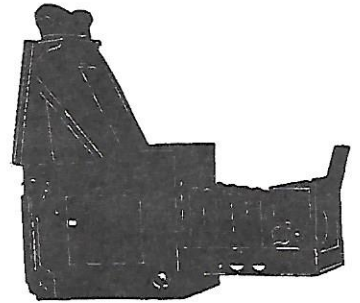


GRAFLEX HISTORIC QUARTERLY



VOLUME 4 ISSUE 1

FIRST QUARTER 1999

FEATURES

Moon Camera	1
Eastman House Treasure	3
The Traveler.....	6
Classified	8

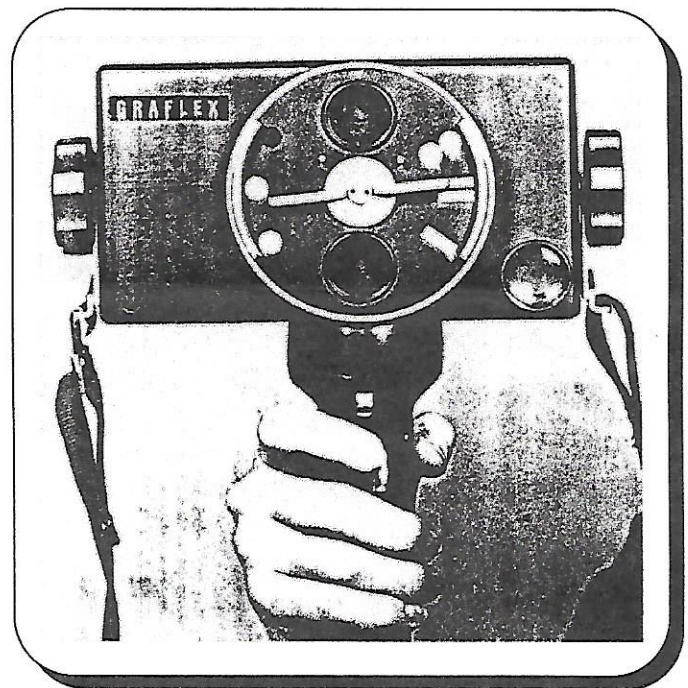
SPECIAL INSERT THIS ISSUE!

Inclosed with this issue is a reproduction of a Graflex ad, suitable for framing, courtesy of a subscriber in California. Thanks, anonymous reader!

THE GRAFLEX MOON CAMERA

By Roger Adams

In the early 60's with the race for space moving into high gear, several U.S. camera manufacturers began thinking about the role of photography in the existing space programs as well as future missions. It appeared to these manufacturers that sooner or later a landing on the moon would be accomplished and that there would be a need for a still camera to be used by astronauts.



Graflex Moon Camera

The role that still photography was to play in a lunar landing had not been defined by NASA at the time. Also, no money had been allocated or been released to industry for studies, and no requests for studies had been made. Even though there was nothing to go from NASA, these manufacturers were convinced of the need and decided to go ahead on their own and develop a design.

Graflex decided that they would like to be a part of such a project and took the approach that a totally new design would be needed. One of the factors that had to be considered was the vacuum "atmosphere" of the moon and its effect on camera materials and lubricants. Graflex's idea was to gasket the camera and pressurize the interior to minimize these problems although they felt something specifically meant to operate in the lunar vacuum would probably be best. They also felt that a mylar type film would be the most satisfactory for operation in a vacuum.

Graflex felt that plastic should be avoided because of the effects of radiation on organic compounds and that this same type of material should be kept away from the film because of its effect on the emulsion. They also felt that since sunlight on the moon is not diffused, any then existing exposure meter technology would have to be greatly modified in order to be reliable. This was speculation based on theory, of course, as no exact exposure data on the moon's surface was known at the time. They thought that this data should be gathered during the first lunar landing by taking many pictures at different exposures and reviewing that data for future use.

Graflex eventually came up with designs for 16, 35, and 70mm hand cameras. They also tested several mockups of camera designs with NASA for ease of handling by the astronaut's wearing of bulky gloves as part of their space suits. They settled on 35mm as the best size for such a camera as it could still be kept fairly compact and light and at the same time have a better picture taking capacity than the lighter and smaller 16mm.

By 1963 Graflex had settled on a design they felt was ideal for the task at hand. The camera would be 7 inches long, 4-1/2 inches high, and 2-1/2 inches thick. The viewfinder would be an open frame "gunsight" type mounted on top of the camera by means of an "accessory shoe." The

camera would be held by a 4/2 inch handle mounted underneath the camera which would contain a trigger for the shutter release, and an electric motor with external power supply for film advance, and in case of electrical failure the film could be advanced mechanically by twisting the handle.

