

The Victory of the "Vitaphone"

How Walter J. Rich and Warner Brothers have startled and won the motion picture public with their marvelous vitaphone program—opera stars, speakers, vaudeville artists and orchestras, brought together by vitaphone to fit picture—sound perfectly synchronized with screen action

A NEW word has been coined that promises to be as universal in its use as its predecessor "telephone" and "telegraph." The genesis of the development and exploitation of the Vitaphone is a vitally interesting tale.

Five years ago the expert engineers of the Western Electric Company began their work incessantly in developing the synchronization of sound and motion. The last two and a half years the experiments have been intensified and tested to the Nth degree. Six months ago Mr. Walter J. Rich made an arrangement for Warner Brothers to be the exclusive lessees and launched the epoch-making Vitaphone as a practical achievement.

On August 6th, 1926, the first public showing was given in New York, which proved a sensation on Broadway. The music and symphony orchestra prelude by the Philharmonic Society, under the direction of Dr. Henry Hadley, the composer, opened a new field, making it possible for every picture house in the United States to utilize the best music for the motion pictures wherever they may be exhibited and making the musical score as an integral part of the picture. It seemed uncanny to witness Dr. Henry Hadley, the distinguished composer and director, bowing as the applause was given by the audience to greet him and his orchestra. Thousands of miles across the continent were audiences gathered to greet him at the same time. The vividness of it all was thrilling. Flashes and close-ups here and there revealed the individual players in the orchestra doing their bit with the earnestness and enthusiasm inspired by the conductor, whose wand waved in perfect rhythm with every sound—forecasting the Directors wand that may soon "beat around the world."

In response to the popular demand for something Spanish the great production of "Don Juan" with John Barrymore, was chosen to follow this epoch-making curtain raiser. Anna Case, the Metropolitan prima donna, in a wave of Spanish lace, sang with true operatic zest, while May Tully was as much at home as if appearing before the home folks in Kansas City or before the curtain at the Metropolitan.

The Vitaphone seems to fit right in with the general use and popularity of radio. Experiments will naturally lead on to motion pictures given with speaking parts and then, think of it! Broadway's best broadcasting music simultaneously from coast to coast for motion picture presentation. This same prologue included the address of Mr. Will Hays, the Czar of Movies, the operatic chorus of the Philharmonic orchestra was functioning as vividly before the eyes, as

well as the ears, of the people as the radio extends.

The journey of the fast mail car carrying the Vitaphone equipment to Los Angeles was an epochal event. The train, upon its arrival, was met by the father and mother of the four young men who have made such a conspicuous name for themselves in the motion picture world.

Mr. Walter J. Rich is a practical business man. He was formerly in the automo-



WALTER J. RICH

bile and real estate business in New York. While he was born in Gotham, he lived many years in Maine. When he made the alliance with the Warner Brothers, the Vitaphone stepped out at a lively pace.

The story of Warner Brothers itself lends a picturesque background of interest in the development of Vitaphone. Twenty-four years ago the father was running a small picture house in Youngstown, Ohio. Young Sam Warner stepped out and bought some film and took his brother Jack *en tour*, who was singing popular songs while Sam projected and collected. This added something to the family coffers. Tired of travelling, they rented a vacant store from a widow in Newcastle, Pennsylvania, at \$15.00 per week. They were not financially strong enough then to purchase seats so they rented chairs from the undertaker next door. This was all right if there were no funerals in town, but when there was an obsequy booked by the funeral director there was no show. The price of admission to the initial Warner Theatre was 5 cents

and they were busy gathering in the nickels and giving the people their money's worth.

Later they started buying film in New York. The father remained in Youngstown and the boys started two or three more theatres in and around Newcastle. In 1909 they launched the business of motion picture distributing under the name of Duquesne Supply Company and made quite a success of this venture. Then the General Film came along and forced them to sell. In 1912 they returned to New York and established the motion picture distributing and producing industry and established studios on the west coast. In 1923 they incorporated and the business began to grow and expand rapidly.

