IMAGE

Journal of Photography of the George Eastman House

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ABOUT *IMAGE*

In barely more than a century, photography has become recognized as the most facile means of communication known to man. Looking back on the early beginnings of this new art, it is at once remarkable how far we have been able to push the scope of the camera, and how excellent, within its limitations, was the work of the pioneers. The purpose of the George Eastman House, as defined in the charter granted to it by the University of the State of New York, is to show the progress of the art and science of photography. Our primary method of fulfilling this mission is to exhibit apparatus, photographs and moving pictures. But much of the story of photography can be told only in words, and it is the aim of IMAGE to publish articles which will reinforce our exhibitions and which will reach a larger audience than those thousands who visit us in Rochester. The articles will be brief; readers who wish further information are cordially invited to write to us. Material which appears in these pages may be reprinted with credit to the George Eastman House.

THE FOCIMETER

WHEN the camera was first used by photographers they were baffled by the fact that often the pictures they obtained lacked the sharpness of the image seen on the ground glass.

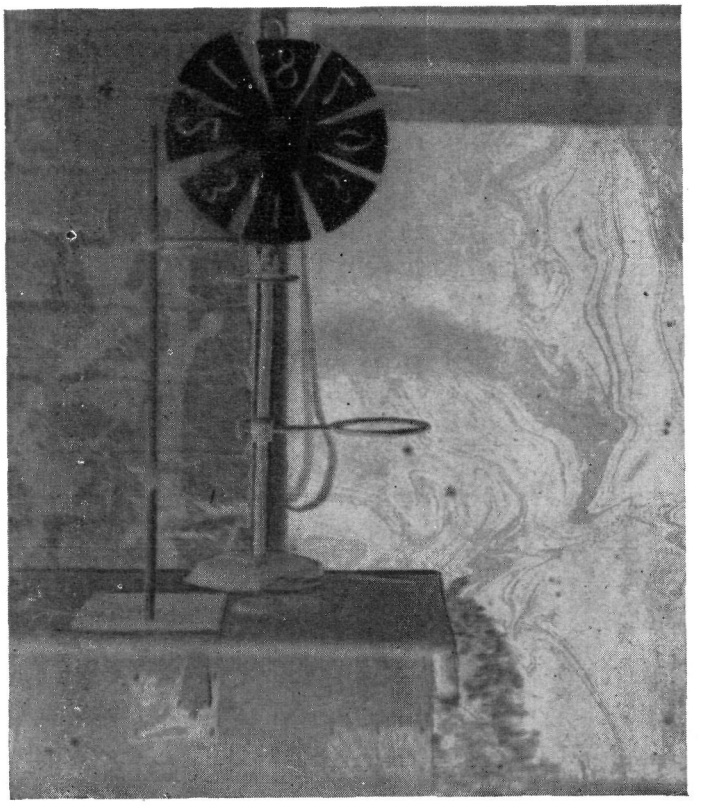
Antoine Francois Jean Claudet—who was licensed by Daguerre to practice daguerreotyping in England in 1839—discovered the reason: "The photogenic focus had not coincided with the visual focus in my camera obscura, although the lens was considered perfectly achromatic. But the most surprising feature of the discovery was that the photogenic was larger than the visual focus."

In further experiments, Claudet found other lenses in which the photogenic focus was shorter or in which, at a given distance, the two coincided. He was particularly concerned because there was not a constant relationship in the variable distances between the two foci.

The focimeter is an apparatus which Claudet devised to find the photogenic focus. It consists of eight pie-shaped discs, mounted about an axis twelve inches long and corresponding with the optical axis of the lens. Each disk is numbered, the first being nearest the camera, and each lying in a plane separated from the next by about 1½ inches. When viewed on the ground glass or on the negative, the discs appear together as a circle. If, on focusing on number 4 on the ground glass, number 4 appears the most sharp on the plate, then the two foci coincide. If numbers 3 or 2 are sharpest, then the photogenic focus is shorter than the visual. While if numbers 5 or 6 are sharpest, the photogenic focus is longer. Claudet championed his focimeter, saying, "Each operator can establish it without much expense, and, after one single experiment he will be convinced."

