

MAR 23 1897
Periodicals Department

THE PHONOSCOPE

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

SECOND COPY,

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

Vol. 1

No. 8

NEW YORK, JULY, 1897

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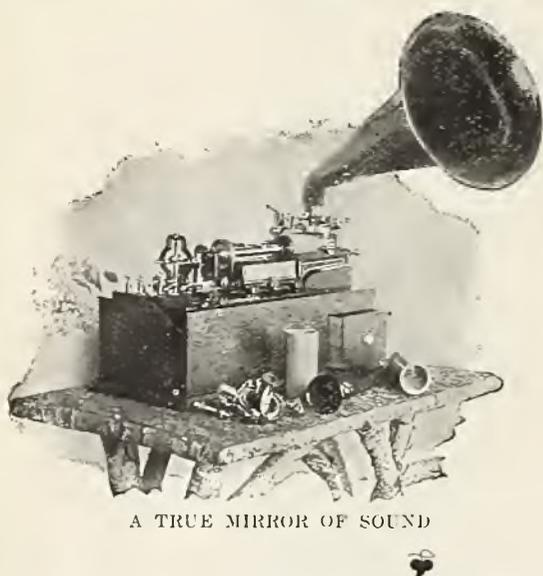
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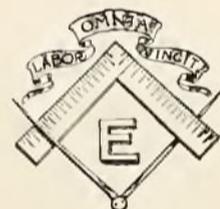


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The Phonoscope

(Copyrighted, 1896)

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

Vol. I

NEW YORK, JULY, 1897

No. 8

The brightest spot on Broadway at night is the Twenty-seventh Street corner where the Columbia Phonograph Company has its headquarters. The white building with ample frontage on both Broadway and Twenty-seventh Street is brilliantly illuminated with row upon row of incandescent lights and the interior of the building is also brightly lighted. The result is to bring the building out against the darkness of the night with an effect that attracts the notice and excites the admiration of every stroller on Broadway. The whole of the large corner building is occupied by the Columbia Phonograph Company. Here are the executive offices of the Columbia Phonograph Company and the American Graphophone Company as well as the New York office. The New York office, so-called, occupies the main or ground floor as well as the basement and a part of the second floor. The whole of the main floor, arranged as one large room, is given up to exhibition purposes. It is very tastefully and effectively fitted up with electric lights and mirrors and is a most attractive place. In the centre is a



brass-railed platform used for office purposes and for a neat display of goods. Around the room are arranged kinetoscopes and nickel-in-the-slot graphophones, supplied with the latest records. The exhibition parlor has come to be one of the recognized pleasure resorts of the city. The basement rooms accommodate the bookkeepers of the New York office, a repair shop and the record department, where records are kept and sold. Generally two or three graphophones can be heard at a time reproducing musical records for customers, and there is a strange medley of sound issuing from the basement. On the second floor besides commodious salesrooms attached to the New York office are the offices of Mr. E. D. Easton, the President of the Columbia Phonograph Company and of the American Graphophone Company, Mr. Wm. H. Smith, the General Manager, and Mr. H. P. Godwin, the Manager of the advertising department. The upper floor of the building is devoted to the record-making department in charge of Mr. V. H. Emerson. Here all the interesting work of making talking-machine records can be studied daily. Bands, orchestras and soloists are constantly engaged playing and vocalists singing into the big horns making records which are shipped to all parts of the civilized world. Recently an operatic company has been employed singing operatic selections to be caught and preserved on the wax cylinders.

The New York headquarters in general arrangement is much like the offices of the Company in St. Louis, Washington, Philadelphia and other cities. It has been a feature of the Company's policy to make their buildings and exhibition rooms attractive. In carrying out this idea over seven hundred electric lights are used in and about the New York building and similar displays are made in other cities. The Columbia Phonograph Company is about to open European headquarters in Paris and will have a building there centrally located, which will remind visiting New Yorkers of the brilliantly illuminated building at Twenty-seventh Street and Broadway.

The development of the Columbia Phonograph Company and of the American Graphophone Company under Mr. Easton's direction has been rapid and remarkable. Until recently the headquarters were in Washington, but the extending business required a removal to New York, where, until a few months ago, an office was maintained as a branch office. Now New York is the center of the graphophone business and there are large buildings used as branch offices and salesrooms in many other cities, besides allied companies that handle the goods of the Columbia Phonograph Company. The Columbia Phonograph Company holds the relation to the American Graphophone Company of sole sales agent and for that reason perhaps its name is better known throughout the country than that of the American Graphophone Company, which is the Company that owns the patents and engages in manufacture of graphophones. The Graphophone Company owns and operates an extensive factory at Bridgeport, Conn., and contemplates adding another factory building to its plant in the near future.

The Phonograph as a Teacher

The Latest Invasion of Machinery

Man as the competitor of machinery has suffered rapid and successive defeats during the last fifty years, and, instead of gaining his anticipated larger freedom through invention, he has lost his whilom independence, and, driven from his Eden of Ease, curses the gods of his own creation. The tension is becoming too great to bear, and a crisis is inevitable reconciling man and machinery; that is, man individual with man universal.

The significance of the radical changes involved in the substitution of machinery for man came to me with acute force when I considered the possible function of the phonograph as an educator—as directly teaching foreign languages, singing, elocution, etc., delivering lectures on history, literature, science, and giving instruction in many fields of study. What a host of teachers, present and prospective, will be displaced and left industrially rudderless, when cylinders, freighted with learning in any department of human knowledge, may be purchased for a few cents each! All that is involved in the evolution of vocal communication is of the deepest importance to teachers, whether of speech or song, for they are vocal com-

municators, *par excellence*. A great danger threatens their continued existence as teacher, a danger that can not be averted by closing our ears or eyes to the portentous fact of the inevitable rise and reign of "mechanical" teaching. Their almost complete displacement in rudimentary instruction, at least, seems to the writer to be a matter of only a few years. We shall do well to consider the prospect and see what is involved of the benefit and of malefit to mankind.

Hypnotism has acquainted us with a vast, an unexplored, subconscious realm, which could, and, it seems to me, ought, to be utilized for educational purposes. The phonograph will be the first mechanical means for the conversion of this reservoir of force into beautiful mental forms. Note the fagged brains of civilized and especially of professional men! Does not their condition tell us how overstrained is their consciousness? Various facts of degeneration stare us in the face as an emphatic answer.

Now, if we could but properly coordinate the conscious with the subconscious realm, how much rest and freedom would be given to consciousness! The *monotonous iteration* of the phonograph will subconsciously habituate the pupil to higher mental forms. In other words, it will organize in him, automatically and effortlessly, the modes and processes of things. It will be instrumental in bringing about that great desideratum, the coordination of the conscious and subconscious actions of the mind. The subconscious is the vital mechanism of the mind contributed to us by our entire past. It is, in short, *habitude guided by hint*.

Every teacher seeks to cultivate mechanical expertness as a prerequisite to sustained voluntary and spontaneous action. The phonograph will furnish this work of *prelimination*, that is, of preliminary formation. It will be utilized as a fashioner of new mental forms for the subsequent housing of the expanding soul. I may overrate the imminency, or the universality, of this change. However that may be, let me show that I have not been painting a fancy picture of its practicability, and of the value of *the most patient teacher in the world*.

Some of the possibilities of the phonograph (and its variation, the graphophone) for the teaching of languages have been demonstrated by Prof. R. D. Cortina, of New York City. Without parade, for the last five years, he has taught various languages by phonograph, in all parts of the world, but especially in South America and in Mexico. Briefly, his method is as follows: He furnishes a text-book (say for Spaniards to learn English) arranged in twenty lessons. These lessons are also given in his own verse on twenty cylinders. Accompanying these voice-freighted cylinders are twenty blank ones. The professor delivers the graphophone, the express charges paid, for thirty dollars; a cylinder freighted with a lesson in any language, with a chapter or scene from comedy or a novel, or with a song or a ballad, for one dollar. Blank cylinders for the return messages or recitations cost twenty cents apiece; a text-book in any one of a dozen languages, \$1.50.

The pupil, thus equipped, opens the book at the first lesson; puts the tubes into his ears, and starts the machine slowly on its journey through the world of foreign sound. The eye follows the

ear, and a synchronism is at once and fully established between sight and sound. He repeats this practice on any passage, again and again, more and more rapidly, until thoroughly familiar with every intonation and accent. Having mastered, in this way, the first lesson, he puts one of the blank cylinders in the machine and answers the questions of the lesson. In a little box, provided for the purpose, this cylinder goes back to the professor, who, with a stenographer by his side, listens to the recitation and dictates his corrections and criticism. The letter and cylinder go back to the pupil who compares his own utterance with the original cylinder at the points indicated in the professor's letter, and is enabled to tell wherein his defect lies and to cure it. Pupils write enthusiastically of their delightful experience and success. The professor informs me that he has sold upward of a thousand phonographs.

With never-ending patience the phonograph will adapt itself to our mood and convenience as no personal instructor can ever do. But, above all, it gives tireless repetition. In the rapid acquisition of a foreign language, for example, repetition is the absolute essential; for it is only through repetition that the organism will automatically respond to thought or emotion; and it is only through repetition that the pupil will readily and accurately catch the proper pronunciation, accent, intonation and coordination. Repetition is the key that unlocks the subconscious realm; in the phonograph you may have repetition to your heart's content. Frequency gives familiarity; and it is far better to take small or short doses many times than large or long doses a few times.

The phonograph is a teacher always at hand—at any hour of the day or night it will respond to our wishes without a grumble—and still more, without surprise or the lifting of an eyebrow, at our own stupidity, fancied or real. For the most fagged of brains, at just the passage desired, it will go slow or often enough to soothe it into subconscious action. To suit our mood and intelligence, it will talk or sing, fast or slow, loud or low, long or short, a few or many times. At your bedside at night it will repeat the lesson, poem or song, and, with the softest of murmurs, croon you to sleep and waft you into the land of dreams. Then in the morning (having set your alarm-clock attachment) it will rouse you betimes and in stentorian tones deal forth its wisdom to your wondering ear.

Combined with the cinematograph it will teach "the young idea" elocution and oratory, for a "shadow" of Delsarte will go through the appropriate gestures, synchronically with the declamation.

This coming fall the phonograph will be brought into prominence in the world of song. In collaboration with Prof. Cortina's School, a professor of singing will give courses of singing-lessons by phonograph. Should this method of instruction in singing prove of advantage, we may witness a furor of mechanical instruction in a very short time.

