

# The Playhouse of the Future

By Ford W. Eaton

Eaton's Note.—This is the first of a series of articles which will take up in turn, several subjects of much interest, not only to the owners and frequenters of the photo-playhouse as it is conducted today, but also to the entire theater-going public, and particularly to the theatrical profession. This article is a forecast of what must necessarily result from the development of certain lines of research which already have borne sufficient fruit to warrant even more general and far-reaching conclusions. The author has had opportunity to observe much of this research, and his remarks as a rule are conservative and his prophecies are tempered by an unusual grasp of present day conditions.

EVER since the motion picture was introduced, and in fact since the phonograph first made music for a wandering public, there have been prophecies, more or less vague, of the time when a whole grand opera would be "canned" and shipped around the country like any other commodity, to be opened and served to hungry audiences economically inclined. In fact, it has seemed to the layman that there would be little left to do after the talking machine and the picture machine had been sufficiently perfected. It has therefore been a source of some conjecture why inventors have been so slow in preparing what is so obviously in great demand, and for the achievement of which there awaits one of the greatest prizes in the way of commercial success that it is possible to conceive.

Whoever shall introduce a practical and complete artificial play may take tribute from the largest and most liberal clientele in history, for not only will their patrons embrace the entire theater-going public but also the many millions who during the past few years have become regular attendants at the picture playhouses which outnumber the regular theaters fifty to one.

We will not attempt to indicate all of the reasons for the conclusions arrived at and presented herein, but anyone who is familiar with the conditions can readily understand why we speak so positively, at least in regard to the main aspects of this development, whose extent and importance, however, it is still difficult to comprehend.

The field being a new one there is no word in common use broad enough to describe a scene which, though artificial, will depict life in motion, color and relief, as well as all of the sounds and other sense impressions. We shall therefore use the word *Ortografy*,\* which may be defined as "the art-science of causing, by artificial means, a pre-arranged series of sense impressions which resemble natural impressions so closely as to create a sense of reality in the mind of the observer."

The word *Ortophy*, similarly derived, may be taken to mean "the ultimate method of depicting life." It will be no more artificial than the ordinary staged drama, for in the latter we now witness chance performances acted under difficult conditions, while in the former we will be permitted to observe exact reproductions of a best performance acted under ideal conditions.

#### IDEAL DRAMA.

The actor of the future will not be obliged to travel long distances and live and act amid disagreeable surroundings, while several carloads of cumbersome "properties" are carted from place to place in order that the public may have a fleeting glimpse of him and his prop-

erties while they listen to his oft-repeated phrases and hear a slightly rehearsed orchestra take liberties with the score. Instead he will be domiciled in New York or Los Angeles or Paris or London, and will be available any day from 11 to 2 o'clock, during which hours he will rehearse and enact his part in some ortoplay. It will be necessary to give a performance but once, provided it is satisfactorily done. As in filming the present picture plays most of the acting will be done in the studio, with occasional trips to places where natural scenery may present better advantages.

The ortoplaywright and the ortoplayers must have regard for color and sound in addition to the pantomime, which is about all the motion-picture camera has recorded hertofore. The colors will be directly photographed, although most of the vocal work, as well as incidental sounds, will have been produced previously by performers having exceptionally good voices and specially trained. The instrumental music is likewise recorded either in advance of the filming, or at the same time.

When an ortoplay is completed it can be presented simultaneously in hundreds of places, many of which otherwise would never have been favored with even a single visit of a great actor, much less be treated to many different performances with full companies, orchestras and music. Nothing need be lacking, and, being rounded out with color and relief, as well as normal dialogue and other sounds, the realism is complete.

Lastly, the saving in expense will permit the highest class of performances in the best of houses at a price well within reach.

#### A GLIMPSE OF AN ORTOPLAY.

In the playhouse of the future there will be no stage, no actors, no orchestra, no scenery or "properties," not even a curtain or proscenium arch, except as they are pictured in vivid relief upon a blank white wall. Nevertheless, as one enters and is seated he may behold all of these and more. He sees footlights glowing dimly upon a gorgeous but restful curtain decorated with artfully suggestive groundwork for the scenes which are to follow. He notes the empty chairs awaiting the arrival of the orchestra, whom he faithfully hears at practice beneath the pictured stage, just as in the days of his youth when comic operas went around the country by the trainload, and it was necessary to transport not only the personalities and impressions which make up a play, but no end of physical encumbrances as well, including the actual bodies of the players and a whole raft of make-believe scenery.

There pervades the pure atmosphere of the theater a slight odor in perfect harmony with the scene before him, and a balmy breeze bearing floral perfumes may be blowing out of the woodland, whose soft and harmonious colors and gently waving foliage help to sooth his mind after the cares of a busy day, and prepare his faculties for the treat which he has come to enjoy.

