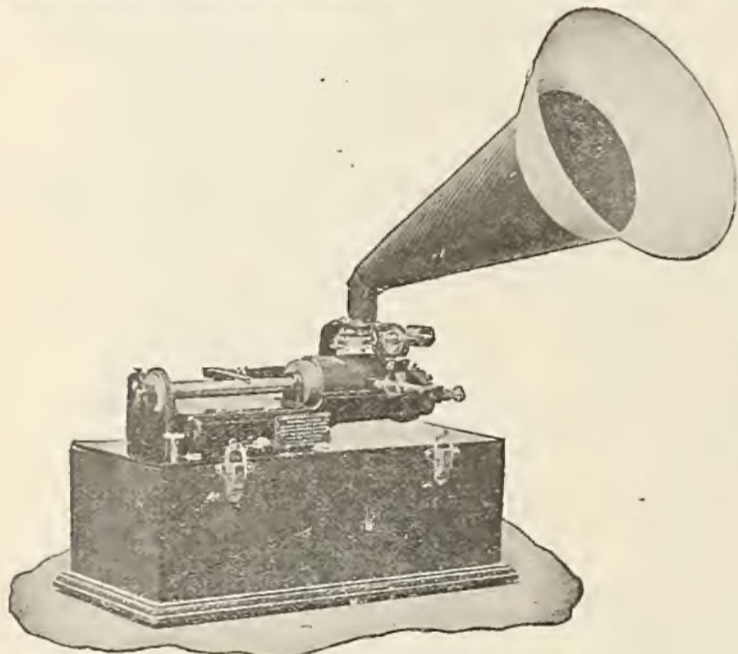
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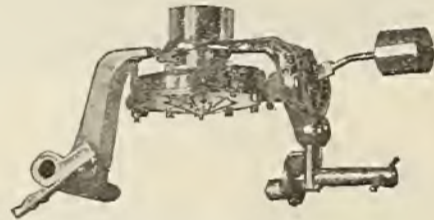
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The Phonoscope

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

Vol. III.

NEW YORK, FEBRUARY, 1899

No. 2

American Graphophone Company vs. National Gramophone Company

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.

(Continued)

Section 2.

We are now in a position to ask upon what theory the complainants hope to succeed with their motion for preliminary injunction. The answer is plain. The complainants have lost sight of the principle of law to which we called attention at the close of the last section of our brief. The affiants of complainants, in fact, take substantially this position. They say, here are certain claims, six in number, which Judge SHIPMAN has sustained. These claims, when broadly construed are, they assert, broad enough to cover the Berliner Gramophone. Therefore they say the Gramophone is an infringement of the Bell and Tainter Patent.

The answer to this contention is that all this might be very well at final hearing, at which the complainants are, perhaps, not barred from trying to obtain a broader construction of their claims than any they have heretofore succeeded in obtaining, provided they can succeed in so doing against the defendants' opposition and in view of all that the defendants may show as to the state of the art. But for the present purpose, we again insist that the only construction of their claims which the complainants are entitled to assume is that given to them by Judges SHIPMAN and GROSCUP, and under such construction it is clear beyond the shadow of a doubt that the defendants do not infringe.

Without taking up the affidavits of the complainants' experts *seriatim* and without analyzing their various statements, point by point, we may say in brief that they attempt to establish the following facts: first, that the groove of the Berliner Gramophone record is V-shaped and that the stylus is laterally adjusted therewithin; second, that the stylus of the Berliner Gramophone bears with a yielding pressure against the record; and, third, that the lateral motion of the mounting of the stylus in the Gramophone permits of its adjustment against any lateral inequalities which might be due to a departure from a truly mathematical construction of the machine, and that the vertical motion of the mounting for the reproducing stylus for the Gramophone permits of an adjustment for the warping of the hard-rubber record plates, in case they should not be rotating in a mathematical plane.

Now, as to the first of these alleged facts we beg again to say that the Berliner Gramophone record

has no V-shaped grooves, and certainly no V-shaped grooves in the sense in which this word would have to be used as applied to the Bell & Tainter Graphophone. The form of the Gramophone grooves in cross-section is U-shaped, if anything, having very steep walls, which cannot be called sloping walls in any functional sense; furthermore, these grooves are so narrow and their sides so precipitous that there is no question of adjusting the stylus laterally within the groove, but simply a question of letting the stylus drop into the place it belongs, which is one place and only one place. We cannot insist too frequently that the cup-shape or pit-shape character of the cross-section of the Gramophone grooves and the corresponding shape of the stylus and the steep walls of the grooves make it impossible to talk of any lateral adjustment of the stylus within a groove. It would be just as possible for a man to talk about automatically adjusting an apple to his side coat pocket when he dropped the apple into his pocket. On the other hand, there is a very definite meaning when we talk about the adjustment of the Graphophone stylus within the Graphophone groove, for here, if we have not V-shaped groove, we yet have a groove with two straight sides meeting at a very obtuse angle, the side walls being, in consequence, of an exceedingly gentle slope, so that the Graphophone stylus has many places at which the friction will hold it at rest, unless it be tapped or jarred by the movement of the cylinder so that gravity will carry it down to the bottom of the groove. There is no place on the steep side walls of the Gramophone record where friction could have any effect in holding the stylus in place.

Going to the second alleged fact—the alleged yielding pressure of the Gramophone stylus against the record—we need only say that since the record in the Gramophone is found on the side walls of the grooves, and since the weight of the mounting is carried by the point of the stylus resting in the bottom of the groove, which bottom is even and not undulating, that there is no pressure exerted between the side walls of the record groove and the side faces of the stylus—that is, no pressure between the stylus and the actual record. The only way this could be brought about would be by using a blunt-pointed stylus which did not loosely fit the record groove, but which jammed therein. Just in so far as this is done, however, just in so far will Gramophone sound reproduction be prevented. The conditions in the Gramophone—those which are aimed at and those which are obtained with substantial perfection in the machines on the market—are conditions in which there is no pressure between that portion of the stylus which is in touch with the laterally undulating record and the laterally undulating record itself. There is no difficulty in attaining this result, in practice, because it is merely necessary to have a stylus which shall loosely fit the record groove. This condition being obtained, the stylus is vibrated by the side walls of the record groove in exact accordance with the undulations on these side walls, positively in both

directions. There is, under such conditions, no departure from a true correspondence between the undulations on the record and the motion of the stylus which would be caused if the friction due to an initial pressure between the sides of the stylus and the side walls of the record groove had to be overcome. In other words, the very feature which it is aimed to remove and which is removed in the Gramophone reproducer, namely, the initial pressure between the undulating record and the stylus is the feature which is absolutely necessary for the operation of the Graphophone in which the stylus rests by yielding gravity pressure against the undulating bottom of the record groove, and in which sound is reproduced by reason of this pressure. This initial pressure or gravity pressure between stylus and record, which is absent in the Gramophone, is the point of the Graphophone which, in combination with the wax-like record, is covered in the complainant's claims now under consideration, for they state, for instance, that there is a "rubbing" style employed, meaning a style which has an initial frictional pressure against the record.

As to the third alleged fact, we may merely say that if the Gramophone reproducer of Berliner utilizes the lateral and vertical adjustment of the mounting for its reproducer arm to overcome or to adjust for any departure from a strictly mathematical construction of the various parts of the reproducing machines, such, for instance, as a warping in the plate, that we know of no claim of Bell & Tainter which can prevent this. *The idea of using a lost motion device for overcoming departures from an exact mathematical construction of machinery is so old and common in the art that no one can obtain a monopoly for its use.* It is one thing to say that Bell & Tainter have a claim which covers a flexible or lost motion mounting for a stylus, which co-operates in an especial way with an especial shape of the sound record groove for a definite purpose to adjust the stylus automatically to the bottom of the groove, and it is an entirely different thing to say that these patentees have a claim that will prevent builders of sound reproducing machinery from employing a lost motion device, not to effect this specific purpose but to effect the ordinary and old purpose of lost motion devices, namely, to overcome departures from exact mathematical constructions inherent in commercial machines. One thing is certain, Bell & Tainter have never yet established their right to such a claim in any Court, and if they should attempt to establish such a claim in the present suit at final hearing, they will find that they will have to overcome a prior art very different to that they have heretofore had to overcome in establishing their claims to their peculiar kind of a lost motion connection for effecting the peculiar adjustment repeatedly pointed out, when used in combination with their peculiar shaped record grooves. We maintain that their claims are not capable of such broad construction. We protest against assuming in advance that they will succeed in establishing any such broad construction for their claims. We insist that they have as yet established

no such construction for their claims, and we urge that it is absurd to suppose that they can do so. Should they succeed in so doing, it will be time enough to consider whether the lost motion of the Berliner reproducer effects the functions of permitting an adjustment against the warping of the plates, or against a non-mathematical character of the pitch of the thread. The experiments to which Mr. Lyons and Mr. Berliner have both testified, conclusively show that a lost motion connection for such purpose is unnecessary in the Gramophone art. Whether it is employed or not in commercial machines we need not now consider, because these complainants have no claims for such features, have never established their right to such features, and we insist never will establish their right to a monopoly of such functions.

Although it is not necessary, for the purpose of this present motion, to discuss the question of the infringement of claims 19 to 23 as they read on their face, and disregarding the decisions of Judges GROSUP and SHIPMAN, we may briefly point out that the Gramophone does not infringe claim 19, because the style does not adjust itself automatically to the sound record. It is placed in the sound record where it belongs, and there is no adjustment after that. Of claim 20, we may make the same remark. Of claim 21, we may say that the reproducer is not held against the record, being the undulating lines at the side walls of the groove, by yielding pressure. Of claim 22, we may make the same remark made for claims 19 and 20, and further say that we employ no rubbing style, for our style has no initial frictional pressure against the record by which it could rub. As to claim 23, we may say that we employ no sloping walls in the sense in which these words are used in the Gramophone construction, and we have no style which "rubs" over the record. So that, even if we disregard the prior decision of Judges GROSUP and SHIPMAN, and give to claims 19 to 23 of complainant's patent a construction as broad as is contended for, we find that defendant's device does not infringe complainant's claims.

In this connection we may refer to the testimony of Mr. Arthur S. Browne, who acted as complainant's expert in the Leeds case. In answer to x-Q. 103, quoted in Brownell's affidavit, Mr. Browne testified that not all joints having a motion in two directions at right angles to each other were to be considered as the universal joint of Bell & Tainter, but only such joints as had these movements "in such a fashion as to perform the offices set forth in the patent." It is manifest, however, that the Berliner joint does not have the offices set forth in the Bell & Tainter Patent, as we have abundantly shown.

But there is another peg on which the affidavits filed in complainant's behalf seek to hang a reason for granting a preliminary injunction at this time against these defendants. Briefly stated, it amounts to this; that the reproducing machine which Judge SHIPMAN had before him was one in which the stylus was carried at the end of a glass tube, which glass tube was mounted in a universal fashion, so as to be free to rise and fall, being held down by spring pressure, and being propelled from the convolutions of the groove at one end of the record to the convolutions of the groove at the other end of the record by the convolutions themselves and without any other gearing or screw mechanism. The argument, then, is that as the Berliner Gramophone employs a similar mounting for its stylus the Gramophone must be considered an infringement of complainant's rights, since the Ecophone was so considered.

The argument falls to pieces when we bear in mind the fact that the Ecophone uses a wax cylinder precisely like that described in the Bell & Tainter patent, and in fact the very same wax cylinder

that is sold on the market by these complainants, with very broad and very shallow record grooves, having sound undulations at the bottom of the grooves. When then the stylus of the Ecophone rests on one of these grooves, its vertical motion effects the function which is effected in the Bell & Tainter Patent, of pressing with a yielding pressure against the undulating record in the bottom of the grooves. So, too, when the Ecophone stylus rests on the record groove of the Bell & Tainter wax cylinder, its capacity for lateral adjustment permits it to slide down the gently sloping walls of the record groove to reach the bottom of the record. That is to say, the stylus, by reason of the lateral adjustment of its mounting, is permitted to laterally adjust itself within the space or width of a single groove. Manifestly, then, there is no escape from the conclusion that the Ecophone stylus mounting, when used in connection with the wax cylinder of the Bell & Tainter Graphophone, constitutes an infringement of the Graphophone construction.