The employment of the phonograph on any large scale in these lines will bring about its simplification and perfection as well as its cheapness. Its field of usefulness may be limited to rudimental things at first, but, I am convinced, its sphere will continually widen until it will include the mastery of the language and literature of a nation, and do away with the need of coming into contact with a native. Think of acquiring Russian, Arabic or Hindustanee without hearing the living voice!

Will not all teachers in the lines indicated, except the few experts needed to animate the wax-cylinders, go out of employment and consequently out of existence? The phonograph, more than any other invention, may be the means of all others, by its ousting of teachers, lectures, and even

clergymen, to bring about a solution of our perplexing economic conditions. Statistics show that the average idle days of the wage-earner of the United States, are over one hundred working days in the year. Statistics also show that largely through machinery (or the ownership of inventions by individuals and corporations) we have produced over five thousand multi-millionaires within the last forty years. There were only eight millionaires before that time. This congestion of wealth in the hands of a few, and the incidental serfdom and idleness of the many will necessitate the working out of such a readjustment in our economic and social conditions as will inevitably inaugurate the reign of Opportunity and Welfare instead of, as now, Opportunity and Warfare. So that machinery, because of its incidental evilness, because of this absorption of man's income, becomes the very lever for raising society to a fraternal basis. And in the realm of art, the incidental ousting of artists will stimulate them to show the world that machines are ever inadequate to give expression to those finer forms that the Ideal enjoins upon us; and there will always, therefore, be room for originality and human expression.

Man (*qua* man) is *man-ager*—not machine; spirit—not habit. Ever has he been in danger of succumbing to the common, the general, the merely identical or natural; but anon he will rise to spiritual individuality, controlling the universe,—his constitution—for artistic creation. Ever Walls do we build that no War can surmount; anon wage we a war that no walls can withstand. History is the outcome. The victory is alternate between Vishnu and Siva, but Brahma, the creator, progresses.—*Werner's*

Brodie Cables the Prince

\$50,000 If He Will Fight Albertone for the Kinetoscope

"Steve" Brodie wishes to have a part in the excitement in case Prince Henri has to fight again when he recovers from the wound inflicted by the Count of Turin. "Steve" says that yesterday he sent the following cablegram, and in this he is indorsed by the management of the Western Union office in Grand Street, west of the Bowery:—

TO HIS ROYAL HIGHNESS PRINCE HENRI OF ORLEANS, care of DUC DE CHARTRES, Rue Jean Goujon, Paris, France:—

Will give you and General Albertone fifty thousand dollars apiece if you will fight your coming duel before the Kinetoscope, giving me exclusive rights to use of films. Will give you ten thousand dollars apiece additional if you will make the duel last for at least ten rounds. STEVE BRODIE.

"This is on the deceased level," said "Steve" in explaining the matter. "I can raise a hundred thousand here in Italy without turning around ten blocks, and if I can get the Prince and the General to stand up before "Dan" Stuart's picture machine I'll make me fortune. I telegraphed "Dan" in Galveston—he took them views of that other duel out in Carson City, you remember.

"Now, I've paid seventeen dollars on that cable and deposited twenty dollars more in the office here to settle for the answer, and I'm waiting for it now."

"Do you really expect an answer?"

"Sure! Of course I do! Why, them fellows is both poor—haven't got a dollar between 'em, hardly. Of course, they'll reply. I want the fight to come off in the woods near Chantilly, because it's got a fine view there and, being sort of a forest like, they can be guaranteed no inter-

ference. That's where Sullivan and Mitchell scrapped. You know I met the Prince once, when I was in Paris, France, some six years ago."

"And how did he impress you?"

"Damn nice feller?" Mr. Brodie exclaimed, enthusiastically, "but broke, like all the rest of 'em," he concluded, in tones filled with sympathy.

"Steve" still was waiting at midnight for the reply to his cablegram.

Teaching a Sunday School by Telephone

How a Disabled Superintendent Manages to Give Instruction to His Class a Mile and a Half Away

Mr. W. E. Stanley is the only man in America who ever conducted a Sunday-school by telephone. He never had that experience until a few weeks ago, but now that he has found that it works successfully he may resort to it again in the future.

For twenty-one years Mr. Stanley has been the Superintendent of the Sunday-school of the First Methodist Church in Wichita, Kan. There have been few times during the period that he was not present to open and close the exercises. But some weeks ago Mr. Stanley was the victim of an accident that will keep him at home for some weeks longer. While driving a spirited horse he was thrown from the carriage and a number of bones were broken. He was taken to his home, where doctors repaired the injuries as far as possible and then told him that he would have to remain in bed and let time do the rest.

Mr. Stanley was not particularly averse to being in bed. He felt that he needed a rest, anyway, but he did not like the idea of missing his Sunday-school. It hurt him to think of shattering the ties that had been growing for more than a score of years.

During the six days of the week in which he labors, Mr. Stanley is a lawyer. He is a successful one, too, and has piled up a goodly store of this world's goods. So he put his mind to work to evolve some plan by which he could attend to his duties as Sunday-school superintendent while confined to his bed.

"I have it," he finally exclaimed. Then he told his wife to go to the telephone, call up the manager of the Wichita exchange and ask him to call the wife did as requested, and soon the telephone man arrived. Mr. Stanley explained that he wanted his house connected with the church by telephone so that he could conduct the services while remaining at home and in bed.

"Can it be done?" asked Mr. Stanley.

"Yes, I guess so," said the telephone man. "But the cost?"

"Never mind the cost," answered Mr. Stanley. "Go ahead with the work."

So a double copper circuit was made between Mr. Stanley's home and the First Methodist Church, a mile and a half away. A huge funnel was connected with the instrument that was placed in the church. This gathered up the voices of the congregation and sent them to Mr. Stanley and also increased the volume of his voice so that the congregation could hear. The telephone worked better even than expected, and Mr. Stanley will continue to run the Sunday-school by telephone until he is able to do it personally.

The novelty of the services caused the attendance to increase materially and Mr. Stanley hears many strange voices through his telephone. The Sunday-school has always been successful, but it has taken a new boom since the Superintendent has begun using the telephone.

Our Tattler

At one of the phonograph parlors in Washington the attendant in charge had some funny experiences with visitors from the deepest backwoods. Last week, he says, a man came in and regarded the machines intently for awhile. He saw how the nickel was dropped in the slot and saw persons stand with their ears near the brass horns from the talking-machines. Finally he edged over to a kinetoscope, dropped in a coin, and literally glued his ear to the eye-hole. He listened to the rattling of the film with closed eyes and a look of bliss on his face. When the machine stopped he straightened up and said to the attendant: "Well, young feller, that's the derndest fine imitation of the drum corps down to our town that I ever did hear." And the attendant laughed so hard he couldn't straighten out his face to tell the old man his mistake.

FIRED AT RANDOM

The man who went to Carson and saw the Carson fight

Sat in the parquet circle in chair 18 J, right;
His face was animated; his breath was quick and tense.

(And also slightly liquored.) "Now," said he,
"they commence!"

"Just wait. You'll see. I told you! That's Jim there at the rope.

Ain't this a great invention, this picture veriscope? See that old sunlight shining and flashing on his nob—

Now watch that other corner. There now! Look! Look! that's Bob."

And round him he gazed proudly in free and lordly style.

"Was I there?" he repeated. "At Carson? I should smile.

I saw the whole proceedings. I watched the entire scrap—

Look down there in the corner. See that blue yachting cap?

"Squint close and you will catch it. This veriscope machine

Will prove if I was out there, lined up, March 17. They couldn't lose me, Charley; I saw it from the start,

And when Jim got that knockout it nearly broke my heart.

"Get on to them a-marching so solemnly and slow; They're tramping on the resin and mashing it, you know;

I know their every motion. I know just what they mean,

For I was out at Carson last March, you bet, and seen."

The man who sat beside him went out to take a rest,

But still he talked unceasing—in fact, with added zest:

"You'd better come back, pardner. They're starting it. That's Jim!

Just see old Bob Fitzsimmons. He won't shake hands with him.

"It's wonderful—say, ain't it? This here's a great machine.

The thing's just like at Carson. I went out there and seen."

A sad man just behind him rose with a look of woe, But the one who'd been at Carson kept right on with his show.

"Get on to Bob. He's leading. Now watch. You'll see some fun.

I saw it all at Carson and know just what was done. This round, you know, that's coming—here is the one where they

Get down to work. By thunder! It's just like that March day!

"The same old life and action. It's realism. It's The very living, breathing and actual Jim and Fitz—

Now keep your eyes wide open for Corbett's left-hand swing.

I know just where he landed, for I was there last spring."

Around him angry faces shone darksome and grim,

But still he drived madly of "Fitz" and "George" and "Jim,"

And told how he had seen them four months or more ago

In Stuart's ring at Carson, for he was there, you know.

At last he gave the signal which sounded his own knell:

"Say, did you see that knockdown? I saw him when he fell,

For I was at the ringside; I—" twenty foaming men

Rose up and rushed upon him and he never spoke again.

Upon the Sunday after the preachers far and near Denounced those prize-fight pictures in language strong and clear;

"Observe the wild disorder," they said, "which they induce.

Why, at the first performance the rioting broke loose.

"The people's brutish passions, stirred up as blood was spilled,

Found vent in crazy outbreak, and one poor man was killed,

And he—how strange to tell it—he was one, so they say,

Who last spring went to Carson to see the actual fray."—*Record*.

There is such a demand for lively motion pictures as to put the artists who supply them for the picture-projecting machines at their wits' end. They roam from city to city in search of novelties, and they are now preparing to invade the summer resorts in order to secure snap-shots at pictures not intended for the public gaze. Two of these artists are now in Boston with a view of visiting Nantasket, Crescent Beach and Winthrop Beach, and if the pictures they will be sure to find figure prominently in the winter's divorce proceedings it will not be their fault, since they are working wholly in the interests of their art.

Maxim's Light

It is Said to be the Finest and Strongest Ever Made

Word comes from London that Hiram Maxim, the American scientist, living in England, has just invented the finest, cheapest and strongest electric light ever made.

One light has burned steadily for a thousand hours and still remains brilliant. Unlike the lights now in use, the film is made of mineral instead of a vegetable substance.

Maxim is the inventor of the Maxim gun.

The Human Lorgnette

Its Inventor and the Experiments with Which He Diverts His Callers

A few weeks ago a group of persons found themselves in the reception room of a young scientific man. Upon a table was a small and innocent-looking glass tube, in the interior of which had been sealed a bouquet of artificial flowers. Leaves and petals were pure white, and seemed made of wax. Suddenly the gas was extinguished and the room became absolutely dark. The table, the glass tube, the flowers, disappeared from view. But the flowers presently shone out in the darkness. They were no longer white and opaque, but radiant with the bursting flames of an unknown light. The petals were blood-red, or pale azure, or a deep yellow; the leaves were emerald green. Several seconds the phosphorescent bouquet shone, then the light gradually died away, like the light of a glow worm.