Dual 35mm, double perforated film in standard cassettes would be used. The film would be pre-threaded into take-up cassettes to avoid rewinding. The two strips of film would lay horizontally across the camera, one above the other. The negative format would be 24 x 36mm, and 70 pictures on each pair of cassettes.

There would be a lens for each of the two film strips, and by having one film strip black and white, and the other film strip color, one could have the choice of either type of film at any time or both at once. By choosing both color and B & W at the same time, and turning the camera sideways, one would have stereo. This was thought to be an advantage, especially for shots of less than 20 feet.

Graflex settled on a rotating disc, focal plane shutter. They felt this to be the most reliable and would need a minimum of lubrication. Also, the shutter opening on the rotating disc could cover both film strips, and make the switching from B&W to color, both, or stereo, a simple operation.

Focusing by helical lens mount was deemed impractical due to the lubrication difficulties. Therefore, Graflex suggested removable discs, each containing several lens and filter combinations which could be stacked on the front of the camera to meet any particular situation. The operator would simply turn the disc for the desired lens and filter combination, or switch with

- CORRECTION -

Our last issue incorrectly stated the year of publication of the Little Technical Library to be 1921. Tim Holden reminds us that it should read 1941.

another as necessary. Diaphragm openings would be on another disc mounted on the front of the camera behind the lens and filter discs and would be independent of the other discs.

The camera would incorporate a built-in exposure meter which would not be coupled to the lens or shutter. This was felt to be the most reliable. The diaphragm and shutter setting would be coupled to a pointer which the operator would line up with the needle of the exposure meter. To accommodate the lack of diffused light, the exposure meter was to have a 3 degree narrow field of view, and be bore sighted to the viewfinder. This way, the meter would read off the subject to be photographed.

A knob on the left side of the camera would control the needle matching of the exposure meter, and the knob on the right would control the mode of operation (B&W, color, or both). Attachments could be made to the lens discs by means of a bayonet type mount. All controls were specifically designed for ease of operation with the bulky space suit gloves.

The actual moon camera was never produced. The accompanying photo shows the wooden mockup of the Graflex considered the "ideal" design as described in the article. By the time the company had arrived at this design, they still had no specifications or design requirements from NASA. Furthermore, NASA had still made no commitment for a photographic part in the lunar landing, and no commitment to any one company. Graflex had already spent a considerable amount of time and money on research and development with no assurance of getting the contract for the job. They finally concluded that for the amount of "mileage" they might get from advertising, coupled with the cost of participating, that the project would not be worth continuing.

Reprinted with permission from The Photographer 1984

HISTORIC CAMERA PROVES GRAFLEX DURABILITY AND DEPENDABILITY by Mike Hanemann

[Editor's note: This is part of a series of articles on unusual or unique displays of Graflexes in George Eastman House. Adding to the interest is that an article on Byrd Graflexes first appeared in the April 1994 issue of the Graflex Historical Society Journal. In that article, the existence of a group of South Pole cameras is discussed from the viewpoint of a discovered vintage picture of them. However, the star of this article is an actual camera on display.]