Claudet's discovery was at first denied by many photographers and some opticians, but eventually both came around to his reasoning. Voigtlaender's lenses soon had marks on the tubes showing how far the lens should be moved backward or forward to compensate for the error in focus. On the other hand, Claudet, satisfied with the results obtained with his focimeter, feared that lens makers, in trying to correct lenses for focusing would sacrifice other corrections. After all, figured Claudet, "Rapidity [is] the principal object in photography . . . I have always preferred

TEST NEGATIVE of focimeter by William Crookes, about 1850. Sharpest numbers show plane of photogenic focus. Alden Scott Boyer Collection, George Eastman House.



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lenses in which the spherical abberation is the most perfectly corrected, without caring whether the photogenic rays coincided or not with the visual rays." He concluded that the task he set before the opticians would be difficult until glass of two kinds was discovered, "in which the densities or refractive power will be in the same ratio as the dispersive power." This prophecy came true with the introduction of anastigmat lenses in 1884.

Claudet used the focimeter to solve another problem. Portrait photographers of his day felt that photographic portraits lacked a certain softness. The problem was to get all the planes of the face or figure in the same degree of sharpness. By closing down the diaphragm to increase depth of field, the sitting would be prolonged so that the sitter was likely to move. By trying to take the whole portrait a little out of focus, some parts were apt to be blurred beyond recognition. "I was constantly considering if there would not be some means to avoid the disagreeable effect arising from the contrast between the parts of the picture in focus and those out of focus."

Claudet with his focimeter demonstrated his solution of this problem. During exposure, if he focused first on number 1, tne number 8 would be out of focus. Reversing this, the number 1 would then be out of focus and number 8 sharp. The two, as a result, would be equally in and out of focus. Claudet suggested that this be applied to portraiture, focusing first on the eyes, then on the nose, and then the ears, moving the lens as much as necessary each time. A "collective portrait" resulted. "On first thought the idea may appear absurd, still this can solve the difficulty." The result was one of softness and "artistic harmony" and the portrait appeared in greater relief than it would have by the usual procedure. One of Claudet's last inventions was the Self-Acting Focus Equaliser, which he built to prevent distortion in this startling new method of portraiture—a device reminiscent of recent experiments in shifting the lens of a moving picture camera during filming.

THE MUSEUM OF PHOTOGRAPHY

From *The British Journal Photographic Almanac*, 1871

THE eye is the great schoolmaster. Instruction through the ear makes in comparison a feeble impression. "In at one ear, out at the other," though anatomically incorrect, expresses well the faint, fleeting impression which sound too often makes npon the brain. The sound goes, as it were, straight through—and out! With the eye, on the contrary, that which enters, even for an instant, makes a strong impression. Light, except under special arrangements, never turns a corner. So that "in at one eye, out at the other," is physically, as well as metaphorically, impossible. As Kingsley has happily phrased it, "We have seen, and cannot unsee."

The present age is essentially one of collections of objects designed to gratify or instruct by means of the eye. Museums spring up even in small towns, and better means for popular education could not be devised. "Seeing is believing." You may talk forever about a picture, a manufactured article, or any of the thousand-and-one objects contained in such a place as the South Kensington Museum—but go and *see*. The reality is before you and probably beggars the description. You have seen it and cannot unsee it. If you have been seeking special information the sight has taught you more in ten minutes, perhaps, than you could have learnt by any other means in tenfold the time.

Now why should not photography also have a museum? The materials for a suitable collection are not scanty. The value to all interested in the history and progress of the art would be incalculable. Such a collection, under proper management, would, I believe, do more to advance and *healthfully* popularise photography than all the societies—useful as they are—put together. But the management must be enlightened and liberal. It must not become an advertising institution. It must not be of the shop, shoppy. Above all, "down with clique!"