What had happened? Something very singular and almost inexplicable. Science establishes but does not explain it. The tube in which the phenomenon was produced was a Crookes tube, in which there was a vacuum. The phosphorescence was born of the cathodic rays that an electric current, traversing the tube, projected upon the flowers.

There were many other tubes on the table, containing butterflies, bugs, and a variety of flowers, all to be experimented upon. The object was not to make amusement, as one used to do with Gesler's tubes, which were tinted various shades by the electric currents which traversed them, according to the nature of the gas enclosed within them. On the contrary, the exhibition of the phosphorescent bouquet was the phenomenon of fluorescence, which has but a distant relationship with known phenomena.

The young scientific man in whose rooms this interesting exhibition was shown was Gaston Séguy, the inventor of what he has named the "human lorgnette," the apparatus with which the Department of Customs has had such signal success in the examination of sealed packages suspected of containing dutiable articles. Although but thirty-two years old, he has already attained to high rank in physical science, and is now director of the Radiographic Institute of France, and one of the principal pharmacists in the High School of Pharmacy. He is the inventor of a dozen scientific appliances, mostly in use in the trades, and is an authority on glass blowing.

He was the first man in France to repeat successfully the experiment of Roentgen and since then he has been constantly occupied, part of the time in the laboratory of Prof. Le Roux, in studying vacuums and the properties of Crookes's cathodic rays. In his "human lorgnette" he has given to the world something which may or may not revolutionize many things. The chief advantages in it, or so it would seem at first thought, is its practicability—and its adaptability to many uses. In comparatively small compass he has put the various required components, electric storage cells, transformers, and tubes which are necessary to obtain the X-ray. The entire apparatus is not larger than a parlor stereopticon, is used in same way, practically, and is as convenient to handle.

Mr. Séguy declares that the "human lorgnette" will show the interior of the human body with as much facility and exactitude as it shows the interior of a traveling bag or trunk; that by its use one may see the heart beat and distinguish all the organs; finally, that it will be possible to locate and diagnose without error fractures and diseases of the bones and all the severer forms of organic disease.

THE PHONOSCOPE

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PUBLISHED MONTHLY BY

THE PHONOSCOPE PUBLISHING CO.

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

RUSSELL HUNTING, Editor.

EMIL ISLANDT, Manager.

SUBSCRIPTION:

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

ADVERTISING RATES FURNISHED ON APPLICATION

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 and items appertaining to sound and sight would be acceptable. It is the desire of the publishers to establish a widely circulated magazine, and to further that end every idea will be acted upon so far as possible.

A Novel Chrono- photographic Camera

Since the introduction of ribbon photography, by means of which successive pictures are rapidly made of moving objects upon a long ribbon or strip of sensitized film, various devices have been invented, some complicated and others very simple, for the production of the pictures and the manipulation of the picture ribbon.

C. Francis Jenkins is the inventor of quite a novel camera for making accurately the continuous series of pictures. Instead of using a rotary disc shutter with radial apertures and a fixed lens, this camera has a single opening in the front, the size of the aperture being regulated at its rear end by diaphragm disc having radial slots cut therein of varying widths. The operator is thereby enabled to govern the amount of light admitted to the lenses according to the subject to be photographed and the length of exposure desired. This disc is rotated by hand on its axis like an ordinary stop in a wide angle lens.

Back of the diaphragm disc is the battery of lenses, each of the same focus, arranged in a circle, adjoining each other upon a rotating disc, the axis of which extends rearward, terminating in a bevel gear wheel, which meshes into a side bevel gear wheel, fixed upon the upper shaft, suitably geared to the main driving shaft. The main shaft may be operated by a crank on the outside of the box, by hand or by any suitable motor like a spring. The sensitized celluloid perforated ribbon film passes downward near the front end of the camera in front of the exposure tension plate, the square aperture in which is exactly in line with the front aperture in the box. From this point the film, after exposure, passes downward between the sprocket wheel and pressure roller to the winding reel in the rear end of the camera, which is rotated by belt connection to a pulley on the upper shaft, and takes up the film ribbon as rapidly as it is exposed. The feed roll for the supply of fresh film is in the rear of the camera over the winding reel.

The operation may now be readily understood; to obtain successive pictures of a particular object, the camera is placed on a stand or tripod, the crank on the outside is then rotated, which causes

the film to travel downward continuously, with exactly the same speed that the lenses rotate, so that at every fraction of a second that it takes for each lens to pass behind the camera aperture, an impression of light is made on the downwardly moving film, and as they (the lenses and film) both move in unison, it follows that a sharp picture must be the result, while the brilliancy of the illumination is at its maximum. The camera can be carried about as readily as any other camera, and in practice it is found the motion of the hand-operated crank is sufficiently uniform to permit of the proper reproduction of motion by the positive pictures when projected on the screen.

The method of printing the positive ribbon pictures from the negative by means of artificial light is also designed by Mr. Jenkins. It consists of reels supported on suitable upright standards holding respectively the sensitive ribbon film and the negative film. The film from the negative supply reel is carried along over the sensitive film reel and both pass in contact, in continuous motion, under an exposing chamber illuminated by white light, either incandescent electric light or a Welsbach gas light, thence over the toothed sprocket driving wheel to the winding reels, the exposed film being wound first. It will be noticed that the reels are interchangeable, hence to make duplicate copies it is only necessary to remove the negative spool from the winding up end to the supply spool standard of the apparatus and begin over again. The perforations in the edges of the film are of specially square shape and give the square sprocket teeth of the propelling pulley a better pull on the film. The teeth pass through the perforations of both films, causing both to move exactly the same and at all times to keep in perfect register. The speed of the film passing under the exposing chamber must be uniform, and this is obtained by propelling the sprocket wheel by an electric motor or by a spring motor. The electric motor is behind the light chamber. The axle of the motor has worm gear operating a cog wheel on the main shaft. The V-shaped elastic band holds the frame (in which is a ground glass) in contact with the films, producing a sort of tension on the film. To the left of the light chamber is a supplementary tension, adjusted by screw nuts.

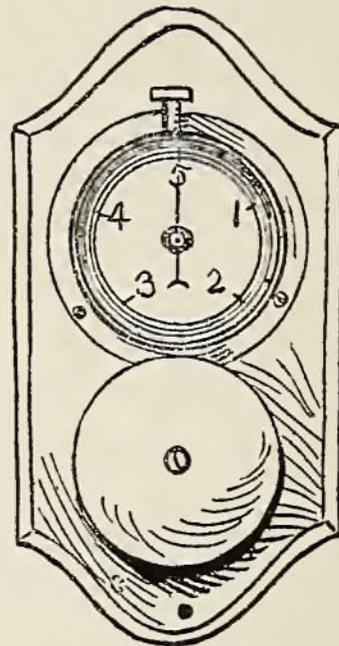
Two slotted diaphragm cards are placed over the ground glass just mentioned, at the bottom of the light chamber, and are for the purpose of regulating the amount of light that acts on the negative. If the negative film as a whole, should be thin, then the card with the narrow slot is used which allows a shorter exposure to be made, as the negative and film are passed under it. If the negative is full of density, then the narrow card is removed and the wider slotted card substituted, which allows a larger volume of light to act upon the negative film. The exposed film is wound around large open reels from its spool, and developed by passing through troughs of developer solutions.

The necessity of providing apparatus to quickly reproduce positive impressions from the negative ribbon films is one of the reasons why this simple device was invented, and its novelty consists in the fact that the film moves continuously under a uniform source of light without any intermittent motion or the use of shutters. The operation of exposing the film is carried on in a room illuminated by the usual ruby red light.—*Scientific American*.

The Central New York Telephone Company has just placed one of their long distance automatic or "nickel-in-the-slot" instruments in the office of the railroad station at Lowville which must prove of great convenience to the general as well as the traveling public, and will be duly appreciated.

Telephone Clock

In conversing by telephone over long distances the rate for using the line is made for five minutes' conversation. The correct estimation of time when seated at the telephone is a rather difficult matter. Many people are in a hurry, thinking it is but a short time; others over-estimate the period and talk slowly, and the five minutes are



over before they realize it. To avoid either conditions a Berlin watchmaker had the excellent idea to provide a telephone clock, which starts at the moment connection is made, and at the termination of the five minutes sounds an electric bell. The clock is fastened in full view of the person using the telephone, and at any moment the speaker can see how much time he still has at his disposal. The use of the clock is very simple, for pressing the button is sufficient to set it going, and another pressure returns the hand to the starting point.

After experimenting for over sixteen months I have discovered a lens that will take pictures that do not vibrate on the screen. The pictures come out clear and distinct, the new process used being a decided advantage over the old as the films are never scratched and never become hard and brittle. I have also overcome the trouble that operators have experienced with misfit films. My films fit the sprocket correctly. The machine used for that purpose is the finest and most intricate machine ever produced to make films fit the sprocket wheel. It never fails. I have in my employ three experts who were employed formerly in the following factories, viz: Thos. Edison, International Film Co. and A. Lumiere & Sons, at Lyons, France. I am therefore enabled to produce the finest and most serviceable films ever brought before the public, and sell them at prices that are simply astonishing.

Send for samples and prices. Note the beautiful clear effect and finish. The following Atlantic City subjects are new and were taken by myself: Life Rescue, The Boardwalk, Sixty Minute Flyer, Japanese Village, Japanese Rope Walker, The Bathers, Shooting the Chutes.

The gauge used on my films will fit Edison's or any make of standard projecting machine. S. Lubin, largest manufacturer of Projecting machines and films, 21 South 5th Street, Philadelphia, Pa., U. S. A. ***

General News

A phonograph concern is endeavoring to get a record of a meeting of the Toledo school board. It is stated that it would be interesting and exciting and far superior to the vitascope prize fight.

It was learned lately that Mr. Harries, until recently the efficient president of the Metropolitan Railway of Washington, D. C., has followed Mr. Godwin, a former Washington newspaper man, and Mr. DeGraw into the employ of the American Graphophone Company. He will remain in Washington for some time and perhaps permanently, and will devote himself to the introduction of the graphophone into the departments here.

Prof. Charles Sumner Tainter, who with Prof. Alexander Graham Bell and Prof. Chichester Bell, invented the graphophone, has entered the service of the American Graphophone Company to conduct experiments looking to improvements in sound-recording and sound-reproducing apparatus. Prof. Tainter since the original invention has contributed much towards the improvement and perfection of the talking machine. The talking machine as it is represented in the graphophone, was invented and improved in Washington and as a business enterprise the graphophone has been developed largely by Washington capital and energy.

