

MAY 28 1899
Periodical Department

THE PHONOSCOPE

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

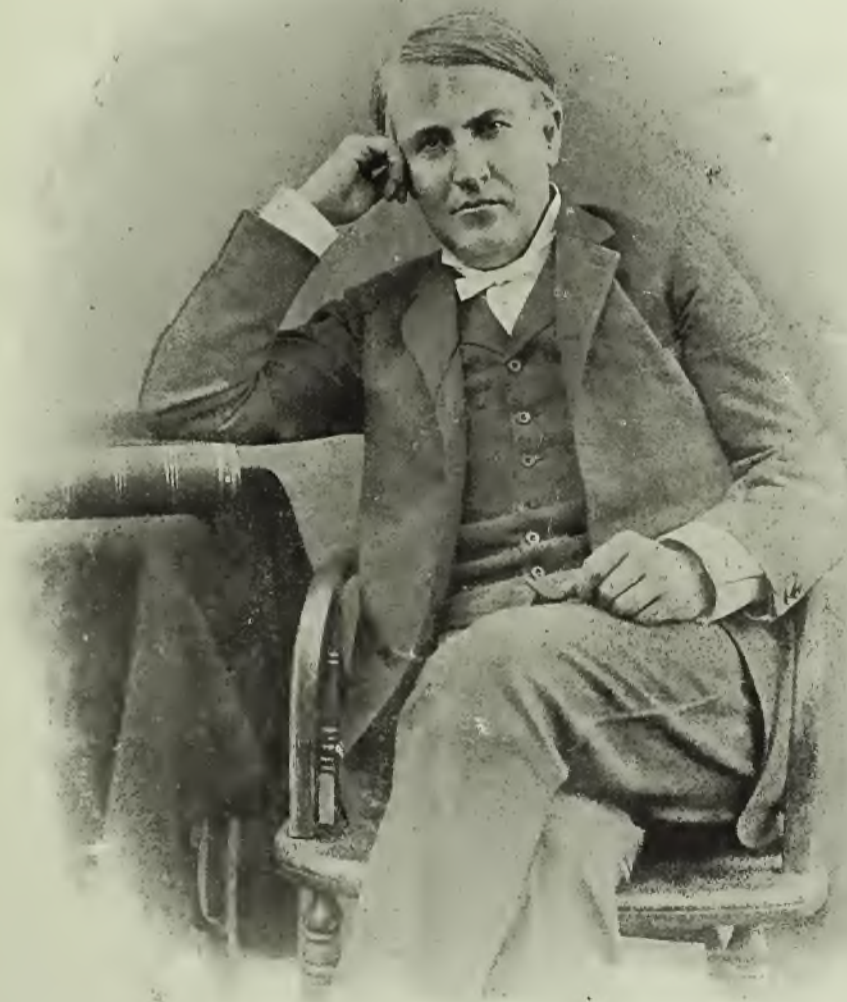
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Vol. 1

No. 9

New York, August-September, 1897



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

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The Phonoscope

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

Vol. I

NEW YORK, AUGUST-SEPTEMBER, 1897

No. 9

Machine to take Pictures from a Kite

Will Reproduce Scenes at a Distance of ten miles

I think we all like to look at things from aloft. All our high buildings, mountains and hills are frequented in the course of the year by a vast throng. Thousands of people visit the Pulitzer Building every month to enjoy the vast prospect from the dome. In the extensive prairie region lying adjacent to Chicago—the great wheat and corn regions of Illinois, Wisconsin and Indiana—there is no view from aloft to be obtained for hundreds of miles. In fact, the city of Bayonne, N. J., where I first sent the vistascope into the air, is almost devoid of high points from which to enjoy an extended prospect or vista; hence the name vistascope, which looks like a sample name, but it cost me about a week of thought before I had coined it for my aerial camera obscura, which enables me to see pictures of the distant horizon line while standing on the ground. It is a well-known fact that a camera obscura picture requires a darkened chamber in which the excess of light will not efface the picture. Therefore, when I thought about the possibility of seeing a camera obscura picture at a considerable height in the air, suspended from the line leading up to my kites, it at first seemed impossible to see such a picture because of the excessive light from the sky.

I soon found by experiment that if I looked through a small aperture in a black disk held at a proportioned distance from an opera-glass to exclude the sky glare, the picture was discernible at a considerable distance. It was largely a problem of preventing the glare of the sky from dazzling the eye. The day-light between the eye and the picture does not interfere with one's power to discern the picture aloft unless the direct light from the sky enters the eye in too large an amount.

In a recent experiment the vistascope, or aerial camera obscura, made its first ascension about sunset, or when the sun was partly veiled by a bank of clouds in the southwest. When the vistascope had ascended to a height of about 150 feet, at 6 P. M., Aug. 21, supported by three Eddy kites and one Hargrave box kite, the sky was overclouded and the light was weak. Yet this condition was somewhat favorable to the perception of the picture aloft with the naked eye, because the earth was shaded directly beneath the darkened rectangular cavity which protects the picture from the effacing effect of too much light. During the past month I have been thinking over the many difficulties pertaining to this achievement. I have believed, and still believe, that the view will be better and clearer late in the day during a clear sunset, when long shadows cover the ground directly beneath the vistascope and lessen the uprush of light into it.

While the apparatus is simple, the art of excluding too much light and of lifting the vistascope with its rather heavy mirror, frame and lens is

extremely complicated and gives rise to many difficulties, not the least of which are the management and guidance of the kites. If too little pull is exerted by the kites, the vistascope—which is eight feet high by four feet square and weighs about twelve pounds—will not be lifted. If the strain becomes too heavy the line will break and the vistascope will be dragged through tree-tops and torn to pieces by a rendering pull of seventy-five or eighty pounds.

During the first ascension of the vistascope I repeatedly tested the pull with a spring balance, and had the pull exceeded sixty pounds I would have immediately detached the vistascope from the kite line and hauled in the line of four kites and removed one of them. This would have reduced the strain below the danger point. The spring balance, by recording the kite strain, is like a safety valve that gives warning of coming disaster. Several times when the strain approached fifty-six pounds during the ascension of the vistascope, I watched the motion of the kites with anxiety.

The system of hoisting the vistascope by means of the tandem kites was as follows; Four guylines extended from the four corners of the vistascope up to a central point or ring, which was fastened into the main kite cable, supported at a steep angle by the four kites. Other guylines to prevent the vistascope from twisting extended in a horizontal direction to the kite cable, to which it was fastened. The result was that when the powerful reel, with a steel shaft, paid out the kite line upward the vistascope went up with it, being part of the kite cable. When the vistascope ascended, Dr. William H. Mitchell, of Bayonne, paid out the line by means of the reel, while C. E. Cozzens, of South Framington, Mass., who is an expert kiteflier, Commodore Verniely, of Bayonne, and myself all walked to the centre of the lot and looked up at the darkened cavity for the picture to appear.

Very slight glimpses were obtained until the vistascope began to rise above the rather dark foliage of the tree-tops, when the foliage began to appear against the white paper, suggesting the shadow of trees cast by the moonlight. The want of color in the picture was due to the absence of sunlight, which gave a dull effect, the sun being for the time overclouded. Glimpses were obtained of the cupola of a neighboring house and the distant horizon. But within less than a minute the wind tore away the black paper from the light-protecting cavity, causing a rush of light that effaced the picture, but not before the first successful vistascope picture in the world had been seen.

Like all first experiments, an unexpected accident had happened. As usual, in this case, some easily remedied defeat had temporarily suspended operations.

Probably the most important improvement to be made in the construction of the vistascope is to attach four mirrors instead of one to the square block into which the lens at the top of the vistascope is inserted. Then by pulling two strings leading down to the ground one mirror is thrown out of position and another into position, thus in turn throwing four different views into the

vistascope instead of one. In this way the vistascope will cast upon the paraffine screen, through which the picture is seen, views covering a large part of the horizon line in four directions. It will be like the dissolving views of a stereopticon, in which one picture fades out and is replaced by another.

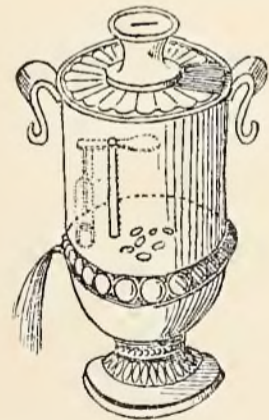
I think the vistascope will be useful to amuse crowds on public occasions, to see distant objects at sea without going to the masthead, and to discern the white tents of an enemy's encampment in time of war. With the use of large kites, such as hoisted Lieut. Wise into the air on Jan. 21, 1897, on Governor's Island, a vistascope could be sent aloft that would paint in the colors of nature, and with all its beauty, a picture of a landscape as large as the ceiling of a room fifteen feet in diameter, because such an apparatus can be made very light.

It is possible to build a skylight room, with a ground-glass ceiling upon which could be thrown the beautiful frescoing of nature in a camera obscura, and by shifting four mirrors with a curtain cord four different views could be thrown upon the ceiling from above, showing through the glass to the occupant of the room below. The lights from the camera obscura picture would sufficiently illumine the room for occupancy. Sliding panels could be dropped over the windows, temporarily cutting off the outer daylight, while the guest could admire the scenery.

WILLIAM A. EDDY.

A Slot Machine 2,000 Years Old

There is very good evidence that a coin-actuated machine was invented, if not actually in use, more than two thousand years ago. Herewith is a correct picture of the machine itself, which is copied from that which appears in the book on "pneumatics," of Alexandria, 150 B. C.



Now this writer, according to his own showing, treats of many inventions and discoveries which had been handed down by others, so that it is quite possible that this particular penny-in-the-slot machine may be considerably more than two thousand years old. But even if we assign this remote date to it, it must come as a surprise to many that a thing of which they believed to be so modern was actually contrived before the time of Christ.

Life on Canvas

A Phantom Ride on an Express Train and Other Remarkable Views Made by the Biograph

Every week new and representative scenes are added to the collection which the American Mutoscope Company exhibits from its biographs. Those shown at Keith's recently were as satisfactory in the presentation of typical views as any that have been taken, while in sprightliness of subject and smoothness of action they were superior to most of them.

There were four new numbers in the collection of sixteen, and of these the palm must be awarded to the panoramic view of the Haverstraw tunnel. Some of the most lifelike pictures displayed by devices of this kind represent an approaching express train. Workmen are plying their shovels in the foreground, and far in the rear is the faint streak of smoke that heralds the advance of the mighty visitor. Faster flash the shovels and larger grows the spectacle until a roaring locomotive with flying cars behind it seems rushing right over the footlights.