But let us examine what would happen if we were to use the stylus and mounting of the Ecophone on the hard rubber Gramophone record of Berliner. It is plain at once that the vertical adjustment and spring pressure would no longer have the function of pressing the stylus in a yielding manner against the undulating record; for, since the stylus would substantially fit the cup-shaped record groove of the Gramophone tablet, there would be no initial pressure between the side walls of the stylus and the undulating side walls of the record grooves, which constitute the record. So, also, since the Ecophone stylus, when used in connection with a Gramophone tablet, would cooperate with cup-shaped grooves with steep side walls into which it fits, there could be no question of a lateral adjustment within the width of a single groove. The stylus would be put at the single and only place in the groove where it belongs. Nor would there in such case be any possibility of automatically selecting one or other of two adjacent grooves, for if the Ecophone stylus, when used on a Gramophone tablet, got on the ridge between two adjacent grooves, it would stay there. No amount of tapping could dislodge it.

In fact, this whole subject of lateral adjustment within the space of a single groove, or within the space of two adjacent grooves, is well illustrated by the fact that it is never necessary to tap the Gramophone reproducing machine, and it is frequently necessary to tap the Graphophone machine. The Ecophone stylus used on a Gramophone tablet would never need tapping. Such a thing as tapping a Gramophone record is unheard of. Such a thing, however, as tapping a Graphophone record is common practice and part of the instructions given to the purchaser of Graphophone machines.

From the fact, then, that Judge SHIPMAN found the Ecophone mounting and stylus, when used in connection with the peculiar record grooves of the Bell & Tainter wax cylinder, an infringement of the Bell & Tainter Patent, it by no means follows that he would so have considered the combination of this Ecophone stylus and mounting when used with a Gramophone tablet. Indeed, when the facts are considered, it is quite certain that he would have held to the contrary.

In this connection we may point out that the Ecophone is a mongrel or hybrid device, being in fact in some respects like the Graphophone and in other respects like the Gramophone. In so far as this Ecophone utilizes the idea of dispensing with all screws and gears, and of having the record itself do the work of propelling the stylus, it is an infringement of Berliner's invention as covered by claim 5 of his patent No. 534,543, before referred to. In other words, the Ecophone comprises

within itself two inventions, the one being its capacity for carrying out certain ideas of Bell & Tainter, the other being its capacity for executing the ideas of Berliner. The only invention or function or capacity which Judge SHIPMAN had in mind were those which belong to the Bell & Tainter side of the device. He did not have before him those functions which belong to the Berliner side of the device, for these were never raised, and, therefore, never considered or decided. Neither was it necessary to decide them so long as the Ecophone stylus carrying arm was used in connection with Bell & Tainter's wax cylinder.

Continued in our next

Steel to be a New Metal

Thomas A. Edison, Jr., Invents
a Process Which He Says Will
Increase Its Strength.

A company capitalized at \$1,000,000 and incorporated in West Virginia will shortly, if its promises are fulfilled, revolutionize the hardening of steel. It will, it is said, make a six-inch plate equal in power of resistance to a fifteen-inch plate treated by the Harvey or Krupp process. It will, in fact, if it can support its claims, upset the present system of building warships, the present system of manufacturing shells and many other things besides.

The President of the new company is Thomas A. Edison, Jr. The Vice-President is William Holzer, Mr. Edison's uncle, and the name of the corporation is the Thomas A. Edison, Jr., and William Holzer Steel and Iron Process Company. Franklin D. Palmer, of Poughkeepsie, is Secretary and Treasurer. The directors are C. P. Stimson, Franklin Doty, C. P. Hull, a former Mayor, and C. H. Sherrill, the present Mayor of Poughkeepsie, where the works are located.

Mr. Edison made expansive claims when asked about his discovery recently.

"We can by our new process increase the elastic limit and the tensile strength of steel while we decrease its expansion and contraction. That is the key-note to the whole business," said the inventor.

"Tests made by us," continued Mr. Edison, "show that the tensile strength has been increased by our process from 68,000 pounds per square inch to 71,000 pounds, and that the expansion and contraction have been decreased from 29.33 to 24.66 per cent. and from 63.35 to 62.14 per cent."

"What benefit will the world at large get from your discovery?" was asked.

"Steel will become practically indestructible," was the reply. "Steel rails cannot spread. The delicate machinery of ocean liners cannot break; you will hear no more of broken shafts. An English firm has already ordered plates for a new boat, and we are in communication with the Herreshoffs about the same matter. We can make plates stiff and strong and thinner than anything yet made.

"Take an armored cruiser. If we can give her more buoyancy and yet give her better armor, will it not be a gain?" We can do that. It is my opinion too that our new process will enable the Government to turn out much better shells than they do at present. Dr. Gatling has already made arrangements with us to build his new gun from steel hardened by our process."

Mr. Edison was enthusiastic throughout the interview, and was evidently firm in the belief that he had made a great discovery.

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Colin & Cie., quai des Usines 158, Brussels.
G. F. Duerr, r. Henri Maus 31, Brussels.
Koerting Frères, r. Grètry 18, Brussels.
H. Niels, r. Stévin 206, Brussels.
A. Petit, r. de l'Arbre-Béni 28, Brussels.
F. Quanonne, r. Royale 210, Brussels.
Ad. Lavaud, r. Pléinckx 33, Brussels.

Uruguay

Carlos Grover, Zabala 63, Montevideo.
Ciscone F. Gutta, 25 de Mayo 387, Montevideo.
Cosmes D. Cabral, Juncal 225, Montevideo.

DEALERS IN MICROSCOPES, SCIENTIFIC INSTRUMENTS, OPTICAL GOODS AND THERMOMETERS.

Belgium

Cerf & van Cleef, Madeleine 59, Brussels.
V. Dratz, r. de l'Hôpital 21, Brussels.
Rob. Drosten, r. du Marais 49, Brussels.
J. Friart, r. au Beurre 8, Brussels.
A. M. Rosso, r. des Fripiers 50, Brussels.
Gust. Brand, Pont de Meir 2, Antwerp.
DeKennel Frères, qu. Ste-Adelgonde 16, Antwerp.
B. E. Levy, pl. Meir 101, Antwerp.
H. Roland-Van derauwera, c. r. Neuve 14, Antwerp.
M. Wahl, remp. Ste-Catherine 37, Antwerp.
A. Bonquiaux, Flandre 34, Ghent.
L. J. Cortoriendt, r. Neuve St-Pierre 110, Ghent.
Ve. Van den Camp Baur, r. de Brabant 18, Ghent.
J. Boucher, Grand Rue 28, Charleroi.
G. Courtois, Dampremy 28, Charleroi.
Fauville & Tassoul, Montagne 21, Charleroi.
C. Richelet, r. Dampremy 4, Charleroi.
J. Rustein, q. Brabant 32, Charleroi.
J. Contrain, Harmonie 68, Verviers.
C. Engel & Cie, Brou 27, Verviers.
R. Forsten, Crapaurue 55, Verviers.
A. Weber, Pl. Martyr 51, Verviers.

DEALERS IN MUSICAL INSTRUMENTS, (ORGANS, PIANOS, Etc.)

Belgium

J. Bous, Goffart 52, Brussels.
Eui. Duray, chaussée de Wavre 21, Brussels.
J. Estey & Cie., Montagne de la Cour 45, Brussels.
H. Feilitzsch & Cie., r. de Laeken 96, Brussels.
Rud. Ibach Schin, r. du Congrès 2, Brussels.
Ad. Mahillon, r. Neuve 91, Brussels.
Georges Oertel, r. de la Régence 17, Brussels.
P. Riesenburger, r. du Congrès 2, Brussels.
P. Dyck, Couvent 60, Antwerp.
J. Grousse, l. r. Chevaliers 60, Antwerp.
Ch. Koenigsberg, Huybrechts 32, Antwerp.
Th. Mortier, r. de Breda 56, Brussels.
Ve. Dereusme-Vanlair, r. Grètry 3, Liege.
J. J. Frambach, pl. Université 26, Liege.
Ch. Gevaert, Dominicains 7, Liege.
G. Heinemann, q. de l'Université 6, Liege.
Renson Frères, Guillemins 16, Liege.
G. Schultz, boul. d'Avroy 36, Liege.
L. Van Damme, r. de l'Université 31, Liege.
Mme. G. Beyer, digue de Brabant 30, Ghent.
Boone Fils, r. Magelein 19, Ghent.
J. Vergaert, ch. Bruges 9, Ghent.
B. Van Hyfte, Basse des Champs 32, Ghent.
Z. Demoulin, bd. Audent 1, Charleroi.

Maison Dagnelies, Montagne 16, Charleroi.

J. Decubert, Chavannes 55, Charleroi.

Uruguay

Ambrosio Maini, calle 25 de Mayo 282, Montevideo.

Martin V. Aldecoa, Sarandi 224, Montevideo.

Luis Esteves, Sarandi 361, Montevideo.

Carlos Ott, Sarandi 211, Montevideo.

DEALERS IN TYPEWRITING MACHINES.

Sinave-Mignot, Neuve 155, Brussels.

Gust. Story & Cie., Neuve 133, Brussels.

Allman, r. Royale 17², Brussels.

J. Darimont & Cie., r. des Longs Chariots 38, Brussels.

J. Dieudonné, r. des Croissades 13, Brussels.

Franz Goosens, Jr., boul. du Nord 112, Brussels.

L. A. Schöbenborn, av. Fonsny 22, Brussels.

Sherman H. Tuck, r. des Arqbusiers 3, Antwerp.

Our Tattler

Not long since a new boy was employed in the Edison laboratory, in Orange, N. J., who forced Thomas A. Edison to give an account of himself. It happened in this way: The boy was first told all about the man for whom he was to work. Then he was told of the traditions of the establishment. He was told that the main building contained a piece of every known substance on earth, and that if he could name any substance not in the building he would be awarded a prize of \$2.50. He was also told that his special duty would be to guard the room in which Mr. Edison worked, it being important that the inventor be not disturbed by curiosity seekers or schemers who often try to reach him. Then the boy was placed on guard, full to the brim of the importance of his position. But one serious omission had been made by his instructor. He had not told him what Mr. Edison looked like. So when, soon after he took up his post, the boy was approached by a portly, shabbily dressed man, who attempted to push past him, he grabbed that man in such a way that the man stopped and gasped in astonishment.

"What is the matter with you boy?" demanded the man indignantly.

"You can't go in there," retorted the boy, with just as much spirit.

"Why not?" said the man.

"Because no one can go in there without written permission, or when Mr. Edison sends out for him."

"Oh, I see," said the man, and then he turned on his slippered heel and walked off, while the boy looked after the dirty yellow duster which the man wore, and said several things to himself not at all complimentary of "blokes wot would try to bluff past him." But the boy was surprised about five minutes afterward to see the man in a yellow duster coming back accompanied by the "instructor," who looked very, very serious, and who said:

"Boy, don't you know who this gentleman is?"

"No," said the boy. "But he didn't have any pass and Mr. Edison wasn't with him."

"Why, this is Mr. Edison!" gasped the instructor.

The boy collapsed.