About a thousand persons gathered on Atlantic Avenue, near the Albion Hotel in Atlantic City, N. J., to witness a drill of the local Fire Department, which was to be photographed for a reproduction on the biograph. While the apparatus was moving under furious headway down the street to cross a given point within a minute's time three chemical engines drew up abreast, and, there not being room enough for all to pass in front of the photographing machine at the same time, the engine of the Good Will Company was driven into the apparatus, smashing it into pieces. The driver deliberately did this to avoid running into the engine to the right of him.

The crowd assembled at the point where the accident occurred was so deeply engrossed in the operation of the machine that it was unconscious of the danger until the collision occurred. Then men and women scattered in a twinkling and allowed the horses and the engine to pass through the wide lane which opened as if by magic.

Vice-President Marvin, of the American Mutoscope Company, which controls the biograph machine, said that no one was injured in the accident. Mr. Marvin also said that although the machine was demolished the completed film was preserved and the desired picture up to the moment of the collision is perfect.

The Columbia Phonograph Company is opening in Chicago and Paris offices that will rival in attractive appearance the headquarters of the Company at 27th St. and Broadway, New York, and the offices already established in Philadelphia, Washington, St. Louis and other cities. The Paris office, which is to be the headquarters of the European trade, has been placed in charge of Mr. Frank Dorian who has left the place of General Manager of the Company in New York, for the purpose.

The Columbia Phonograph Company advise the use of the rubber hearing tubes in listening to musical records on the graphophone where only two or three are to listen. Where a large company is to be entertained, of course a horn is necessary, but it is believed the music that is thrown out

through the horn loses much of its sweetness. One who has listened to the horn reproductions and has never heard a reproduction through a hearing tube has no correct idea of the perfection with which all the finer shades of music are now rendered.

The production of a graphophone that sells for ten dollars makes reasonable now the expectation of those interested in talking machines, that before long graphophones, as musical instruments, will be as common in homes as are pianos. The new graphophone, the Eagle, in its performance is fully equal to the higher-priced machines. It is neat in appearance, easily portable, and many will think it far more convenient than the machines with larger and heavier motors. It is run with a small clockwork motor that will drive the mandrel long enough to reproduce two cylinders with a single winding.

Mr. William Herbert Smith, who has for several years been Vice-President and Treasurer of the Columbia Phonograph Company, has succeeded to the office of General Manager of the Company in place of Mr. Frank Dorian who has been transferred to Paris.

Mr. Smith's headquarters as General Manager will be in New York. He has arranged to move his family and establish his residence at Arcola, New Jersey, where he will be a neighbor of Mr. E. D. Easton, President of the Company.

Pictures for the kinetoscope of an answer to an alarm of fire were taken yesterday at Fire Headquarters in East Sixty-seventh Street, New York City. Chief Bonner and Chief Gicquel, of the First Battalion drove out of the house first. Next came President Sheffield, and then Hook and Ladder No. 16 and Engine Company No. 39 with a tender.

S. Lubin, of Philadelphia, has a neat, light and substantial apparatus for projecting pictures on a screen, called the Cineograph. This machine bids fair to have a large sale.

Roger Harding has opened a phonograph parlor in New York City. It is his intention to place on the market high-class original records of celebrated artists.

We are sorry to inform our readers that we cannot fill orders for the Lyrophone as the manufacturers failed to fulfil their contract and have discontinued manufacturing them. There will, however, be another machine placed on the market similar to the lyrophone, full particulars of which will be given in a later issue.

A matter of considerable importance in the talking machine world, has been settled by a decree just issued by the United States Court for the Southern District of New York. This Court has issued a perpetual injunction against Walcutt and Leeds, on the suit of the American Graphophone Co., to restrain them from infringing what are known as the blank patents owned by the American Graphophone Co. This is the first time that the rights under these patents have been tested in court.

A Philadelphia firm are selling films of counterparts of the Corbett-Fitzsimmons fight which are a striking resemblance to the genuine article.

The Empire State Phonograph Co. have been experimenting on a new light for picture projecting machines to take the place of calcium and elec-

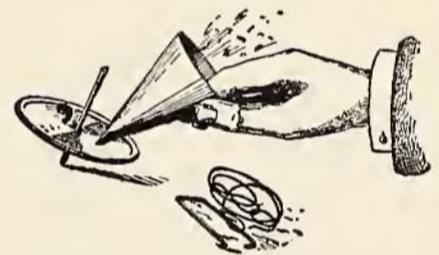
tric lights, which proved quite successful. They have also established an agency for South Africa and secured the services of Messrs. Vargas and Montval.

The success of the recent kinetoscope picture of two Royal Blue trains on the Baltimore and Ohio Railroad, near Relay, resulted in quite a large number of applications being made to the passenger department by other concerns to be given an opportunity to take pictures for their machines. Manager of Passenger Traffic Martin decided that the train service will be so arranged that the photographers will have an opportunity to secure another set of kinetoscope pictures. There will be three, and probably five, photographers in line, and it is confidently expected that the new pictures will excel the old ones in interest. The pictures will be taken on the Relay Viaduct.

Phonograph Top for the Children

With the Aid of the "Musical Tin"
It will Produce Tunes while Spinning

The newest thing in toys is a phonograph top, a combination of spinning top and musical instrument, with intonation similar to the phonograph. This little novelty is entertaining for old as well as young. It is as easily spun as any ordinary top, and with a little practice tunes may be produced. The various parts to this toy are the metal top

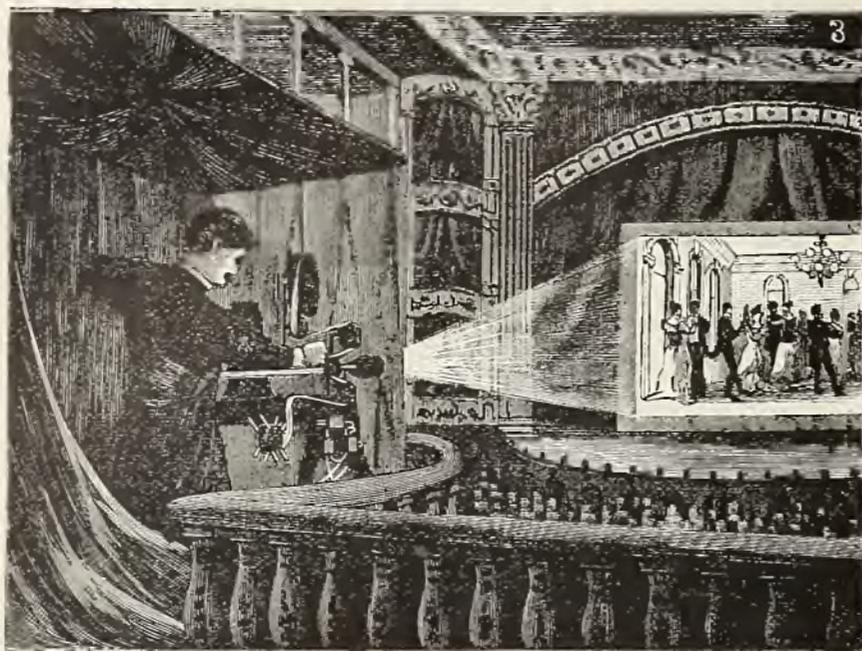


itself, the string for winding the stem above the keyboard, the "U" shaped handle for holding the stem until the string is released, and the celluloid cone, the point of which is pressed lightly upon the keyboard, producing the sounds desired. This little toy is made in various rainbow tints, and is a thing of beauty while spinning. It will spin for seven minutes or longer. The chief novelty is, of course, the celluloid cone tip with which the tunes may be played upon the keyboard. This keyboard is perfectly flat above and below, with a rim about the outer edge, and the stem extending a short distance below it. The keyboard is very sensitive to the lightest touch of the musical tip.

A curious use of the microscope was lately made in Prussia. It appears that on one of the railways a barrel, which should have contained silver coin, was found on arrival at its destination to have been emptied of its precious contents. Prof. Ehrenberg was consulted on the subject, and he sent for samples of sand from all the stations along the different lines of railways through which the specie had passed, and by means of his microscope identified the station from which the interpolated sand must have been taken. In due time the culprit was found to be one of the employes at that station.

By which it appears that science as well as religion makes crime dangerous.

"Picture Projecting" Devices



TORONTO ONT.—Everybody who viewed the veriscope pictures of the Corbett-Fitzsimmons contest at the private exhibition given to a select gathering at the Toronto Opera House on Saturday night marvelled at what they saw. Every detail of the "contest of the century" at Carson City last March was brought out on the canvas with wonderful exactness and the spectators cheered the manager of the veriscope, Mr. W. Clifton Turner, and the manager of the house, Mr. Ambrose J. Small, for the success they had made of the exhibition.

A canvas sheet covered the whole of the front of the stage, upon which was thrown the picture from the balcony after the house had been darkened. All the famous scenes of the great contest were presented without the slightest show of vulgarity. Fitzsimmons' refusal to shake hands with Corbett; Fitz's anxiety before the contest began; Corbett's wonderful side-stepping and dodging; Fitz's knock down in the sixth round and his ruse of staying on the floor until Referee Siler had called "nine;" the heavy punching of Fitzsimmons; the knock-out blow in the fourteenth round and the scene after it is all over, when Corbett has lost his head entirely, were all pictured faithfully on the canvas. It is truly a remarkable pictorial representation and there is nothing in it that the most fastidious can point to as being offensive. A number of the aldermen were present at the exhibition and so expressed themselves.

BOSTON—Anybody who doubts the success of the veriscope picture of the Corbett-Fitzsimmons glove contest should pay a visit to the Boston Theatre and be convinced to the contrary. The audiences of both matinee and night performances are large, and the motion pictures will undoubtedly remain for a considerable length of time. Another curious feature noticed is the applause that is bestowed upon the canvas. One would imagine himself at a presentation of howling melodrama rather than viewing a series of inanimate pictures thrown upon a canvas drop. It is a great compliment to the veriscope, as it proves how lifelike the scenes are. New films of the last four rounds have replaced the old ones, which had failed to give perfect satisfaction. They are now the best of the lot, and as these rounds are the most hardy contested of the entire fourteen, they never fail to bring down the house with thunders of applause. The veriscope is now being exhibited in Cincinnati and Chicago, in addition to Boston, and within a

month will be shown in London and Paris. It will be of interest to watch how the people across the water will take to these pictures. Neither of the principals are particular favorites in London, but as the fight was of international interest to the sporting fraternity, there is but little doubt but that they will meet with success.