Such a view indeed was given recently, and the audience shrank back as before, when the threatening apparition of the Empire State Express was disclosed. But the vision of the tunnel was wierder. The spectator was not an outsider watching from safety the rush of the cars. He was a passenger on a phantom train that whirled him through space at nearly a mile a minute. There was no smoke, no glimpse of shuddering frame or crushing wheels. There was nothing to indicate motion save that shining vista of tracks that was eaten up irresistibly, rapidly, and the disappearing panorama of banks and fences.

The train was invisible, and yet the landscape remorselessly, and far away the bright day became a spot of darkness. That was the mouth of the tunnel, and toward it the spectator was hurled as if a fate was behind him. The spot of blackness closed around and the spectator being flung through that cavern with the demoniac energy behind him. The shadows, the rush of the invisible force and the uncertainty of the issues made one instinctively hold his breath as when on the edge of a crisis that might become a catastrophe.

If there had been a collision in that tunnel half the women in the audience would have been carried off in a collapse.

But daylight shone ahead, and again the spectator was being swept through the fields and amid a fair country. A figure appeared on the tracks ahead, but it stepped aside and was swallowed up by space. There was a last flicker of light and the canvas hung across the stage without a mark upon it. The audience that stood five deep back of the orchestra chairs half reeled as it caught itself. It had been snatched up and rapt away by a phantom train.

The effect, it was explained, was taken by placing a camera on the front of a West Shore express.

It was a relief to turn from the intensity of that wild ride to the succeeding number which presented a view of one of Coney Island's newer and most genial institutions. That was the steeplechase race course which decorates the end of the Bowery and from which sundry shrieks and swoops issue to enliven and diversify that merry thoroughfare.

The view showed the wooden tracks for a moment and that was all, but far away was heard a clatter, and then and there dashed down the slope three hobby horses, each carrying double. It was a sancy picture that might stand for Coney's ideal of an elopement, for seated in front on every wooden

steed was a damsel in skirts, but riding clothespin fashion, and seated between her was the young Lochinvar with his arms about her waist, because that is the only way to hold on at Coney Island, it is explained. You observe a fugitive expression of glee on the faces of the riders and they dash out of sight and other hobby horses appear. It is a very cheerful souvenir of the departed summer.

The third of the new views represents the abandon of more diminutive youth. It is designated as the "Baby Merry-Go-Round," and if the exclamations of the women were any criterion it will continue to go around all winter. The scene shows a dainty carrousel, with dainty slips of girlhood on it, and little juveniles in the ante-roundabout epoch, and they are speeding around on hariuless toy animals and quaint little vehicles. You suspect that some of them know that they are before the camera, for they kiss their hands to you right out of the canvas and smile and look knowing and winning. There is no such skillful and ingenious actor as a small girl. It is her preparation for the more serious duties of coquetry.

The last of the brand-new views was a reminiscence of Hallow'een Night, but not of its sentimental side. Indeed, the spirit of this picture was pure fun of a boisterous sort and nothing else.

The canvas showed four dusky figures seated before four pans of flour. Problem: To dive into the flour and, with your teeth, fish out coins there buried. It was a grotesque spectacle, for the four candidates went at it as if they enjoyed the rigors of the game. The dust of the flour ascended in a cloud, and every face changed its color. To those who have watched a litter of half-grown pigs rooting for grubs in meadow sod further description is unnecessary. There were no heart-aches in that number.

The old favorites got the old vociferous reception. One of these was "Shooting the Chutes." The boats came bounding across the stage, it seemed, and a shout of laughter greeted their daring, saltatory flight. There was a funny view of a lover tumbling into still waters and a lot of other attractive subjects, concluding with a pillow fight by four youngsters in their "nighties." It is a remarkable series of views, and is staged with a smoothness and force that reproduce life with startling fidelity.

Legal Notices

Judge Kirkpatrick has refused to grant a preliminary injunction to restrain the United States Phonograph Company from using the terms vitascope and Edison's vitascope. The complainant was the Vitascope Company.

A judicial inquiry by the Correctional Tribunal of the Seine at Paris, concerning the terrible disaster of the fire at the charity bazaar in the Rue Jean Goujon several months ago, has been proceeding some days. The president of the bazaar managing committee, Baron de Mackau, and two persons—Bailac and Bagrachoff—who worked the lighting apparatus of the cinematographe, were indicted for culpable negligence. Baron de Mackau is fined five hundred francs, and the two others are sentenced to imprisonment.

Emma F. Benedict is an enterprising woman of business. In May, 1896, she leased one of Edison's vitascopes at a rental of fifty-two cents per day. She subsequently sublet it to the firm of Knuckles & Morrison, who engaged a room in premises owned by Harry and Jane Hunt, at Coney Island, New York, for exhibition purposes. Later the firm abandoned their original intention, disappeared, and left the vitascope on the Hunt

premises. Mrs. Benedict couldn't regain possession of the machine without paying Harry and Jane Hunt storage on it. This she positively refused to do. She received an offer, she declares, "to show the machine for a large consideration," and is unable to accept it, for the reason that the Hunts won't give it up. She has sought Judge Van Wart's effort to regain possession of the vitascope and incidentally to recover \$100 for the wrongful detention of it, and for the additional sum of eighty-five cents per day from July 16, 1897, for being deprived of its use.

The systematic robbery of the National Automatic Machine Company's penny-in-the-slot weighing machines still continues. Two weeks ago the two machines in the Philadelphia and Reading passenger station at Philadelphia were broken open. The contents of one were scattered, but in the other twenty cents were left, showing that the thief must have been frightened away. Within a few days the machines at the Philadelphia and Reading stations in Shamokin and Sunbury were also opened and robbed. There is a reward of \$50 offered for the apprehension of the guilty parties.

The machines along the route of the New York Central have lately been robbed in much the same manner as those in this vicinity. A young man of twenty years named Joseph Owens was caught in the act and taken into custody, but broke jail and escaped. It is thought that he is now working in this region. He is described as light complected, five feet, five or six inches tall, and weighing from 125 to 130 pounds. His right hand and wrist are withered as though burned, and the fingers of the same hand are doubled up. A gentleman who was shown the description thinks that he saw the man at the Philadelphia and Reading depot since the machines there were opened.

Philadelphia Record: "An attraction that would be a star card in any vaudeville theatre, Lubin's cineograph, is the feature of the vaudeville bill. This moving picture machine has no superior. The most sensational picture of the sort ever shown here is a rescue at Atlantic City. Even Blase Newspaper men became excited over this view."

Cincinnati Enquirer: "The most sensational moving picture ever displayed in America is a rescue at Atlantic City, reproduced in Philadelphia last week by Lubin's cineograph. The scene provoked cheers."

Philadelphia Press: "Lubin's cineograph is the most satisfactory moving picture machine that has been devised up to date."

Philadelphia Bulletin: "The shining light of the star of the vaudeville in the theatre was the cineograph."

Philadelphia Item: "The amusement managers declare that Lubin's cineograph is as good as any moving picture machine extant. It has been added to the outfit of many traveling companies, under other names, and is likely to be a permanent feature of the entertainments provided in many variety houses throughout the country."

Chas. E. Ford, Ford's Theatre, Baltimore: "I have had your projecting machine, the cineograph, in operation since June 7, and although it was preceded by both the cinematograph and biograph, the results have been so satisfactory that it is considered the best machine of the three."

C. A. Bradenbury, Proprietor and Manager Ninth and Arch Museum, Philadelphia, says: "Your cineograph has proved a great drawing card in connection with my vaudeville bills. I consider it the best moving picture machine up to date. Certainly no other machine ever exhibited in this city has made so marked a hit."

Our Tattler

Mr. Steve Porter always wears a bright smile, now that he has joined the ranks of the cylinder loaders.

I see by the catalogues of the National Phonograph Co., that my friend George is very prominent by scratches across his name. I wonder why—I wonder why.

If you come to New York to see the sights, don't fail to see the expression on Len's face when he shifts from "A Hot Time in the Old Town Tonight" to "Goosey-Goosey-Gander."

Some of the slot phonographs and graphophones have been adjusted to operate for a cent. The class of records kept on these machines cause an expression on the face of the listener which sometimes signifies a scent.

Georgie, how about the cellars in New York? I don't think the light colored blanks are always the best; they are the easiest to handle and are liable to shriek and clog up your recording point. The cost will be about \$300.00

I hear sad rumors. My friend MacDonald up in Bridgeport is getting grey in his endeavor to keep up with the rush. Now that you've got a good thing, Mac., watch that wobble, keep one eye (and ear) on that surface c-c-c-e and the other eye on your tester's tests.

Mr. Georgie Emerson (Vic's brother) met with a terrible accident last month. While quietly standing beside a young lady in Newark one eve, he was married, and has therefore joined the ranks of we poor devils who have to hustle while our other half reads the bargain ads. and gets rid of our hard-earned dough.

"I understand that Oliver Sumner Teal is organizing a company to buy a number of picture-projecting machines and present the news of the day, with the end of his doing away with the evening newspapers," said a man who knows New York's star promoter, recently. "He also says that he wants to find a theatre where he will produce plays all day long by the aid of picture-projecting machines and phonographs."

Can it be possible that my friend Ed. Issler has joined the bunko ranks? A dark haired friend of mine with a Cuban dialect wrote to Jersey for a record of "Cuban Patriots March," expecting to get a soul-stirring medley full of Spanish hatred and Cuban sympathy. When he received the record, it was the old standard selection "Under the Double Eagle," that has spurned the Germans on to victory for a number of years. This record was announced as "The Cuban Patriots March played by Issler's orchestra." He flushed with anger and has "vowed vengeance."

Nothing but Issler being a Cuban can save him from my friend's fury should they ever meet.

How some people do enjoy beating a slot machine!

In a Fort Lee ferry waiting-room stands one of these machines that tell your weight for a penny.

Some one discovered that something was wrong with the thing—that it was weighing people for nothing.

This discovery was made while at least one thousand persons were waiting for a boat. Instantly

there was a rush for the machine. As fast as one person stepped off another crowded around and pushed.

For a time it looked almost like a panic. One woman stumbled and fell to the floor.

Several others nearly fell over her. Everyone was in good temper, but had a ferry-boat not arrived just when it did, some of the crowd might have been hurt.

One old woman declared it was the first time in her life she had ever been weighed, and it seemed to please her beyond expression to think she had beat the machine.