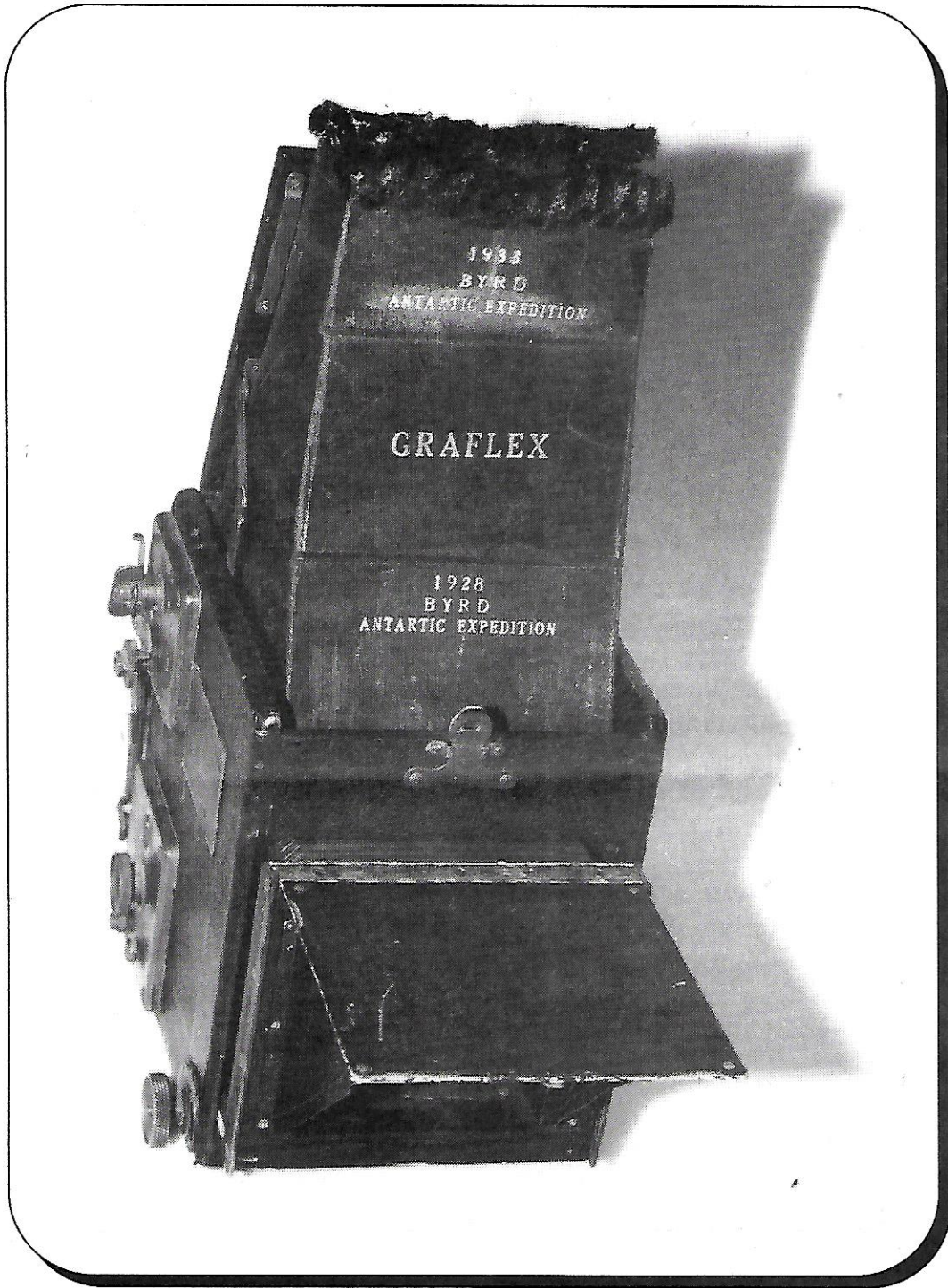
The 3x4 Graflex pictured on the next page has been to both the North and the South Poles with the famous explorer Admiral Richard E. Byrd. What's interesting beyond just the fact of its travels is the story behind it.

It seems that prior to Byrd's trip north in 1926 when he flew over the North Pole, he purchased a 3x4 Graflex from a dealer with no special treatment for arctic conditions. Reportedly, the camera performed without any difficulty. Upon his return, he visited with the folks at Kodak and Graflex and told of his use of the camera. The company was so pleased that they offered to service the camera for his upcoming Antarctic expedition.

When he planned his trip to the South Pole, Graflex winterized the camera and he experienced no problems in the Antarctic cold! The camera that made the historic trip was presented to the George Eastman House collection.

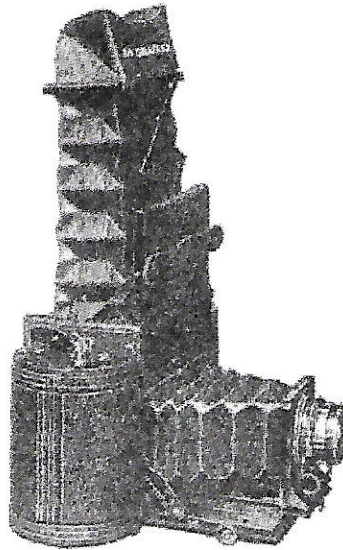
GRAFLEX SLR HOODS NOW MADE

Universal Bellows, 25 Hanse Av., Freeport, NY 11520, advises us that they will make new viewing hoods if customers will send the old one along with \$50 plus \$10 return shipping. Please contact them for details.



Admiral Byrd's Antarctic Graflex

*This month's puzzle: What model Graflex is this Antarctic veteran?
(pictured above)*



THE 1-A GRAFLEX

Is the most compact and efficient camera of the reflecting type ever produced. It combines all of the exclusive Graflex features, including reflecting mirror, focal plane shutter, safety lock, large rigid front and uses regular 1-A Kodak Film for pictures $2\frac{1}{2} \times 4\frac{1}{4}$ inches.