Everyone in New York now talks about Warner Brothers Vitaphone. Having the exclusive use of Victor artists and the services of the Metropolitan opera stars, Vitaphone has material to draw on for the widest scope and test of the mechanism which synchronizes sound and motion. They also have an arrangement with the Brunswick-Balke people for their artists on their lists. Among other celebrities now appearing in person and voice on the Vitaphone are Al Jolson, Elsie Janis, George Jessup, to say nothing of Rosa Raisa, Jeritza, Frances Alda, Schuman-Heink, Charles H. Hackett, operatic stars of the first magnitude. Night after night the young lady ushers clad in the romantic period of Spanish chivalry, giving color and atmosphere to the program, greet capacity houses. The performance is profoundly impressive and suggests a living, breathing vitality in the very word Vitaphone. Messrs. Warner Brothers and Mr. Walter J. Rich have brought the public to a realization that the beginning has only been made by the magic Vitaphone in an epoch-making era in the history of the silver screen.

The roster of those in attendance that memorable evening was like a page from "Who's Who." Magnates of the film industry; leading exhibitors throughout the country; motion picture stars; theatrical producers; city officials; operatic impresarios; stars of the concert stage; operatic luminaries of the first magnitude; wizards of the electrical industry; officials of the telephone and telegraph companies; radio announcers and artists of the radiating ether wave; authors; preachers; representatives of the press and magazines; newspaper reporters—and editors.

In the lobby of the Warner Theatre the arriving guests were greeted with appreciative smiles by those hard-working masters of the shadow craft, the Warner Brothers, and Walter, president of the Vitaphone Corporation. The faces of this trio

were wreathed in smiles—and well they might be. It was *their* day—and a red-letter day in the life of every one connected with the motion picture industry as well. They had, from the reports which had come to the ears of the guests, achieved successfully what many others had tried, only to meet with indifferent results. Tonight, they were to astonish, to electrify the blasé gathering which had come from every section of the country to witness a first night, such as even Broadway rarely boasts.



S. L. WARNER

Tonight, the old Manhattan Opera House, that ghost of greatness which had been for so long but a dim memory to the music lover, had come to life. To many who passed the playhouse, there were fleeting reminiscences of the days, a generation ago, when, seated in the brilliance of its loges, there flitted before their eyes the lights of a resplendent day, when Oscar Hammerstein's Opera House was the musical and social mecca of little old New York.

Once again they heard the golden voices—shadow voices now—of such artists as Melba, Calvé, Mary Garden and Tetrazini. In retrospect they visioned the majestic Delmores, McCormack, Renaud, Gilbert and Bonci. Sweeping the forty-two boxes with their mind's eyes they recalled the days when they were filled with the social lights of the city.

And this was an evening replete with the very same scintillation.

Hope Hampton entered the Warner Theatre on the arm of Jules Brulatour; "Roxy" was seen chatting affably with his former secretary; Estelle Taylor and Jack Dempsey were rumored to be hidden in a discreet corner of the theatre. Present also were Otto H. Kahn, Madame Galli-Curci, Marion Talley, Anna Case, Will H. Hays, Mischa Elman, Efrem Zimbalist, Alma Gluck, Harold Bauer, Colonel Henry W. Savage and Nellie Revell.

The lights had come back to the Manhattan Opera House—but they were different lights. The famous playhouse was now the scene of scenes extraordinary.

And closely connected with this fact was the fact that tonight Vitaphone was to have its first public demonstration!

To those fortunate enough to go behind the scenes, the old Manhattan Opera House, now the Warner Theatre, was now a labyrinth of wires—wires connecting pieces of formidable looking apparatus of a new description, for Vitaphone is something entirely new.

To be true, there have been talking pictures in the past—but the talking pictures even of the relatively recent past bear as much relation to the Vitaphone as the first flickering shadows of the silver screen bear to the present gorgeous spectacles.

