

# IMAGE

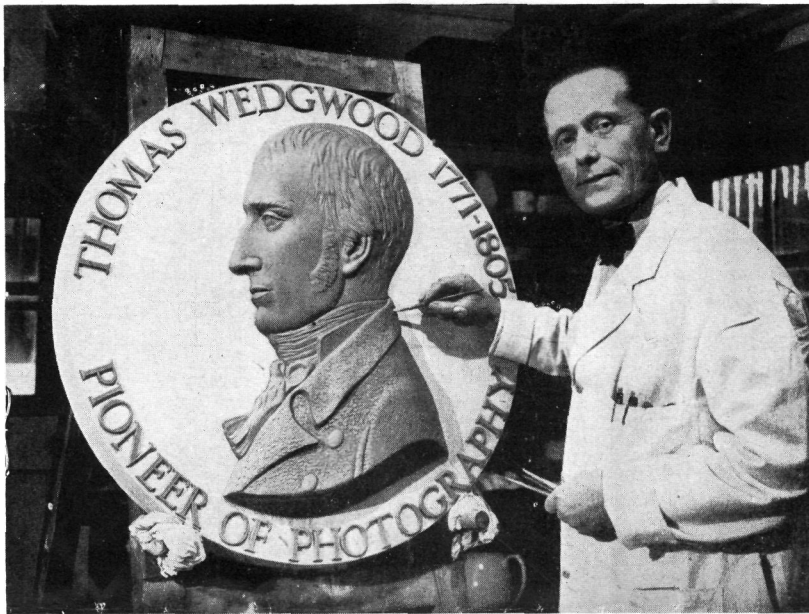
Journal of Photography of the George Eastman House

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SARCEE INDIAN, by Boorne & May of Calgary, N.W. Territory (now Canada), in 1891. Usually studio photographs of the Indians were stiff and artificial when not actually banal or an insult to a whole race of human beings. This is one of the few exceptions. A copy of this appears in a traveling show, "Opening of the West," prepared by George Eastman House and put into circulation this fall by the American Federation of Arts.



## A PLAQUE & TABLET

in commemoration of

## THOMAS WEDGWOOD

A Pioneer of Photography

Erected by the Society of Staffordshire Photographers and  
unveiled by the President of the Royal Photographic Society

BERTRAM SINKINSON, Esq., F.R.P.S., F.I.R.P., F.R.S.A.  
Honorary Member of the Society of Staffordshire Photographers

on June 11th in the Coronation Year of  
Her Most Gracious Majesty Queen Elizabeth II  
in the presence of

The Lord Lieutenant of Staffordshire, H. Wallace-Copland, Esq.  
(Patron of the Society of Staffordshire Photographers)  
The Lord Mayor of the City of Stoke-on-Trent  
(Alderman A. E. Bennett, J.P.)

and  
Civic Dignitaries of Staffordshire in  
ETRURIA PARK, STAFFORDSHIRE

### THOMAS WEDGWOOD'S CONTRIBUTIONS TO PHOTOGRAPHY

SINCE the most comprehensive account of Wedgwood's experiments is contained in his 1802 paper, a condensation follows:

"White paper, or white leather, moistened with solution of nitrate of silver, undergoes no change when kept in a dark place; but on being exposed to the daylight it speedily changes colour, and after passing through different shades of grey and brown, becomes at length nearly black.

"In the direct beams of the sun, two or three minutes are sufficient to produce the full effect. Light transmitted through different coloured glasses acts upon it with different degrees of intensity. Thus it is found that red rays have very little action upon it; yellow and green are more efficacious, but blue and violet produce the most powerful effects.

"The copy immediately after being taken must be

viewed in the shade, but only for a few minutes; by the light of candles and lamps, it is not sensibly affected.