GALESBURG, ILL.—The members of the Women's Christian Temperance Union of this city have begun a fight against the reproduction of the Corbett-Fitzsimmons fight here by the veriscope. They petitioned the council to take action toward suppressing the exhibition and the council referred the matter to Mayor Cooke, asking him to execute the law. The mayor is in doubt as to what to do. The manager of the Auditorium will probably try to give the exhibition in spite of the protest. The Christian Citizenship league in mass meeting passed a strong resolution denouncing the exhibition as demoralizing and urging the mayor to suppress it.

SHENANDOAH, PA.—The management of the National Vitascope which held forth at Robbins' Opera House, and which will give another exhibition at the same place, has been accepted by Thomas Waters, Jr. Mr. Waters gave a trial performance before a party of prominent citizens of the town, who were well pleased with the results accomplished by the improvements made. It will be given several more trials before the exhibition, so as to assure its success.

AUGUSTA, GA.—There was a splendid exhibition of the work of Edison's latest motion-producing invention at Lake View. The views were excellent, many being shown in this city for the first time. Annabelle's famous sun dance, the Royal Blue express and the kissing scene were splendid views which met with loud applause.

There was no admission charged to the patrons of the cars, so that many availed themselves of the privilege of seeing free of charge, what they had paid twenty-five cents or more to see at the Opera House some little while ago. This is another of the entertainments which are furnished gratis by the railway company at the lake.

MILWAUKEE, WIS.—The Veriscope pictures of the Corbett-Fitzsimmons contest, which are now running at the Davidson Theatre, have caught the popular fancy, for the theatre has been crowded

nightly, and at each performance there has been a very large percentage of ladies in attendance. One can sit in the comfortable seats of the theatre and witness the contest which took place thousands of miles away, and see all of the details, no matter how minute, reproduced with the greatest fidelity.

ATLANTIC CITY, N. J.—The States Avenue Opera House was crowded with a large and fashionably dressed audience who thoroughly enjoyed the veriscope pictures of the Corbett and Fitzsimmons contest, and although by their frequent applause they seemed to favor Corbett, yet in justice we must say that a great many of the men applauded Fitzsimmons heartily in the fourteenth round, while the ladies declared it was a shame that Corbett should lose. The reproducing every action of the men and surroundings for over an hour and a quarter shows us what we have missed in the past, for instance how interesting it would be to be able to witness Washington signing the declaration of independence.

Where They Were Exhibited Last Month

Cineograph

Opera House, Lorain, O.; Mozart Park, Wheeling, W. Va.; Genesee Opera House, Auburn, N. Y.

Bioscope

Austin & Stone's Museum, Boston, Mass.; Sea Beach Palace, Coney Island, N. Y.

Veriscope

Academy of Music, Chicago, Ill.; Davidson Theatre, Milwaukee, Wis.; Lyceum Theatre, New London, Conn.; Metropolitan, Minneapolis, Minn.; Pleasure Beach, Conn.; Cook Opera House, Rochester, N. Y.; Opera House, Atlantic City, N. J.; Toronto Opera House, Toronto, Ont.

Projectoscope

Forman Block, Erie Pa.; Madison Park, Seattle, Washington; Coliseum, Chattanooga, Tenn.

Biograph

Washington Park, Camden, N. J.; Keith's, Boston, Mass.; Keith's, New York.

Cinematographe

Hopkins, Chicago, Ill.; Grand Opera House, Washington, D. C.; River View, Washington, D. C.

Animatroscope

Tabor, Denver, Colo.

Magniscope

Olympic, Chicago, Ill.; Haymarket, Chicago, Ill.

Vitascope

Appolo Hall, Paterson, N. J.; Lake View Theatre, Birmingham, Ala.; Orange Street Opera House, Lancaster, Pa.

Kinetoscope

Grand, Canton, O.; Lake View, Ga.; Park Theatre, Brooklyn, N. Y.

Phantascope

Lake Ottosee, Tenn.

Electroscope

Woodlyune Park, Camden, N. J.

Photoscope

Ocean Grove, Asbury Park, N. J.

Cinematoscope

Mozart Garden, Chicago, Ill.

To Write Letters by Wire

Since the invention of the telephone and its adoption for general use, no rival has entered the field for years.

Now the rival is here at last, backed by practically unlimited capital.

It is called the "telautograph," and renders possible the transmission of handwriting, in facsimile, by wire with the same facility that the voice is carried by the telephone.

The instrument is now almost ready for the market and is in the hands of the Gray National Telautograph Company, with General T. M. Logan, President; John W. Johnston, General Manager, and W. H. Eckert, General Superintendent.

General Superintendent Eckert is the brother of President Eckert, of the Western Union Telegraph Company, and was the first man in the country to establish and direct the Bell telephone. He is fully conversant with all the possibilities inherent in the new instrument. He and the other officials of the company are now establishing companies and the new system in adjacent small towns and cities to demonstrate the possibilities of the telautograph before bringing it into New York City. In this manner they expect to demonstrate the facts. They claim that it is self registering and the person addressed, if absent, will find the message on his return. It works noiselessly, so messages cannot be overheard. It cannot be tapped, so as to intercept or steal a message. It is not affected by induction or leakage. It is simple and easily kept in order.

The invention had its birth in the fertile brain of Professor Elisha Gray, late chief of the electrical congress held during the World's Columbian Exposition.

When Professor Gray first completed his apparatus and invention, with which he contemplated entering the field against the telephone, he was handicapped by the great expense. It was at first necessary to use four wires, and the expense of operating was just double that of operating the telephone. This fact withdrew it from the field for a time as a possible rival.

Now, however, the invention is completed to such an extent that two wires only are necessary. To-day the telautograph is operated upon the same lines as the telephone. The conditions are the same as to wires, switchboards and the concomitants.

The sender writes his message on the tablet affixed to the transmitting instrument and a stylographic pen on the receiving instrument at the other end of the line duplicates every stroke of the sender's pencil, not forgetting the lifting and returning to dot an "i" or cross a "t," every motion being recorded exactly on the tablet of the receiving instrument.

In its general principle the mechanism is very simple. Two fine cords run from the sender's pencil around drums on either side of the tablet. The string is kept taut by a light spring on the drum shaft. Thus every motion of the pencil causes one or both of the drums to rotate. On the receiving instrument are two similar drums, which by a series of electrical impulses are forced to rotate in unison with those on the sending instrument. The cords wound on the drums of the receiver are each joined by an aluminum rod, which is forced outward by a spring as far back as the slack of the cord will allow. In this manner the winding or unwinding of the cords on the drums of the receiving instrument causes a stylographic pen at the junction of the two aluminum

rods to follow every horizontal motion of the pencil at the distant end of the line.

The next necessity to effect is the touching of the pen point to the paper only where the pencil touches it. To effect this the tablet in which the sender writes has an exceedingly small vertical movement. When pressed down by the pencil in writing a circuit is formed, which allows the recording pen at the further end of the line to drop the paper. The circuit is broken when the pen is lifted from the paper and the pen on the receiving instrument is lifted above the tablet, so that no matter what horizontal movement the pencil makes, such as dotting an "i" or crossing a "t" the pen will follow the movement without marking the paper.

The current necessary to operate the instrument is exactly the same as that required by telephone, and no difficulty is experienced in working over long distances or in working as many instruments as required in one circuit.

Records on both instruments are made on continuous rolls of paper about five inches wide. At the end of the line the sender raises the paper mechanically for the next line by pushing a lever, which operates the tablet at both ends of the line. The writing transmitted is fine or large, according to the capacity of the stylographic pen.

Not only is it possible to transmit handwriting by this wonderful instrument, but outline sketches of faces, figures or buildings can be accurately recorded on the receiving tablet.

One of the chief uses of the instrument will be found in the transmission of messages where absolute accuracy is important, such as the sending of train orders or communications between the different departments of large mercantile or manufacturing establishments. Physicians, who will not telephone or telegraph prescriptions for fear that a slight error might result in the loss of life, will be able to transmit prescriptions without fear of their going astray as regards ingredients.

The inventor has made such an impression upon several Judges of the Supreme Court that one of them has declared, unhesitatingly, that he would admit as evidence the writing recorded upon a receiving tablet of a telautograph.

Exchanges will be established similar to those in use by the telephone companies, at no extra cost to the subscriber. No attendant is needed to look after the receiving instrument, and other defects of telephone and telegraphic systems are overcome.

The telautograph can be locked in a desk, and when the owner comes to the office the next morning he will find autograph messages awaiting him in the tablet.

Items of Interest

The Lloyds, in estimating the causes from which all kinds of ocean craft, have met their fate in the last fifteen years, assigns forty-four per cent. of such causes to stranding, because of fog, darkness, etc., in unknown depths of water, but at a time, of course, when the craft's officers imagined that their vessel had plenty of water under its keel. To place in the hands of mariners an apparatus which will enable them to ascertain with ease and certainty the depth of water under their vessels, Dr. J. F. Babcock, of Bangor, Me., has recently devised an electric sounding outfit.

An iron ball, with a rod or standard attached, is suspended at the bottom of the cylinder by the rod passing through a hole in the bottom of the cylinder which is rendered water tight by a rubber cap that moves with the rod as it passes in and out,

the rod connecting with a spiral spring inside the cylinder.

When the ball is suspended there is a space of about one-sixteenth of an inch between the upper end of the rod and the ends of the conducting wires, and when the ball and rod are pushed up through that space, the ends of the wire are connected completing an electric circuit and ringing an alarm bell on board the ship.

French engineers are vying with one another to produce all sorts of outlandish things for the great exposition to be held in Paris in 1900, and Charles Carron, of Grenoble, France, is one of the contestants. He proposes to take a number of courageous persons up to the top of a tower higher than the Eiffel, and then drop them overboard into a pool of water some thousand feet below. Those who survive will be decorated with the medal of the Legion, or something like that, to commemorate their bravery. The others will be decently buried by the State.

In order to give some semblance of safety Mr. Carron has evolved a special form of car for the journey. It is projectile shape, forty-five feet long, and divided into an upper and a lower compartment.

The upper one is thirteen feet high (superstitious persons please take note) and ten feet in diameter, and is capable of holding fifteen heroes. They will sit in heavily padded chairs, with pneumatic cushions, and will be supplied with treatises on "First Aid to the Injured."

France is taking great interest in the invention, and no doubt there will be many willing to risk life and limb.

Answers to Correspondence

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

POTTSVILLE, PA.