"Can I go in?" asked the inventor with a twinkle in his eye. But the boy hung his head, while the instructor started in to berate him for his mistake. Then Mr. Edison turned around and stopped that instructor on the spot, while he at the same time commended the boy for his vigilance. It was the fault of the teacher, not of the boy, he said. Nevertheless, the effect of the incident on the boy was such that he never could enter the same room where the inventor worked without a visible tremor. Mr. Edison, who is fond of a joke, sought to reassure him by winking at him tremendously every

time he came in, but that did not seem to mend matters. One day he was very sick, and an investigation showed that he had been chewing tobacco. It nearly killed him, and he resigned his position in consequence.

"That boy," said the inventor afterward, "reminded me of the first chew of tobacco I ever took. I was about as big as he is, and with two other little fellows had saved up a lot of scrap iron and tin and zinc which we meant to sell when the holidays came around. There was a large boy in the neighborhood (I think he must have become a bunco steerer afterward) who knew of our hoard. One day when we had been in swimming he came to us and said:

"Say, you fellows, if you will give me that tin and iron and stuff you have, I'll teach you how to chew."

"The proposition struck us as being very fair, particularly as he agreed to furnish the tobacco. Well, we were quite willing, so he brought some old Canadian cut down to a sand bank by the river. He divided the stuff into three parts and gave us each one. Then he said:

"Now you must do exactly as I say, and you must do it right away or you'll never learn to chew."

"Now, then," he shouted, "hold it up."

"We held it up."

"Put it in your mouth," he yelled.

"We put it in."

"Chew!" he hissed dramatically.

"We worked away at a great rate."

"Swallow it," he screeched.

"We gulped it down, and then that young rascal fairly rolled down the bank with laughter, while we soon rolled down the other side sicker, I suppose, than any of us had been in our lives before or since. One of the boys nearly died, and they had a very serious time with him. That was my first experience with tobacco."

Although the somewhat aged story of the suburban gentleman who dropped a nickel in the Phonograph and upon hearing the preliminary crash of the cymbals in the band selection, rushed out to hold his horses may be an exaggeration, it is quite true that many amusing incidents still cling about the talking-machine. One of the most common of these is to hear a listener at the machine address some one standing by in a powerful shout. It is a trick of nature that the person with the listening tubes should instinctively speak in a tone louder than the sound in his ears. In this way one who is listening to a Wagnerian selection on the machine feels called upon to speak loud enough to be heard above the din of the band, forgetting that the person whom he addresses is hearing nothing but an occasional little squeak. Several years' experience with talking-machines has made this mistake less common than formerly, but there are plenty of people yet who can afford an observer considerable enjoyment.

Another phenomenon attributeable to the same cause is the singing of the songs aloud while listening to the machine. It is a common habit for one to hum a familiar tune while hearing it played by the orchestra. The tapping of the foot and a low whistling indicates that we are following the march measures of the music, but when the music is heard by all, these little demonstrations are not noticed. But to see a man with a pair of rubber tubes in his ears enthusiastically singing "I Guess that Will Hold You for Awhile," "My Gal's a Peach," or some similar classic strikes the passing onlooker as bordering on the absurd. Yet this is a common occurrence, according to the testimony of the Phonograph man. If the victims of this habit but half realized the merriment they sometimes cause they would keep the silence of the Sphinx or would relinquish the Phonograph habit.

THE PHONOSCOPE

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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.

Trade Notes

Billy Golden has added seven new songs to his repertoire. They will probably prove to be the "lucky seven."

The "Rosalind Waltzes," composed by F. Oscar Elmore is meeting with success. Published by W. Murdoch Lind of New York City.

We understand that Mr. Bettini has succeeded in securing records of all the principal opera selections sung during the season of '99.

The home office of Len Spencer's Minstrels has moved to their spacious new rooms at 33 West 27th Street, where Manager Harry Yeager is kept busy booking this popular attraction.

Mr. William Mann will soon join his father in the railroad business as he states the Phonograph trade is entirely too slow for his calibre. We wish him success in his new venture.

F. A. Mills, music publisher, will remove about May 1st, to No. 48 West 29th Street, opposite his present address. The building is undergoing extensive alterations and will be elegantly fitted up.

The Lyric Phonograph Company claim they are now making new immense volume records, louder than heretofore, due to the fact that they have a new diaphragm which is said to outclass any on the market.

Since Messrs. Reed & Dawson, of Newark, N. J., have incorporated they carry a full line of records constantly and are enabled to fill all orders at short notice. This will certainly be appreciated by their numerous patrons.

Mr. C. E. Stevens, selling agent for Thomas A. Edison's products is doing an enormous business. His former office on the fourth floor of the Edison Building being too small he has secured larger quarters in the same building.

The Phonograph Sapphire Company of New York, contemplate securing more spacious quarters owing to the large increase in business, and will also handle the Bettini attachments together with their other specialties.

Andrew Byrne, the celebrated boy violinist deserves credit for the record "Cavalleria Rusticana" which he recorded for the Excelsior Phonograph Company. We expect some fine results from his violin renditions in the near future.

Messrs. Fred Hylands, Roger Harding and Steve Porter are the enterprising young men who have recently organized a song publishing company under the name of the Knickerbocker Music Publishing Company. We wish them success in their new venture.

Mr. George J. Gaskin has renewed his contract for another year with the Columbia Phonograph Company, and we understand he has added a number of new songs to his already large repertoire, a full list of which can be found in our list of new records.

Fred Hylands has just published a new coon song called "You Don't Stop the World From Going Round" which is sure to be a "winner hit." The title page is adorned by a photograph of Len Spencer who will be the first to introduce the song to the Phonograph.

Mr. Marion Dorian, former manager of the Washington office of the Columbia Phonograph Company, Mr. T. Martin, of Washington, and Mr. A. Harker, of New York, have been transferred to the Paris office of that company, to fill important positions. Mr. M. Moore has been chosen to fill the vacancy at Washington.

The demand for records from foreign shores is very great. Mr. I. W. Norcross, of the Norcross Phonograph Company, says that he is astounded at the increase of foreign orders which he has received during the last three months, having shipped several barrels of records to Australia, South America, England and China.

Anent the subject of big tone records, Mr. Norcross is now in the field with improvements in his recording diaphragms which will place the regular machines in close competition with the Graphophone Grand and Concert Phonograph. He has some records from his new diaphragm on exhibition, which substantiate his claims.

Particular attention is called to the fact that the Greater New York Phonograph Company have secured the sole agency for the Chemically Prepared Linen Fibre Diaphragm. Aware of the success attained by these diaphragms, numerous concerns claim the sole agency. Some have even gone so far as to place inferior imitations on the market.

Miss Estella L. Mann recently had a narrow escape from a severe burning. While out shopping the other afternoon a lighted "boy killer" evidently became entangled in her dress. Upon arriving at the laboratory it was ablaze, but owing to the coolness of herself and friends it was quickly extinguished without injury except the ruination of her new spring dress.

Dan W. Quinn, the well-known Phonograph comic vocalist desires the Phonographic world to know that he is under no contract whatever with

any company, and is in a position to furnish all companies with a list of all of the newest and best songs of the day. He has already arranged to sing for the National Company, Harms, Kaiser & Hagen, Reed & Dawson of Newark, and negotiating with a number of others.

Mr. F. M. Prescott, New York City, sailed on the St. Louis for Southampton, March 22d in the interest of the Gramophone. He will visit London, Paris, Madrid, Berlin, St. Petersburg, and other foreign cities with an expert Gramophone record maker, for the purpose of making master records in foreign languages for the export business of the Gramophone of which Mr. E. M. Prescott has recently secured the sole export agency.

Mr. Bettini has in course of preparation a handsome catalogue which embraces a list of records, together with his various attachments. It will be handsomely illustrated, the cover being printed in colors. It may be said that Mr. Bettini bears the distinction of issuing the most elaborate printing matter of anyone in this particular business. Due credit is given to Imandt Bros., printers, who control the best part of the printing in the Phonograph trade.

The firm of Harms, Kaiser & Hagen are now making original records of Mr. Dan W. Quinn, and the way his records have been selling goes to prove that the original record of any artist is more desirable than the duplicate. The cornet solos they are making of Mr. John Hazel have proved very successful. The demand for them has been so large that they have issued a special list of the same, increasing the number of solos to thirty. The Imperial Quartette has been kept busy filling orders for their records.

Mr. E. H. Mann, assistant superintendent of the Louisville and Nashville Railroad took dinner with Mr. Jno. B. Atkinson and helped the latter to get into perfect working order a new Edison Phonograph. A number of the records for this new machine are those that have been made by the singing of Miss Estella L. Mann, daughter of Mr. E. H. Mann, in New York, and they are excellent. Miss Mann is perhaps the only really successful singer of her sex for the Phonograph. The female voice is extremely rare that possesses the qualities necessary to make a perfect record.

The Excelsior and Musical Phonograph Co., makers of the "Giant Tone," records, is now run under entirely new management, being equipped with a complete plant for the production of master records, and claiming to furnish the trade with a better product than can be elsewhere obtained in the market. Their catalogue embraces such talent as Diamond & Curry, banjo duetts; John Hazel, cornet solos; Wm. F. Hooley, basso; S. Holland Dudley, baritone; Arthur Collins, comedy songs; Wm. H. DeWick, mandolin solos; Albert Campbell, tenor; F. W. Hager, violin solos and Pierre Leo, clarinet solos. We have heard a record of the Excelsior Quartet entitled "Church Scene from Old Homestead" which was without a blemish.

In order to prevent anything approaching another steal of similar character to the one which has recently been discovered and stopped, the American Graphophone Company put in force certain rules which will prevent suspicious characters from gaining admission to the factory. All the employees must sign a statement showing where they were born, their former places of

employment and numerous other things which will show clearly what their character is. In addition to these things it will be necessary for them to get two vouchers for their honesty. These rules are creating considerable talk among the employees. The company will commence to run all night as well as all day on account of the tremendous increase of business. At present the plant is open as late as 9.30 in the evening, and they are behind on their orders, and the demand is daily increasing.

The New Haven Phonograph Company in making an exclusive business of the sale of Phonographs, Graphophones, Gramophones, etc., do so in order that they may give their entire time to the buyers, thereby assuring the public of receiving proper attention, also ample time to make satisfactory selections of the same. Their stock of goods in this line is the largest in the city, and some of the most valuable Phonographic records ever made are owned by this company. They are constantly adding to their already immense stock. They also make a specialty of new and high-class records. In addition to the above a most complete stock of foreign records is constantly on hand. They announce that special attention will be given to the selection of rare masters and duplicate records for private collections, as well as for those desiring to give private entertainments. Another very important department is that which is devoted to machines and records for commercial use for business reference.

The National Phonograph Company has adopted a new and liberal policy with the aim to encourage and protect Phonograph dealers in every possible way. They have thrown down the gauntlet and have engaged in an aggressive war with price cutters and dealers whose methods tend to demoralize the Phonograph business, and there are lots of 'em, as everybody knows. In a recent letter to the trade they say: "Our object is two-fold. It is as much to your interest as ours that we succeed in upholding our retail prices, and our scale of discounts. We ask you to co-operate with us for our mutual good, and refuse to supply any cut-price dealers with our apparatus by signing the enclosed agreement and returning same to us."

With this letter they are sending out a list of suspended dealers whose supply they have absolutely cut off. There are some twenty or thirty in this list which comprises several large department stores and two of the largest (until now) jobbing dealers in talking-machines.

This is a very bold move indeed and they deserve success in this new departure.

Their advertising in the future will tend more and more to throw trade into the hands of the dealers direct. Pursuing the same line of argument they intend to retire entirely from the retail field. With this end in view they have given up their lease of the magnificent retail salesrooms in the St. James building, where, we understand, during the holiday month they took in \$62,000, and have taken three entire floors in a new office building on 5th Avenue, corner of 20th Street where, with increased facilities, they will confine their attentions strictly to wholesaling.