MIKE

Telephone the Deaf Through their Skin

Science Makes Ears Superfluous in Receiving Vibrations of Sound

The deaf mute need no longer regard his deafness as an affliction. He has already been taught to talk and to understand the speech of others. New busy-brained scientists, in order that the stone-deaf man may not be excluded from the delights of modern improvements, have supplied him with a telephone.

The new invention will not demand any patching up of damaged ear-drums or any stimulating of unused auditory nerves. Its use will be independent of all the auditory machinery provided by nature. There will be no straining of an imperfect organ. The ear will be let entirely alone. The telephone messages of the future will be transmitted to the deaf man through his skin.

Nor is this as roundabout a method of conveying impressions as it may seem at first. When the deaf man learns to hear through his skin he will simply impose one more duty upon an organ that is already the centre of the most complex sensations. The blind man learns so to depend upon his sense of touch that his skin almost becomes a second organ of vision. The skin is furthermore peculiarly susceptible not only to the slightest barometric influence, but to electric vibrations. It is the last named characteristic of an already overworked organ that suggested recently to Dr. MacHendrick, a Scotch scientist, the possibility of utilizing it for the transmission of telephonic messages.

Dr. MacHendrick's method of making the deaf hear is, briefly, as follows: First there is prepared a saline solution in which are immersed the platinum extremities of a telephonic circuit. The hands of the subject are plunged in the same solution. When the electric current conveying the telephonic message passes into the solution, it produces on the tips of the fingers of the subject a series of prickings, varying in intensity, and corresponding exactly with the vibrations of sound which were produced by voice or musical instrument, and of which it is the transposed reflection.

Prof. MacHendrick has already tested his discovery and finds that it does not contain a flaw. The deafest man who ever lived may profit by the muscular telephone simply by putting his fingertips in a certain solution. The discovery is of enormous importance, and its simplicity is its most attractive feature.

It is necessary, of course, that the deaf mute who proposes to hear through his muscles should have a certain amount of training and a rather finely developed sensitiveness. These are, however, rapidly acquired when one has once become shut out from the world of sound. It is commonly known that the loss of one organ tends to increase the efficiency of the remaining ones.

The man whose ears have ceased to serve him develops a sensitiveness in other parts which in a normal man would seem miraculous. The translation into a sentence or a strain of music of the prickings upon his finger-tips will become a comparatively simple matter to the man who is hungry for messages from the sphere of music and speech. There is probably no quality or combination of sounds that cannot find their way to the deaf man's intelligence when the muscular telephone becomes established. And now that electricity, in addition to the other wonders for which it is responsible, has made the deaf hear, it is not unreasonable that the blind should ask to be made to see or that electricity should fulfill the demand.

Prof. MacHendrick's predecessor in this line of discovery was M. Charles Henry, a French scientist, who, by making use of a music-box or a piano, a generator of electricity producing alternate currents, a telephonic circuit and a microphone, succeeded in conveying to his subject, in the form of rhythmic tremblings, not a bar of music alone, but an entire melody.

It is easy to imagine that the deaf man of the near future, through his ears may be incapable of receiving a single sound, will be so well equipped with instruments that are "just as good" as ears, that he will not be obliged to miss a single word of the conversation taking place around him.

Where They Were Exhibited Last Month

Biograph

Keith's, Boston, Mass.; Keith's, New York; Masonic Temple, Chicago, Ill.

Veriscope

Opera House, Williamsport, Pa.; Greene's Ceder Rapids, Ia.; Grand, Kansas City, Mo.; Grand Opera House, Peoria, Ill.; Jacques, Waterbury, Conn.; Worcester Theatre, Worcester, Mass.; Ford's, Baltimore, Md.; New National Theatre, Washington, D. C.; Grand, Dubuque, Ia.; McCauley's, Louisville, Ky.; Temple Theatre, Camden, N. J.; Wheeling Park Casino, Wheeling, W. Va.; Empire, London, Eug.; Eden Theatre, Paterson, N. J.; Globe, Hamilton, Ont.

Magniscope

Auditorium, Toronto, Ont.; Bijou, Chicago, Ill.

Cinagraphiscope

Association Hall, Hamilton, Ont.

Cinematographe

Parisiana, Paris; Eden Musee, New York; Orpheum, San Francisco, Cal.

Kinetoscope

Lyceum Theatre, Newark, N. J.; Lake View Augusta, Ga.; California Theatre, San Francisco Cal.

Photoscope

Ocean Grove, Asbury Park, N. J.

Cineograph

Metropolitan Park, Bayonne, N. J.

Vitascope

Woodlyn Park, Camden, N. J.; West Lynchburg Hotel, Lynchburg, Va.; New Park Opera House, Erie, Pa.

Bioscope

Calumet Fair, Paterson, N. J.

Projectoscope

Association Hall, Philadelphia, Pa.

"Picture Projecting" Devices

Exhibition of Corbett-Fitzsimmons Fight at the Lyceum Causes a Riot. 20 Police Officers Summoned to the Scene

The much heralded "fac-simile" exhibition of the Corbett-Fitzsimmons prize fight has been seen in Elizabeth, N. J., and Manager Simonds of the Lyceum theatre is a sadder and wiser man, and one thousand persons interested in sporting events are kicking themselves and anxiously awaiting the hour for the box office to open when the management has promised to refund the money paid for admission.

The crowd began to assemble in front of the theatre as early as half-past six o'clock and when Treasurer Stillman opened his box office window the nickels, and dimes and quarters fairly rained in upon him for an hour.

Of course there was nothing wrong in looking at the pictures of a prize fight, especially as the views were only a fac-simile, and as a result, citizens in all walks of life were seen among the audience. There were but few ladies present, but some of Elizabeth's best people were seen scattered about the theatre, and they eagerly joined with the gallery gods in the calls for the show to begin.

After several overtures by Miss May Hector, who presided at the piano, the lights in the theatre were extinguished and a white light appeared on a large muslin curtain which hung on the rear wall of the stage. This light was about eight feet high and five wide. When the size of focus was seen on the curtain suspicions of a cheap exhibition began to creep through the fifty-cent seats, and questions could be heard on all sides about "this fac-simile business." It was surprising to see how many people there were who did not know the meaning of the compound word fac-simile. They know it, however, now.

The operator at the machine started off the entertainment with a "jollie," and endeavored to put the audience in good humor by unwinding that fierce old chestnut representing the bath of a colored baby. A few people laughed, but the crowd was there to see the fight pictures and the bath business did not amuse them. The picture passed off the curtain without approbation.

After another overture the lights were extinguished and the audience breathlessly awaited the appearance of the "fighting gladiators."

After a delay of several minutes, which seemed hours to the small boy in the gallery, the long-looked for light appeared on the curtain, and on walked three men, who completely filled the space. The audience saw that the picture was a fake in an instant. One of the men wore a wig—plainly visible—imitating Fitzsimmons' bald pate, and the other was made up, pompadour and all, to represent "Gentleman Jim."

Between these two "gladiators" stood a tall man attired in a yachting suit.

The figures soon began to move and a deadly silence prevailed for several seconds. Then the gallery broke forth with a volume of hisses that would have drowned the steam blow-off on one of the great compound locomotives of the Central railroad.

This outbreak was caused by the movement of the figures on the curtain. The "gladiators" moved about as if they were set to an adagio movement of music and their fists beat the tempo.

It was frightful and disgusting. Manager Simonds should have stopped the proceeding right here and refunded the money. The manager of the show, however, said the next round would be

all right, and lights were extinguished again for the second round.

The big "gladiators" strolled leisurely about again, and were greeted with a cyclone of hisses and cat calls.

Chief Tenney was in the audience and he sent a hurry call to police headquarters which was answered by the prompt appearance of about twenty policemen.

The chief took this step as a precaution, but the services of the policemen were not required. The "fight" became such a farce that the audience left the theatre in a laughing disgust, as it were.

It was announced from the stage that money would be refunded at the box office.

The management of the machine represented the pictures to be a fac-simile of the Corbett-Fitzsimmons fight.

The definition of the word fac-simile is "An exact copy, or likeness," etc.

Was the exhibition last night an exact likeness of the fight, which took place at Carson on St. Patrick's day?

As the management was greatly taken in by the proprietor of the alleged "Corbett-Fitzsimmons fight" at the Lyceum theatre all persons holding seat coupons will have the same cashed at the box office. With requests that everything should be exhibited on the Lyceum stage not in keeping with the usual high class attractions, I remain very respectfully
A. H. SIMONDS, Manager.

Graphoscope with Talking Pictures

Many baldheads will recall the furor Lulu made in their green and salad days. How in 1871 she became the popular idol and at Niblo's Garden was nightly shot from the stage like a human arrow, Lulu was billed as "Queen of the Air."

It was not until Lulu had aroused the cities of two continents that it was discovered that the "Queen of the Air" was a man. He came here in 1884 and has since resided here. During the years L. Farini was impersonating Lulu he was obliged to live in seclusion. For occupation he painted and practised drawing. Naturally gifted, he made rapid strides. During the years he was in Africa with Barney Barnato he took thousands of photographs. After he settled in Bridgeport, L. Farini delivered a series of lectures before the Fairfield County Scientific Society, also before the faculty of Yale College, on "The Dark Continent," using the photographs he had taken in Africa in the stereopticon.

Just now Farini became conspicuous again because of his invention of the graphoscope, for projecting moving pictures, together with the coloring and also the sounds and voices of these moving pictures, by the application of the graphophone. One of the things the graphoscope will do is the projection on a screen of the interior of a studio, with a model posing for a portrait. The model is Miss Louise Ulrich, a beautiful girl of twenty-three, selected because of her likeness to Charles J. Chaplin's masterpiece, "The Golden Age." The moving picture begins with a life-sized pose of Miss Ulrich, with hair dishevelled and her head resting on a pillow, with arms and bust bared. The hair is Titian in color, the lips red, the eyes dark hazel. In fact, everything about the portrait is colored as in life. Then the figure begins to move, and says: "Oh, I am tired." Then Miss Ulrich arises, walks before a mirror and arranges her hair. She puts on her street costume, all the time talking. At last she blows a kiss from the end of her fingers to the artist, waives an adieu and walks out of the studio. Right through this moving picture maintains the same coloring, although some of the impressions have been taken upon the ribbon. There is no false coloring.

The film ribbon on which these colored pictures are prepared is sensitive to chemical baths in which are the atoms of various colors. The camera with which these pictures are taken is so arranged that a roll of the film is carried on a reel and is fed before the lens by an intermittent motion which moves the film three-quarters of an inch with each exposure. The exposures are about fifty each second. The film is a ribbon of transparent celluloid, coated with sensitive emulsion. This ribbon is one and three-quarter inches wide, in rolls of 1,000 feet. The film moving mechanism is so contrived that pictures are taken without a flicker. All other inventions which L. Farini has put into practice is turning his graphoscope to follow the object. Heretofore moving pictures have been of objects that pass before the lens. Farini's lens follows the object.