Let me suppose a Museum of Photography is established. I should like to see there, if possible, the first camera and lens used by Daguerre. I should feel, and I believe with not a few others, a special interest in seeing some of Niepce's experimental plates in photographic engraving. Talbot's and Archer's early paraphernalia would have places of honor assigned them.

But the grand object of the collection must be instruction. Specimens of all the substances which have been and are employed in photography, with, as far as practicable, brief description of properties and uses, should be well displayed. Well-selected examples of the various processes of photography, with correct formulae attached, should also find a place. And by no means omit examples of failures, with, if possible, their causes clearly ascertained. Anything abnormal, "happy accidents" which have led to or promised great results, light-bearing experiments —*experimenta lucifera*, as Bacon aptly terms those experiments, which not only enable us to see our way plainly but open up to us new paths—all, these should be conspicuously placed and described. Photography branches out in so many directions that a collection such as I advocate could not fail to interest.

Apparatus of all kinds—lenses, cameras, tents, baths, dishes, down to developing cups—and all the little useful etceteras, should form part of the collection. Above all, there should be a gallery of choice photographs—English, French, German, Italian, American—in fact, the "good things" in this way of all nations. An experimental laboratory might also be a useful addendum.

The curator should be a gentleman well versed in the history and practice of the art, and there should be a committee of selection. If the authorities at the South Kensington Museum could be induced to take up the matter, perhaps another year would not pass before the thing was begun.

Photography is valuable to Government both for peace and war purposes, and every day increases its value. A Museum of Photography supported by Government aid would none the less receive free contributions from individuals. The South Kensington Museum is doing a great work in this country. It is developing a purer taste and diffusing not a little sound technical knowledge. It is educating the eye of the nation. And much the nation needs the education, as witness many a batch of "specimens" which disfigure many a photographer's doorway, calling loudly for a well-managed Museum of Photography. —Duncan C. Dallas

Special Supplement

Portrait of SIR JOHN HERSCHEL, by Julia Margaret Cameron, 1867. A Reproduction of an original print in the Alden Scott Boyer collection of the George Eastman House was specially printed for IMAGE by photo-offset lithography. For a brief account of Herschel's contributions to photography, see IMAGE, Vol. 1, No. 1.

FRANK ROY FRAPRIE

On June 20, 1951, Frank Roy Fraprie died in Brighton, Mass., aged 76. For over half a century he was internationally known both as an editor and publisher of photographic books and magazines, and as a prolific pictorial photographer.

Fraprie began to take photographs in 1886: his first camera, a pinhole affair, was presented to the George Eastman House by his friend Alden Scott Boyer. Trained as a chemist, in 1902 he turned to editorial work, and was on the staff of *Photo-Era.* He then became part owner and eventually sole owner of the *American Amateur Photographer*, which, as *American Photography* led the field for years. One by one the magazine absorbed its competitors until sixteen "incorporated" titles appeared on its mast head. Fraprie, himself an ardent exhibitor, originated in the *American Annual of Photography* a system for rating pictorial photographers by their success at international salons. He was an honorary fellow of the Royal Photographic Society and the Photographic Society of America.

Fraprie's interest in the history of photography was not well known. He collected several thousand daguerreotypes, largely for their cases. At the time of his death he was writing an account of these attractive accessories.

JOHN FORD'S BIG BROTHER

John Ford's *The Informer* (1935) was one of the first American talkies to win both critical praise and international confirmation at the box-office. Reinforced by such successes as *Stagecoach*, *The Long Voyage Home* and *The Grapes of Wrath*, Ford's reputation as a director has since been established firmly.

But in the eyes of his brother, Ford was a Johnny-come-lately to the movies. For in 1909, Francis Ford, a tall, lean, ruggedly handsome actor, was already engaged in discovering the basic principles of making movies in the casual inspirations of the pioneers.

Georges Melies, the French conjurer-film producer had established a branch of his Melies Star Company in New York. His American representative, Gaston Melies, sent a production unit to Mission Loop, Texas, not far from San Antonio.

The company included Francis Ford, Edith Storey and Ann Nichols—who still had before her fortune and fame as the author of *Abie's Irish Rose*. The cameraman was William Paley, who had made combat movies of the Spanish-American War.