Within this network of wires, for months a company of hard-working motion picture stars, electrical experts, camera men and directors had been at work. In the glare of spotlights stronger than ever before, a star of the concert stage is rendering a solo. In a sound-proof booth not far away, a movie camera clicks out its footage. Out of sight, highly sensitive microphones pick up every tonal shading. In a laboratory in another part of the building his rendition is permanently registered through the translation of electrical waves into vibrations which are recorded on a wax disc. In a registering studio the wax disk is taken and from it are made duplicate registrations.

The night has arrived! The crowds file into the Warner Theatre, eager, expectant. Every seat is filled when finally, almost imperceptibly, the lights die down. The house darkens. The drapes roll away from the screen—

Into the field of vision there steps a figure familiar to every member of that audience. The figure begins to speak.

"No story ever written for the screen is as dramatic as the story of the screen itself."

The voice is natural, correctly modulated. There is no distortion, no tiny vibration. Every movement of the lips and arms, the slow moving gestures and even clearing the throat is given. The scratching that accompanies the playing of a phonograph record was not audible as are the sounds that accompany the usual radio broadcast.

"Surely, he must be behind the screen somewhere" comes the whisper in an awed voice as Mr. Will Hays, the Czar of Motion Pictures, continuing, offers his felicitations to the latest contribution to the motion picture in clear, ringing tones, as real as though the mentor of the movies were actually there in the flesh.

"Tonight we write another chapter in that story," he continues.

"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 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 customs and costumes, 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 orchestrations to the town halls of the hamlets.

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

The audience hangs on to his every word.

"Long experimentation and research by the Western Electric Company and the Bell Telephone Laboratories, supplemented by the efforts of Warner Brothers and Walter J. Rich have made this great new instrument possible, and to them and to all who have contributed to this achievement I offer my congratulations and best wishes.

"To the Warner Brothers, to whom is due credit for this, the beginning of a new era in music and motion pictures, I offer my felicitations and sincerest appreciation. It is an occasion with which the public and the motion picture industry are equally gratified.

"It is another great service—and 'Service is the supreme commitment of life.'"



H. M. WARNER

His simple but eloquent address completed, Will Hays bowed and retired. Then for a moment came the tribute perfect, followed by such an outburst of applause as Broadway seldom hears.

A moment later the figure of Mischa Elman appeared upon the screen. Raising his violin to his throat with his left hand, slowly he brought up his bow, and instantaneously with the first slight touch of the strings, there came the first notes of "Humoresque." Enraptured, the audience listened to the strains of the melody, and then to those of "Gavotte." Not an iota of the famous "Elman tone" was lost.

Amid veritable pandemonium, Elman took his bow, raised his eyebrows and smiled and gallantly gave way to Marion Talley. Again the Vitaphone proved its fidelity—as it did later in the case of such stars of the Metropolitan as Anna Case and Giovanni Martinelli.

Their contributions finished, Efrem Zimbalist accompanied by Harold Bauer made his appearance. Again the theatre rang with the strains of a master violin and an equally marvellous piano. Roy Smeck, "Wizard of the String," contributed a potpourri of jazz, followed by a choral incident for the Opera "Don Juan" and a Russian group tableau of singing and dancing. All were received with wild acclaim.

Then, this part of the program at an end, came the presentation of the picture "Don Juan," with John Barrymore, Mary Astor, and Estelle Taylor.

As the title flashed upon the screen, for a moment astonishment was written large in the eyes of every member of the audience. "A feature picture without an orchestral accompaniment!" was the thought that ran through the minds of the assembled guests.

But they had reckoned without the Vitaphone!

Came the opening of the prologue to the picture and—as though by magic—suddenly there broke upon the ears of the audience



MAJOR ALBERT WARNER

a volume of sound, a rich variation of orchestral effects such as could emanate only from one source. They were listening to the music of the Philharmonic Symphony Orchestra under direction of Mr. Harry Hadley. Again enthusiasm knew no bounds. The Vitaphone was a success!