Our Correspondence

UNALASKA, July 20—Nothing to be heard here but talk about the new gold fields on the upper Yukon, and if one-tenth of the reports are true it is a veritable bonanza.

One man and his wife who came up in the steerage a year ago and who purchased a claim for \$30 returned with between \$80,000 and \$100,000, and his wife had \$8,000 of her own in nuggets, which she had picked up while he ate his dinner which she carried to him every day.

A nickle-in-the-slot machine sold for \$500, and the first day's receipts were over \$5,000. Strikes and finds of from \$10,000 to \$50,000 are heard of on all sides. A barroom, only one having a license, employs five barkeepers and two clerks to change the dust into coin. They have quite a town—judges, marshals, etc., and even a variety show called the "Opera House."

The mines, placer, six feet average to bedrock, are in British territory, about 2000 miles from St. Michaels, at the mouth of the Yukon. There are five small steamers plying on the river, and the company has great difficulty in retaining hands. Fare, \$160 from Frisco and \$125 from here.

The men here, even the agents of the companies, are crazy about gold and all of them are going, having resigned their positions. One man here has paid \$50,000 for a claim. The mining is difficult on account of great severity of the winter and the shortness of the summer, besides which they cannot work on account of the high water late in the summer. They are compelled to cut through heavy ice and then to build immense fires to thaw out the ground. The earth, or rather the gravel, is put in piles to await the coming of spring when they can wash it. Men are in great demand: 100 days' work guaranteed; wages from \$5 to \$15 per day; but everything is, of course, high; viz., flour, \$50 per barrel.

NATIONAL PHONOGRAPH CO., ORANGE, N. J.
THE PHONOSCOPE CO., GENTLEMEN:

We beg to inform our customers and the trade generally that Mr. George E. Tewksbury has severed his connection with us and is no longer the general sales agent of the National Phonograph Company.

All communications, orders and inquiries, should be addressed to the National Phonograph Company, Edison Laboratory, Orange, N. J.

We desire to take this opportunity of expressing our appreciation for the past favors that we have received from our friends generally, and we confidently hope to experience a continuation of their patronage.

Yours very truly,
J. F. RANDOLPH, Secretary.

General News

Mr. Arthur Gardner, of the American Graphophone Company, is now installed at the headquarters in New York City.

Mr. George J. Gaskin is now in Belfast, Ireland, (which he calls his native heath) singing his popular songs with great success.

The ten-dollar graphophone has set the wheels of success a-buzzing in the talking-machine business. Many thanks to McDonald and Easton.

Russell Hunting's latest effect "Casey Digging in the Klondike Gold Mines" is a big hit and bids fair to rival his famous "Casey Taking the Census."

We understand from good authority that the Edison Works are about to place a phonograph on the market that will sell for twenty dollars or thereabouts.

Quite a novel idea in the record-making line has been introduced by Roger Harding to amuse the little folks such as "Who Killed Cock Robin," "Little Red Riding Hood," etc.

Mr. Geo. A. Mansfield, of the Michigan Electric Co., was in New York last month purchasing diaphragms, appliances, etc., for the record-making department which his company intends establishing in the near future.

Mr. Lovejoy, the genial phonograph exhibitor, visited several Eastern companies last month to purchase records. He has changed his headquarters from Manchester, N. H., and is now located in Hartford, Conn.

Mr. Fairchild, the popular composer, of Boston, Mass., has written a very catchy march entitled "Casey on Parade," which he has dedicated to Russell Hunting, of "Casey" fame. We predict a great sale for this composition as the theme is entirely original and very cleverly constructed.

The American Graphophone Company, which has been enlarging its plant at Bridgeport, Conn., is now working its force three hours every night. This has been made necessary largely on account of the rush of business following the appearance in the market of a ten-dollar graphophone.

Mr. R. F. Cromelin, of the Columbia Phonograph Company, who has been in Paris during the summer looking after the interests of the Company there, will probably return home with Mr. Easton, President of the Company, about the middle of October.

Mr. E. D. Easton, President of the Columbia Phonograph Company, sails for Paris Saturday, October 2, and will return in about two weeks. The European headquarters of this Company, No. 34 Boulevard des Italiens, Paris, will be formally opened about October 7. A handsome building has been leased by the Company and fitted up in an attractive style, making it similar in general appearance to the offices of the Company in this country.

Mr. P. V. DeGraw has been appointed assistant manager of the Columbia Phonograph Company's parlors in Philadelphia. Mr. DeGraw is particularly well equipped for his new field of

usefulness, being an expert electrician, as well as an experienced and capable business man. The Columbia Phonograph Company is to be congratulated in securing his services in this important capacity.

Travelers in France who carry photographic plates complain that they are destroyed by the X-ray customs examination. The authorities promise to take precautions, when possible, against damage by the new detective agent.

Cinematographes seem to be decidedly dangerous. A fire broke out in a Paris theatre from one recently, producing a panic, as the audience remembered that the machine was the cause of the charity bazaar tragedy.

Moritz Gruman was released from Ludlow Street Jail, New York City, on his agreement to marry pretty Betsie Gorman. Alderman Schilling performed the ceremony in the City Hall, and while it was taking place several lively airs tinkled forth from a phonograph that some one mischievously set a-going.

Mr. Edward N. Burns, who for several years has been at the head of the Washington office of the New England Mutual Life Insurance Company, has entered the service of the Columbia Phonograph Company. He will be manager of the department of traveling salesmen, and make his headquarters in New York.

A new use of aluminum has been made in the manufacture of reproducers for graphophones. Heretofore the recorders have been made, as a rule, of hard rubber. For hard rubber aluminum has been substituted, with what is regarded as much success. It is claimed that the blasting, blaring or "chattering" as it is called in the trade, which is often noticeable in the performance of the talking machine, is almost completely absent when an aluminum reproducer is used.

A very interesting and novel advertising exhibition is now being given on the roof of the building at 1321 Broadway, facing Herald Square.

Animated films are shown illustrating advertisements. The pictures were all made by the International Film Co., 44 Broad Street, and are attracting the attention nightly of thousands of people. As an instance of the enterprise and hustle of the International Film Co., the Democratic Mayor was nominated on Thursday night and on Friday his picture was on the screen at 34th Street.

Peter A. Porter has a phonograph at his home that will be quite a machine after the season is over. All the prominent men who have been at Niagara Falls have been entertained at Mr. Porter's home, and while there they have talked into the phonograph on the center-table. Lord Kelvin was the last man to speak into it. Other electricians have been interviewed by the phonograph at different times. Mr. Porter, on some winter evening before the year closes, will have an entertainment and his friends will be allowed to hear the phonograph tell what the great men said to it.

A meeting of the stockholders of the American Graphophone Company, in which a great many local men of Washington are interested, was held at Harper's Ferry, W. Va., recently, and voted to increase the capital stock of the company \$100,000. President Easton was not present, but Mr. P. H. Cromelin, Secretary of the company, conveyed the opinion of the President to the stockholders upon the matter.

It was stated at the meeting that the reason for the increase was the desire of the company to make extensions in the territory covered by its branch offices, and especially the ones in European countries. The company has recently established a branch office at Paris, which has been very successful, and they desire to establish such offices in all the European capitals.

Another reason advanced for the proposed increase of the capital stock of the company was that the low-priced instruments lately put on the market by the company met with such an encouraging sale that it was necessary to make improvements in the factory at Bridgeport, Conn. Instead of expending the dividends of the present stock of the company for this purpose it was thought best to issue new stock covering the cost of improvements. These propositions appeared to please the majority of stockholders of the company, and it was voted to increase the capital stock of the company \$100,000, and such stock will be put on sale in the local stock market in a few days.

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. ❀ ❀ ❀ ❀ ❀

[K. C. T. M. Co.—Gentlemen—We received your communication taking exception to the reply which we made our St. Louis inquirer in our June issue. We cannot withdraw any of our statements as we know what we are talking (or writing) about.

The circular which we referred to was headed, "List of—Talking Machine Co's original records, price fifty cents each, five dollars per dozen." The list of records which followed this headline included such talent as Len. Spencer, Geo. J. Gaskin, Dan. Quinn, Gilmore's Band, Sousa's Grand Concert Band, J. W. Myers, Russell Hunting, etc. We know, you know, and the public should know, that original records of such talent cannot be made to sell at fifty cents each. We were particularly careful to mention the talent in our reply to our correspondent. The truth of our statement is endorsed by the fact that you, in later issues of your catalogue, refrained from using the word original when speaking of the talent we mention. Why have you done this? If you are still selling original Sousa's Bands at fifty cents, you should insist on keeping up this good work, because you deserve credit for losing twenty-five or fifty cents on each record, for the good of the cause. Don't be foolish and try to enter into any argument with us in reference to this original matter. We do not print anything but what we know is a fact. We answer all inquirers truthfully and honestly. We are personally acquainted with all the recognized talking machine talent from Mr. Edison to Johnny Jones, and know what we are writing about.

Furthermore, if you imagine that you are selling original Gilmore or Sousa Band records at fifty cents each, and advertise same, conscientiously believe they are originals, you have been misled, the same as the public are who read your circular we refer to.—ED.]

[A. I. N. BOSTON.—Mr. George E. Tewksbury is practically manager of the United States Phonograph Co.]

THE PHONOSCOPE

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

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

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

There have been many claimants to the honor of inventing the first practical duplicating machine for talking machine records. The credit, however, belongs to Mr. Frank L. Capps, and through his genius the record feature of the talking machine business was revolutionized and placed on a practical basis. When the duplicating machine first came into the field, the talent began to rave and wail about their prospects, claiming the machines would ruin their income. This supposition at first seemed feasible, but after a practical test it is apparent that the talent are engaged more than ever, and are being paid nearly double what they were in the old days of original record making. For instance, Mr. Geo. J. Gaskin who originally was paid twenty-five cents a selection for his best work now demands a much higher price, and is paid as much as anybody else.

Mr. Len Spencer, who originally sung from forty to eighty times a week to a number of machines, is now engaged exclusively by a company who frequently work him from two to three hundred rounds a week. This they can afford to do, as records are now sold in thousand lots, at reasonable rates, where they were originally sold in dozen lots to a few cranky and particular consumers.