I beg leave to differ with you in your advice to William S. I have given street exhibitions for over five years, early and late in the season, in very warm weather and in weather cold enough to numb my hands and I have neither ruined records, machine nor reputation, and my hearers have been of a respectful class, and I see no reason why people should not be as respectful on the street as in a fair ground. Of course I do not expect the elite of the town nor society people to patronize me. They cannot [or will not notice common class of people, yet that is the class I look to for patronage, the working class. I have visited the same towns ten different times and met with good success. I am also convinced that my records produce much better results late in the day or at night, more so than at high noon.

C. F. D.

[KANSAS CITY, MO.—We will answer your letter in a later issue as we are investigating the matter.—ED.]

[DENVER, COLO.—No; Cannot recommend them; Original records, by all means. Write to them.]

X-Ray Items

X-ray Spectacles for Inquisitive People

An optician has constructed X-ray spectacles for everybody's use.

This device, if possessed of the penetrating power claimed for it, will make concealment outside of the metal walls, a farcical effort. The most hidden secrets of physical imperfections, no matter how carefully guarded beneath linen, wool and silk, will be exposed as clearly to the gaze of the X-ray fiend as if exhibited before a magnifying glass. Walls of brick and stone will become as transparent as glass, and as a result, to secure privacy in hotels, boarding houses and other buildings, the walls must have a metallic lining of iron, steel, tin or zinc. Without such eye-proof lining the occupants of a room would have no protection against the prying eyes of the curious supplied with X-ray glasses.

Suppose for an instance that a man in a hotel should have his curiosity excited as to what was going on in the adjoining room, all he would have to do would be to adjust to his eyes his X-ray glasses, turn on the current of his pocket battery, when the walls would virtually melt away, revealing all as clear as day. With this device in general use it will be as necessary to have all public buildings eye-proof as fire-proof.

It has been suggested that modern women shield themselves by wearing a bodice and skirt of alumina that would be as light in weight as clothes, and so durable as to last a lifetime.

Some such protection would be indispensable, for it is easily to be imagined how horrifying it would be to a lady on the street to find that she was being ogled by an X-ray fiend.

Use of the X-Ray in a Murder Case

A most interesting use was made of the X-rays at Watertown last month, when they were employed for the purpose of verifying the statements of an accused murderer.

In May last, at Sacketts Harbor, a double tragedy occurred, whose victims were two women, Mary Crouch and Mary Daly. The two had been driving with George Allen, a soldier at the Madison Barracks in that village, and Allen himself was wounded so that he was for some time in the hospital. Partly through Allen's testimony, and partly through circumstantial evidence, suspicion was directed to the estranged husband of Mary Crouch, who was placed under arrest, but subsequently released. Then suspicion fastened upon Allen himself, and it was claimed that his wounds were self-inflicted for the purpose of diverting suspicion.

Allen, however, asserted that in addition to his other wounds he had a bullet in the neck, in such a position that it could not have been the result of a self-inflicted wound. His attorney believed him, and determined to take the risk of an X-ray examination. The rays disclosed the presence of the bullet claimed, which is close enough to the brain to account for mental disturbance and the incoherency of some of Allen's statements hitherto attributed to his guilt. The first examination took seventeen minutes, and the second twenty-five. The man was exposed to the X-rays in all forty-two minutes. While the results brought out by the new discovery do not, of course, conclusively establish Allen's innocence, they manifestly decrease the chances of conviction, and increase the mystery enveloping a most singular murder case.

Twenty Miles of Wire on an X-Ray Coil

Prof. F. C. Robinson and Prof. C. C. Hutchins of Bowdoin College are perfecting an apparatus for the X-ray experiments they are conducting. They have just finished an induction electric coil

on which has been wound twenty miles of wire. By means of this coil a spark fifteen inches long has been produced, and some of the X-ray photographs recently taken by their process are remarkable for their distinctness. They have also just completed an improvement on the Crookes tube.

The Roentgen Rays Applied to Mining

Dr. F. E. Yoakum, of Los Angeles, Cal., has applied the X-rays to the determination of gold in quartz. The physician was photographing a tumor; there was a vacant space on the plate, and he placed a piece of gold-bearing quartz on it; when the plate was developed the outlines of the rock came out on it, with specks here and there, which showed the presence of gold. Since then he has taken a number of pictures of gold in valuable ore. The fluoroscope has been used for this purpose. It is believed that the discovery will be of use to geologists and mineralogists in prospecting.

Improved Adjustable X-ray Tube

An improved adjustable X-ray tube which is an improvement over similar ones is more easily and cheaply constructed and more readily adjusted, besides having a greater range of adjustment; in adjusting it the position of the origin of the rays is not interfered with. The essential feature consists in mounting the cathode on a steel rod sliding in two aluminum guides supported on a glass tube; the whole arrangement is used in a horizontal position, and by simply tapping it at one end the cathode can be made to move to a small extent; the exact position of the cathode relatively to the tubular neck and bulb was found to have an enormous effect on the penetrative value of the X-rays produced; such a tube can be set for rays of any penetrative power.

The X-Ray as a Cosmetic

Women will be more interested in the X-ray than ever when they learn that it has wonderful cosmetic qualities which Mr. Edison himself has tested and verified. Mr. Edison and Mr. Elihu Thompson have been experimenting to learn more about the curious burns that have resulted in many cases from the application of the X-rays and they state that these burns heal rapidly, leaving the skin much softer and whiter than it was in the first place. The X-ray burn really serves to remove the outer covering of the skin, and allow a new, and therefore whiter, and purer skin to grow in its place. The X-ray may be compared to an exaggerated case of sunburn. It is in reality a cross between a regular scald and a scorch. The X-ray simply removes the outer cuticle.

In order to understand this action the tube must be considered as a miniature battery, which discharges millions of minute rays of immense penetrating power. When the X-ray strikes the skin these little projectiles strike upon the flesh like so many little hammers. A few minutes of such bombardment serves to destroy the outer cuticle and expose a red inflamed surface. If the skin is exposed to a hot fire, it will, of course be blistered, but the wound from a scald or burn goes deeper into the flesh, and consequently on healing leaves a scar. The X-ray is merely the most refined way of burning in the world.

Slot Machines

Last month Chief Anderson of Parkersburg, W. Va., visited all the saloons in which slot machine gambling devices had been introduced and notified the proprietors that these machines must be put into a state of "innocuous desuetude" at once.

He found four or five large ones and about fifteen altogether.

This is done under the ordinance recently passed by council in which all such machines in the nature of gambling devices are prohibited.

The ordinary cigar, chewing gum and weighing slot machines are allowable and were not disturbed. Under the law the police have the right to seize the machines, break them up and confiscate the money in them but Chief Anderson did not want to be too hard upon them the first time. If, however, a second raid upon them becomes necessary this extreme measure will be adopted.

The small machines were not so bad and there was not much complaint against them. But the proprietors becoming bold by being unmolested in running the small ones, introduced recently a larger variety. These big machines were automatic highway robbers—thieving reduced to mechanical principles giving the man who played them scarcely any show for his money at all. Hence the above action of Chief Anderson which made a clean sweep of all.

The saloons of Mike Shea, Louisville, Ky., and of Adolf Mathey, a few doors above, were entered by thieves lately in a most mysterious manner and robbed of twelve dollars in the first place and twenty-five dollars in the latter. At Shea's saloon not a door was unlocked, not a window forced. How the thieves effected an entrance and how they left completely baffles the owners. Neither the front nor the rear parts of the saloon were touched, although valuables were in both parts, the thieves having contented themselves with robbing the slot machine. At Mathey's saloon it is equally perplexing how the thieves entered, but an open door unlocked from the inside tells the story how they left.

A new game apparatus on the penny-in-the-slot system, and which may be played with coins or counters, is the invention of F. M. Archer, of New York, and may be productive of a world of fun. A coin or counter inserted in the slot after descending, rolls around at the bottom and striking one of a series of numbered sections reveals a card or plate containing a numbered inscription on the fortune-telling order, such as "Your Lucky Day," "You will receive a letter," "You drink too much," "You will cross the water," etc., or the game may be played solely with numbers, the person who turns up the highest number being the winner.

The Vermilion county grand jury indicted the merchants of that county who have been using the slot machine usually known as the Ferris or cigar wheel. The case of some Fairmount parties came up for trial, and there was much contention about the matter. The prosecution, among other evidence, introduced a Mr. Fisher from Champaign University to do some calculating for the jury. He informed that body that as they could see there were forty-four ones on the wheel, three twos and one five. If a person played the wheel and got all the numbers on the dial he would have fifty-five cigars. To do this he would have placed forty-eight nickels in the machine and by dividing fifty-five by forty-eight would demonstrate that each cigar had cost him one and seven forty-eighth cents. Five nickles would have cost him five times that amount, being five and thirty-five forty-eighth cents. The claim was made that the machines ran six cigars for a quarter, but the figures demonstrated that there was a profit of thirteen forty-eighths for the operator. This rate would be the same if articles besides cigars were disposed of by the wheel. We have not heard the result of the trial, but presume it was a divided jury, as occurred at the other trials.

Letters

This column is open to any of our patrons who have a complaint to make, a grievance to ventilate, information to give, or a subject of general interest to discuss appertaining to Sound Producing Machines, Picture Projecting Devices, Slot Machines, Amusement Inventions or Scientific Novelties in general.

POTTSVILLE, PA.

I highly commend your correspondent "one who has been artistically done" in the way he exposes the French glass fraud, and there are too many other modes to deceive the unwary customer in cheap records, etc. I call to mind a case where we ordered from a certain dealer twelve records of good, lively selection from their catalogue. What did we get? Three out of the twelve; the other nine were substitutes of old stock, slow music, and not in line or similarity to what was ordered originally, and after complaining to the firm, we were congratulated in getting what we did, as "other companies charged double the price for records." Very consoling indeed. About the French glasses we have this to say: A certain firm sold us glasses at twenty-five cents; later on we sent them fifty cents and ordered two glasses No. 6. We received one glass instead of two; supposing it to be French we said no more about it. We used it five months and it broke. It was a good glass notwithstanding, as long as it lasted. However, we thought best to have some on hand. We bought five glasses for fifty cents, and to be candid and tell the truth, we find no difference in the producing quality of either kind; neither of them had any heavenly blue nor peacock tints around the edge except the price charged for them. Keep it up, brother, and let us expose such frauds.

A VICTIM.

Our Correspondence

PORTLAND, ORE.

EDITOR THE PHONOSCOPE:

DEAR SIR.—It has been a long time since your magazine has had anything to offer from Portland, so perhaps a few words from this "balliwick" will be of interest to your readers.

Business with the phonograph is moving about as usual, showing a little improvement. The "Projectoscope" came here in May, Messrs. Wilson and Grousbeck opening with it at 268 Morrison Street, where they still are showing to good business. They have fitted up quite a nice little theatre, and with a change of bill every week, they are drawing the best people in the city. These same parties have also started another machine in Seattle, and are doing good business there.