Portable Megaphone

Joseph Wild has come forward as an inventor. Mr. Wild is a Sheff Freshman, but he has proven himself a Freshman of unusual ability. There have been few Freshmen at Yale who have shown themselves able to come out on the market with a mechanical device of their own construction, which

has proved a money maker. Yet this is exactly what Freshman Wild has done.

Mr. Wild's invention is in the shape of a portable extension Megaphone, fully four feet long, extended, which can be folded up and carried in a small hand case. The Megaphone is constructed on somewhat the same principle as a patent telescope drinking cup and has received the greatest favor wherever shown. Any Megaphone that can be used aboard ship must be at least four feet long and the length is often a serious inconvenience in a small yacht or sailing vessel where economy of room is necessary. Mr. Wild is an enthusiastic yachtsman and has had this improvement on the Megaphone in mind for some time. Last fall he constructed a model and secured his patent rights on the idea. He succeeded in almost immediately finding a manufacturer who would handle the new Megaphone and is now turning out the instruments weekly in considerable numbers from a Massachusetts factory. He has had canvassers at work in New York city and in many of the larger seaport towns introducing the improved Megaphone among the seamen and shipowners and has sold a large quantity of the product already.

Freshman Wild is receiving congratulations from all sides on his success, and if the entire Sheff Freshman class does not think they have a Tesla in their midst they are just as well satisfied.

Jos. W. Stern & Co., the popular music publishers, and the Universal Phonograph Co., operated by them, have removed to their fine new offices on 21st Street, New York, occupying four entire floors of the large building which presents an imposing front of plate glass with Steel framework in relief. The new offices are the handsomest ever shown by a music publishing house in this country, and the plant of the Universal Phonograph Company, occupying nearly all of the second floor, is a model of ingenuity, convenience and invention. This Phonograph concern began business not quite three years ago at 21 East 20th Street, where a unique and valuable reputation was promptly established to the benefit of a constantly increasing patronage. They supply records of all the latest music hits, and their association with Joseph Stern & Co., enables them to make records from manuscripts months before other concerns can get the music. As a recent instance may be cited the case of Taggart and Witt's reigning song hit, "The Moth and the Flame," which the Universal Phonograph Company supplied to all their trade many weeks before any others could make a record of it. This was the case with "The Girl I Loved in Sunny Tennessee." These songs, like the rest of their output, are copyrighted by Messrs. Stern & Co., who may prevent any other establishment from using it for Phonograph purposes. The Company has three commodious rooms—one for sales and stock; another for the making of records, with racks for both vocal and orchestral work; and the third for shaving. In the last named are two shaving machines operated by C. M. Carson, who enjoys the reputation of the finest shaver of blanks in the business. There is also a shipping department in the basement of the building. Beside the famous vocalists who sing daily for this concern, records are made three or four times a week by George Rosey's Famous Orchestra. Customers are invited to take records off the rack while the band is playing, if they doubt the fact that every record going out of this office is original. It is this popular policy that has earned for their records the repute of the best on the market, not only here but in all parts of the world and more particularly in England, where they bring \$1.25 each. Over the entire Phonograph department presides Mitchell B. Marks who will

always take pride in exhibiting the plant to visitors.

On the second floor also is a large luxurious studio reception room where Messrs. Stern & Co's visiting patrons are received and where Max S. Witt, the popular composer, presides. Above, two floors are devoted to storage of the music publisher's reserve stock. Below, the first floor shows the executive offices, counting room, mail, stock and shipping departments. Every furnishing, fixture and invention that money can buy for the expedition of business or the comfort of patrons has been secured, and no pains have been spared to make an artistically beautiful place.

When Edward B. Marks, and Jos. W. Stern, the present partners, five years since, wrote and composed the ballad, "The Little Lost Child," they had no office but worked at home. The song made them famous and put them in a position to push other successes that speedily followed. Soon they secured an office on 20th Street, and then commenced the series of song successes that won the title of "The House of Hits," which is now a registered trademark. A list of these winners would take up a whole paper, but a few may be mentioned including George Rosey's marches, "The Honeymoon," "The Anniversary," "King Carnival," "Oriental Echoes," "The Scorcher," and "A Night Off," and his waltzes, "Espanita," and "La Susana;" Braisted and Carter's "She Was Bred in Old Kentucky," "The Girl I Loved in Sunny Tennessee," "Whisper Your Mother's Name," and "You're Not the Only Pebble on the Beach;" Taggart and Witt's "The Moth and the Flame," and "Don't Let Her Lose Her Way;" Max S. Witt's "Grace O'Moore," and his waltzes, "Sweet Repose," and "The First Violin;" "Elsie from Chelsea," "My Best Girl's a New Yorker," "Down in Poverty Row," "Take Back Your Gold;" H. R. Stern's "Tennessee Jubilee;" Williams and Walker's "I Don't Like No Cheap Man," and "Why Don't You Get a Lady of Your Own;" Irving Jone's "Take Your Clothes and Go;" John Stromberg's "How I Love My Lu;" and Maude Nugent's "Rosie O'Grady" and "Mamie Reilly."

These will prove more than sufficiently the excellent judgment of the publishers, who will put out no work that they cannot heartily endorse, and whose remarkable discrimination in this line has combined with their ceaseless energy, upright dealings, and restless enterprise to place them in a time so short in their present enviable position.

The following agreement has been sent to the various dealers together with a list of suspended dealers:

AGREEMENT.

IN CONSIDERATION of the sale of Edison Phonographs and Edison Records to us by the National Phonograph Co.

WE HEREBY AGREE that we will not wholesale Edison Phonographs or Edison Records at a better discount than authorized or instructed by the National Phonograph Co., nor will we give better delivery than f. o. b., our place of business; that we will give no discount whatever from published list prices to anybody, either directly or indirectly, who is not a dealer entitled to regular discounts; that we will not retail Edison Phonographs or records at less than the published list price, nor will we include with a machine at list price any extra material or supplies not listed to go with regular outfits by the National Phonograph

WE FURTHER AGREE that we will not supply either directly or indirectly, Edison Phonographs or Edison records to dealers who do not adhere to above agreement, nor to dealers who are on your "suspended list." Sign here.

New Corporations

Perspecto Manufacturing Company, Chicago; capital, \$25,000; manufacture of Perspectoscopes; incorporators, Henry H. Hill, Edward P. Hatch, Fred W. Kraft.

Klondike Exposition Company, with a capital stock of \$200,000, to make Vitascopic pictures of the Yukon and Alaska districts. The incorporators are Thos. Crahan, James H. White and George H. Adams.

New England Motoscope Company, Kittery. To operate places of amusement. Authorized capital, \$250,000. Incorporators: Frank E. Fitz, Chelsea, Mass.; F. E. Powell and Benjamin T. Bunker, Kittery, Me.; F. R. Tibbetts, Boston; Aaron Humburger, Philadelphia.

World's Amusement Machine Company, Chicago; capital stock, \$1,200; incorporators, G. Bernhard Anderson, Joseph Hallner, and Theo. Burkland.

The National Gramophone Corporation of New York, having its principal office in Yonkers, was incorporated by the Secretary of State. The capital stock is \$500,000 and the company will manufacture and deal in talking-machines or instruments for recording and reproducing sound. The directors are Charles B. Seabury, Francis E. Burrows, W. A. S. Clarke, Emil Modick, William T. Hepper, William F. Steller and David Jennings of New York city.

Reed, Dawson & Co. Principal office, No. 516 Broad Street, Newark, N. J. Manufacture Phonographs, bicycles, etc. Capital, \$50,000. Incorporators: James G. Barnett, Thomas H. Reed, Frank A. Dawson, all of Newark, N. J.

Our Correspondents

DELAND, FLA.

EDITOR OF THE PHONOSCOPE.

DEAR SIR:—Am interested in the talking-machine business in Newark, N. J., but am at present travelling in the South for health and pleasure. Naturally, whenever I go to a new place, my first inquiry is: "Does anyone in town sell talking-machines?" and am much surprised that there are so few who handle them here. In fact, they seem to be little known in this part of the country, and this is strange when we consider how popular talking-machines have become in the North.

I think there is a fairly good market down here for this class of goods; but it would be necessary to employ other methods than are at present used to bring them to the attention of the people. For example; a man could start out with a small stock of the cheaper machines and supplies and going to the smaller towns could rent a store or part of one and with several showy brass horns and the rest of his stock could make a good display. Every evening he could give free exhibitions with a good machine and records, and also of the process of record-making, which, to some people is the most interesting part of a talking-machine and which is often omitted by dealers when selling machines.

Have met with several people who have purchased cheap machines without knowing that it was possible to make records on them and when I have demonstrated that it could be done have expressed surprise and in several instances they have bought recorders from me.

By this means and with the liberal use of hand-bills and other printed matter, the people would become interested and I have no doubt that considerable business could be done in three or four weeks, after which the stock could be removed to next town and the operation repeated. Those who had purchased outfits and who would wish to obtain further supplies could be instructed to do so from a dealer who is permanently located in some large city and who by previous arrangement would allow a discount to the man who had sold the outfit on all orders received from any town where he had done business.

Have a good machine and several records with me that I brought along for my own amusement and at several places where I have stopped, have given private entertainments which have been well received. The other evening at a public concert given at the Stetson University here, we gave the audience quite a surprise with the aid of the Phonograph. Among the numbers on the programme were several selections by a first class vocal quartette. I had previously made several records of their singing and on the night of the concert had my Phonograph set upon the platform behind a screen and entirely hidden from view, with one of the records on the machine in readiness for reproduction.

The quartette went on the platform and sang a selection having two verses, the record of which I had on the machine. Instead of singing the second verse they remained silent and I started the machine, thus instantly reproducing what they had already sung. You may imagine the surprise of the audience on hearing the song repeated and coming from no one knew where. Finally it dawned upon them that there was a Phonograph concealed somewhere and when the record was finished the applause was deafening. While on this subject I might say that an animated picture machine with calcium light outfit and run in connection with a talking-machine, ought to be successful in this part of the country. Several of the towns have electric lights which could be used in place of the calcium light if desired. Anything having the merit of novelty is sure to draw good audiences down here.

Wishing for the continued success of THE PHONOSCOPE I remain

H. V. BUTTERWORTH.

An X-Ray Swindle

A number of complaints have been made to the police concerning two young men who have been canvassing in Wooster and Meadow Streets, New Haven, Conn., with some powder which they claim has a peculiar power and which they call "X-ray Powder." A number of persons have given a dollar for a small box of the powder and found that it was worthless.

The powder comes in a small tin box. It is white and the agents explained that when put into kerosene or benzine it rendered the fluid proof against explosion. Taking a little kerosene the agents would put in some of the powder and then throw a burning match into the fluid. The match would go out without igniting the kerosene.

It was further explained by the agents that if the box of powder was purchased, the purchaser in a few days would be visited by a representative

of the company who were selling it and would receive free of charge an elegant lamp or a rug simply as an advertisement of the firm which they represented, had established a State Street store.

Many women bought the powder in order to get the rug or the lamp, but as yet no body has appeared at their homes and they find themselves the possessors of a small box of powder which is absolutely worthless. The fact is that the trick of throwing a burning match into gasoline or kerosene in an open vessel and having it go out can be performed just as well without the addition of powder as with it and the fluid is just as dangerous with the powder in it as it is without it.

So the purchasers of the powder have also purchased one dollar's worth of experience. One woman also had a narrow escape. She put some of the powder into the kerosene in a lamp and touched a match to it. The kerosene ignited on the wick and a small explosion occurred which frightened the woman, but did no damage except to ruin a rug which she used to extinguish the blaze. The woman would like one of the new rugs which was promised her now, but it has not materialized.

