Compliments of
H. M. WARNER
President,
Warner Bros. Pictures, Inc.
VITAPHONE

The Biggest Thing In The Last Forty Years

More than twenty-five years ago, H. G. Wells, in "When the Sleeper Wakes," described an invention of the future. On a smooth white surface, a yard square, "The Sleeper" saw miniature human figures moving about and heard them talk and sing. It was "exactly like reality, viewed through an inverted opera glass and heard through a long tube."

At that time, when both phonographs and motion pictures were doubtful experiments, Wells's imagination performed the feat of predicting them, not only perfected, but combined. Wells, however, set their time in the story as two hundred years afterward—A.D. 2099. He was 175 years out of the way. Today, A.D. 1927, his prediction has come to pass. Vitaphone is the fulfillment of it beyond Wells's most extravagant dreams.

The Future

Following the introduction of Vitaphone at the Warner Theatre, the New York Times said editorially: "The future of this new contrivance is boundless, for inhabitants of small and remote places will have the opportunity of listening to and seeing grand opera as it is given in New York and in musical centers of Europe. Besides, through the picturing of the vocalists and small groups of musicians or choirs or orchestras, the Vitaphone will give its patrons an excellent idea of the singer's acting and an intelligent conception of the efforts of musicians and their instruments. Operatic favorites will be able to seen as well as heard, and the genius of singers and musicians who have passed will still live."

W. C. Durant, regarded in business as one of the leading figures in the security market, predicted in 1908 that General Motors would earn more money than United States Steel Corporation. That prediction, which in 1908 sounded fantastic, has become part of financial history in 1927.

Recently Mr. Durant volunteered another prediction. In an interview with B. C. Forbes that appeared in Forbes' Magazine for February, he said:

"The thing that has the biggest possibilities of anything and everything I have come across in the last forty years is Vitaphone."

Other dreamers became active as soon as motion pictures became profitable.

Time and again the problem of having sound and motion in step seemed on the point of solution. The disappointments resulting were so many and so heart-breaking, however, that men who were interested despaired of ever having their ambitions realized.

At length the term, "audible pictures," became anathema to the magnates of the film industry. Nearly every one of them at one time or another had plunged financially into the problem of giving the screen the flexibility of oral sound, and the losses these pioneers had suffered brought painful memories.

The Warner Brothers' Part

This was the condition of things when a hint floating about reached the ears of the Warner Brothers that the Bell Telephone Laboratories had made a number of discoveries tending to the perfect synchronization of sound and motion.

"What a wonderful thing this would be if it could be brought about!", exclaimed Harry M. Warner to his brother Sam.

"Well," came the reply, "let us look into it. Maybe they are on the road to something worth while."

What Sam Warner found was that certain basic principles in making pictures audible had been solved. While there were many problems yet to be ironed out, enough had been accomplished to cause Mr. Warner to become enthusiastic. This enthusiasm spread to H. M. Warner and was shared by Albert and Jack L. Warner.

The mere fact that they were facing something, the failure of which would plunge them into financial ruin, didn't, however, stop them. However, Warner remarked that this thing which was to be known as Vitaphone, living sound, must not fail. No one was to think of failure. That was all there was to it.

With the resources of the Warners at work there began a series of experiments at the studio of the firm in Brooklyn. Then there came a period of depression and likewise periods of excitement. A time came when the engineers, carried away by a new lead and a new promise, forgot to eat and worked all night.

Screen History

Bit by bit things got clearer and hope became stronger, with the result that the Warners plunged deeper into the enterprise by taking over the huge and expensive Manhattan Opera House in New York for the continuation of the experiments and as a studio for the screening of artists. In addition to this the Warner Theatre was called into use for practical demonstrations. There in the wee small hours of the morning the engineers would experiment and discuss such problems as how to keep the sound uniform and natural with the action in synchronization with the shifting of the picture reels going from one projection machine to another.

Vitaphone received its first public hearing on August 6, 1926, at the Warner Theatre in New York in conjunction with the appearance of John Barrymore in "Don Juan." Public and press united to acclaim the new miracle of science.

"Marvelous!—Unearable!" said the Times, and other newspapers heralded Vitaphone as starting a new era in the screen world, an era that would revolutionize entertainment.