It should be, if the fortune expended, the inexhaustible energy and augmenting genius lavished upon its development is any criterion!

Its effects are hard to determine. Further development seems unnecessary. It is, as it is now, complete. Simultaneously throughout the land the wonderful Vita-

phone reproduces with incredible faithfulness and naturalness the words of the player, or the singer and his music. There is no bungling about it. Everything is synchronized. The words actually seem to come from the singer's lips and the tones of the piano from the pianist's finger-tips. The volume is neither greater nor smaller than it would be were the performer really present while the music filling the theatre auditorium is really and truly music. No one that attended that performance went away in anything but an exalted mood that they were permitted to witness this epoch-making Vitaphone triumph.

The process by which the effect is accomplished, reduced to its essentials, is almost unbelievably simple. The Vitaphone utilizes the system of producing photographic records with disks made in synchronization with the film. The disks are reproduced through a machine coupled to the motor which drives the projector. A high tension microphone transmits the sound into the electrical voltage with the currents in turn passing through an amplifying reproducer, and then transmitted into sound through the loud-speaking telephones similar to those used in the public-addressing system of the Western Electric Company. Simple as it seems, it represents the result of years of study and experimentation.

Under the plans of the controllers of the Vitaphone Company, this marvelous synchronized audio-picture system will immediately assume the work of providing music of the highest quality for the theatres of the nation. Henceforth, even the smallest country exhibitor will be able to boast of massive symphony orchestras, for the Vitaphone is something which can be attached to any machine and does not require a separate and distinct projection machine. Through a very simple installation, the advantages of the Vitaphone may be brought to practically any theatre in any part of the world, now that Vitaphone discs may be leased to theatres throughout the country, much the same as films are now sent out by the exchanges.

"That, for the present," one of the Vitaphone officials has declared, "will be the province of our apparatus, although we believe firmly that so-called talking pictures will be the next logical development."

"Vitaphone," declared H. M. Warner, "will thrill the world, for it will give to millions of people in the most remote localities the thrill that only music, the universal language, can provide. As the motion picture has contributed to the peace of the world by giving to all peoples a greater and more truthful understanding of each other, so this new invention will contribute to the world's happiness by carrying to all men in all countries the beauty and contentment, the peace and enjoyment that only the compositions of the great, greatly rendered by the supreme artists of modern times can give.

"Shakespeare in his wisdom said, 'The man that hath no music in himself, nor is not moved by concord of sweet sounds, is fit for treasons, stratagems and spoils. Let no such man be trusted.' Shakespeare knew humanity. Fortunately for mankind, I believe that there are not very many unfor-

tunates in the world in whom the musical instinct lies dormant, but perhaps Vitaphone will awaken it, and so contribute to the joy of living.

"Professor Pupin of Columbia University says, in effect: 'What wouldn't I give if I today, could see and hear Abraham Lincoln deliver his Gettysburg Address?' Posterity, through Vitaphone, will be able to see and hear the great ones of the present and future generations. Once more I wish to



JACK L. WARNER

utter the prophecy, Vitaphone will thrill the world."

A trip through the Vitaphone studio is replete with interest. Every precaution must be taken to prevent extraneous noises, even the crackling of a sheet of paper, and for this reason the camera, even, as already described, is enclosed in a glass case.

Built primarily for musical purposes, with little adjustments here and there, the old Manhattan Opera House, which is the Vitaphone studio, makes just the right sort of place in which to record. In adjusting the resonance of the room to particular needs, rugs have been hung from the balconies, and celotex, a composition board, has been used where needed around the sides of the stage. In this way, the reverberations of the stage and auditorium are controlled.

Because of the intense power of the arc lights and the heat they generate, they are not turned on until the "set-up" is prepared. When the "all-ready" signal is given, the lights go on, the camera begins "shooting" and the musician, orchestra or speaker proceeds.

Two cameras, one for close-ups, and the other for the normal size views are used. When the reel is released, a certain number of the close-ups are interspersed among the more general pictures with the result that the real becomes more interesting.