Grip Germs in 'Phones

New York Doctor Declares Receivers are Incubators of Microbes

If scientists are to be believed, the telephone is a constant menace to the public health and the abode of grip germs. This is what Dr. E. John Kauffman says:

"More cases of grip have been coughed and sneezed into the telephone, to be contracted by the next user of the instrument, than have proceeded from all other sources combined.

"There has been much speculation," he went on, "as to the causes of the recent epidemic of grip, which has not yet spent its force. Together with one of the leading bacteriologists of the city, I have visited several of the finest hotels, also a number of the public telephone exchanges. I mounted some clean cotton on a piece of wire and rubbed it around the inside of the mouthpiece of the telephone receiver. I made a lot of these exhibits, placing each one in a small bottle and carefully corking it so that there could be nothing on the cotton, but the scraping from the receivers. Then the cotton balls were taken in hand by the bacteriologist.

The result was we found a multitude of the grip bacilli.

"There are 45,000 telephones at least in New York, and I figure that there have been from 35,000 to 40,000 cases of grip. I will tell you why there has not been more contagious from this source. It does not follow that every one that uses the telephone is susceptible to the grip, and the same is true of all diseases proceeding from germs.

"There should be a reform now that it is certain that the grip at least is contracted from telephone receivers, and the receivers should be kept clean."

M. Dussaud, who some time ago brought out a Phonograph for the deaf, has now introduced a sort of cinematograph for the blind. The figures are in relief on the traveling slip (or "film") of the cinematograph, they are passed under the fingers of the blind person quick enough to let him form a good idea of the movements of the object. Thus a blind person can get his mind enlarged by correct notions of movements, such as the sway of a branch, the flight of a bird, the roll of a wave, and so on.

Legal Notices

Thomas A. Edison is growing weary of the habit of dealers in Phonographs and other inventions of using his name without warrant in their firm titles. Most of them have consented readily, on receipt of a letter from his attorneys, to drop the name, but several have been stubborn, and one, who is alleged to have used Edison's name without permission, has refused point blank.

This one is James A. Griffith, of Philadelphia. He conducts a store under the name of "The Edison Phonograph Company." Mr. Edison has applied to the courts for an injunction restraining Griffith from using "Edison" in his firm name. The case is to be argued in the United States Circuit Court at Trenton.

Baroness de Bara, who has been for several weeks at the Placide, awaiting the order of the authorities of the United States Court for the Northern District Court of Illinois to appear for trial there, has received word that the case will not be tried before April 15. Her husband is in Chicago at present, awaiting trial, and is confined in the Cook County jail, unable to furnish the \$10,000 bond required. Their offense, as charged, it will be remembered, is the use of the United States mails for fraudulent purposes in Chicago last fall, by which they are said to have profited to the extent of many thousands of dollars.

Chapter 105, Section 1. Whoever in connection with any show or entertainment, whether public or private, either as owner, manager or director, or in any other capacity, uses or causes or permits to be used, a Phonograph or other contrivance, instrument or device, which utters or gives forth any profane, obscene or impure language, shall be punished by a fine not exceeding five hundred dollars, or by imprisonment not exceeding one year, or by both such fine and imprisonment.

Section 2. Whoever as owner, manager, director, agent or in any other capacity, prepares, advertises, gives, presents or participates in any obscene, indecent, immoral or impure show or entertainment, or in any show or entertainment manifestly tending to corrupt the morals of youth, shall be punished by a fine not exceeding five hundred dollars, or by imprisonment not exceeding one year, or by both such fine and imprisonment.

(Approved March 17th.)

Speech is Photographed

Possibility of Reading in the Atmosphere Words That are Spoken

Science stands on the threshold of important discoveries in the realms of sound. That the atmospheric vibrations that convey sounds to our ears can be frozen, has been proved by Arctic explorers, among the vagaries of sound in cold weather being the phenomenon of the noise of a gun fired in the frozen North being heard at a distance some time before the command to "fire," which had preceded the report was heard. We have volumes of theoretical explanations of the mystery of sound, but the subject has baffled investigators who tried to step from the platform of theory to that of tangible knowledge.

Science has taken heart, however, for it is now being demonstrated that sounds can be photographed. The idea of turning a camera on the transparent atmosphere seems absurd, but science has obtained photographs that are the exact reproductions of the vibrations that certain sounds make on the air. Furthermore, it has been shown that so exactly similar are photographs of the sound of the same word repeated that it would be possible to make up a complete sentence from these sound

photographs which could be readily read by anyone having a key to the appearance of the vibrations.

To explain the means used for taking these remarkable photographs, it is well to consider the construction of a telephone. As most people know, the voice that speaks into a telephone is directed against a thin, flexible metal plate. The vibrations of the voice are transmitted through the intervening air to the membrane. The movements are then in their turn conveyed by electrical means to a similar membrane at the other end of the wire. But it has been discovered that other arrangements as well as sheets of metal will take up the atmospheric vibrations which cause sound, and among these are vibratory flames.

At first the plan was tried of employing a flame which was made to flicker by the vibrations of air particles, the movement of which was caused by the sound under examination, and by means of a rapidly rotating mirror, was drawn out so that it could be examined and recorded. Professors E. I. Nichols and E. Merritt, who have been studying sound phenomena together, substituted for the mirror a long photographic film, arranged on a cylinder which was made to rotate at a high velocity. With the film and a specially constructed lamp which gave an intensely bright light, it was found possible, to the great delight of the two scientists, to take photographs of the vibrations made by various sounds.

It was clearly and unmistakably demonstrated that the sounds of such words as "die" and "sigh" made vibrations that were very little dissimilar, while words that bore no similarity of sound produced entirely different vibrations.

The experiments were carried to the extent of connecting a series of photographs and testing the possibility of reading it as a line of ordinary writing is read. When one of the experimenters had become familiar with the various forms of the records, a series of these was taken on one plate, while the man who was to make the test was absent from the room. The photographic plate was then taken to him with the very interesting and highly satisfactory result that the sounds were read off like print.

What useful purpose this discovery will serve remains to be seen. It may be possible one day for a business man to speak his daily correspondence into a machine that will photograph it so that a correspondent can read the words as easily as a typewritten letter. As these sound waves travel an extraordinary distance, it may be found possible to photograph the words of a speaker standing a mile away. Plotters of evil who retire to an open plain because walls have ears may find that the atmosphere has eyes, when confronted with a record of their plot, word for word, from photographs that cannot err and whose truthfulness as silent witnesses cannot be questioned.

In fact, so many probabilities open up when the usefulness of sound photography is discussed, that it is only by recalling the jeers that greeted predictions of wonders now become commonplace that one can refrain from smiling at the seeming absurdity of suggestions for utilizing the interesting discovery.

About 150 men gave a strong pull on a cable which was expected to bring the tall wall of the Windsor Hotel into the cellar. One hundred cameras snapped in a broken chorus of "click, click, click," all down the line; a Kinetoscope man touched the button and his machine started out taking pictures at the rate of fifty a second; the more timid held their hands over their ears, as if a 13-inch gun was about to be discharged—but the wall did not fall. It swayed a little and then settled back into its place, while the great cable slipped along the rough brick work,

Teaching Spanish by Phonograph

Uncle Sam's soldiers in the Philippines and Porto Rico are learning to speak Spanish by means of the Phonograph, and the Filipinos are mastering our own English tongue in the same novel fashion. Queerer still, the lessons are taught them right here in New York.

R. D. Cortina, a Spanish master of languages, for several years a resident of the United States, is the originator of the scheme. This is how it is done. He "talks" a lesson into the Phonograph, then sends the impressed cylinder to his pupil in Porto Rico or Manila, and the student in turn sets it to talking through his own Phonograph, while he sits with a Spanish grammar open before him.

He listens to it over and over again, battling with the pronunciation and the rolling r's until he feels confident he can talk it himself into a fresh cylinder, to be posted back to his instructor in New York.

Here Mr. Cortina places it on test and dictates a letter of correction, which accompanies the same cylinder on a return to the pupil. In this way, Mr. Cortina asserts, a lesson may be more forcibly stamped on the memory than would result from thirty oral ones.

It is interesting to know that several hundred Phonographs to be used for this purpose have been shipped to Manila and Porto Rico recently, and that the demand for Spanish and English lessons by way of the "phone" is growing larger every day.

Long-Distance Typewriter

F. Hachmann, of Milwaukee, has invented an electrical long-distance typewriter. It has fewer parts than an ordinary typewriter, though similar in appearance, and the inventor claims that a speed of 150 words a minute can be attained by an expert operator. The writing is reproduced simultaneously at any other place connected telegraphically where a similar machine is installed. The claim is made that it is impossible for an error to occur in transmission, and in the absence of the operator at the other end the message will be written automatically. Mr. Hachmann thus describes his machine: "The letters are attached to the ends of flat bars of brass hanging on the end of a common pivot, these bars lying parallel and horizontally at the front of the machine. Underneath each letter is a thin, flat piece of platinum attached only at one end. The other end hangs down.

"Suspended crosswise underneath the letters of the keyboard is a round brass cylinder about two inches in diameter. This cylinder has a lot of little brass pegs in it. Whenever a letter is pressed downward the little piece of platinum comes in contact with the peg on the cylinder as the cylinder revolves, and there is a click the same as that made by a telegraph instrument. The machine is connected with a battery that produces the click when a connection is made with the peg and the platinum, and every time the machine elicits a little hammer rises from below and strikes a letter corresponding to the one touched.

"These letters are on a round wheel about four inches in diameter that is attached to the right end of the cylinder with the pegs in it. As the cylinder turns the wheel turns, and on another little wheel is a thin strip of paper. As the letter on the keyboard is pressed the hammer below strikes upon the thin strip of paper, which comes in contact with the inked letter on the wheel and has printed upon it indelibly the message printed upon the keyboard above."

Wires Bring Music

Sousa, Strauss, Mue. Patti, Jean de Reszke—they and a lot of other musicians have lately been making the dreary last hours of the telephone girls on the night watch fly as they do for their more fortunate sisters who spend their evenings at the opera or the theatre instead of in a room in an office building, high up, lonely, cut off from every enjoyment except what may be had in work.

There are telephone girls whose hours are from 7 A. M., to 5 P. M.—they are the lucky ones; others who work from 5 P. M. to 1 in the morning, and still others who start in then and who keep the exchanges open until the lucky girls come back again at 7 A. M.

Those who get away at 1 o'clock in the morning have several hours after the rush of business in the earlier part of the evening when time hangs heavy—it always hangs heavy for the girls who work from 1 to 7 A. M.; but that's another story, as Kipling says.

Some of the girls sew; others read or study; others play simple games, all the time with the receivers up to their ears, waiting for an impatient or belated subscriber. But it is hard work passing the time when calls get infrequent and many glances are cast longingly at the clock.

Two or three weeks ago the operator in one of the downtown exchanges was striving hard to keep awake when there came a ring at the telephone.

"Hello?" she said.

"This is Tompkinsville—Tompkinsville, I said; keep your ears open!"

"I wasn't asleep!" angrily retorted the operator. "You needn't get huffy!"

"Nothing the matter with me," replied Tompkinsville. "Ring off if you don't want to hear the concert."

"Concert?" was the eager rejoinder.

"Keep your ears open," was Tompkinsville's reply again.

Before the astonished operator could ask any particulars she heard coming over the wire the sound of one of Sousa's most thrilling marches. Then followed a Strauss waltz—my, it was almost as good as being at the annual ball of the Lady Killers' Clam Chowder and Pleasure Club. Then followed in rapid succession songs, recitations, more dance music and finally "Home Sweet Home."

It was quarter to 1 o'clock. The concert had been going on, with interruptions when subscribers had called up, for an hour.

The young woman who had thus been entertained said:

"You see, the Company has its factory at Tompkinsville. They are working at night now. The operator down there has friends in the Phonograph works and late at night they hang the receiver of a telephone near a Phonograph so he can hear the music.