SPECIFICATIONS

Outside dimensions, closed, $5\frac{1}{2} \times 9\frac{1}{2} \times 3$ inches. Weight, 59 ounces

PRICE

1-A Graflex, without lens	-	\$60 00
Fitted with Zeiss Konax Anastigmat No. 2, F-6.3	-	82 00
Fitted with B. & L. Zeiss-Tessar Ic No. 14, F-4.5	-	100 50
Fitted with B. & L. Zeiss-Tessar IIb No. 4, F-6.3	-	94 50
Fitted with Cooke Lens Series IV No. 25, F-5.6	-	98 00

Send for Graflex catalogue

FOLMER & SCHWING DIVISION

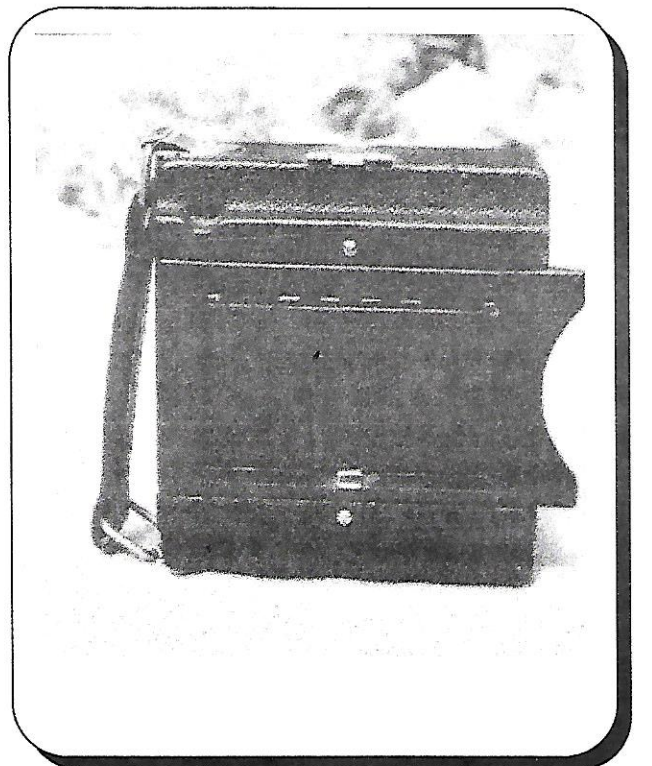
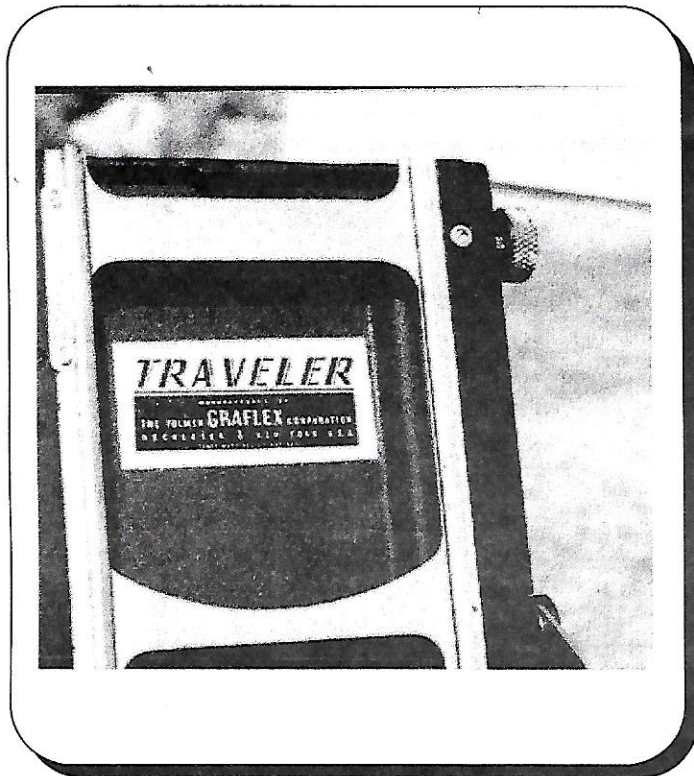
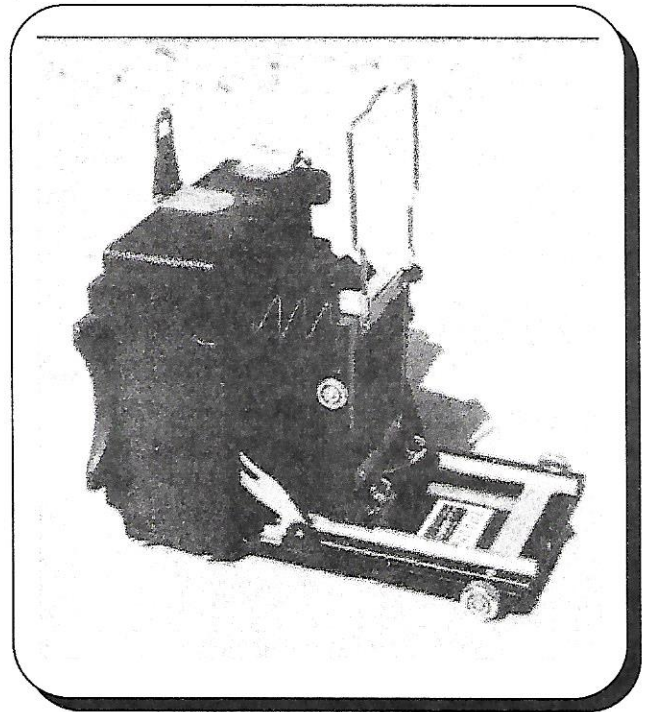
Eastman Kodak Company
ROCHESTER, N. Y.