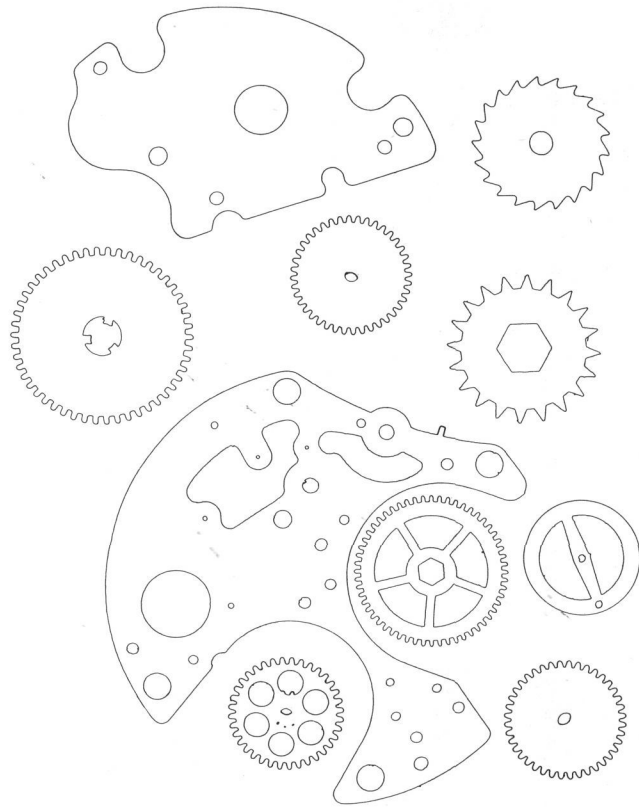
"No attempts that have been made to prevent the uncoloured part of the copy from turning dark have as yet been successful.

"The images formed by means of a camera obscura have been found too faint to produce, in any moderate time, an effect upon the nitrate of silver. To copy these images was the first object of Mr. Wedgwood, and for this purpose he first used nitrate of silver. But all his numerous experiments proved unsuccessful.

"It is probable that, both in the case of the nitrate and the muriate of silver, a portion of the metallic acid abandons its acid to enter into union with the animal or vegetable substance, so as to form with it an insoluble compound. It is not improbable that substances may be found capable of destroying this compound. Nothing but a method of preventing the unshaded parts of the delineation from being coloured by exposure to the day is wanting, to render the process as useful as it is elegant."

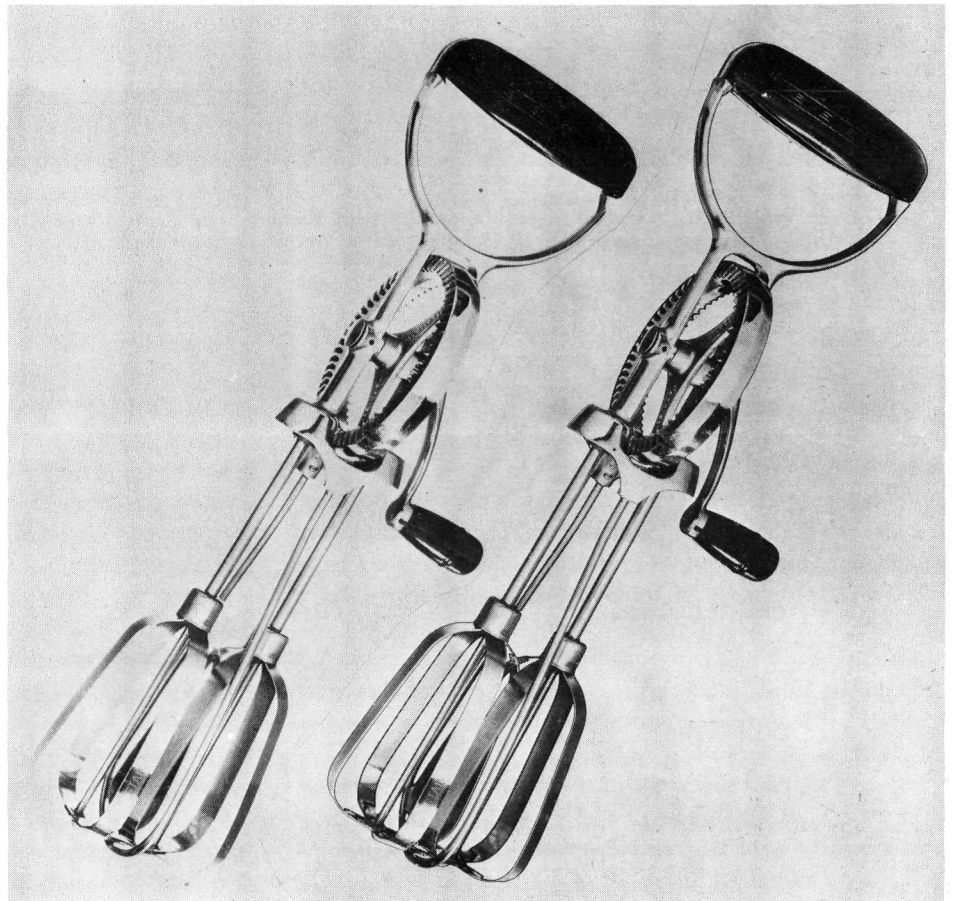
THE PLAQUE WAS MADE by Josiah Wedgwood & Sons, Ltd., and modeled by the firm's head modeller, Eric Owen. It is inset in a small architectural brick structure at the entrance to the park and will face the birthplace of Thomas Wedgwood.