Mr. Shields, in connection with the "City and Suburban Railway" has been giving "illustrated concerts" at "Portland Heights," during the summer, and are having large audiences. They also use the "Projectoscope."

Since April last the phonograph has had to pay license in this city.

You can take your choice, two dollars and a half per day, seven dollars and a half per month, or ten dollars a quarter.

Your correspondent is the only one thus far who has had the timidity to take out a license in Portland. The slot machine license went into vogue at the same time, but it being purely a gambling game, the license is only one half that of the phonograph. Should any of the readers of the PHONOSCOPE like to see the photograph of the council who passed this ordinance, I will gladly forward them a copy.

I think I shall send Mr. Edison a copy to hang in his laboratory. The court here had decided that

the license on slot-machines is illegal, and that it is also illegal for one to run a slot-machine, so the owners do not pay any license, but they still run the machines. This is rich, it is good, "cussed good!" as "Artemus Ward" used to say.

We have just returned from a trip to the two great watering places of the North Pacific, "Long Beach," in Washington, and "Clatsop" in Oregon. We combined business with pleasure, did a little business, and a much larger pleasure.

A week ago we received a call from Edgar Cayless Esq., of Denver, Colorado, Mr. Cayless is on a vacation tour, doing the Pacific coast, is now at Pugat Sound, and will return again to Portland, for a weeks stop.

Mr. Clypless, has four phonographs and 1,760 records in his house. He tells me that he has had made by an expert machinist in Denver a reversible motor phonograph, so he can play the record from start to finish, reverse the motor and play from finish to start. He says that you get some very funny effects from this.

The Verascope has been here with the "Fitz-Corbett" contest, under the management of Mr. W. K. Wheelock, "Dan" Stuart's partner. They gave four performances at the "Marquam Grand," to crowded houses. I think everybody was satisfied with the pictures, and nearly every one was satisfied that the fight belonged to "Fitz," from the first to the fourteenth round (inclusive.)

Mr. W. L. Wright who made the first projecting instrument, (the "Animatroscope") was here with Mr. Wheelock, going with them to Astoria, from whence he returned to San Francisco, Mr. Wheelock with the show going to the Sound. I learned from Mr. Cayless that our singer Mr. Gaskin, is in Europe. That's right, George, take a good vacation, and "see all the places" and "spend sixty cents for you've been there three days" as "Hiram Wilkins" says, and when you come back to sing for us again *please, George, sing two verses, and sometimes a "refrain,"* on each cylinder and the phonograph men all over this country will rise up and call you blessed!

SELAN.

Legal Notices

James J. Corbett, the ex-champion pugilist, and William A. Brady, his manager, have entered suit in the equity branch of the United States Court for New Jersey against Thomas A. Edison.

The bill was filed last month by Alexander Simpson of Jersey City. It asks for an injunction to restrain Edison from manufacturing and selling the films of the Corbett-Courtney sparring match. The bill alleges that Corbett was induced to spar before the camera by a corporation known as the Kinetoscope Exhibition Company, under a contract which stipulates that Corbett and Brady shall be the sole and absolute owners of the films produced. The bill further alleges that Mr. Edison was fully cognizant of the terms of this contract, and despite the agreement, has made and sold the pictures and has received great sums of money from the Kinetoscope Company, and has widely advertised the kinetoscope; that Edison has no right to produce or sell the pictures which he is making and selling in large quantities, although Corbett and Brady have that exclusive privilege. It is charged that Edison was not a party to the agreement, and is taking advantage of the fact and deriving a handsome revenue from the sale of pictures.

Application was made in the United States Circuit Court last month by the American Graphophone Company of Washington, D. C., against the United States Phonograph Company of Newark, N. J., for an injunction restraining the latter

company from using a certain patent for improvement in speed regulators for motors.

Two patents for an invention of this character had been granted to different individuals. The Interference Examiner of the Patent Department said the patents interfered, and the patent granted to Thomas H. McDonald and owned by the Graphophone Company was entitled to a decree of prior invention.

The suit instituted is to restrain the Phonograph Company from using the patent granted to Francis L. Capps and owned by that company.

The ordinance adopted by the council on July 12, 1897, prohibiting the exhibition of kinetoscopic pictures of prize fights goes into effect at Los Angeles, Cal.

Violation of any of the provisions of the ordinance is deemed a misdemeanor, and punishable by a fine not exceeding \$50, or imprisonment in the city jail for a term not exceeding fifty days.

Judgment by default in \$263.08 was entered last month in the minutes of the Circuit Court in a case on contract of the Edison Phonograph Works against Abraham Mendel.

United States Circuit Judge J. G. Jenkins, sitting in chancery, last month issued an injunction on the prayer of the Veriscope Company, Dan A. Stuart, president, against the exhibition of the Philadelphia and other films in a Clark Street museum. The bill filed, and upon which the restraining order was granted, also carried with it an accounting, under the provisions of which the Veriscope Company will demand a settlement. This is the first successful attempt made tending to protect the national and international copyright granted the Veriscope Company for the Corbett and Fitzsimmons moving pictures. The attorneys for the Veriscope Company will now institute individual action for damages and an accounting against the owners of all theatres and buildings where the copyright of the company has been infringed upon.

Our Foreign Correspondence

SYDNEY, N. S. W., July 5, 1897.

THE PHONOSCOPE PUBLISHING CO.

DEAR SIRS.—Your valued paper did not reach us this mail, and we trust it has not gone astray in course of post, as so many American publications are always doing, owing, no doubt, to their value being fully appreciated by some of the people. Business is dull in Australia from a variety of causes, and it is mid-winter. We are exhibiting the vitascope, and two other picture-projecting machines are also on view in the city, while about twenty are roaming round the country. One man has just sold out his outfit at a very low figure. It was an excellent outfit and all in good order.

There are now samples of nearly every make of projecting-machine in Australia, as two or three new ones have just arrived. The Lumiere instrument was the first to commence business, and it took the cream, up to \$2,000 per week for a long season.

We have seen a few German machines, but they are no improvement.

The public have been looking forward to the advent of the Fitzsimmons-Corbett fight films, but all the interest has now died out, or nearly so.

Now anxiously awaiting for the arrival of the films showing some of the events in London in connection with the Queen's Record Reign Celebration,

Yours truly, W. J. N. O.

New Films for "Screen" Machines

INTERNATIONAL FILMS

LOVING AGAINST PAPA'S WISH.

A WARM RECEPTION.

SOAP BUBBLES PARTY.

THE GARDENER AND BAD BOY.

AMERICAN FLAG (Old Glory.) A most beautiful picture of the stars and stripes waving and fluttering in the breeze, showing the ocean for a background. Full of animation and an excellent subject for the closing of an exhibition. Very sharp and clear.

DROWNING SCENE AT ROCKAWAY. This is one of the most thrilling and realistic scenes ever offered to the public. Showing party of four persons struggling in the water, and their unsuccessful attempts to right one of their boats which has capsized. After repeated efforts, one of the gentlemen finally succeeds in getting the lady and himself on top of the keel, (which is still uppermost,) only to fall over backwards at the first wave. By a fortunate coincidence our operator was on the spot at the time of this accident and availed himself of the opportunity to secure this picture for exhibition purposes. An immense hit at the New York beaches. Very sharp and clear.

FARMER'S FIRST TRIP TO BERGEN BEACH.

The scene opens with the electric car dashing down the street, and Reuben running as hard as he can to catch it. When almost within reach, he stumbles and falls. In his fall his travelling bag breaks open and a nice fat duck jumps out. The struggle of Reuben to regain possession of his duck is most comical and laughable. Full of action.

FISHING AND CAPSIZING. This scene shows two boats with a loving couple in each who are out for a day's fishing. Couple in boat No. 1 become very loving and while kissing lose their balance and fall overboard. Couple No. 2 immediately jump after them and attempt a rescue. A most laughable subject. Full of action, and fine water effects. Bound to make a hit.

INDIAN CHARGE. This scene shows 30 Pawnee and Sioux Indians headed by the famous scout and Indian fighter Pawnee Bill, mounted on Mustangs making one of the fastest charges ever executed. At first they appear but small specks on the horizon, but soon grow into a dashing, surging group of Indians and halt when close to the camera making them appear life size. The speed at which this charge was made is something terrific, and never fails to thrill and inspire an audience. Sharp and clear, showing distinctly the war painted faces of the Indians. Immense hit.

LASSOING WILD BULLS. By Pawnee Bill and Cowboys. This scene shows a number of angry bulls dashing towards the camera with cowboys in hot pursuit. When about fifty feet from the camera the head bull is lassoed and thrown on his haunches, while the cowboys ride around him at a furious pace. Fine subject, lots of action. Bull showing life size. Wigwams and tents for a background. Bound to get an encore.

The following subjects are made by S. Lubin

SHOOTING THE CHUTES AT ATLANTIC CITY BEACH " " "
BATHERS " " "
FIRE DEPARTMENT " " "
LIFE RESCUE " " "
JAPANESE VILLAGE " " "