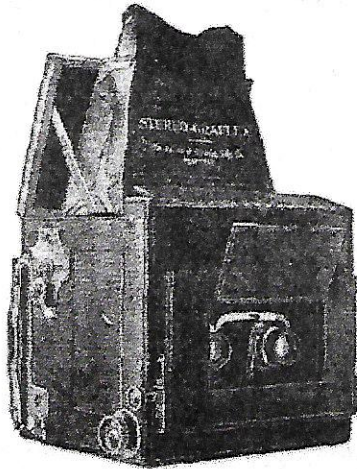
Kindly mention THE PHOTO-MINIATURE

From the May 1910 Photo Miniature magazine

PROTOTYPE GRAPHIC PICTURES SENT BY
READER

Subscriber Jim Chasse kindly sent in the shots below of the "crown jewel" in his 2x3 collection [of which there are 40, he adds]. According to data he received with the camera, it came from the J. Hungerford warehouse at Goodman & Main, Rochester, when Graflex Design abandoned it. Resembling the Century, it sports a yellow and black decal in the well, and plastic pieces attaching the focussing rails. Likely designed for low weight, it has neither rangefinder nor focal plane shutter. The camera did not come with lens or board.





The Stereo Auto Graflex

The image is seen full size on the ground glass, up to the very instant of exposure.

The focusing hood is fitted with a pair of stereo prisms to give the stereoscopic effect when focusing.

The camera is fitted with the Graflex Focal Plane Shutter, actuated to give any exposure from time to 1-1,000 of a second.

Send for Graflex Catalog

FOLMER & SCHWING DIVISION

Eastman Kodak Company

ROCHESTER, NEW YORK

Kindly mention THE PHOTO-MINIATURE

reprinted from the February 1909 Photo Miniature magazine

WANT AD POLICY:

Any subscribers wishing to place a want ad selling or seeking Graflex-related items may send them to the GHQ for inclusion at no charge (at this time). The editors reserve final publication decisions.

SUBSCRIBER NOTICE:

If anyone did not receive the previous issue of this newsletter, please contact the address below. Sometimes one goes astray!

WANTED: Old lenses of all kinds. J.C. Welch, address at right.

FOR SALE: Tons of Graphic parts and parts cameras. Write needs. Harry Porter, 505 Sunlight Dr. Arlington, TX 76006

Graflex Historic Quarterly

The Quarterly is dedicated to enriching the study of the Graflex Company, its history, and products. It is published by and for hobbyists, and is not a for-profit publication.. Other photographic groups may reprint material provided credit is given GHQ and the author. We would appreciate a copy of the reprint.

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DOES YOUR ADDRESS LABEL HAVE A RED

R

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PLEASE RENEW NOW! This is your only reminder.

READER'S TIP

submitted by Cliff Scofield

On all 4x5 and 5x7 size SLR's, the mirror going up will reduce air pressure in the mirror box and may cause the film to pop forward slightly. For portrait use, this does not present much of a problem, but for more exacting uses, a small piece of double coated tape will preserve image sharpness, if it is installed behind the sheet of film. Vinyl or latex gloves might be used to avoid fingerprints on the film.