THE ACCOUNT of Thomas Wedgwood's photographic experiments was announced in the first volume of the *Journals of the Royal Institution* in June 1802. It was titled "An Account of a method of copying Paintings on Glass, and of making Profiles, by the agency of Light upon Nitrate of Silver. Invented by T. Wedgwood, Esq., with Observations by H. Davy." (The famous scientist, Sir Humphry Davy, was assistant editor of the *Journal* and is thought to have written the article.)



CLOCK PARTS photographed so as to appear as line drawings by a method of solarization. This method has been patented by Wynne Bullock of Monterey, California.

THE EGGBEATER ON THE LEFT was photographed and processed by the normal method. Note the lack of detail especially at the edges. The one on the right was given partial solarization of the negative by the patented method. Note the completeness of detail. These two pictures differ only in the treatment of the negatives.



## TONES TO LINES

MR. WYNNE BULLOCK of Monterey, California, received U. S. Patent No. 2,438,494 for a method that utilizes the black line effect of partial reversal of photographic materials to produce the effect of line drawings from three dimensional objects.

To produce partial-reversal (sometimes called "solarization") the objects are placed on dark backgrounds, lit to cause considerable contrast; then, when development is about three quarters along the negative is given a brief exposure to light, development is then completed. This is a well known technique. The patent, however, was given for certain controls that make the process precise. With it simple flat objects, such as the clockparts illustrated, can be reduced to outline images much faster than they can be hand drawn. One of the suggested uses of the method is to speed up drafting room chores.

Material that would ordinarily take hours to light so as to show complete detail can be done much faster by this method because the lighting set ups can be very simple. The egg beaters are examples, both were exposed in contrasty lighting. The one at the left was made from a normally developed negative; parts of the blades disappear into the background as well as loss of detail in various places. The one on the right was subjected to the patented partial reversal; accurate outlines appear and details are completed.



CAMERON CASTLE, SCOTLAND by R. Murray. This photograph took a prize in 1868 and was found in an album of the period which contained many such views by a great number of forgotten photographers. It is an albumen print from a wet plate negative.

#### MASTERPIECES FROM THE COLLECTION

A PHOTOGRAPH is expected to capture a moment or an event, a person or a building for all time—and it does. What happens when such a photograph is lost? The once captured moment disappears again.

To keep the moment for all time the photograph must be preserved that long. Photographs are fragile, few remember their importance, and we have so many now that we are careless of them; consequently many more have been lost than have been kept.

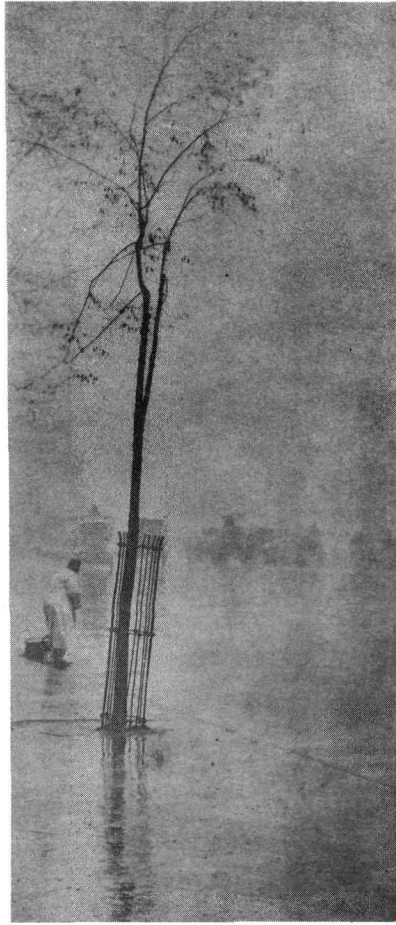
Then, too, whose responsibility is it to keep them? Obviously, this goes beyond the capacity of an individual. Museums or archives are necessary—preferably institutions that are both at once.