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 * * * * *

Armor de Madre. Mexican Trio
As Your Hair Turns White. Gaskin
At the Fair. Galop. Columbia Orchestra
Banjo Duetts. Diamond and Curry
Bonny Doone. Æolian Trio
Black Eyed Sue. Gaskin
Bye and Bye You Will Forget Me. Spencer and Hardiug
Cockles and Mussels (Duet). Spencer and Hardiug
Come Play With Me. Quinn
Come, Send Around the Wine. Myers
Crappy Dan. Spencer
Dancing in the Dark. Sousa
Dancing in the Sunlight (Xylophone). Lowe
Dancing on the Housetops. Issler
Dear Little Jappy, Jap, Jappy. Quinn
Departure from the Mountains. Schweifst
Don't Let Her Lose Her Way. Gaskin
Don't Tell Her that You Love Her. Gaskin
Dream of Passion Waltz. Issler's Orchestra
El Capitan March Song. Quinn
El Curru. Mexican Trio
Eli Green's Calk Walk. Spencer
Emmett's Lullaby. Quartette
Erin, O Erin. Myers
Eve and Her Pal Adam (Banjo accompaniment). Paiuc
Fly Song (Chauncey Olcott's). Myers
From the Hour the Pledge is Given. Myers
Girl Who Won My Heart. Quinn
Girl With the Naughty Wink. Quinn
Hanuah Thomson. Quinn
Handicap Rider 167. Quinn
Handicap March. Diamond and Curry
He Can Like Kelly Can. Bernard Dillon
Hot Stuff Patrol (Banjo). Ossman
I Can't Think of No One But You. Gaskin
I Don't Care If You Never Come Back. Gaskin
I Don't Blame You, Love. Gaskin
I Love One Love. Æolian Trio
In Old Madrid. Spencer and Harding
Isn't It Nice to be in Love. Quinn
Kate O'Donoghue (Chauncey Olcott's). Myers
Katherine (Yodle). Pete LeMaire
Kaya Kaya. Quinn
King Carnival. Quinn
King Carnival March. Diamond and Curry
Laughing Coon. Johnson
Laugh and the World Laughs With You. Myers
Laughing Song. Geo. W. Johnson
Lesson in Music. Signor Frejoli
Loves Whisper. Issler's Orchestra
Lulu Song. Spencer
Mamie Riley. Quinn
Maybe Mary Didn't See New York. Myers
Medley Reels (Banjo Solo). Vess L. Ossman
Medley Parody. Bernard Dillon
Medley of Coon Songs. Golden
Mollie Dwyer. Quinn
Mollie Prancer. Quinn
Monastery Bells (Orchestra Bells). Lowe
Mr. Bogan Gimmie Gin. Spencer
Murphy's Phonograph. Hunting
My Jim. Quinn
My Little Chorus Girl. Quinn
Nineteen Jolly Good Boys All in a Row. Myers
Nothing. Hunting
One Heart, One Mind (Xylophone Solo). Lowe
Petticoat Lane. Quinn
Pretty Blue Eyes. Æolian Trio
Pretty Molly Dwyer. Quinn
Series of Imitations. Girard
Sounds From Home (Orchestra Bells). Lowe
Spanish Dance (Banjo Solo). Vess L. Ossman
Sporty Widow Brown. Quinn
Stars and Stripes Forever. Columbia Orchestra
Stephanic Gavotte (Zither). Wormeser
Sweet Inniscarra. Gaskin
The Crimson Chain. Gaskin
The Old Fashioned Mother (Chauncey Olcott's). Myers
The Pies That Mother Used to Make. Hunting
The Silly Dinner. Hunting
The Warmest Baby in the Bunch. Spencer
There's a Little Star Shining For You. Quinn
Yankee Doodle (Banjo Solo). Vess L. Ossman
Yer Baby's n Coming to Town. J. T. Kelly
You're a Good Daddy. Gaskin
You're Not the Only Pebble on the Beach. Spencer
What Do you Think of Honkiban? Hunting
Whistling Girl. Johnson
Won't You Be My Little Girl. Gaskin
11-23. 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 * * * * *

Arabella Jones, Will you Accept My Hand? Williams and Perrin 11
A Shanghai Layin' for a Coon B. Michaels 1
Asleep at the Switch C. Shackford 10
As the Clock Strikes Two W. A. Stanley 8
'Cause My Baby Loves Me W. S. Wilson 2
Curious Cures James Thornton 3
Dar'll Be a Nigger Missin' Lew Bloom 2
Darling Mabel A. J. Mills 2
Enjoy Yourselves Dave Reed, Jr. 2
Every Nigger Has a Lady But Me Karl St. Clair 11
For I Love Her So W. T. Francis 1
For Love's Sake Only Wm. Arms Fisher 7
Here Lies My Daughter C. Robinson 9
I Cannot Leave the Old Folks Ray Wilson 7
I'll Find My Sweetheart Again A. J. Lamb 5
I'll Make Dat Black Gal Mine Dave Reed, Jr. 2
I'm a Gay Soubrette Safford Waters 9
I'm Looking For My Baby H. Von Tilzer 8
I'm Sorry for John W. C. Davies 8
In the After Years R. Moore 4
Just Plain Dora Brown Edw. Armstrong 5
Just Set a Light Henry V. Neal
Jack, How I Envy You H. Von Tilzer 9
Johnson Wins the Cake J. H. Flynn 9
Kate O'Donoghue Chauncey Olcott 1
Lady Africa Dave Reed, Jr. 6
Love Me, Love Me Hugh Morton 2
Lucky Jim L. V. Bowers 1
Lullaby Dearie W. H. Gardner 7
Mam'zelle Marie A. H. Fitz 10
Ma's Little One; or, My Baby Chas. A. Byrne 6
Molly Magee R. A. Beale 7
My Baby is a Bon-Ton Belle Gussie Davis 6
My Dream F. H. Brackett 7
My Girl is a Winner E. Nattes 1
My Neat Little, Sweet Little Girl Andrew LeRoc 4
My Pretty Polly H. Von Tilzer 10
My Sweetheart Plays the Violin Emily Smith 4
Naples Miss Harriet Rice 7
Nit! Nit! Nit! Dockstader and Cobau 11
Not Like Other Girls J. H. Smith 9
One Must We Be For Aye O. L. Carter 7
Pretty Mollie Dwyer Horwitz and Bowers 3
Rosemary—That's for Remembrance Douglas 8
Rose, Sweet Rose Mary Sutton 9
Safe in My Arms, Love W. A. Stanley 8
Send Back the Picture and the Ring Gussie L. Davis 2
She's My Warm Baby Dave Reed, Jr. 2
Sing Again That Sweet Refrain Gussie Davis 11
Softly in a Dream Wm. Arms Fisher 7
Sweetheart, Tell Me Again George Cooper 7
The Angel of Sunset Rock Chas. Graham 8
The Black Nobility's Ball H. S. Miller 8
The Bridegroom That Never Came Gussie L. Davis 2
The Blossom Time O' The Year F. H. Brackett 7
The Cake Winner Robert Cone 4
The Day That's Gone Can Never Come Again Safford Waters 9
The Girl From Paris Smith and Mann 1
The Girl Who Won My Heart Thornton and Willie 3
The Irish Football Game Safford Waters 2
The Naughty Bow-Wow Bob Cole 6
The New Woman Chas. A. Byrne
The Quiet Little Girl Safford Waters 9
The Street Urchins Fate Thos. H. Chilvers 4
The Village Choir John Havens 4
The Warmest Coon in Town Packard and Cone 4
There's a Girl in this World for Us All Davies 8
There's a Good Thing Gone to Rest King Kollins 1
Thinking of the Dear Ones Left at Home Harry Howard 9
Tiuc Will Tell Harry S. Miller 5
'Tis Then You'll Know O. Heinzman 8
Truly, Truly Hugh Morton 2
Waiting for You and I Chas. Graham 9
Wanted, Some One to Take Me Home H. Renchard
When All the Rest Forsake You W. H. Gardner 7
When You're in Love Bonnie Thornton 2
Where Love Abides Chas. Graham 8
Where Is Baby Gone W. C. Carleton 9
Willie Oil the Yacht J. L. Golden 9
Won't Somebody Give Me a Kiss Emily Smith 4
You Ain't De Only Coon in Town A. H. Fitz 10
Your Ticket is Not Good To-day Chas. Graham 8

Note.—The publishers are designated as follows: 1 M. Witmark & Sons; 2 T. B. Harms & Co.; 3 Jos. W. Stern & Co.; 4 Myl Bros.; 5 Petrie Music Co.; 6 Howley, Haviland & Co.; 7 O. Diston Company; 8 Gage Bros.; 9 Carleton, Caynagh & Co.; 10 E. T. Paul; 11 Spaulding & Gray

Wants and For Sale

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

FOR SALE.—13 phonographs; 3 spring motors and 10 electric; all machines in working order; will sell one or all cheap. Address, P. O. Box 41, Philadelphia, Pa.

FOR SALE.—Nickel-in-the-slot Cock-fighting Machines; Cabinet; no electricity required; runs by clock-work; Good money-earners, must sell at once; can be seen at 4 E. 14th Street, N w York.

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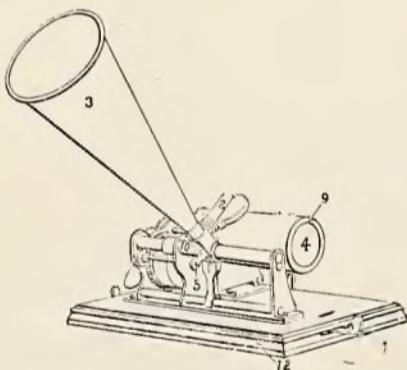
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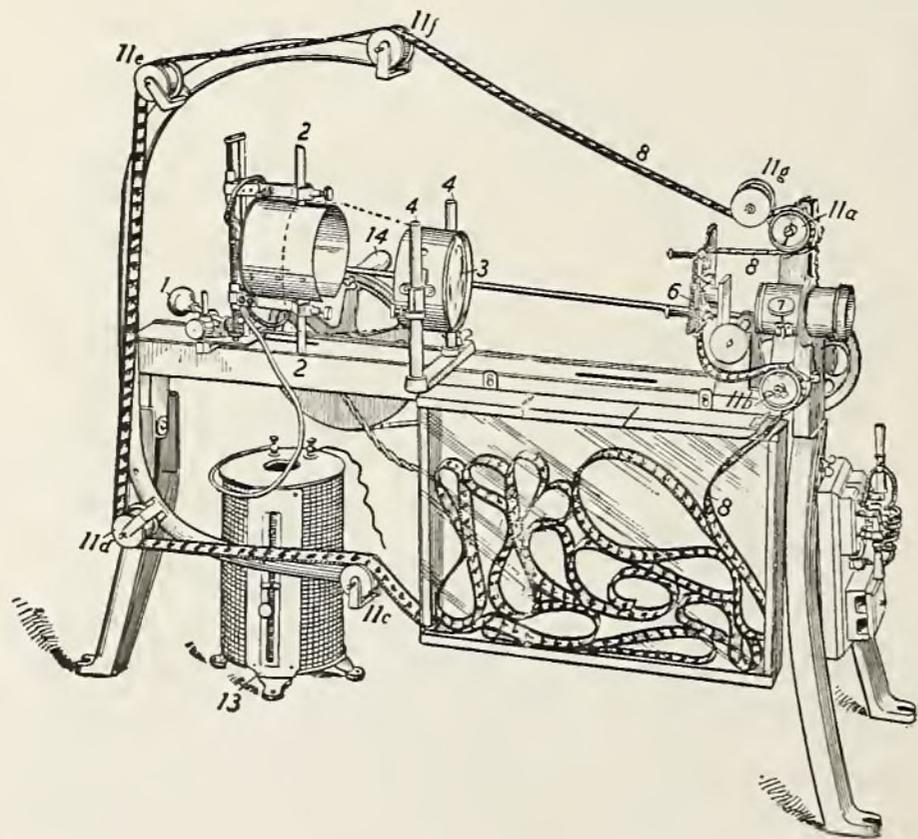
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