"He calls me up and switches me on to the same wire—then I switch some others on, so that before we get through a dozen of the girls are listening to the music.

"What did they play to-night? Oh, lots of fine pieces—'Au Revoir,' 'The Last Rose of Summer' (that's a song, you know); Gilmore's Band (I don't know what it was they played), 'Sweet Little Lady,' (haven't you heard that? It goes like this"—humming).

"The best? Well, the 'Charge of the Rough Riders' was just fine—you could hear the words of command, the men rushing forward, the bugle calls, the shooting, the cheers, and then came 'The Star-Spangled Banner' and 'Yankee Doodle'—oh, it was great!

"But I guess I liked 'When Thy Loving Eyes Meet Mine' best of all."

The Made the First Phonograph

John Kruesi, Who Was Buried on Feb. 25, Was One of Edison's Best Assistants.

The man who made the first Phonograph was buried at Schenectady on Feb. 25. He was one of the little band of men who worked with Thomas A. Edison at Menlo Park and through whose skill and faithful assistance were developed the many inventions which gave to Edison the name of "the Wizard." It was in those days that Edison used to become absorbed in the development of an idea, work at it without rest or sleep for two or three days and nights and keep all those about him busy at the same time. He would call in an organ grinder from the streets to keep his men awake or resort to some other such device, and when the strain was finally over, charter a boat and take all hands down the bay on a fishing excursion. Among the most tireless of the men about "the Wizard" about that time was John Kruesi, the man who made the first Phonograph. The idea had come to Mr. Edison as an inspiration a few days before while he was experimenting with a telephone disk. The disk was not inclosed, and there was a sharp pointed pin on the back of it. As Mr. Edison spoke against the face of the disk, its vibrations drove the pin into his finger.

"If the disk has power enough to prick my finger," thought the Wizard, "it has power enough to make a record which can be reproduced."

A few days later he called Kruesi to him, and, putting into his hands a rough sketch of the Phonograph, explained what the thing was to do, and told him to make it. It was a roll machine, the roll covered with tinfoil to take the record.

Kruesi made the machine and brought it to Mr. Edison. Edison set it going and spoke into it:

Mary had a little lamb,
Its fleece was white as snow,
And everywhere that Mary went
The lamb was sure to go.

Then he started it to repeat his words, expecting at the best but a hoarse murmur in answer. He was almost awed when he heard his words actually repeated in clear tones by the little machine. That machine is now in the Patent Museum at South Kensington.

Mr. Kruesi remained with Edison and became one of his partners in the development of the electric light, and in 1886, when the Edison machine works were removed to Schenectady, he went there as assistant general manager under Mr. Samuel Insall. In 1892, when the General Electric Company was formed and the whole plant of the great combination was consolidated, Mr. Kruesi became general manager of the works. It was under his supervision that the Schenectady works, the largest and most complete of their kind in the world, were designed and built. At the time of his death Mr. Kruesi was the chief mechanical engineer of the General Electric Company. Of the original Edison band of workers only three were absent from the funeral. These were T. C. Martin, editor of the *Electrical Engineer*; Luther Stieringer, and E. H. Johnson, all of whom were unavoidably detained elsewhere.

Mr. Kruesi was a native of Switzerland, and was born in 1843. He came to this country in 1870 and went to work for the Singer Sewing Machine Company at Elizabethport. In June, 1872, while Edison was making Gold and Stock Exchange telegraph instruments in a Newark shop, Kruesi joined him and was one of the first of his workmen to be transferred from commercial to experimental

work when Edison got money enough to open a shop for the development of his ideas in 1875. That shop was in Greene Street, Newark.

License Law Amended

Action Taken Upon Complaint of Discrimination Respecting Exhibitions

The proprietors of an exhibition of moving pictures recently complained to the District Commissioners that they were required to pay a license tax of \$10 a week, or \$520 a year, while the tax imposed on theatres is but \$100 per annum. It was contended on behalf of the complainants that this difference against them was unjust and exorbitant, and they asked the Commissioners to permit them to give their exhibition upon the payment of the tax or license fee paid by the theatres. The matter was referred by the Commissioners to their attorney, who held that, however unjust and unfair the tax imposed upon the complainants might be, the license law authorized no relief. Thereupon the Commissioners requested their legal adviser to prepare such an amendment of the license law as would grant the relief asked.

Their attorney, in response, submitted to the Commissioners a substitute for the present provision of the license law in regard to theatres, exhibitions and entertainments for gain.

"Considering," he explained, "the exigency of the situation I have, as you will notice, prepared two drafts—one as a substitute for section 72, chapter XX, of the proposed code, and the other as a bill to be submitted to Congress. It may be that the required legislation can be sooner had by direct application to Congress than by waiting for the enactment of the code."

The bill drafted by the attorney is as follows, the substitute for section 72, of chapter XX, of the code being the first section thereof:

"A bill to regulate licenses for theatres in the District of Columbia and for other purposes:

"Be it enacted by the Senate and the House of Representatives of the United States of America in Congress assembled, that the proprietor, lessee or manager of any theater, having a stage and movable scenery used for the purpose of acting, playing or performing any play, farce, interlude, opera or other theatrical or dramatic performance, or any scene, section or portion of any play, farce or drama of any description, for gain, shall pay a license tax of \$100 annually; provided, that license may be granted for theatrical performances for one week on the payment of \$20, or for less than one week on the payment of \$10; and provided further, that proprietors of exhibitions or entertainments of any other description conducted for gain shall pay a license tax of \$100 annually, or for a less period as follows: Three dollars per day, \$10 for the first week and \$5 for each subsequent week; and provided further, that permits for entertainments, concerts or performances of any kind given in church buildings where the proceeds are intended for church or charitable purposes no license shall be required.

"Section 2. That it shall be the duty of the proprietor, lessee, or manager of any theater, theatrical performance, exhibition or entertainment of any description in the District of Columbia, conducted for gain, to obtain a license therefor as herein provided for. Any person violating the provisions of this act shall, on conviction thereof in the Police Court of said District, in addition to the license tax imposed, pay a fine or penalty of not less than \$5, nor more than \$50, for each offense, to be recovered in the name of said District.

"Section 3. That all laws and parts of laws inconsistent with this act be and the same are hereby repealed."

When Shall We Three Meet Again

Scene: A barren heath in Mugwumpia. Mr. Andrew Carnegie, solus, wearing a tight-fitting corset outside of his tartan, in token of his contractionist principles. In the distance the Pacific Ocean. He waves a torch made of his own expansion pamphlet, and makes mysterious passes with a witch hazel while he chants to the tune the old cow died of this invocation:

From the East and from the West, from Atkinson
to Vest,
Gather, gather to the blather, O, ye beautiful and
best!
Come, pity the country and save her
From the wretches that seek to enslave her!
Let each anti-expander in the might of his dander
Arise with an earthquake of lungs,
And flame in a lightning of tongues.

(Enter gentleman of deep ponderosity, wearing an orange and black sweater and trousers of free wool. He carries his head in a carpet bag marked "Tariff Reform." He unshathis his Phonograph and is turned on.)

Carnegie and ye people, give audition
To the language of innate superiority;
To the statesman who has ever had a mission
For solemn and elaborate sonority.
I have given several minutes' contemplation
To the Philippines, those regions of barbarity,
And I think they should remain in isolation,
For longinquity and racial disparity.
I object to territorial dilation,
And I shudder at subtropical insularity.

(Mr. Carnegie turns him off, waves the witch hazel over the left shoulder sixteen times, and Col. Bryan gallops in on a silver hobby horse. His uniform is studded with silver buttons. In his right hand a silver trumpet, in his left a silver Liberty bell, muffled. He and Mr. Carnegie embrace each other while the head in the carpet sack hums "Comrades, comrades.")

COL. BRYAN—Welcome, the only plutocrat
except Joe Sibley.

That e'er was dear unto Bill Bryan's bosom.

MR. CARNEGIE—Colouel, how is't with thee?
Art still wound up?

COL. BRYAN (sings, accompanying with trumpet
and bell):

Used as I am to warlike scenes
I shudder at the Philippines.
I see the money changer's hand
Laid heavy on that smiling land,
And simple natives slaved and sold
Are groaning 'neath the curse of gold.
And where those sunny islands slope,
The dread Octopus will octope.

(Chorus) The Philippines! The Philippines!
My very soul with woe careens,
And freezing fear my vitals crusts
To think they should be cursed with
trusts.

MR. CARNEGIE, THE COL. and THE PHONO-
GRAPH, (which has again been turned on)—O, the
Philippines, the Philippines, and we'll never go
there any more.

MR. CARNEGIE—Col. Bryan, did you ever
meet?—(Points to the head.)

COL. BRYAN—Charmed, I am sure. Does he
never wear it? Then he is indeed one of us.

THE PHONOGRAPH—I, I, I, I, I, I, I, I!

MR. CARNEGIE (to himself)—The ayes have it.

THE HEAD (shakes itself and murmurs)—The
selfishness of accumulated pelf.



Mr. Frank S. Mazziotta

The accompanying illustration is a true likeness of Frank S. Mazziotta, who bears the distinction of being one of our most prominent piccolo players. Mr. Mazziotta has been very busy making records for the various Phonograph concerns, among them the National Phonograph Company, Norcross Phonograph Company, Messrs. Harms, Haiser & Hagen and the Ecclesior Phonograph Company. He is a musician of recognized ability and does not confine himself to the making of Phonograph records, his services having been engaged at the Hotel Marlboro, also was a member of the Seventy-first Regiment Band.

The Biograph on the Brooklyn Bridge

Seven hundred and eighty feet of film is a record, even for the Mutoscope, as applied to photography in motion. It was scored by the American Mutoscope Company recently, when a series of pictures was taken on the Brooklyn bridge, from the front platform of a rapidly moving trolley car, on the run from the Manhattan terminal to the Brooklyn end of the bridge. The time consumed in running this enormous film through the camera was over three minutes, the pictures being taken at the rate of about thirty-two a second, or a complete total of 5,400 distinct pictures for the entire trip.

The view starts with a swift rush down the incline from the station on the New York side, shows the Brooklyn trolley cars in motion on either side and pedestrians passing back and forth on the platform in the center, then takes a plunge in the iron archway which covers the tracks of the electric line for about two-thirds of the distance. The girders go whizzing by with extreme rapidity, but the light is strong enough to show the traffic on either side and the river in the distance. After spinning through the archway at an almost dizzy speed, the car suddenly rushed out into the open space on the Brooklyn station. The longest film that had ever been used previous to this was one of 610 feet, which showed a hotel fire in Paris and the rescue of several inmates by the Paris Pompiers.

COL. BRYAN (leaping from his horse and embracing the Head with his right hand and the Phonograph with his left)—brothers!

MR. CARNEGIE—What happiness! I think we may take the muffle off the Liberty bell for a minute now, Colonel.

COL. BRYAN—Until the next performance.
(Exeunt omnes, singing "Comrades.")

Work of the X-Ray

Preston Johnson's Latest Electrical
Experiment—Working Out a New
Discovery.

That persistent electrical experimentalist, Preston Johnson, whose X-ray doings at Lynn Hospital have already made him well and favorably known to the medical fraternity of Lynn, Mass., has brought out his latest in the view which he shows of infantile human anatomy at a very early stage of development. A little member of the genus homo, which all too soon saw the rude outer world, is the subject, and to be precise, had only attained to the prenatal age of about five months. Mr. Johnson made an exposure upon a plate 12x14 inches, and it is in many respects remarkably successful. It shows the little bones clearly and in detail, there being no joints at that stage of existence.

Especially clear are the ulna and radius of the forearm, the shadow of one upon the other being clearly marked. But perhaps more remarkable than all is the fact of the clear showing of some of the softer tissues. The umbilicus is seen for some length from the body, and it appears clearly in tint through the tissues of the leg and arm. This suggests the possibility of so controlling the action of X-ray and "shadowgraph" pictures as to be able to show the softer tissues as well as the bones.