Presently a door leading from under the stage is seen to open and the drummer of the orchestra makes his way to the corner of cymbals, triangle and crash. He is followed by the 'celloist, who goes to the opposite corner and proceeds to tune up—plink-plank-plunk—

while the pianist tum-tum-tums for his old G string. The other members of the orchestra have now taken their places, the leader waves his baton, the footlights glow brightly and the curtain rises and reveals a revival of the old comic opera chorus which dad so loved to see. A medley of old time songs greets the reminiscent auditors while the scenery and costumes change with delightful appropriateness, and every little movement is faithfully presented from the Oceana Roll to the big base drummer in Alexander's band.

Suddenly the scene shifts. Gone is the chorus, hushed is the orchestra, and all alone and lonely stands one of the *fin de siècle* Juliets amid a setting of real mountains. She is waiting for Romeo. She says so (fetchingly), but Romeo is nowhere to be seen. However, we soon hear a distant horn and direct our eyes to the point in the distance from which it seems to come. Alternately louder and fainter and from different directions come the bugle blasts as our hero wends his way by mountain path o'er hill and dale.

Presently we hear a louder blast as Romeo makes the last turn in the path and stands before us—and Juliet. The twain exchange greetings, sing a duet, encore with a Tyrolean yodel which echoes all over Switzerland, and exit to a bunch of old-time applause.

When they come back for the bow, some rowdy in the balcony offers an insolent remark reflecting on the cleverness and integrity of the lovers, and Romeo engages in belligerent dialogue with the youth in the balcony (who, it transpires, is also "canned").

Another shift and the orchestra, first melodious, then quiet, has disappeared entirely; so have the footlights and the stage, and we are conscious of a many-colored Aurora Borealis in an Arctic sky, while a chill creeps out over us and we witness Peary and his Esquimaux, sledges and dogs enroute to the North Pole. We hear the conversation and the natives calling to the dogs, and even the sound of the hammer as the intrepid explorer nails the Stars and Stripes to the pole.

Presto! the ice and snow dissolve, and small wonder, for here we are under a tropical sun, and our belated caravan is approaching an oasis in the desert that is made more real by the hot dry breezes that whisk by our erstwhile chilly persons and swirl the dust of the desert before us.

Hark! 'tis the crack of Mauser rifles from beyond yon hummock. Now the boom of artillery, a hurried dismounting of our little party, the passage of some terrible Turks and treacherous Arabs, and the sweet sounds of the Star Spangled Banner as the Nick Carter Naval Reserves surround the party and escort them to the United States embassy.

So much for future vodevil.

Choosing another theater for our next visit, we are treated to grand opera just about as it used to be seen and heard when the performers were alive and traveling. We witness the great stars in all their classical effulgence, both optical and oral, while the originals can hear our heartfelt applause only by means of telepathy or spiritism.

The last rose of summer will bloom simultaneously for a thousand audiences and that fateful high C will resound with unflinching certainty and clearness, as the Patti of the future crumples the rose's tender petals, in blissful forgetfulness of all save the impending, the ensuing triumph. And remember—the voice is real, the expression real, the colors real, from the foliage in the garden to the delicate tints of milady's cheek and the sapphire blue of the near-autumn sky. Moreover, the

voice is the real gift of the singer, whose own real personality is with us just as surely as she was with the camera-man and the stage manager the day before yesterday, or fifty years ago, as the case may be.

#### REQUIREMENTS.

Upon undertaking the technical development of this new art-science which aims at perfect reproduction of all forms of expression, the following conditions were assumed as necessary factors of the result:

1. There must be presented to the eyes of an observer exactly what he would see were the original before him. This implies a continuous picture, which must have no technical defects, such as flicker or unsteadiness, and which will of course show all the movements of the original, and be in natural colors, and in stereoscopic relief.

2. The audience must be made to hear all sounds which are pertinent to the scene which is being depicted. These sounds must be correct in regard to quality, intensity, sequence and apparent source. In other words they must be properly distributed as well as harmoniously in accord with the picture. The distribution of sounds may be extended to any part of the auditorium, and in a scene which portrays incidents involving coarse vibrations, such as the reverberations of thunder or the jarring of heavy trains, similar vibrations are in order.

3. All other conditions which would have attended an observer of the original, must, as far as possible, be supplied to the audience. For instance, in the Arctic scene just described, what could be more logical than the breath of cold air from the Arctic regions; and when the scene shifts to the Sahara desert, a dry hot breeze is just as realistic. This will be done by novel ventilating arrangements. Similarly appropriate is the odor of flowers at a rose festival, and of incense in an oriental palace, not to mention the stockyards or the Bowery. Even the humidity and the electrical condition of the air can be varied to give an added touch of realism.

4. Technical perfection, or the highest degree of precision must be maintained, and no method or process should be adopted which is not capable of perfection. The method commonly in use for projecting pictures with an intermittently moving film, for instance, must be supplanted by really scientific processes and apparatus and these will also add two entirely new qualities—natural color and relief.

5. Fully as important as the technical requirements are the demands of art. In fact, art is the one prime consideration to which everything must be referred. It is the result that tells, and since we are aiming at a result which should be nothing but pure artistic appreciation, all trace of mechanical intrusion must be avoided.