Vitaphone

No longer count the lyric art.
A fading dream to haunt the heart—
The singer and the song long gone.
Both in immortal youth live on.
—Harry Lee.
Revolutionizing the Motion Picture Industry

H. M. Warner Makes a Prophecy

(From Motion Pictures Today—February 12, 1927)

It is Harry M. Warner speaking and here is his message to all of the motion picture business, a prediction, a prophecy:

“One year from today, the present wise men of the motion picture industry won’t know the motion picture business—their own business. Make note of this and file it away for reference, in February, 1928.

“We are now working a year and a half ahead. In the period I mention there will have been made and placed before the public ‘Noah’s Ark’, ‘The Jazz Singer’ and ‘Black Ivory’, each made with one-third to one-half Vitaphone.

“Installations are going forward as fast as we can make them and all over the country theatres of varying sizes are making ready for the revolutionary development of the pictures so that in the time I mention the whole manufacture and exhibition of pictures will be vitaphonized into a living, speaking and playing institution for the providing of newer and greater entertainment, the spreading of knowledge by the spoken word as well as by the shadowed action; and only the man of imagination can predict the limits of this new creation of the newest and finest of the human arts.

We give important consideration to this prediction because we see before us now a twelve hundred seat house on Broadway, the Warner, grossing $20,000 a week with the Vitaphone “Don Juan,” and across the street, the Colony, also a moderate capacity house, doing $20,000 a week with the Vitaphoned “Better ‘Ole,” and down the way farther, at the Selwyn, the newest one, “When a Man Loves,” the Vitaphoned Barrymore starring vehicle, riding into an astounding success.

We know also of the Metropolitan in Baltimore with $2,800 intake in its first day of a Vitaphone picture, a figure never even approached in the house’s history.

We know the Strand in Brooklyn is now to be a Vitaphone-equipped theatre and—But why go on? They are sweeping the country and competition proceeding in a leisurely and complacent way can scarcely hope to catch up even if they started right now full steam ahead.

It’s in the air and in the ear. Watch for the fulfillment of Harry M. Warner’s definite prophecy.

A.J.
The System By Which Vitaphone Is Operated

The system by which Vitaphone is operated represents successful combination and conversion to motion picture use of three major research developments.

The first of these is the electrical system of recording. This method employs a high quality microphone of an improved type, electrical amplifying apparatus, and a record-cutting mechanism. Recording may be carried on at a considerable distance from the source of sound, so that the actors may be grouped naturally in any scene and need not be crowded before a microphone.

Electrical Vibrations

The second essential feature is a remarkable electrical reproducer which converts the movements of a needle in the grooves of a sound record into electrical vibrations. The electrical currents from this device pass into an amplifier and then operate a high-quality loud transmitter of an improved type capable of filling practically any motion picture auditorium.

The third link is between the reproducer and the audience in a theatre. An adaptation of a transmitter system makes it possible to pick up electrical vibrations from the reproducer, amplify them, and, by means of properly-located loud transmitters, transform them into sound. The loudness is so regulated as to give the illusion that the source is the actors whose pictures appear on the screen. In the case of musical programs a specially constructed loud-speaking telephonic transmitter insures the correct values and naturalness.

Ease of Operation

The combination of these three factors in a complete system required the development of a mechanism for keeping the film and the sound-producing instrument in absolute synchronism, both during recording and during reproduction. It was necessary that the system be capable of easy operation in a theatre, without requiring special skill. To meet these requirements, both the film and the sound device are set in their respective machines with a given marker in the proper place. The two machines are then speeded up from rest, together, by the simple device of having them coupled to opposite ends of the same motor. The mechanism for taking the pictures with these markers on the original film and record could not be accomplished in so simple a manner, since the camera had to be left free to move on its tripod to change the angle of view. In this ease two motors are used, one to drive the camera and one to drive the sound-recording machine. An ingenious electrical gearing device was developed whereby the two machines can be started from rest and maintained in synchronism not only after they are up to speed, but during the period when they are speeding up.

The most difficult part of the development of Vitaphone was the reproduction of music or speech from the apparatus in such a manner that it would be as loud as music or speech from a real performance and at the same time a faithful copy in all respects. The special electrical device for converting the motion of the needle bearing on the record into electrical vibrations and the use of a modified transmitting system overcome these difficulties.