A distinction can be made between the photography archive and the photography museum. The former is a repository for *all* photographs, exciting and indifferent alike. Its staff works to make these photographs available to anyone who has use for them. This has long been a

stupendous task, but now with photographs a daily torrent, it is overwhelming.

For a variety of reasons some photographs, obviously, are of more value than others; and the task of weeding has to be performed by someone. This is where the museum comes in; instead of keeping all photographs it attempts to retain only the significant, the historically important, the beautiful, or the great. Since the museum has to select for posterity, its editing problem is an especially difficult and arduous one, for today's most wanted photographs may be tomorrow's discards, and what we shrug off may be the next generation's most cherished pictures.

An even more impressive responsibility of the museum is that of keeping the photographs in its collection alive. By the term "alive" is meant putting the pictures on view, or in easy reference reach, and most important of all, making the significance of the pictures evident to the viewer. Some photographs can be shown for their own



**SPRING SHOWERS**, by Alfred Stieglitz, 1900. The work of Alfred Stieglitz embraced a great change in the tradition of photography used as an art medium. Prior to World War I the artist-photographers looked to painting for guidance, after it they began to find out how it could be an art in its own right. Stieglitz, grounded in the first approach, led the way to the second.

sake with little more than the maker's name appearing; others must be dressed with a context to make today's spectator realize something of the power these pictures had when they first burst into a waiting world.

The contemporary photographers present a somewhat different problem. The museum must provide outlets for them, encouragement for their new work, and a proving ground for public opinion.

These museum problems are the ones that George Eastman House wrestles with in its exhibitions of photographs in its Dryden Gallery. About half of the gallery is set aside for frequently changing exhibits, usually of contemporary work; the other half for relatively permanent exhibits of "Masterpieces from the Collection." These are mainly the works of early photographers selected for their artistic as well as their historical value. They are arranged to show the origin of four traditions in photography: the amateur snapshot, the chronicle, the portrait, and the camera used as an art medium. These traditions boldly set out early in photography have developed but little since.

## THE NAMES OF PRINTS: A GLOSSARY

Continued.

**CARBON PRINT** An unsensitized paper is coated with a gelatin containing pigment—usually carbon lampblack, although other colors are available. This emulsion is rendered sensitive to light by a warm bichromate bath. Exposure under a negative differentially tans the gelatin. Development is by warm water which dissolves away the untanned material leaving a positive image in pigmented gelatin. Discovered in 1839 by Mungo Ponton and perfected by Joseph W. Swan in 1865, it was used mainly by serious workers until it was largely superseded by the introduction of the carbonyl process in 1906.

**CARBONYL PRINT (syn. OZOBROME PROCESS)** A close relative of the carbon process in which a positive pigmented image is transferred by squeegeeing a bromide print in contact with an absorptive non-sensitized but pigmented tissue. Chemical action, *without the agency of light*, makes the gelatin most insoluble opposite the heaviest silver deposit and most soluble opposite the highlights. Development is by washing away the soluble gelatin with warm water, leaving a positive image of the bromide print. The gelatin layer may be transferred to another sheet of paper, or left with the bromide print for support. It was invented by T. Manly in 1906 and is now used principally for three color printing rather than monochrome work.

**CHLORIDE PRINT (see CHLOROBROMIDE PRINT)**

**CHLOROBROMIDE PRINT (syn. BROMOCHLORIDE PRINT)** Silver chloride and silver bromide mixed and suspended in gelatin constitute an emulsion which is coated on paper. Various proportions of the two halides produce speeds ranging from the slower chloride papers used mainly for contact printing to the faster bromides used for enlarging. Gelatin-suspended chlorobromide paper was first manufactured commercially in 1893, when it was called gaslight paper. The process now dominates the field and is referred to by the trade names of the various manufacturers.

**COOPER'S PROCESS** In an attempt to do away with the gloss of albumen prints, resin or resinous material was substituted as the sizing matter. This was a little used late 19th century process.

**CYANOTYPE (syn. BLUEPRINT)** The light-sensitive salts of iron are used to produce blue tones. The process was discovered by Sir John Herschel in 1840. The process is now used almost exclusively for making blueprints of architectural and engineering drawings. There are two

types of blueprints or cyanotypes: those made with ferric salts which produce positive blueprints (blue lines on white) and the reverse made with ferrous salts.