Moreover, just as in the presentation of drama in the old and current way, wherein cumbersome stage settings have been a necessary part of the playwright's technique, and the artistic "effect" of a scene so often has been spoiled by crude manipulation of properties and lights, even though the players might speak and act faultlessly; so in ortografy and the ortoplay, while we have the advantage of recording only one best performance which may approach perfection, still we have the new difficulty of maintaining harmony of speech and action while reproducing together what may have been produced separately.

The ortoplay involves more artistic considerations than any of the arts, even the drama, for here we depend wholly upon artificial means, and the entire performance, from the scenery to the impersonations, must be filtered through various apparatus by processes that make or mar

the reproduction in accordance with the wishes and skill of the playwright, or whoever may be the artist who shall supervise the presentation.

6. This leads us to the final condition—that the entire reproduction must interpret exactly the ideas and feelings of the artist who conceived it, and hence all technical operations after leaving his hands must be *automatic*—foolproof, as it were. This is another way of saying that otherwise a poor operator might spoil a good show.

#### ARTISTIC CONSIDERATIONS.

In ideal ortografy, when the care of the artist has supplemented precise technical processes, and an appeal is made to the finer sentiments, the effect on the observer may transcend his experience with natural impressions, and transport him beyond so-called reality into ideality. Thus does art come into its fullest expression, and thus is made the broadest possible appeal to the divine sense of beauty, which, in most of us, lies all too far beneath the surface.

But thus also is there required of the technician the utmost skill, and of the artist the widest sympathies, for here we are dealing not with one art, or a fragment of art, but with art itself, and are privileged—yes, compelled—to employ every available artifice in producing a complete and harmonious effect.

The difficulties of harmonizing different sense impressions are well known to artists. A sculptor rarely attempts to color his statues, yet here we have to consider only two closely related activities of the sense of sight, namely, form and color. A hastily drawn pen-sketch may pass for art—but introduce color and detail and a world of technique is required to preserve harmony.

Similarly difficult is it to provide harmonious orchestral accompaniment for a singer, as a single false note will jar the imagination of the audience, which is normally inclined to idealize a fairly good performance.

In other words, the demands of harmony increase very rapidly as new factors are added, hence it is not surprising that most attempts which have been made to harmonize the product of such imperfect devices as the motion picture machine and the talking machine have resulted in little harmony and less art.

#### TECHNICAL PROBLEMS.

The difficulties which have stood in the way of real achievement have been mostly technical, and as soon as these have been overcome, and a reliable medium of expression has been provided for the playwright and the artist, the artistic refinements in the actual work of producing will be mastered very readily.

These technical problems may be divided into the following classes:

1. *Theoretical*—including the choice of methods, and general plan of apparatus for recording and reproducing the various sense impressions, and the elimination of faulty principles in the design of mechanisms and other media to be used in the work, such as film and records.

2. *Mechanical*—involving consistent design and correlation of all parts whether optical or mechanical, and of all processes, including also electrical, acoustic and chemical problems.

3. *Purely technical*—requiring a very high degree of precision and skill throughout every branch of the work, which covers a wider range by far than any other industry, for here we must have the most exquisitely refined product of the optician, the chemist, the photographer, the mechanic, the playwright, the actor, the musician, the physicist (without whose research the

work of the others were in vain), and lastly the artist-manager, or producer, who checks up the result, not to mention the artisans whose work is peculiar to the industry itself and whose skill is depended upon for the final perfection of film and record.

#### DEFECTIVE THEORIES.

We shall consider first only the theoretical problems, for until these have been solved all the mechanical skill and technical refinements in the world will be unable to produce the desired result.

First among the theoretical problems is that of producing a perfect motion picture. Such a picture should be without unsteadiness or flicker, and in natural colors and in stereoscopic relief.

It may well be admitted that this can never be done with the current type of narrow, perforated, intermittently-moving celluloid film, for even though all the other difficulties might some day be overcome there would still be enough unsteadiness and flicker to prevent the desired illusion of reality. On account of the adoption, almost universally, of the long narrow perforated band of celluloid, and the difficulty of introducing any radical departure, real progress in the right direction is under a serious handicap, and for many years we are likely to see the same colorless, flickering and unsteady pictures, and this will continue to stand in the way of perfection even though a phonograph be put behind the picture screen to add its own artificial noises to the lights and shadows of the picture.

Secondly, talking machines as now constructed and used, are not suitable for dramatic work for the following principal reasons:

1. Unnatural quality of sounds.

2. Insufficient volume of sound to fill an ordinary theater.

3. Lack of distribution—the audience is always conscious that a stationery horn is talking for moving actors.

4. Practical difficulty of maintaining synchrony when the talking machine and the picture machine are two separate mechanisms and in charge of two operators.

In the next article the theoretical problems will be analyzed, and then the various attempts at solution, after which will be outlined the essential conditions of success, with a resumé of the most promising line of research which has yet been undertaken in this field.