Indeed, it will be remembered that soon after the announcement of Roentgen's discovery Thomas Edison, the famous electrician, claimed it to be a possibility to so construct a fluoroscope as to see in turn everything within the human body, from the softest and thinnest to the hardest and thickest tissues. Mr. Johnson hints at a peculiar application of this theory. He claims to have in course of perfection a process whereby a pre-natal exposure could be made with such accuracy as to determine the matter of sex. Further than this he will not say.

The members of the local medical fraternity, who have been interviewed, say that such a thing would seem to be within the realm of possibility, but that it would be hard to see much practical benefit from such a discovery, even if the majority of mothers cared to submit to the operation, and as to the results, they would merely cater to a curiosity, the nature of which would be more or less open to criticism. Until a discovery shall come forth which may contribute something to the influencing of sex, there seems to be little that is desirable to know regarding the mere fact of gender. However, Mr. Johnson is conceded to be devoted to his line of work, and whatever he brings forth is likely to be worth knowing about.

In a recent interview Mr. Edison said: "At present I am working on a device for sending photographs by wire. I am perfecting the machine now and it will be a success. By this invention an artist can place his sketch in it and, by attaching the same to a wire, send in the picture to his paper. I am doing the work for Homer Davenport, the artist. This thing has been done before, but the machines have been too cumbersome. I intend to have this one made similar to a kodak."

New Films for "Screen" Machines

The following list of new films has been compiled from lists sent us by the leading foreign and domestic manufacturers ❀ ❀ ❀ ❀ ❀ ❀ ❀ ❀

JONES' RETURN FROM THE CLUB. The scene is laid in a prominent private park and opens by depicting the belated Jones returning from his Club, clad in a dress-suit, smoking a cigar, and armed with the inexhaustible whiskey bottle. Jones' house is shown in the background, but Jones himself, after travelling waist deep through the snow in the opposite direction from his home finally becomes bewildered and leans against a tree, the expression on his face alternating between happiness and disgust. A friendly policeman appears on the scene and endeavors to start Jones off in the right direction; an argument follows, which ends by Jones knocking off the policeman's hat and pitching him head first in a neighboring snow drift. Jones now dons the policeman's helmet and appropriates his club, then makes an attempt to arrest the worthy officer of the law. The picture finally ends by the unfortunate Jones being rolled heavily in the snow.

JONES AND HIS PAL IN TROUBLE. Jones feels that he needs assistance to get home, and finds a friend to help him. They are two of a kind. They come down the snow covered pathway, stopping frequently to sample a large flask. They finally stick their canes into a snow bank, and between them finish up the whiskey. Just then the policeman appears, with blood in his eye. The two happy ones are too much for the officer, and after a short wrestle he is thrown down into the deep snow. Jones staggers away leaving his friend to fight it out. He and the officer have a very exciting rough and tumble fight in the snow. Jones comes back to the rescue and the policeman gives up the job.

JONES' INTERRUPTED SLEIGHRIDE. Jones and his friend go out for a ride, still in a happy condition. They meet a policeman, who remonstrates about their manner of driving. Jones stands up on the seat, and tells the officer to mind his own business, whereupon the officer jumps into the sleigh, and, grappling with Jones, they fall out into a snow drift. The friend drives off rapidly, as fast as he can, tacking from one side of the road to the other. The cop pursues the sleigh, and Jones escapes. As the sleigh disappears among the trees the cop gives up the chase and comes back for his helmet. Jones comes back also to argue the question, and the cop promptly arrests him.

JONES INTERVIEWS HIS WIFE. He finally reaches home, pretty late, and finds his wife sitting up for him. He begins to disrobe, throwing his hat and cane on the floor, and scattering his clothes all round the room. His wife at first is very much ashamed of him, then indignant and finally angry. She picks up a basin full of water, and empties it over his head, drenching him from head to foot. The water pours off in streams as he stands with fingers outstretched, shocked almost into soberness. A very comical scene.

JONES GIVES A PRIVATE SUPPER. This picture shows Jones cutertaining three young ladies, after the theatre. They have a private room, and are evidently enjoying themselves very much. Jones sets up the wine freely, and the party becomes hilarious. The girls dance in turn for Jones, each vying with the other in executing novel and startling terpsichorean effects.

New Records for Talking Machines

The following list of new records has been compiled from lists sent us by the leading talking machine companies of the United States ❀ ❀ ❀ ❀ ❀

A Big Time Straddle Rosey's Orchestra
Anzels Serenade (Violin Solo) Ernest Erdman
All I Want's in Chickens Frank C. Stanley
Aunt Manly's Wilding Rosey's Orchestra
At One Look of Love from Tiber Atwood Twitcheb
At a Georgia Camp Meeting (Banjo) Ossman
Baby's Kiss Edw. M. Favor
Barneyard Shuffle Rosey's Orchestra
Because from "The French Maid" Albert Campbell
Cantilena (Violin Solo) Ernest Erdman
Carmen Duet Miss Mann and Mr. Madeira
Darktown Is Ours Tonight Len Spencer
Dere's a Spindler Lives Upstairs Arthur Collins
Dear College Chums Steve Porter
Down Ole Tampa Bay (Banjo) Ossman
Ei Greo's Cake Walk (Banjo) Ossman
Emmet's Lullaby Excelsior Quartette
Folie Bergeret Rosey's Orchestra
Girl I Loved in Tennessee (Cornet Solo) Rosey's Orchestra
Good-bye Sweet Day Albert Campbell
He Took It in a Pleasant Way Edw. M. Favor
Heart Bowel Down (Bohemian Girl) Madeira
Hello! Ma Baby Len Spencer
I Guess I'll Have to Telegraph My Baby Geo. J. Gaskin
I Thought I Heard Somebody Calling Me Len Spencer
I Guess I'll Have to Telegraph Ma Baby Len Spencer
I Love You in The Same Old Way (Violin Solo) Ernest Erdman
If You Go Way This Will Bring You Back Len Spencer
In the Barracks March (Banjo) Ossman
I Guess I'll Have to Telegraph My Baby Frank C. Stanley
In the Sacramento Valley Albert Campbell
Irish Medley Excelsior Quartette
Jerusalem Mr. Havens
Just As the Sun Went Down Steve Porter
Just One Girl George J. Gaskin
Just One Girl Steve Porter
King's Musketeer Rosey's Orchestra
La Mariposa Rosey's Orchestra
Let Me Dream Again Rosey's Orchestra
Life's Game of See-Saw Albert Campbell
Little Old New York "Hurly Burly" Dan Quinn
Martha Jane Green Arthur Collins
Matrimonial Guards Miss Mann and Mr. Havens
Medley of Irish Reels with Song Billy Golden
Melody in F "Rubinstein" (Violin Solo) Ernest Erdman
Mid The Green Fields of Virginia George J. Gaskin
Mother Goose Rhymes Miss Mann
My Ann Elizer Arthur Collins
My Lady Love Waltz Rosey's Orchestra
My Old New Hampshire Home Albert Campbell
National Medley Billy Golden
New Hampshire Home George J. Gaskin
No Coon Can Come Too Black For Me Len Spencer
Palms (Violin Solo) Ernest Erdman
Pizzicati (Violin Solo) Ernest Erdman
Poor O'Hoolahan "Yankee Doodle Dandy" Quinn
Salute to France Miss Mann
Scene de Ballet (Violin) Ernest Erdman
Shadow Song "Dinorah" Miss Lisle
She Was Bred in Old Kentucky Excelsior Quartette
She Was Happy Till She Met You Dan Quinn
Since I've Got Money in the Bank Mr. Stanley
Slumber, O Sentinel (Falka) Miss Mann and Mr. Havens
Sly Cigarette "A Runaway Girl" Dan Quinn
Soldiers in the Park "A Runaway Girl" Dan Quinn
Spring Song (Gounod's) Albert Campbell
Sunshine Will Come Again Excelsior Quartette
The Best in the House is None Too Good for Rielly Geo. J. Gaskin
Telephone Song "Hello My Baby" Frank C. Stanley
Tennessee Jubilee March Rosey's Orchestra
The Girl I Loved in Sunny Tennessee Albert Campbell
The Green Hills of Old Virginia Frank C. Stanley
Tickle the Ear Schottische Rosey's Orchestra
Trelawny March Rosey's Orchestra
Twickenham Ferry W. F. Hooley
Uncle Jefferson Billy Golden
Uncle Josh at Delmorico's Cal Stewart
Uncle Josh at a Camp Meeting Cal Stewart
Uncle Josh in a Police Court, N. Y. City Cal Stewart
Up in the Golden Sky Billy Golden
Verdi's Attila Original Lyric Trio
Wedding on the Hill Billy Golden
When the Winter Moon is Bright Miss Mann
Whistling Minstrel Billy Golden
Yellow Girl Billy Golden
You Don't Stop the World from Goin' Round Len Spencer
You'll Get All That's A Comin' to You Len Spencer

The Latest Popular Songs

The following is a list of the very latest popular songs published by the leading music publishers of the United States ❀ ❀ ❀ ❀ ❀ ❀ ❀ ❀

A Hero's Grave C. A. Gaddy 2
A Japanese Serenade William Lorraine 3
As I Sat Upon My Dear Old Mother's Knee (Song and Chorus, words by M. J. Cavanaugh J. P. Skelly 1
Be My Honey Girl J. W. Stern 6
Being de Answer Back to Me—Coon Dillon Bros. 1
Billet de Spardard—Irish Frederick Gilbert 1
Coon With Big White Spot—Comic F. J. Gurney 1
Don't Forget Your Mother Andrew B. Sterling 2
Don't Neglect Your Mother—song and quartette. ch. Morris Weston 1
Dorothy Brown—An American girl is good enough for me Moran & Helf 1
Daughter of Uncle Sam Montgomery Irving 1
Dat's Me—Coster Song Hampton and Silberberg 1
Does She Remember—Ballad W. T. Jefferson 1
De Captain of de Coontown Guards Dave Reed, Jr. 1
Dis Coon Has Got de Blues Mack & Murray 1
Dream on Beloved Arthur Trevelyan 3
He Wished He Wasn't Where He Was Wm. Devore 1
How'd You Like to be the Iceman? Helf & Moran 9
I Want a Coon to Match My Own Complexion W. A. Heelan 2
I Wants My Hannah Al Johns 3
I Love You Arthur Trevelyan 3
I Didn't Marry All Yer Kin Ford and Bratton 1
If Dreams Come True Arthur Trevelyan 2
If I Thought You Loved Me Yet John V. Hollar 9
If Youse Gwine To Lub Anybody Please Lub Me H. Y. Leavitt 1
I'll Fight For the Flag I Love—Patriotic Louis Wesley Jones 1
I'd Dream I Tain't of Thee W. Sheppard Camp 3
I'm Livin' Easy Irving Jones 3
I'm Tired of Dodging de Installment Man Deas and Wilron 1
Just One Girl—Popular Hit Kennett and Udall 1
Just For the Old Days Stanley Haskins 5
Just in Sight of Old Church Tower Ida Emerson 2
Last of His Regiment—Descriptive Wm. H. Nelson 1
Life on a Man o' War—Descriptive Hattie Starr 1
Ma Hannah Lady Dave Reed 6
Mary's Not as Green as She Looks—Comic Ford and Bratton 1
My Alabama Lize Wise & Perrin 5
My Little Southern Rose Max S. Witt 6
My Watermelon Boy Malcolm Williams 5
Nonie Max S. Witt 6
One Kiss Tells All J. W. Stern 6
One Touch of Nature Makes the Whole World Kin Felix McGlennan 9
Our Brave Little Volunteer—Patriotic Jennie Linasay 1
Sue, Sue, Since I Met You Hattie Starr
Sunny Tennessee Braisted & Carter 6
Sunny South So Far Away C. Jolly 6
That Brown Skin Baby Mine Sidney Perrin 1
The Chili Widow Geo. LeBrunn 9
The Patriotic Maid Minnie Belle 9
The Belle of Blackville Lane Irving Jones
The Little Mother Roden and Morris 1
The Girl I Loved in Old Virginia Andrew B. Sterling 2
The Little Red Old School House Marion May and Oscar Marzolis 1
Those Cruel Words, "Good-bye" Fred Helf 9
'Twixt Smiles and Tears Jos. Staudish and James DeKoven Thompson 1
Wait Till My Saip Comes In Max S. Witt 6
We Want Our Mother Dear Oliver and Fay 1
When I Come Home W. R. Anderson 1
When Hope Seemed Lost Walter V. Ullner 8
When Mammy Puts Her Pickaninny Boy to Bed Perrin & Wise 9
Will He Ever Return Vern Doré 3
Wing Lee's Rag Time Clock Al Trahern 5
You're It Gussie L. Davis 9
You Ain't the Man I Thought You Was Lew Sully 9