**DAGUERREOTYPE** Silver-coated copper plates were sensitized with iodine fumes, exposed to light, and the image made visible by the formation of an amalgam of mercury and silver by holding the plate over mercury vaporized by heat. The amalgam is a light grey deposit and actually a negative. When the unaffected silver mirrors black, the amalgam appears white by comparison and a positive image is seen. The process was purchased from Louis Jacques Mandé Daguerre by the French government in 1839 with the understanding that it could be used by anyone without paying royalties. It was rapidly adopted for portrait, scientific, stereo, and general commercial work, and remained in wide use until the collodion process was invented in 1851. (The latter combined the advantages for mass production inherent in a negative-positive process with the sharpness of the Daguerreotype image as compared with the graininess of the calotype.)

**DIAZO (TYPE) PROCESS** Two principles are involved, a dye bleaching process and a dye coupling. Diazonium salts, upon exposure to light proportionately lose their capacity to form dyes. After exposure the paper is treated with the appropriate dye coupler and a replica of the original image is reconstructed. It was invented about 1890 by Messrs. Green, Cross, and Bevan, and is used principally for copying drawings and tracings.

**FERROGALLIC or INK PROCESS (syn. COLAS'S PROCESS)** Paper was coated with a ferric salt suspended in gum or gelatin. It was developed in a solution of gallic acid. Exposure under a tracing reproduced the lines in a weak purplish-blue on a white ground. Although suggested in 1859 by Alphonse Louis Poitevin, Colas's work of 1883 is frequently credited. It is principally used for copying drawings or tracings.

**FERROPRUSSATE PROCESS (see CYANOTYPE)**

**FERROTYPE (syn. Tintype)**

**FRESSON PRINT (syn. ARTIGUE PROCESS)** Pigmented gum arabic sensitized with a chromic salt becomes insoluble in proportion to the amount of light to which it is exposed. The soluble residue is removed with a mixture of sawdust and water. Fresson printing was a revival of the process developed by Victor Artigue about 1890, and was reintroduced from Belgium about 1929. It was used principally by pictorialists.

**GASLIGHT PAPER (see CHLOROBROMIDE PRINT)**  
**GELATINO** A prefix used principally in historical comparisons to indicate processes in which gelatin is the suspending medium, to distinguish them from those with collodion suspension. Examples: gelatino-chloride or gelatino-chlorobromide.

**GLUE PRINTING** Ordinary glue and pigment are sensitized with a bichromate. Exposure of the negative is through the back of the print. It is a modification of the gum-pigment process developed by Heinrich Kuehn in 1921, and is used principally by pictorialists.

To Be Continued

## BOOK REVIEW

**STROBE—THE LIVELY LIGHT**, by Howard Luray. Second Edition, revised. San Francisco, Camera Craft Publishing Co. 1954. 144 pages, 102 illustrations. \$4.00.

The first edition of this manual was published four years ago when, as the author says, "electronic flash was donning long pants." This edition appears as electronic flash "comes into its own."

In the preface to this new edition the author states its purposes. "This is essentially a photographer's book. It is designed to help them over their electronic hurdles as painlessly as possible, while giving them a sound start in a picture-taking technique that is still young, lusty, and sometimes misunderstood."

There are ten chapters which answer nearly every question one might ask about the subject. This includes a discussion of the various types of equipment with suggestions of which one to buy; the advantages of one type over another, the advantages and disadvantages of strobe over conventional flash. It covers the care of the units, the handling, warnings that they are highly charged items and how to live an unshocked life with them. It also covers exposure and development, specific applications for action, portraiture, bounce light, "painting" interiors with flash and speed light for interiors, its use with synchrosunlight, and helpful hints of various kinds too numerous to mention.

Sometimes the honest effort to make everything so simple that anybody can understand produces its own kind of obscurity. The section on basic electronics is an example; the reader is constantly cushioned with explanations that what will follow will not hurt, so much so, in fact, that the lucidity with which most of the book is written becomes clouded. The important section on tests to establish accurate guide numbers for electronic flash will be useful depending on how much one already knows about testing methods. It is probably too generalized for the beginner to pursue to end results, especially since the definition of a desirable negative is left up to the judgment of the reader thus: "The final consideration . . . is what YOU consider a good negative." This is a point no beginner knows.