All this has been brought about by the duplicating machine which enables the company to manufacture a large product and quote a reasonable discount to their agents. Most all of the old companies who were continually impressing on their patrons the advisability of using "high-class records only," are dispensing with this foolish nonsense and are awakening to the fact that the patrons of the talking machine are buying records to hear and not to talk about. A good duplicate record at a fair price is better than a fair original record at a good price.

In our second issue we entertained the hope that the talking machine would eventually become a staple article of commercial value that would find its way into every household, where it would be used as an educational and entertaining medium. We are pleased to see that, with this object in view, the companies are gradually dispensing with their sand-throwing—"ours in the best"—methods and are building up the business on a sound foundation, with meritable goods at reasonable prices, instead of meritable printing, exorbitant prices and windy statements.

RUSSELL HUNTING.

Kinetoscope Wonders

Photographs of Human Blood Moving in the Arteries

The action and rapid changes in cell life can now be photographed, as a horse race or prize fight, for out of the microscope Dr. Robert L. Watkins of New York has evolved the micro-kinetoscope, or, as he calls it, the micro-motoscope. This apparatus will greatly enlarge the use of the microscope and will give to the micro-organic world a new interest and fascination, for photographs of all sorts of cell motion observed in the microscopic fluid can be taken, remagnified thousands of times and thrown upon a screen, where they may be studied in clearest detail.

The value of such an apparatus to science at this time is of very great importance, for the whole world of biology, physiology and medicine have entered upon the study of all cell life of blood and of bacteria, with a keen sense of their value in explaining life and disease. The action and changes taking place in the living cells must be relied upon to explain many of their profound phenomena, as yet only slightly understood or wholly unknown. Dr. Watkins has devised this apparatus for the study of the blood, by photographing the changes of the cells and the action of the serum in the formation of a clot. A drop of blood will live from a half hour to an hour and sometimes longer after being drawn. There are three or four sorts of action steadily taking place during this time. The red cells are changing their forms, the white cells are expanding and contracting like amoeba, and changes are also going in their nuclei, while the serum is slowly or rapidly thickening, according to its condition, into a clot. The amoeboid motion of the white cell and the formation of the clot are the most important action taking place in the blood and continuous photographs of these actions, though slow, are worth a great deal more as a record than what one can see with his trained eye.

The contracting and expanding motions of the white cells are not easy to watch and they are possessed of a world of meaning. The degree of their energy is the most reliable of all witness as to the degree of the resistance of the body against disease. Suppose every policeman in the city should mope about the street with his eyes half shut and his head down, it would not be long before crime and disease would take the city. This is almost exactly what takes place in the human body when the white blood cells decline in energy. Dr. Watkins has learned how to time their action as noted in a series of pictures taken with the micro-motoscope. If they are lusty and wary and alert, they show it. The thick and rapid formation of a clot, especially into long web footed lines, is an uncontradicted witness of some fatal malady lurking in the body. The blood clots in most cases of apoplexy and bursts an artery in the brain, so also it clots in the brain arteries in paralysis. It clots in the arteries of the head in nearly all heart diseases. It clots at joints and exposed places in rheumatism. The expert sees the clot forming in the drying blood, but he sees it in all its progressive details in the picture on the screen.

The changes going on in the red blood cells are not yet well understood, but this action is one of highest functions of the blood, for it is from the red cells that the serum receives its supply of oxygen and it is from the serum that the tissues receive theirs, or rather their oxidized material. If the red cells are active in their changes of form, it is pretty certain they are doing their duty. No blood has ever been photographed in actual circulation, except a series of micro-motographs Dr.

Watkins succeeded in making of the blood stream in a frog's foot. This picture was taken at about the rate of 2,000 per minute, and when pictures were thrown on the screen, all the changes going on in the cells and serum were plainly seen and all the above observations of changes in drawn blood were confirmed. If living tissue can be seen with the microscope—and there are some of the best of reasons for believing that it can—the micro-motoscope will be one of the most invaluable inventions in science.

But in the sphere of bacteriology it will certainly open a new and wonderful world. The study of bacteria aside from their connection with disease is of absorbing interest for it has been shown from a number of reliable experiments made by such men as Klebs, Dusanj and others that many of these vast families of microorganism are possessed of qualities akin to intelligence itself. They behave under certain circumstances very like creatures of much higher organization. Some of these bacteria, under the influence of electricity, light, heat, mechanical action and the temptation of food or poison, manifest a sense of instability, greed, fear, etc., that is surprising. Their actions under such conditions have never been photographed. In fact living bacteria have never been photographed at all. The pictures in the books show only the stained dead ones, and bacteriologists have long been accustomed to speak of bacteria as without motion, but this is incorrect, as has lately been shown. Some families under stimulus move with the swiftness of flies and mosquitoes. The motion is not in evidence, and Dr. Watkins says it is due to its peculiarity, which is always perpendicular. He hopes to show this perpendicular motion, which may be seen very plainly with the eye. But if one will study the series of pictures closely, the changes that are always taking place will be noticed.

The apparatus and the method devised for photographing are very simple. A gelatine film fifty feet long is wound on a wheel of about fifteen inches diameter. Geared to this wheel is a smaller wheel turned by a crank. This little machine is hooded by a box in which, just opposite the revolving film and on a direct line with the lever of the microscope, is a small window. At the other end of the lens, lying in a horizontal plane, is concentrated a strong beam of light from an electric lantern. The apparatus is capable of recording from 1,500 to 2,000 figures a minute. In order to catch the rapid motion of the blood stream in the vein of a frog's foot, it had to be turned to its full capacity, and the frog's leg was bound with a cord to retard the motion. But the capacity of the apparatus may be increased by enlarging the size of the wheel. The infractions of the lens in these pictures are carried all the way from 10,000 to 15,000, the highest capacity of the microscope. It requires a very high power lens to photograph, for fully one-fourth or more of the light is absorbed in the process, and on account of the heat from the powerful light the objects in the microscopic fluid are in danger of being killed. The heat is, however, not too great to impair the action of the blood, except to dry the serum and hasten the clot formation. Dr. Watson was asked as to the value of the pictures in making diagnoses for different diseases as shown in the blood. He said that these series of pictures taken from time to time in the progress of a disease or its cure, were of very great service to physicians' memory. Not only that, but blood could be sent by mail long distances and retain enough of its characteristics to be intelligently photographed. He mentioned a sample of malarial blood he recently received from Africa. The malarial germ was still living in it when he photographed it. Both blood and pictures can now be sent by mail, and the pictures can be made use of by doctors who do not have the facilities for such photography.

'Graphs, 'Phones and 'Scopes

The Phonetoscope

The phonetoscope is the latest improvement in the instruments used by physicians and surgeons. Its use enables one to hear the respiratory apparatus, of the organs of digestion, of the ear in health and disease, of muscles, joints, bones, fractures, dislocations, etc., and even the capillary circulation. The slightest vibrations, excluding other slight noises in the room, are heard during examination. It makes it possible for the physician to examine dressed persons with scientific accuracy, offers a certain method of detecting people who feign deafness, and enables the physician to appreciate the normal and pathological sounds emitted by the organs of the body. The phonetoscope is perfected on the principles used in the telephone.

A Physician says: "The principles of the telephone are carried out absolutely in the new instrument. We have all known this for years, but none of us ever thought of applying these principles to the purposes for which they were most needed and yet we all realize the old stethoscope, which we have been using, was a crude apparatus. The difference between the two instruments is that one is made on the principle of a trumpet and the other on that of the telephone. With the new phonetoscope the beating of the heart can be heard as distinctly as though the ear were placed directly over it.

The Toposcope

There is now in use in Vienna a toposcope, a machine which exhibits to the eyes of the observer all the fires which break out in a whole city. The apparatus consists of a good telescope, solidly attached to an arrangement of levers, while graduated sections of a circle are vertically and horizontally arranged so that moving the telescope up and down changes the position of the hands attached to the levers in reference to the graduated scale. Whenever the telescope is focused upon the same object the hands point to the same figures on the vertical and on the horizontal sextant. An index of the whole city having been made, when a blaze starts at night, to direct upon the spot of the toposcope on the respective side, read off the numbers, look up the object, and wire to central fire station is but the work of a few seconds. The local conditions for success are nearly perfect. St. Stephens' tower is over 500 feet high. The city is situated in the broad valley of the Danube; the atmospheric conditions are such that the toposcope works so correctly that the exact house number was often given to the central by the watchman in the tower before an alarm could have been sounded in the nearest box.

The Synchronomagraph

Postmaster General Gary has received from Lieut. George Squire and Prof. Albert C. Crehore a report of their recent experiments with their synchronomagraph system of rapidly transmitting intelligence by the alternating current upon the lines of the British postal system, for which they recently went to England. They say that W. H. Preece, the engineer-in-chief of the British telegraphs, gave them every facility, placing his assistants, workshops, and other things at their disposal. The apparatus was set up in the general office of London. On August 8 messages were sent over a copper and iron wire from London via Leeds to Glasgow, to Edinburgh, and return via Newcastle, Tyne, and York to London. The dis-

tance was 834 miles, forty-four of which were underground. It was found that slightly under 4,000 words a minute could be sent and the speed might have been increased.

About 650 complete waves of the alternating current were employed, or 1,300 single impulses of current. The present experiments are being conducted with the synchronomagraph transmitter upon the regular Wheatstone receiver in use on the British telegraph service. The Postmaster General replied to their letter, extending his congratulations on the success which attended their experiments and advised them that he would be pleased to hear further regarding them. At the last session of Congress Senator Pettigrew introduced a bill authorizing the Postmaster General to acquire possession of this system of telegraphing, if it should prove a success, and to put up a line between New York and Washington, on which to experiment. The bill appropriates a million dollars for this purpose.

The Thermophone

The principle of this thermophone is that of the time required for a given amount of heat to penetrate to the centre of a mass of fire clay, graphite or other resistant material. A small cylinder of, say, fire clay has in its centre a little pellet of a specially prepared explosive, which, when heated to a predetermined temperature, will explode with a characteristic report. If a number of these cylinders are made, all as nearly alike as possible, and exposed to different high temperatures, it is evident that the time which elapsed between the exposure to the heat and the sound of the explosion may be considered as a function of the temperature. Having determined a standard size and uniform material for the thermophones, Professor Wiborgh has computed very complete tables giving the time required for every ten degrees of temperature. With these tables and a stock of thermophones it is only necessary to throw one of the little cylinders into the space of which the temperature is to be measured and note the number of seconds which elapse before the report is heard, when the approximate temperature may be taken at once from the tables. It is found that the time varies somewhat, according to the character of the surroundings, being different, for instance, when the thermophone is exposed to flame, or when placed in contact with molten metal; hence three tables have been computed for use with varying conditions. For flues, heated gases, etc., the best method is to insert an iron tube, closed at the inner end, and, after the tube has attained the temperature of the gases, drop the thermophone in and note the time before explosion. A similar tube may be used for metals of moderate temperatures, while the metals of very high fusing points the thermophone is thrown directly upon the surface, in each case using the corresponding table. The determination of temperature by this means is not so precise as with the higher grades of pyrometers, but the simplicity of the thermophone and the readiness with which it may be used anywhere should make it a useful auxiliary to more accurate and complicated apparatus.