The Inventors

Vitaphone goes to the world without an individual being credited with the invention; it is a product of cooperative work conducted in modern industrial research laboratories. The problem of synchronizing sound and scene was solved through the combined efforts of scientists employed by the Western Electric Company and the Bell Telephone Laboratories.
FRANCES ALDA
Famous as Manon and Mimi. — Sings "The Star Spangled Banner" with Vitaphone orchestra.

MARY LEWIS
American Soprano
Southern songs in "Way Down South" scene.

GUISEPPE DE LUCA
Italian baritone. — "In Rigoletto" quartette.

MARY TALLEY
American Soprano
Sings "Gilda's music in "Rigoletto" quartette.

GUISEPPE DE LUCA
Italian baritone.

CHARLES HACKETT
American tenor.

Mary Tally
American Soprano

BENIAMINO GIGLI
Italian tenor. — Sings "Rigoletto" arias. — "Qua sta o quella" and "Duna e mobile."

ERNESTINE SCHUMANN-HEINK
The greatest contralto of two generations. — Sings "Danny Boy," "The Rosary," "Stille Nacht."

GIOVANNI MARTINELLI
Italian dramatic tenor. — Sings "Pergolesi" and "Aida" arias.

HENRY HADLEY
Philharmonic conductor and composer of Vitaphone score to "When a Man Loves."
— Below, the orchestra—107 men.

REINAUD WERENRATH
American baritone. — Sings "Mandolin," "Long, Long Trail" and "Host of a Bear."

ANNA CASE
American Soprano
Does "Spanish Fiesta" as an operetta with Metropolitan chorus and the Can- nons, Spanish dancers.

JEANNE GORDON
Mezzo-Soprano
Sings Carmen in Martinelli's Don Jose in holiblend version of Bizet's opera.

HENRY HADLEY
Philharmonic conductor and composer of Vitaphone score to "When a Man Loves."
— Below, the orchestra—107 men.
Vitaphone Stars—Musical Comedy, Vaudeville and Concert

George Jessel
Star of "The Jazz Singer" and "Private Eyes Murphy."--Does comedy monologue, "At Peace With the World!"

Elsie Janis
Revue star. -- Sings "Madelon" and other war songs, assisted by 107th Regiment chorus.

Al Jolson
Sings his most famous mummy cants, and "April Showers," "Racketty Baby" and "The Red, Red Robin."

John Barclay

Jack Smith
Impersonations of famous operatic stars, "Faust," "Bolko," "Carmen."

George Jessel
Star of "The Jazz Singer" and "Private Eyes Murphy."--Does comedy monologue, "At Peace With the World!"

Van and Schenck
Musical show stars—comedy songs: "Me Too," "Hard to Get Along," "She Knows Her Onions."

Eugene and Willie Howard
Musical show comedians, in sketch, "Between the Acts of Grand Opera."

Roy Smeck
"Wizard of the Strings."--Popular solos on Hawaiian guitar and ukelele.

Albert Spalding
American violinist.---Plays from Chopin, Sarasate and Schubert.

Mischa Elman
The Russian violinist.—Plays Dvořák’s "Humoresque."

Harold Bauer
English pianist. Plays Chopin's Polonaise in A flat.

Efrem Zimbalist
Russian violinist.---Phenomenal success in England and America.

John Barclay

Willie Howard
Radio entertainer. -- Sings "Dreamy Melody," "Because I Love You," "Oh, How I Miss You Tonight," "I Wonder What's Become of Sally."
**Far-Reaching Significance In Human Affairs**

**Creating A New Art**

by C. G. DU BOIS

Chairman of Board, Western Electric Company

Vitaphone is not only an achievement of high scientific importance; it is an event of far-reaching significance in human affairs. It is natural to see and hear at the same time.

We may and we do artificially adapt our mental processes to either effect alone, but the combination of the two is what the mind instinctively seeks.

The Vitaphone does this and thereby creates a new art. Anyone may prophesy as to just what directions its uses and effects will take as the years go on. No one can doubt the great possibilities it contains for preserving and disseminating knowledge, understanding and culture.

**Resurrection By Science**

by MICHAEL I. PUPIN, PH.D., SC.D.

Professor of Electro-Mechanics, Columbia University

President of the American Institute of Electrical Engineers

Just imagine watching Liszt today playing his piano as he played it many years ago and listening to the music which only his magic art could draw out of his obedient instrument. What a heavenly treat it would be today to look at Demosthenes of old and listen to his matchless oratory! I should give anything to look at Lincoln today and at the same time listen to his Gettysburg speech.