The book would be greatly improved if these cumbersome, though hardly difficult, phases were attacked specifically—in the end this is the only way they can be explained.

## HARD CIDER DEVELOPER.

MR. SEELY.

DEAR SIR.—Last winter, when almost exclusively engaged in making ambrotypes, I, one day, in preparing some developer, found myself without acetic acid, and resolved to try some ordinary vinegar instead.

I used double the usual quantity of acid and proportionately less water, and the ambrotypes were as good as any I have seen. In fact, it did not appear to make the slightest difference in the pictures. As this naturally set me to thinking on the subject, I resolved to try some apple cider on the same plan. The cider I argued, especially when "hard" contains both acid and alcohol, and there is no reason why it should not work well. I diluted it with water, added the proportionate amount of protosulphate of iron and developed. The experiment was a decided success. To modify the process still more, I threw some rusty nails in the cider and left it to stand over night. In the morning I again diluted with water, tried it on a medium ambrotype, and found that it worked to a charm.

Hard apple cider, and rusty nails for developer!!

That is what the British Journals would decidedly call the abuse of photography.

I am Mr. Editor, well aware of the responsibility of giving this important process, gratis, to the fraternity. When in future a picture has not been sufficiently developed, we will say it requires more cider. Imagine the consternation which would be felt by a young lady, who while having her portrait taken, hears a mysterious voice (in the dark room) gravely state that "Miss Smith" (or Jones), "wants a *little more cider*." How very shocking. "A little more cider do." Shades of Daguerre and Talbot forbid!! "VAN."

PART OF A PAGE from "The American Journal of Photography And the Allied Arts" for February 15, 1860.

## CHARLES PATHÉ HONORED

IN THE COURSE of the 1954 congress of the "Union Européenne des Techniciens du Cinéma et de la Télévision" a commemorative plaque to Charles Pathé was unveiled in Vincennes, near Paris, where the creator of the French cinematographic industry built, in 1904, his first movie studio.

As the exact location of his studio is now covered by the plants of Kodak-Pathé Works, the plaque is fixed to an outside wall, in the Rue des Vignerones, between two windows of the room that was at one point his office.

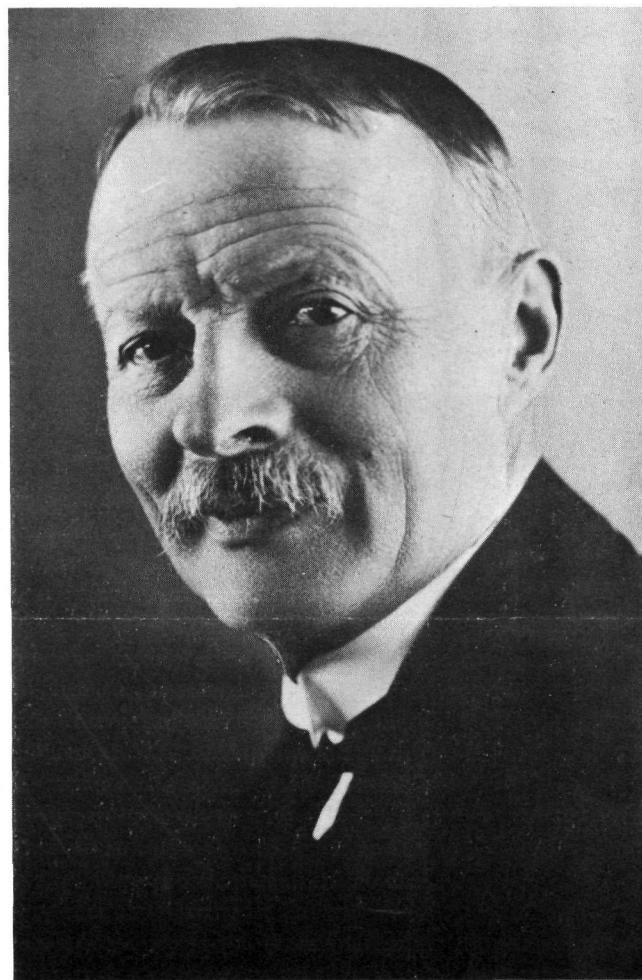
At the beginning of his career, Charles Pathé sold cinematographic films, this was in 1895. With an Edison Kinetoscope and a Gramophone by the same inventor that he brought back from a journey to America he gave cinema shows of a sort at fairs. A few days were sufficient to convince him that the discovery of cinematography would completely transform public entertainment.