LATE INSTRUMENTAL PUBLICATIONS

First Nighter's Waltzes Rosenberg 8
Great Ruby—March T. W. Hindley 5
Kentucky Cornshuckers March Rosenberg 8
Rough and Ready (Schottische Caprice) W. V. Ullner 8
'Round the Town March Charles Irwin 8
Shuffling Pete Cake Walk March E. F. Kendall 8
Trip to Washington (March, Two-Step) W. V. Ullner 8

Note.—The publishers are designated as follows: 1 M. Witmark & Sons; 2 T. B. Harms & Co.; 3 F. A. Mills; 5 Myll Bros.; 6 J. W. Stern; 8 Gage Bros.; 9 W. B. Gray.

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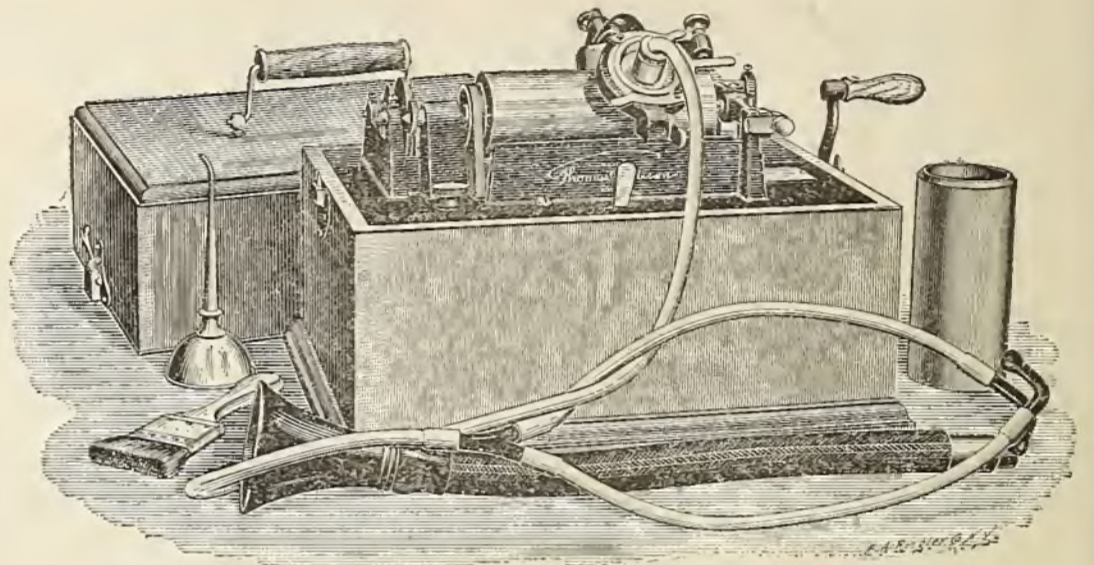
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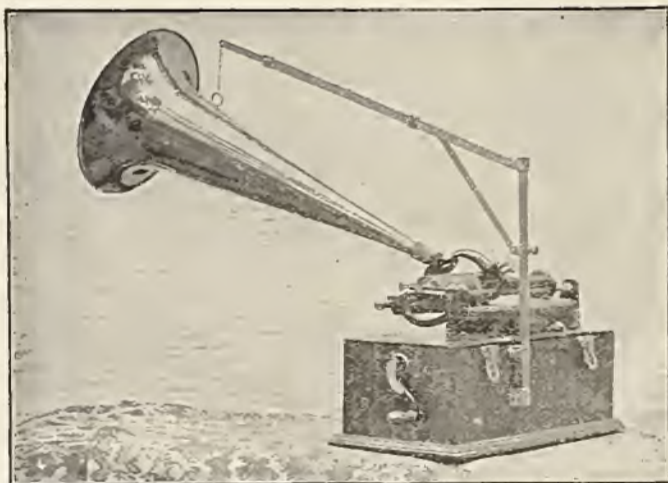
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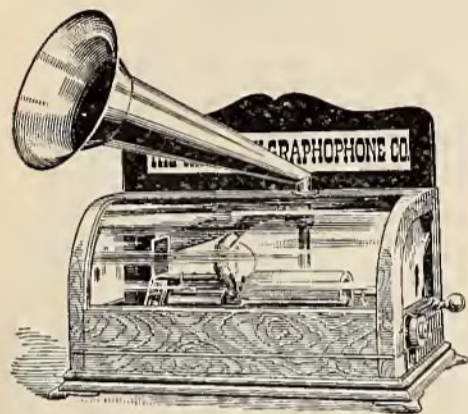
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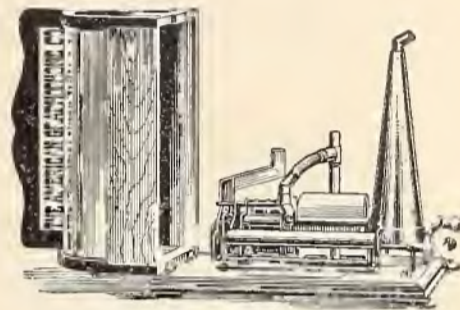
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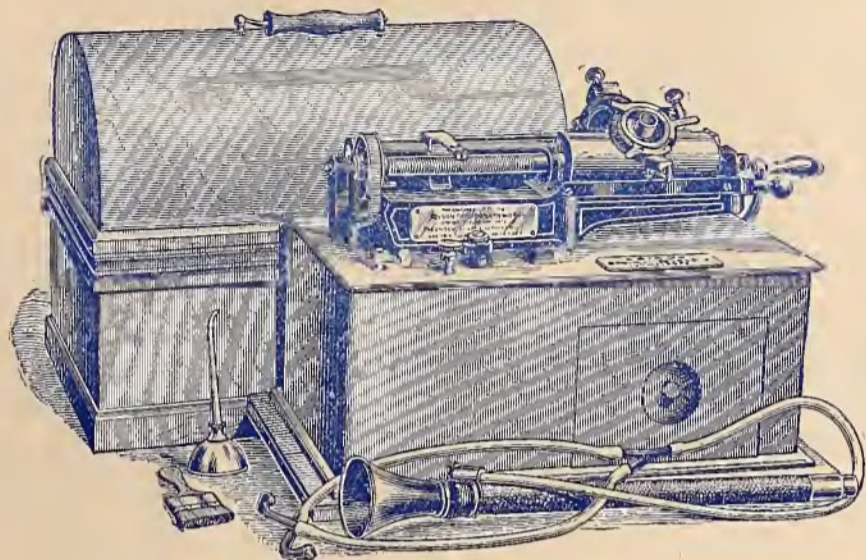
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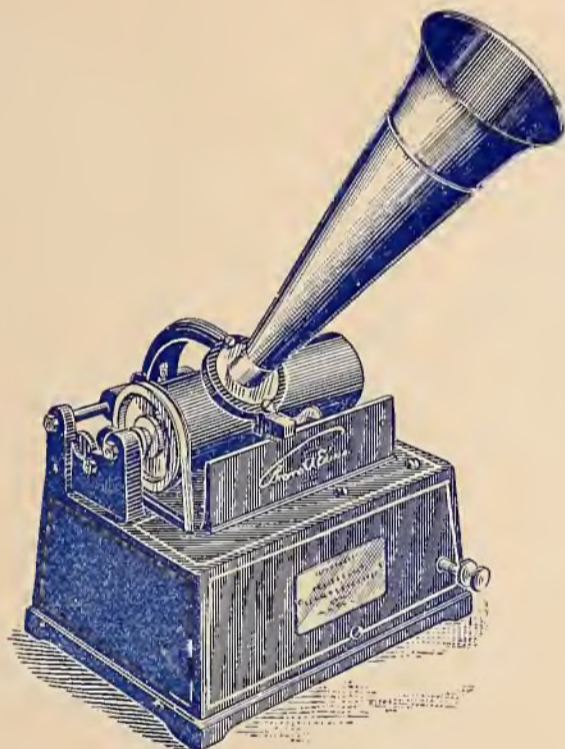
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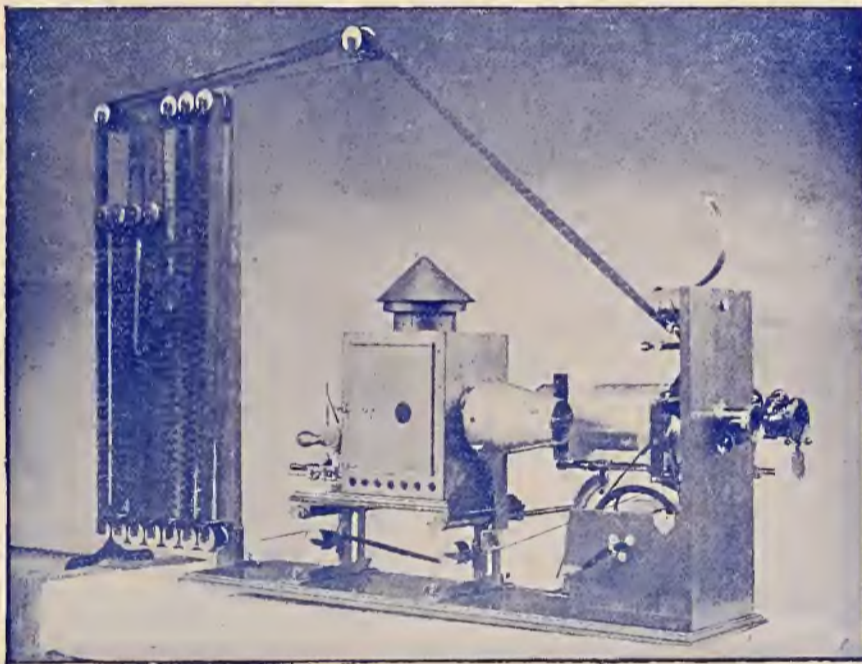
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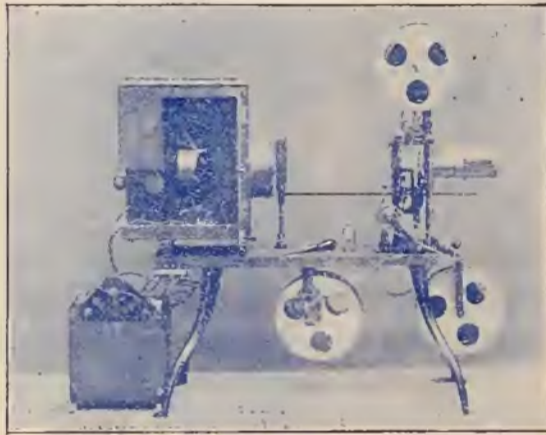


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