Two new instruments have been invented for the benefit of the people who are either slightly or almost entirely deaf, and which enable them to hear anything which is spoken, even in a large auditorium. One of them is a dainty little affair which may be used in the topmost gallery at the theatre, and every whisper from the stage becomes distinct. It has a handle like an opera-glass, while the receiver is a close imitation to a telephone receiver, but with the addition of the ear tube. There is no cushioning of the sound waves, so that the seashell effect

is avoided, it being constructed of special material, which does not create metallic sounds. The voice comes to the ear in perfect articulation, but intensified tone. This is called an "opera 'phone."

For those who are more deaf, a similar benefit may be obtained by the use of an instrument having double the power of the other, and which is built on the plan of a stethoscope. This is in appearance much the same as the instrument used by physicians, but the power is greater, for a person not totally deaf need only sit in a room to hear what is being said about him.

The "opera 'phone" will probably benefit the greatest number. One need no longer go to the expense of a high-priced seat at the opera, when with this little 'phone the most delicate notes may be heard in any part, and those who could otherwise go but once may for the same money go a number of times and enjoy hearing all of the artists at the same price asked for a parquet seat.

A novel instrument, called "the projective microscope," was shown in the amphitheatre of the Baltimore Medical College recently. It is the invention of Dr. Charles Potter, professor of pathology at the college, who has been working at it since 1879.

By the use of the instrument a greatly magnified representation of the object employed is cast upon a screen. The invention is expected to be of special value in teaching, as it will enable a large number of persons to obtain a view of the object magnified. A strong electric light is used to cast the reflection upon the screen.

A fire broke out in the building of the Young Men's Christian Association, in Church Street, Newark, N. J., last month. A performance was in progress in Association Hall, on the top floor of the building. A panic was caused by the flames, and several persons were severely hurt in trying to escape.

The hall had been engaged for an exhibition of the vitascope, and about thirty persons were present, most of them women and children. One of the celluloid films in the vitascope machine burst, and the pieces fell into the lamp flame. Immediately there was an explosion and flames broke out.

The interior of the hall was trimmed with light fabric and shrubbery, and in two minutes these were enveloped in flames. The apparatus in which the fire was stationed directly at the entrance to the hall and the intense heat cut off the exit. The hall rapidly filled with smoke, and became a veritable death trap, and had it not been for the presence of mind and courage of Alexander Gulick, the janitor, an appalling catastrophe would probably have occurred.

Mr. Gulick was downstairs in the gymnasium when the fire started. He realized the danger to the people in the hall above. He opened two doors leading from the gymnasium hall by a back stairway to the Association Hall platform. He rushed up and called the women to follow him. He was just in time for the women and children were nearly frantic, and were breaking open windows and trying to jump to the ground, thirty feet below. Mr. Gulick rushed through the smoke and flames and pointed out to the panic-stricken crowd the way to safety. By this stairway the entire audience passed through the gymnasium to the front of the building.

The managers of the show lost their vitascope, a quantity of films and other properties, valued at \$3,000. The association building included parlors, meeting rooms, library, gymnasium, bowling alleys and Association Hall. The entire building, except the directors rooms and front parlors, was flooded with water. The loss on the building is estimated at \$5,000, nearly covered by insurance.

The Growth of the Animated Picture Business

As the animated picture business has come to stay, it is not unlikely that a description of the establishment of Maguire & Baucus, Ltd., one of the leading dealers in this line, may be of interest to our readers. This concern, which undoubtedly has the largest selling business in the world, was organized by Messrs. Maguire & Baucus in the early part of the year 1894. These gentlemen commenced by establishing in the United States numerous kinoscope exhibitions, and they

entered into a contract with Messrs. Antoine Lumiere & Sons, Lyons, France, (inventors of the celebrated Lumiere cinematographe) taking over their business in the United States and also obtaining the selling agency of their standard gauge films in Great Britain. They have been very successful in marketing this product as they were in introducing the Edison goods. The Lumiere films are particularly interesting to the trade because of their clear cut photography and the

fitted for endless films (by use of a spool bank) as well as for others. The lamp supplied in connection with this apparatus is of simple construction; it is insulated at a joint in the arm so that the current passes through the forward arm to the carbons, the rest of the mechanism being free from electricity. It can be used on both 110 volts, direct current and 52 or 104 volt alternating current. The Bioscope has proven very popular and is the latest machine on the market.



BUSINESS OFFICES



PRIVATE OFFICES

have been very largely responsible for the success of the kinoscope. Representing Mr. Edison, they organized the business abroad and established their house in London shortly after the American business was started. While this concern has devoted the greater part of its attention to the selling of Mr. Edison's wares they have, within the last year, been handling all good makes of projecting machines and films. To give some idea of the extent of their business, it is only necessary

wide range of subjects they have obtained. In fact, as an example of photography itself, these films are by far the most remarkable results that have been obtained.

In addition to being the leading factors in the animated picture business, this concern makes a specialty of marketing novelties and utilizing their various agencies to push the sale of goods in this direction. They either take the article before it is ready for the public, perfect and manufacture

The Improved Bioscope '98 model will be ready within thirty days and will, in outward appearance, absence of cumbersome mechanism and absence of noise, resemble the Lumiere Cinematographe. The machine has no sprocket wheels and the films run forward or backward. There is no pitman for striking the films and, from the reports that are made, the machine is likely to be a revelation to the trade. A patent has been applied for and, it is safe to say, that the experience of this concern is



BOOKKEEPING DEPARTMENT



SHIPPING DEPARTMENT

to say that they have sold over 40,000 films and have equipped several thousand exhibitors in all parts of the world. They introduced the method of allowing customers to return films that are defective. They have agencies established almost all over the world and their shipments comprise, in addition to Great Britain and Continental Europe, India, New Zealand, Japan, South America, etc.

In May last Messrs. Maguire & Baucus, Ltd.,

same, or preferably take the perfected product and exploit it.

The Company is also engaged in manufacturing to a large extent; one of their latest products being the Bioscope. In this apparatus no belts or chains are used, it does not tear or injure the films, and, so far as clearness is concerned, it may be said that the flickering is entirely eliminated, and there is a complete absence of any vibratory or waving motion in the projected scene. It is

sufficient to guarantee a great step forward in this business.

The Chadwick Typesetter is also being manufactured by Maguire & Baucus, Ltd., and is about ready to be placed upon the market. It is a simple apparatus which is placed below the compositor's case, and the compositor, instead of using one hand for setting type as done at present, is enabled to utilize both by dropping the type into a funnel, the machine doing the twisting and turning,

which is requisite to placing the type in the proper position on the galley. The machine uses ordinary type, is very simple in construction, weighs about twenty pounds, and will about double the speed of the compositor. The machine will shortly be placed on sale at \$300 each.

The catalogues of this firm embrace over 1,000 different film subjects taken the world over, from

said: "It has come to stay. We have found it very satisfactory and a very attractive business. Our dealers and agents have been enabled to make good profits, and while some cutting has been indulged in by others we have, in every way, tried to protect the interests of our agents. Our dealers report increasing business and their orders give evidence of it. One feature that is unsatis-

worthless. The outlines of the picture which are clear cut in the original become ragged and imperfect when duplicated. The difference shows perceptibly even in the small kinetoscope where the film is magnified but slightly, but when the picture is thrown upon the screen and magnified 600 or 800 times, the imperfections make a duplicate film absolutely worthless.' It is a mistake for



FILM ROOM



TYPESETTER DEPARTMENT

the Desert of Sahara to Rancho Scenes in Mexico. It is sufficient to say that no public event of any great interest takes place in any part of the world but you can shortly find the reproduction of the scene on the film shelves of this concern's store rooms in New York and London. A stock of about 2,000 films is kept on hand embracing various makes, together with a full supply of leading projecting machines.

Mr. Maguire, of the Company, when asked what he thought of the animated picture business,

factory, I am sorry to say, is the deception that is practised by a few unscrupulous dealers with new customers by selling them duplicate films as originals. They have offered at ridiculously low prices Lumiere and Edison goods when, as a matter of fact, they have taken a positive film and copied it. The result is very unsatisfactory on a screen and the customer fails to get engagements. A man of large experience and success in the exhibition business had described the duplicate film very tersely as follows. 'A duplicate film is

an exhibitor to try to save a few dollars on his outfit of machine and films. Subjects that would have brought great applause a year ago get none now. Managers know that subjects can be gotten which have been taken, the world over and they will not pay good money for poor exhibitions. I know of men with a \$400 or a \$500 outfit making \$5,000 a year net out of it. They know their business. Other men, with inferior machines poor films (generally duplicated ones) and careless operator, make a failure—it is so in all business.'

Slot Machines

Machine That will Shine Shoes

Several months ago the Comic Weekly section of the *Sunday World* contained a cartoon depicting what might some day occur in the way of nickel-in-the-slot machines. In the wild burst of his imagination the cartoonist suggested that in the distant future slot machines would take the place of the bootblack. That day has already dawned.

John W. Kirby, a young man employed as book-keeper in the office of the *Scrantown* (Pa.) *Times*, saw *The World's* cartoon, and it set him to thinking. "Why not?" he asked; and he resolutely set about making the dream of the cartoonist a reality.

Mr. Kirby was unpractised in the use of tools or machines and was unfamiliar with the technical terms employed by machinists. But he was afraid that some one would steal his idea; so he worked it out himself. No one knew exactly what he was doing or how he was doing it. He did a part of the necessary work in one machine shop and a part in another. He was often ridiculed because of his lack of familiarity with tools.

Finally Mr. Kirby had drawings and a working model completed. Then he went to Washington and applied for a patent. The wise men in the Patent Office have been studying the drawings furnished by Mr. Kirby, and they have finally allowed him a patent.