Still ignorant of photography at that time, he studied all the technical books on the subject. Later, in association with his brothers, he founded the Pathé Frères Company.

He trained a staff, created the whole technique of mechanical exposure of movie film. Since nothing cinematic existed, everything had to be invented, so he was director, constructor, operator and projectionist all at once.

His first studio was a small theatre in a modest shed built by himself. At first fancy scenes were taken, then by degrees he came to motion pictures of the classics, fiction, history and science. From these primitive beginnings the company grew rapidly. By 1907 Pathé Frères purchased and exposed about 30,000 meters of film daily; by 1909 about 70,000, by 1910 they built their own film manufacturing plant to accommodate their movie production; in 1913 a twin of the film manufacturing plant was built and then they were free of all foreign tutelage.

Charles Pathé was a craftsman of genius before becoming a manufacturer with widespread activities. He will remain as one of the most impressive and picturesque characters in an age that saw the prodigious start of a revolutionary invention.



CINEMA PIONEER CHARLES PATHÉ was honored by a plaque placed on the site of his first studio at Vincennes, France, by the "Union Européenne des Techniciens du Cinéma et de la Télévision" the 4th of February, 1954.

## CHANDRALEKA: "AN EARTHQUAKE OF INTEREST"

**I**N 1948, the Gemini Studios of Madras completed a twenty-reel motion picture boldly calculated to outstrip in scope and splendor, the most lavish shadows ever conjured up by Cecil B. De Mille. Film spectacle is nothing new to Indian producers. India was the last of the major film-making nations to get started; the first Indian film was made in 1913. But in a relatively short time, the prolific studios of Madras, Calcutta and Bombay forged ahead until India is now second among the world's film producing nations.

*Chandraleka* was a supreme, three-year effort of Gemini's director-producer S. S. Vasan. With a vast cast and as many as six hundred dancers in a single scene, a story that takes its hero and heroine through massacres, circus-life, gypsy camps, palace revolutions and coronations, it has rarely been equalled in sheer variety. It further boasts quite overwhelming dance ensembles to the accompaniment of an altogether extraordinary blending of classic Indian and native music and songs along with eastern orchestrations of western music that ranges from Wagner to "Beer Barrel Polka."

*Chandraleka* even manages to live up to many of the superlatives that stud its press book with a flair to be envied by domestic press agents. The Gemini publicists proclaim:

"*Chandraleka* has awakened an earthquake of interest among the people . . . to Gemini, the birth of a picture is like the birth of a pearl . . . the lavish attention of the directors and the passionate whole-heartedness of the artistes, have imparted the picture the finish of a petal . . ."

Having conquered audiences of the east, *Chandraleka*



THREE of the six hundred drum dancers in "Chandraleka."

is now on its way around the world. Its fate in this country is doubtful for it has been cut quite in half. American exhibitors are unfriendly to long films, an attitude somewhat surprising with the box-office records of two American films that ran in excess of three hours: *The Great Ziegfeld* and *Gone With The Wind*.

Altering and shortening foreign films is generally deplorable but most damaging to Indian pictures. They have the charm of simplicity in their stories but most westerners find their music and dancing altogether fas-



RAJAKUMARI AND M. K. RADHA, heroine and hero of "Chandraleka."

inating and not nearly as difficult to appreciate as the music of China or Japan. In cutting these films, it is always the dances and the songs that are most savagely deleted. It is certain that Indian audiences who love their movies with as many songs as possible, cannot be reconciled to shorter pictures and it is impossible for western audiences to savor the quality of an Indian picture that has been compressed to just half its length. Perhaps some day the art-cinemas will discover audiences willing to enjoy the full measure of appeal to ear and eye that awaits them in so many exotic films of India. Only one, *Shakuntala* has thus far been given general showings in the United States. All manner of Arabian nights adventures await western screens in such mammoth Indian films as *Chandraleka*, *Ali Baba* and Uday Shankar's gigantic dance film *Kalpana* that contains no fewer than seventy-five separate dance sequences.

Japanese films that were unknown to the rest of the world for years are now winning prize after prize in the international festivals, whereas the Indian film's deserved place in the art cinemas of the world is still to be won.

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