In Texas, the company produced innumberable dramas of border warfare, reenacted the seige of the Alamo, and tales involving plainsmen and Indians in the usual off-the-cuff way of the early movie makers.

Back in New York, the Melies Company might be found working in Prospect or Nepera Park, with Francis Ford and Edith Storey emoting in front of hastily set up backgrounds that fluttered with every breeze that blew.

Ford then went to California, to serve as actor and director for Thomas Ince in dramas of the Civil War that were an Ince specialty.

It was not until 1917 that Francis Ford wrote to his brother John urging him to come West and try the motion picture game.

Meanwhile Francis Ford joined the Universal Company and established a real following with his series of cleverly directed short thrillers. Teamed with Grace Cunard, the Ford films, well-cut and briskly acted, preserved the short-story film form as late as 1918, when the long features had all but taken over the screen.

After the career of brother John carried him to Academy Awards, one could always find somewhere in the cast of a John Ford production, a bearded, salty old character actor, often appropriately cast as a weather-beaten pioneer. Francis Ford played these bit parts for his brother with an Irish twinkle in his eyes. For whatever his make-up, it could scarcely hide the features of big "Frank" Ford, the handsome hero of countless films and a real pioneer whose active career in movies lasted over forty years.

A TALBOT LETTER

On the evening of Thursday, February 21, 1839, Fox Talbot's detailed description of his "photogenic drawing" technique was read at the Royal Society in London. This was the first public announcement of how to make what were later called photographs.

In brief, the process consisted of dipping paper in a solution of common salt, drying it, and spreading one side with silver nitrate. Paper thus sensitized was used either to make contact prints of small things (lace, flowers, leaves), or in a camera. The image was fixed in a strong solution of salt or potassium iodide. The instructions met with an instant response from the public, and were widely reprinted.

The following letter, written on the very day of publication, has recently been acquired by the George Eastman House from the collection of the late Albert E. Marshall of Providence, R.I. Although there is no clue to Talbot's correspondent, it is obvious that he must have been a man of science, desirous of demonstrating the new technique. Talbot's suggestion that the experiment be conducted "by the light of your galvanic battery" must surely be the first reference to photography by electric light in the world.

44 Queen Ann St.
Thursday evening

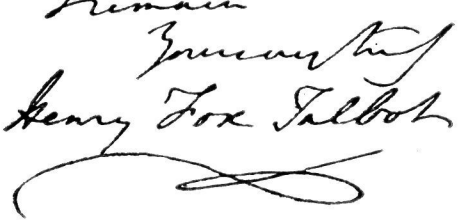
Dear Sir:

I have described all the experimental parts of my process in a paper read to the Royal Society today and which will be given, I believe, in the Literary Gazette of next Saturday. Of my former paper read on the 31st January, I will send you a printed copy.

As you cannot command sunshine London, I would recommend you making trial of your galvanic light, since I know that it was found to succeed with Mr. Daniell's battery.

The experiment which is most likely to interest the public is to form the picture of some simple object, as for instance a pattern of lace, by the light of your galvanic battery, which I should think would succeed, & if it does so you can always have it at your command; whereas the sun would be sure to fail you in a climate like this and with our smoky atmosphere.

Experiments with the Camera Obscura would not answer for public exhibition.



THE AMERICAN PHOTOGRAPHIC EXCHANGE CLUB

ORGANIZED amateur photography in America began in 1861, with the founding of the American Photographic Exchange Club. The Club never met in a body, but through correspondence, a monthly magazine, and the study of one another's prints, the members not only derived satisfaction, but contributed to the improvement of photographic techniques.

Henry T. Anthony of New York, partner of the photographic manufacturing firm E. & H. T. Anthony Company (which merged with the Scovill Co. to become Ansco), founded the club when he sent one of his own photographs to Robert Shiver, a young banker and amateur photographer in Maryland, in exchange for a landscape print. Eventually, twenty-three members exchanged original prints twice a month.