No closer approach to resurrection has ever been made by science. The educational value of this achievement is so obvious that comments are superfluous.

**Vitaphone and Scientific Education**

by EDWARD B. CRAFT

Bell Telephone Laboratories

The Parady of the future, the Pasteur and the Galileo may, by Vitaphone, make available to students in any place or at any subsequent time a demonstration of their scientific researches and synchronize therewith their own comments, discussions and even their personalities.

The communication and demonstration of scientific material will be facilitated and our entire educational process may undergo changes beyond the reach of our present imaginations.

From the beginning of the attempts to accomplish what Vitaphone now does with such precision, the problem was not so much that of synchronization of sound and picture as it was the recording and reproduction of the sound portion of the combination in such volume and with such clarity as to make it appear that one was listening to the sound at its original source.

We may well stop to realize that each achievement like that of the present has been accomplished through the painstaking labors of many scientific workers over long periods. These men have grasped nature’s secrets and their researches now permit us to make nature obedient to our will in the wonderful ways of the present day.

**A By-Product Discovery**

by F. B. JEWETT

President Bell Telephone Laboratories

What the telephone scientist learned in his search for the solution of specific problems involved in telephony found a by-product application in a field quite foreign to the main region of his interest.

With the means at his disposal for the faithful detection, registration and reproduction of intricate sounds at any desired level of loudness, the door to the successful synchronized motion picture commenced to open. Then came the cooperation of mechanical technique with the artistic technique. Vitaphone represents the consummation of these efforts.

**“Neither Art Nor Artist Will Ever Die”**

by WILL H. HAYS

Far, indeed, have we advanced from that few seconds of shadow of a serpentine dancer thirty years ago when the motion picture was born— to this public demonstration of the Vitaphone synchronizing the reproduction of sound with the reproduction of action.

The future of motion pictures is as far-flung as all the tomorrows, rendering greater and still greater service as the chief amusement of the majority of all our people and the sole amusement of millions and millions, exercising an immeasurable influence as a living, breathing thing on the ideas and ideals, the hopes and the ambitions of countless men, women and children.

In the presentation of these pictures, music plays an invaluable part. The motion picture is a most potent factor in the development of a national appreciation of good music. That service will now be extended as the Vitaphone shall carry symphony orchestras to the town halls of the hamlets.

It has been said that the art of the vocalist and instrumentalist is ephemeral, that he creates but for the moment. Now, neither the artist nor his art will ever wholly die.
The Story Of The Four Warner Brothers

HORATIO ALGER, JR., ROMANCE IN REAL LIFE

In upper left hand corner, H. M. Warner—to his right, Albert Warner.
Below, Samuel L. Warner, and Jack L. Warner.

Backing Faith With Cash

It was Harry M. Warner who first saw the possibilities of Vitaphone and it is due to his courage that it is now revolutionizing the cinema industry throughout the country. A man may have faith in a thing and let it go at that. Backing his faith with money is something else. Harry M. Warner backed his faith with money, much money, and while things looked very dreary at times and the inventors seemed to be up against stone walls, he never lost courage.

Success has not made an atom of difference to the brothers. Harry is looked on as their oracle. They have absolute confidence in him. Recently when their father and mother celebrated the fiftieth anniversary of their wedding the "boys" took a day off and visited them in the old Ohio town.

Something more about them. They maintain a joint bank account into which all four deposit and from which all four withdraw. Such are the four Warners and such is Harry M. the brother who guided them to their present exalted position in the cinema industry.
The First Three Pictures Produced with Vitaphone Scores

JOHN BARRYMORE
In "Don Juan"
The picture that introduced Vitaphone to the world. Above, Barrymore, as the great amorist. To the left, a scene with Estelle Taylor, who plays Lucrezia Borgia. To the right, the Bacchanale.

SYD CHAPLIN
In "The Better 'Ole"
This second Vitaphone picture has already had a longer run in New York than any comedy picture ever produced. Chaplin plays Old Bill, the hero of Bruce Bairnsfather's war cartoons.

JOHN BARRYMORE
In "When a Man Loves," featuring Dolores Costello
The Vitaphone score for this romance of France in the reign of Louis XV was composed by Henry Hadley, associate conductor of the New York Philharmonic Orchestra.