The sound vibrations created by the orchestra are picked from the air by microphones, which are placed out of the range of the cameras and yet within a few feet



Bidding "Godspeed to the Vitaphone Films rushed to the Pacific Coast to be released simultaneously with the New York City premiere

of the players. Where the rendition is that of a single singer or player, one microphone is sufficient, but in the performances of large orchestras like the New York Philharmonic, six or more microphones may be used.

From the microphones the fluctuating electrical current passes through wires to the control room and from there to the monitoring room which is situated on the sixth floor of the Opera House Building. Here a trained musician "mixes" or regulates the balance of sound coming from the microphones. Thus, if the cellos have the "lead," the monitor brings them to the foreground by partially shutting out all other microphones but the one near the cello section.

From the monitoring room the current flows back again to the control room where it passes through an amplifying system. Then the fluctuating electrical current is translated into mechanical vibrations. These mechanical vibrations—faithful facsimiles of the sound noises which reacted on a disc of soft wax by means of a stylus made of sapphire and shaped oval-fashion, like the end of a spoon. By means of mechanical filters, the movements of the stylus are so governed that all tones are registered with fidelity.

While the work of producing Vitaphone presentations is difficult and complex, there is nothing complicated in the operation of the Vitaphone in a theatre. A turn-table for the register, one motor to run both the

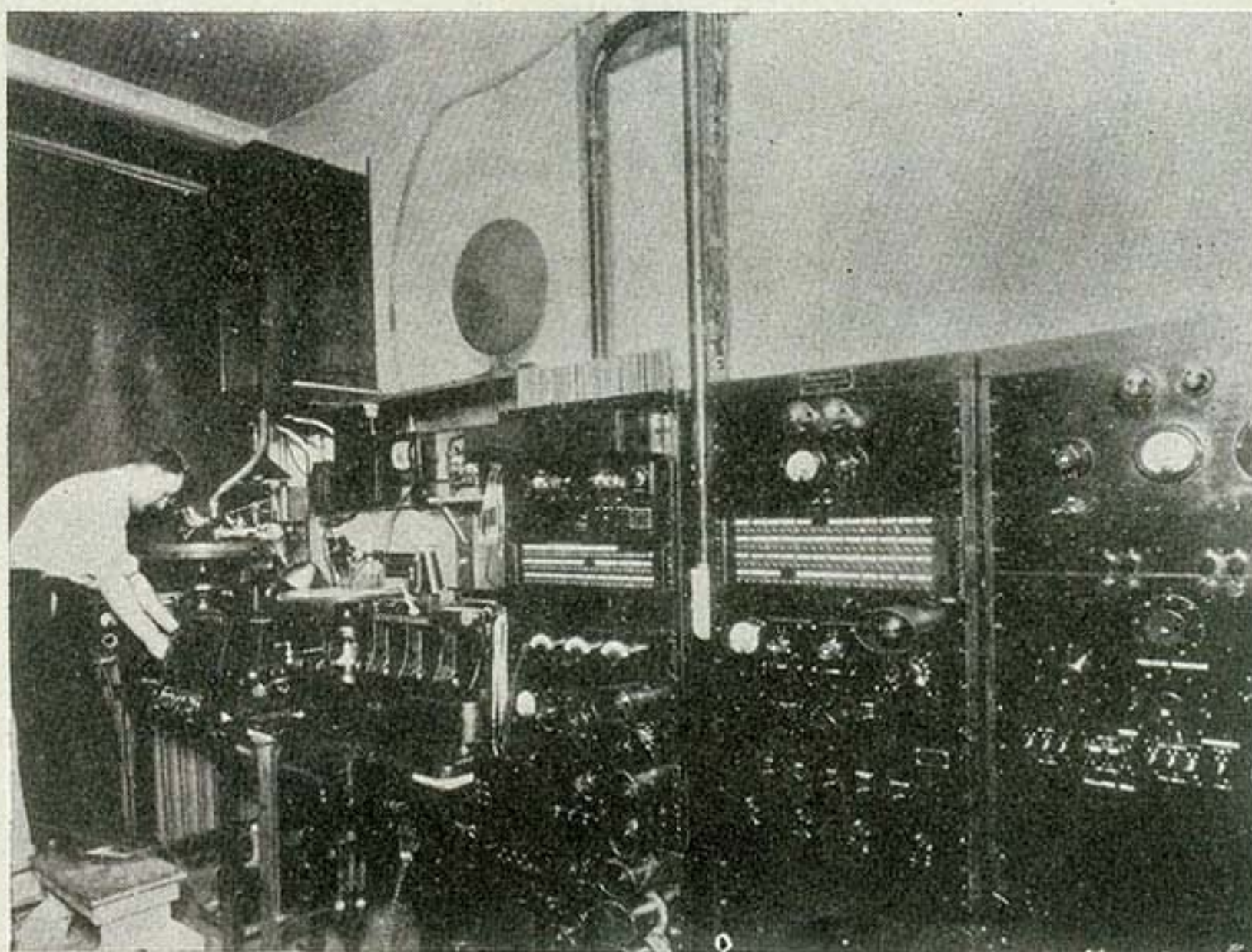
picture machine and the turn-table, and a control box to regulate the speed of the motor are all made to be attached to the regular picture projector.