The machine that Mr. Kirby has completed will not only clean and shine shoes. It will sell gum, perfume your handkerchief and furnish a mirror in which you may examine your face while the shining process is going on. After the necessary coin is dropped in the slot the customer seats him-

self in a chair. His weight depresses the seat of the chair, thereby setting the mechanism in motion and lowering a gate that exposes the cleaning and polishing apparatus. The feet are first placed on a pedestal that cleans the shoes and are then put on other pedestals that apply the polish and rub them until they shine. The cleaning and polishing are done by a chain which runs around a wooden block the shape of a shoe and carries small sponges saturated with cleaning and polishing fluids. Mr. Kirby invented his own cleansing and polishing mixture. There is a bell that is fixed to ring when the shoes are sufficiently polished. In the meantime a block of gum has dropped from its receptacle and awaits the customer, and his handkerchief has been scented if he has placed it in a small receptacle intended for that purpose. The automatic mirror has also been placed in position in front of the individual who has intrusted his feet to the mechanical shoeblack. When he rises from his seat the chair is raised by a spring, the gate rises automatically and the machinery for polishing and cleaning is out of sight and safe from harm. It may be seen again only by dropping another coin into the slot. The automatic machine is made of highly polished wood and embellished with brass. The mechanism is run by springs, which are wound and set ready for use by the person attending to the nickles that have been dropped in through the slot for the many little things that help to make one feel dressed. The polishers are to be placed at corners on leading thoroughfares and at railway stations.

The irrepressible slot machines are bobbing up again at Peoria, Ill. Recently they were ordered out by the State's Attorney and several prosecutions resulted. Within the last two or three

days they have come to the front again and are now being operated as if nothing had ever happened. It is possible that more prosecutions will result for the State's Attorney declared himself at the previous trouble as being determined to rid the city of this nuisance.

In effect United States Circuit Judge W. W. Morrow, of San Francisco, Cal., decided last month that a nickel-in-the-slot machine is a gambling device only, and not patentable as a "new and useful invention."

Some time ago Gustave F. W. Schultz brought suit against Theodore Holtz and a number of others alleging infringement upon certain letters patent granted on a nickel-in-the-slot machine. Holtz in his answer set forth that the machine was not a new and useful device, but suitable for use only in saloons, drinking places and places of similar character. The same view was taken by Judge Morrow, from the evidence presented, and a decree for the defendant was ordered.

Patents on such machines are obtained only on the representation that the device is in the nature of a toy.

The ordinance introduced by Councilman Bechel at Omaha, Neb., by which the ordinance licensing slot machines is repealed and the fee ordered returned to the operators of the machines brings up the same difficulty that occurred when similar action was taken with reference to the ordinance licensing coal dealers.

All the fees received from nickel-in-the-slot licenses up to September 1 have been turned over to the school fund, and as on previous occasions the Board of Education has peremptorily refused to disgorge funds once turned over, it is expressed

that if any fees are returned the amount will be taken from the general fund. As the fund is insufficient to meet its legitimate obligations during the remainder of the year any proposition to draw on it for upward of \$1,000 to refund licenses will probably be vigorously contested.

The repealing ordinance is meeting with a vigorous opposition on the part of the protected dealers, who are much averse to losing what has proved to be about the best thing, from a money standpoint, that ever happened. One Douglas Street saloon man, who has several of the gambling devices in his place of business, says that each machine makes from \$50 to \$60 per day for the house. Of this amount, half goes to the owner of the machines, but the proprietor easily pockets \$25 a day net on each machine. There are a dozen saloons and cigar stores in the business district in which the profits on the machines amount to more than the aggregate legitimate trade of the establishment, and these dealers are firmly convinced that the slot machine is a good thing and should be encouraged. There is every indication, however, that the repealing ordinance will be passed by the council if the question of refunding the licenses can be satisfactorily adjusted. It is well known by those who are on the inside that the slot machine experiment was merely a "feeler" on the gambling question and that if the machines were allowed to operate without any emphasized objection from the public the gambling houses would soon have been reopened. As the opposition to the slot machines has become general, it is admitted that protected gambling cannot be allowed, except in the face of a tremendous public sentiment.

Our Correspondents

PORTLAND, ORE.

EDITOR THE PHONOSCOPE:

DEAR SIR.—Everything looks bright here in this lovely valley of the Willamette.

Such crops were never heard of, and such prices are almost unprecedented. If business is not good for the next year, then we had better "foreclose" on ourselves, take advantage of the "Bankruptcy act," and "take for the woods."

Last year with small crops, wheat was forty-five cents, hops four to five cents; now wheat is eighty cents, hops twelve and a half cents and will soon reach at least twenty cents a pound.

When things are this way, don't think for a moment that the Phonograph is not "in it." The farmers are coming to town in droves, and their faces are beaming with smiles, he has money to spend, and he is "forcing" some of it *into our little ole machine*. To-day is our 931st consecutive day in this "Village," and the prospects were never so bright as at this very moment.

The interest in talking machines has taken a jump in another direction. Several parties have recently invested in machines for private use.

There is a good joke goes with one of these, and it is too good, not to tell. A gentleman whose shoe store is exactly opposite your correspondent's phonograph parlor, recently bought a machine and some "Yankee" sent him a letter dated from City Hall to call and pay his license, and he did not do a thing but go on the "dead run," fearing he would violate the ordinance. He said to the Auditor that he did not think it right to make him pay license unless he took money off his machine, which he did not intend to do. Then he was told that a \$250.00 bond would square the thing. Later on the officials called at his place of business and

on his solemn promise; "So helup me, Moses! I gif you my word I vil neffer play dot machine for revenue burposes, so helup me!" he was assured that the thing was all right, and he immediately came over to me and subscribed for THE PHONOSCOPE so he could get posted on the laws, and now he thinks that we are the party that "put up the job"—such ingratitude!

Since I sent in my first lot of subscribers for your magazine, I have tried hard to get more but I can't seem to make outsiders think they want it. However, I now send you two more, with a prospect of several others in the near future.

This is a very small showing for such a long struggle. However, I feel highly elated at this. You know (I don't know whether you do or not) "Mr. Michael Jerremire Casey Hunting," made me agent for THE PHONOSCOPE instantly the first number was issued. He discovered that I would make about the liveliest agent on this whole Pacific Coast, so he made me, not only agent, but crowned me with laurels, and said; "John, go forth up and down 'where rolls the Oregon' and write classic letters for THE PHONOSCOPE, and you shall be my special correspondent," all of which goes to show that Michael Jerremire Casey knows a good thing when he sees it. Say, boys! come to Portland and see us and we will never let you get away till you have had a good time.

SELAH.

Telephone to Cheer up Patients

Newest use for the "Hello Central"

The very newest use for the greatest invention of "Wizard" Edison is a humane one. By the side of every patient in the pavilion hospitals of Paris there will be put a telephone, connected with the office of the hospital superintendent. As everybody who has visited a public hospital is aware, the friends of patients are admitted to see them only a few hours on certain days, and in cases where the patient is an inmate of an infectious disease hospital the friends are never admitted, even though the patient is out of danger.

The reasons for keeping out the friends of patients are of course obvious. But while these rules are necessary they are nevertheless cruel to patients and friends. The introduction of the telephone by the bedside of every patient will be welcomed with joy. In this manner a patient may converse with friends at home or in the nearest drug store with absolute freedom. There will be no interference with the hospital work and no danger of contracting infectious disease.

All of the telephones are to be connected through a central exchange in the office of the superintendent of the hospital, and there will be no danger of patients becoming dangerously fatigued, as a nurse will keep watch when possible to see that the strength of the very feeble is not taxed too much. Connection with the office, where "Central" may hear all that passes over the wire, will also prevent patients from giving information which they should not give. In the case of patients held on criminal charges it will make it impossible for them to plot over the wire, to plan their escape or carry on any other dangerous transactions.

The telephone will do much towards changing the hospital ward from the dreary place it now of necessity is into one of comparative cheerfulness. It is the intention of the projectors of the scheme in Paris to have a receiver placed at the

side of each bed. On Sundays they will be connected with some church or the hospital chapel, so that the service may be enjoyed by all the patients. At least once a week the telephones will be connected with some theatre or concert hall, in order that all who wish to hear the entertainment may enjoy the diversion. The possibilities of the hospital telephone are many, and the Paris experiment will doubtless lead to its introduction into American hospitals.

X-Ray Items

X-Rays made Harmless

Elliott Woods, superintendent of the capitol, whose success in preventing injurious results from following the use of X-rays, has attracted attention, does not claim to have been the inventor of the principle he applies. He said he obtained his first idea of it from reading a paper by Nicola Tesla. Mr. Tesla told of the use of a sheet of aluminum to receive the bombardment from the Crookes tube, and this suggested to Mr. Woods the use of some metallic substance, the presence of which between the tube and the objects would not be perceptible on the screen.

The theory of Mr. Woods is that electric waves are set in motion and projected from the tube, which cause in some cases, and especially when powerful apparatus is used, electrical decomposition of the tissues, or burning, as it is generally called. He told me he believed almost any metallic substance would answer the purpose about as well as gold-leaf, which he uses because it can be readily obtained beaten to extreme thinness.

His method is to paste the gold-leaf on a cardboard and connect the metal by wires to a ground wire, so as to carry off all electricity which it may intercept. He said he found it was impossible to obtain the spark from the hand.

Mr. Woods, by the use of this apparatus, has been able to use the X-rays with great success in a large number of cases without any disastrous results. He said he believed the greatest danger in the use of the rays came from carelessness or incompetency. He is about to undertake a series of X-ray pictures, showing the progress of the healing of fractured bones from day to day, which are expected to be of great interest to surgeons.

New Work of the Roentgen Rays

Almost every week brings news of a new practical application of the Roentgen rays. Dr. Thoerner, a chemist at the Municipal Analytical Laboratory at Osnabrueck, Vienna, has now turned those rays to account in the examination of food, and with their aid has proved that often it is possible to detect adulteration in food with remarkable certainty. For instance, butter with little or no salt in it casts a uniform shadow, whereas the shadow of butter containing salt shows darker or lighter spots. Natural coffee berries produce a shadow which clearly shows the structure of the berries, and particularly the slit on the under side, whereas the shadow of artificial berries is merely a dark mass in which no structure is visible. Just so green and black tea, which for the purpose of cheating has been colored or loaded, casts a black shadow; so does artificially loaded silk, whereas genuine silk allows the Roentgen rays to pass through it. Those rays at once enable us to see if hazelnuts, walnuts, or almonds are hollow or worm-eaten. Dr. Thoerner's experiments extended also to pepper, cinnamon, cloves, and other spices, with all of which their genuineness can be tested by the Roentgen rays.