F. F. Thompson of New York City was the secretary and only officer of the club. From his private photographic "den" he set the type and printed on his own press a monthly paper for club members, *The Amateur Photographic Print.* It was a single sheet, 7½ x 9½ inches, filled on both sides with articles and anecdotes written by and about club members and their photographic adventures. The only complete file of the seven issues of the paper is in the George Eastman House in Rochester, New York.

"The publisher being purely an amateur of the laziest kind," editor Thompson stated in the first number, "the precise days of issue will depend very much on time and pleasure." He gave his member readers full permission to "blow-up the Editor" if they in return would keep the publication alive by frequent contributions. This they did with an assortment of serious articles on such technicalities as using brass in toning prints and making lantern slides. They also sent the editor humorous quips —such as the claim that Moses was the first amateur photographer because the Bible reveals that "he went up into the mountain to take a view of the promised land."

Throughout the issues, a lively debate was carried on over the merits of the ordinary collodion "wet plate" process and the dry collodion emulsion or "tannin process." One champion of wet plates wrote of this new process, "It is the bane of true artistic photography and like the Maine Law and other dry things, is destined soon to disappear." Nevertheless, a dozen years later, in another form, the dry plate was to drive the wet into oblivion.

Oliver Wendell Holmes, the famous poet and essayist, was an honorary member and carried on an informal exchange of prints with Charles Himes and Professor O. N. Rood, two active members. In an article in the *Atlantic Monthly*, Holmes called the growth of intimate friendships one of the new wonders of photography, "The artist sends his own presentment, not in the stiff shape of a purchased carte de visite," he wrote, "but as seen in his own study or parlor, surrounded by the domestic accidents which so add to the individuality of the student or the artist."

In 1863, when its secretary was called to war, the American Photographic Exchange Club became inactive. But in its three years of existence, it showed what part amateurs even then played in the development of photography. Throughout the history of photography, some of the most important contributions have come from the enthusiasm and hard work of amateurs.

LAST OF THE PIONEERS

AT ninety-eight William Henry Jackson looked at the exhibition of his impressive 18 x 24 inch contact prints made fifty years earlier and said, "Just think! I can do better than that now with this!", pulling out of his hip pocket a miniature camera. He was a link with the past, the last survivor of that band of intrepid, adventure-loving explorers with the camera who went into the West when it was unknown and brought back, year after year, vivid pictures of country that had to be seen to be believed. Grand old man! Painting murals at eighty, returning year after year on muleback to his beloved high places of the West. He was young when he died in 1942.

He was born in 1843. From his childhood he was a picture maker. He drew the schoolhouse and the countryside where he was brought up. He drew his Civil War comrades in bivouac and camp. He drew the studio where he was employed as "artist" and where he learned photography. He filled his sketchbook with pictures of the rough life on a wagon train as he bullwhacked his way across the continent.

Back in Omaha in 1867 he first began to take photographs. Within a few months he had not only bought out his employer but the only other portrait gallery in town. But studio life was not for him, the call of the open was too great for him to remain under the skylight. When the railroad needed more photographs, Jackson went out along the line, hitchhiking with friendly engineers, taking stereographs by the thousand.

In 1870 Ferdinand V. Hayden invited him to join the expedition he was leading West into Wyoming for the Department of the Interior. For the next eight years Jackson was official photographer for the annual surveys.

In 1871 Hayden led the expedition into the Yellowstone, to see if the marvels which earlier explorers had reported did indeed exist. They found the fabulous geysers; Jackson photographed them; the photographs were presented to Congress, and largely through their incontestable evidence our first national park was created.

Those were the days of the wet-plate process, when every plate had to be prepared on the spot in a portable darkroom, exposed and developed—all within fifteen minutes. Cameras, lenses, plate holders, glass (400 pieces), a "darktent," chemicals, trays, baths, even water had to be packed on mules. To capture the grandeur of the Rocky Mountains Jackson dared to bring a huge 20 x 24 inch camera to the peaks: it took one animal alone to carry the giant camera and its plate holder.

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