Operation is simple. Film and needle are set in place as indicated by marks, the motor is started and the film and register are mechanically "run-off" in synchronism. The mechanical vibrations of the needle are transformed into electrical current fluctuations which are, in turn, amplified, and

transformed into sound vibrations which pass through the horns, which are so placed that the sound is focused as well as the picture and reaches the audience as though coming either from the persons depicted on the screen, or from what in the future may be the imaginary orchestra pit.

There is still room for improvement in the Vitaphone. It is yet, by no means, perfect. But what improvement there is to be, will come largely in the making of Vitaphone pictures—from directors, from artists, from actors. The physical and fundamental phases of the audible motion picture are practically perfected. "The Vitaphone," as Mr. Rich declares, "has demonstrated its ability to reproduce motion and music faithfully, and, given artistic material, it will reproduce, without distortion, every musical light and shade, every tone and overtone."

Audible motion pictures, in the fullest sense of the word, are not yet a completed reality—though the time when they will make their appearance is in the not far distant future. The Vitaphone, it is true, is but a step in the right direction—but it is a long, long step, and one which has brought to life the pantomimes on the screen, as Galatea dreamed that the statue he had created of Pygmalion might come to life and speak to him. The casual tests and practical demonstrations have been made, defining the successful synchronization of sound and motion picture as a basic fact and concrete achievement.



New electrical sound recording system which makes possible synchronization of sound and motion. G. Grove of the Bell Telephone Laboratories is shown looking at the wax disc upon which sound vibrations are recorded

THE CALL OF THE WEST

The mighty West is thunderous with the music of the spheres,
And all her bridled rivers pant like lyrics to the ears!
Above the foaming cataract there leap her harnessed rills,
The lightning and the thunder drudge upon a thousand hills!

Oh, its Coo-ee! Coo-ee! Coo-ee!
Can't you hear the great West call?
Here is power and here is motion
Here is strength for one and all.
Lo, here upon the mountain peaks
Where giant shaftings sink,
Here alone is man unharnessed
And the soul has time to think!

Oh, there are large eternal fellows out here on the plains!
The high red pulse of Homer throbs in every yeoman's veins!
The cosmic stuff of planets steadies feet without a fear
Far upon the starry path where Progress is pioneer!
Oh, it's Coo-ee! Coo-ee! Coo-ee!
Can't you hear the sweet West sing?
Here is Iliad and Odyssey,
Here is every man a king!
Here is home and here is country,
Here is all that God may give,
Here the soul has room for being
And the heart has time to live!

—EDWARD WILBUR MASON