New Films for "Screen" Machines

INTERNATIONAL FILMS

UMBRELLA SURPRISE. This picture was taken at Rockaway Beach, shows at the start an umbrella on the beach out of which projects two pairs of feet. An inquisitive policeman appears upon the scene, pulls the umbrella away and displays a mother chastising an incorrigible child. A very comical and amusing subject.

BUCKING BRONCHO. This is a capital subject with a very pretty background of a wooded forest. A cow-boy from the West is seen mounted on a wild and untrained broncho which has never been ridden before. The horse resorts to all sorts of means to dismount its rider but in spite of bucking, rearing and other wild antics, the cow-boy retains his seat to the last. Very laughable and bound to get an encore.

BROADWAY STREET SCENE. A picture of the great metropolis which is bound to be of interest to all, taken at Broadway a little above Canal Street during one of the busiest hours of the day. Cable-cars, carriages and vehicles of all kinds are seen going up and down town. The sidewalks are thronged with pedestrians and all the activity of a New York Broadway crowd is clearly defined. An unusually clear subject.

GLEN ISLAND SERIES

By kind permission of J. H. Starin, Esq.

BOAT ENROUTE TO GLEN ISLAND. This scene shows the famous pleasure craft, the "Howard Carroll" with full compliment of passengers passing around the point prior to arrival at this well-known summer resort. The Government Station, David's Island, serves as a background, the whole making a most interesting and attractive picture. Unusually clear definition.

LANDING OF PASSENGERS. The same boat on her arrival at Glen Island being moored to the dock; the gang-plank is run aboard and the passengers, men, women and children are seen passing from the boat to the Island, and as a result the picture is full of life and animation.

FEEDING THE SEA LIONS. This picture was taken during the time that the sea lions were being fed by their keeper. They are seen grouped at the side of the pond waiting their noon-day meal—the fish—their dinner—are then thrown into the water and a general stampede is made for them by the sea lions. The consequent water effect can be well imagined, the action of the lions is most graceful and interesting as they dive on and off an improvised raft and fight amongst themselves for possession of the fish. A picture of unusual and extraordinary interest; nothing similar to it has as yet been seen on any projecting machine.

FEEDING THE PELICANS. Showing Pelicans, Cranes, Storks, Herons and Sea Gulls diving, swimming, jumping and flying in a wild scramble for fish which is thrown to them from outside the pond. An extraordinary amount of life and animation and a scene such as could be found only at the Glen Island menagerie.

EDISON FILMS

WATERFALL IN THE CATSKILLS. Haines' Falls is a picturesque and almost inaccessible mountain cataract in the Catskills. This view of it shows the water effects against a dark background. The falls have a drop of 160 feet, only a part of which is shown. The rugged surrounding of the falls are impressive.

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 * * * * *

All Cohens Look alike to Me. Hunting
An Armful of Kittens and a Cat. Porter
A Picture of my best Girl. Porter
At the Fair, Galop. Columbia Orchestra
Bye and Bye You Will Forget Me. Spencer and Harding
Can't Think of Everything. Denney
Casey Digging in the Klondike Gold Mines. Hunting
Cockles and Mussels (Duet). Spencer and Harding
Come Play With Me. Quinn
Come, Send Around the Wine. Myers
Crappy Dan. Spencer
Dancing in the Dark. Sousa
Departure from the Mountains. Schweifust
Don't Let Her Lose Her Way. Gaskin
Dream of Passion Waltz. Issler's Orchestra
El Capitan March. Rosey's Orchestra
El Capitan March Song. Quinn
Eli Green's Cake Walk. Rosey's Orchestra
Embassador. Rosey's Orchestra
Emmett's Lullaby. Quartette
Erin, O Erin. Myers
Eve and Her Pal Adam (Banjo accompaniment). Paine
Fly Song (Chauncey Olcott's). Myers
From the Hour the Pledge is Given. Myers
Hannah Thomson. Quinn
Handicap March. Diamond and Curry
He Can Like Kelly Can. Bernard Dillon
Her name was Mary Wood, but Mary Wouldn't. Hunting
Hot Stuff Patrol (Banjo). Ossman
I Can't Think of No One But You. Gaskin
I Don't Care If You Nebber Come Back. Gaskin
I Don't Blame You, Love. Gaskin
I Love One Love. Aeolian Trio
Jolly Bachelor March. Rosey's Orchestra
Just set a Light. Favor
Kate O'Donoghue (Chauncey Olcott's). Myers
Katherine (Yodle). Pete LeMaire
Kaya Kaya. Quinn
King Carnival. Quinn
King Carnival March. Diamond and Curry
Lesson in Music. Signor Frejoli
Loves Whisper. Issler's Orchestra
Lulu Song. Spencer
Mamie Riley. Quinn
Medley Reels (Banjo Solo). Vess L. Ossman
Medley Parody. Bernard Dillon
Medley of Coon Songs. Golden
Mollie Dwyer. Quinn
Monastery Bells (Orchestra Bells). Lowe
Mr. Bogan Gimmie Gin. Spencer
Mr. Finnegan and Mr. Flanigan. Hunting
My Little Chorus Girl. Quinn
My Little One. Favor
Never Mind the Moon, John. Denny
Nineteen Jolly Good Boys All In a Row. Myers
No Coons Allowed. Spencer
Oh Maria. Favor
Oh! Poor Bridget. Hunting
One Heart, One Mind (Xylophone Solo). Lowe
Plinkey Plunkey. Favor
Pom-Tiddle-om-Pom. Favor
Pretty Molly Dwyer. Quinn
Rainbow Dance. Rosey's Orchestra
Sadie, my Lady. Porter
Sally Warner. Porter
Scorcher March. Rosey's Orchestra
Series of Imitations. Girard
She is Coming Home To-night. Porter
She was there. Denny
Sounds From Home (Orchestra Bells). Lowe
Stars and Stripes. Rosey's Orchestra
Stars and Stripes Forever. Columbia Orchestra
Stephanie Gavotte (Zither). Wormeser
Susie Smith from Troy. Favor
The Beatitudes. Sermon on the Mount. Spencer
The Crimson Chain. Gaskin
The Czar of the Tenderloin. Denny
The Ten Commandments. Spencer
The Warmest Baby in the Bunch. Spencer
There'll be a Hot Time in the Tenement To-night. Hunting
There's A Little Star Shining For You. Quinn
Wedding of the Chinese and the Coon. Spencer
Whistling Girl. Johnson
Won't You Be My Little Girl. Gaskin
Yer Baby's a Coming to Town. J. T. Kelly
You can't stop a girl from thinking. Hunting
You're a Good Daddy. Gaskin
You're Not the Only Pebble on the Beach. Spencer
Zi-Zi-Ze-Zum-Zum. Hunting
4 11-33. 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 * * * * *

Asleep at the Switch C. Shackford 10
Arabella Jones, Will you Accept My Hand? Williams and Perrin 11
A Shanghai Layin' for a Coon B. Michaels 1
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
Don't Speak Unkindly of Her Gussie L. Davis 3
Every Nigger Has a Lady But Me Karl St. Clair 11
For I Love Her So W. T. Francis 1
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
Jack, How I Envy You H. Von Tilzer 9
Johnson Wins the Cake J. H. Flynn 9
Just For the Sake of our Daughter Rosenfield 3
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
Naples Miss Harriet Rice 7
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
Sweet May McVey Rosenfield 3
Take Your Clothes and Go Irving Joues 3
Tell Me My Lady Fagin 3
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 Song that Maggie Sings. Geo. M. Cohan 3
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 Kollius 1
Thinking of the Dear Ones Left at Home Harry Howard
Time Will Tell Harry S. Miller 5
'Tis Then You'll Know O. Heinzen 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 Off 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

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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.

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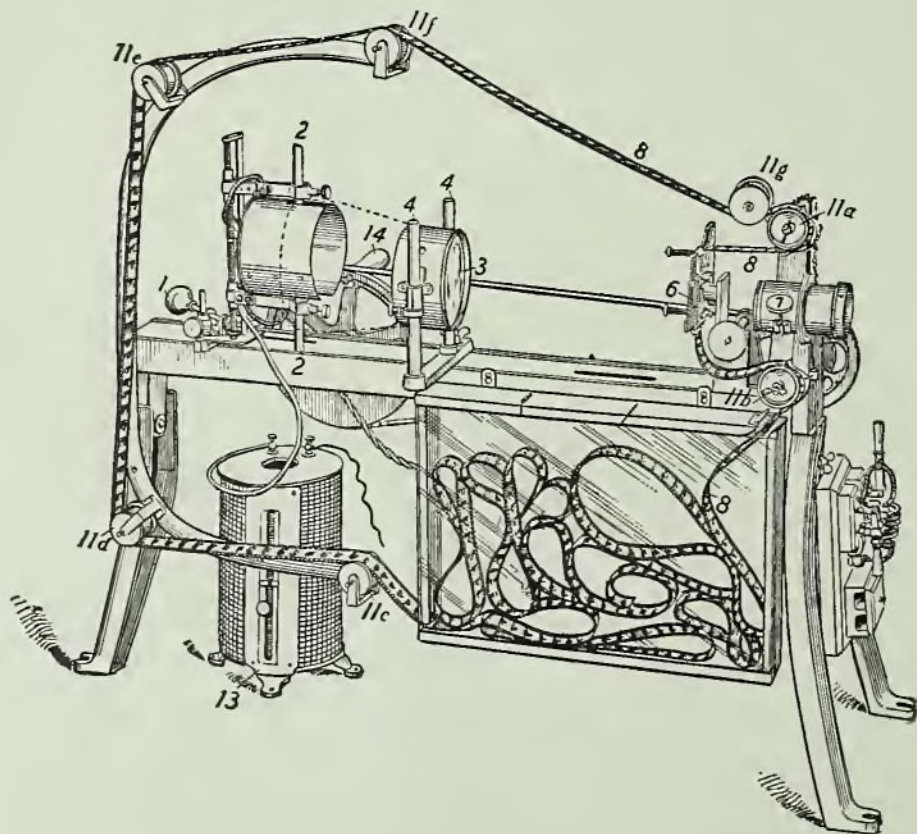
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The following letter received from Mr. Chas. Ford, Manager of Ford's Grand Opera House, Baltimore, Md.:

MR. S. LUBIN, OPTICIAN. PHILA.

FORD'S, BALTIMORE, August 16, 1897.

DEAR SIR:—I have had your projecting machine, **The Cineograph** in operation since June 7th, and although it was preceded by both the Cinematograph and Biograph the results have been so satisfactory that it is **considered the best machine of the three.** My season at Electric Park will close October 1st, but I have arranged to continue to run the machine elsewhere.

Yours,

CHAS. E. FORD.

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