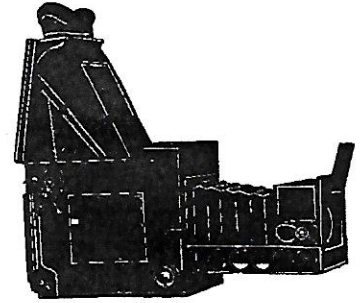


GRAFLEX HISTORIC QUARTERLY



VOLUME 7 ISSUE 3

THIRD QUARTER 2002

FEATURES

Graflex Roll Holders	1
Letters to the Editor.....	3
110 Graflex?.....	4
Focusing on Kalart.....	5

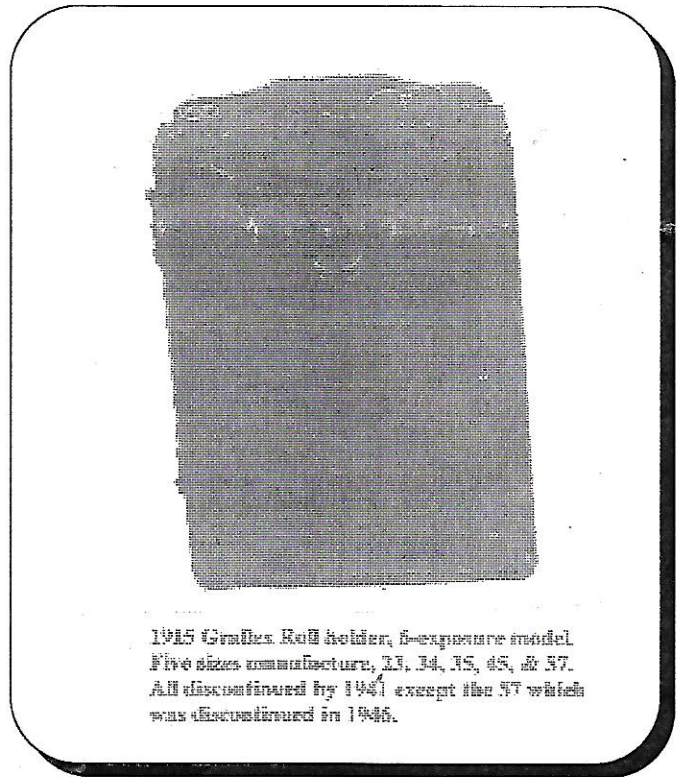
GRAFLEX ROLL FILM HOLDERS -

Then and Now

By William E. Inman Sr.

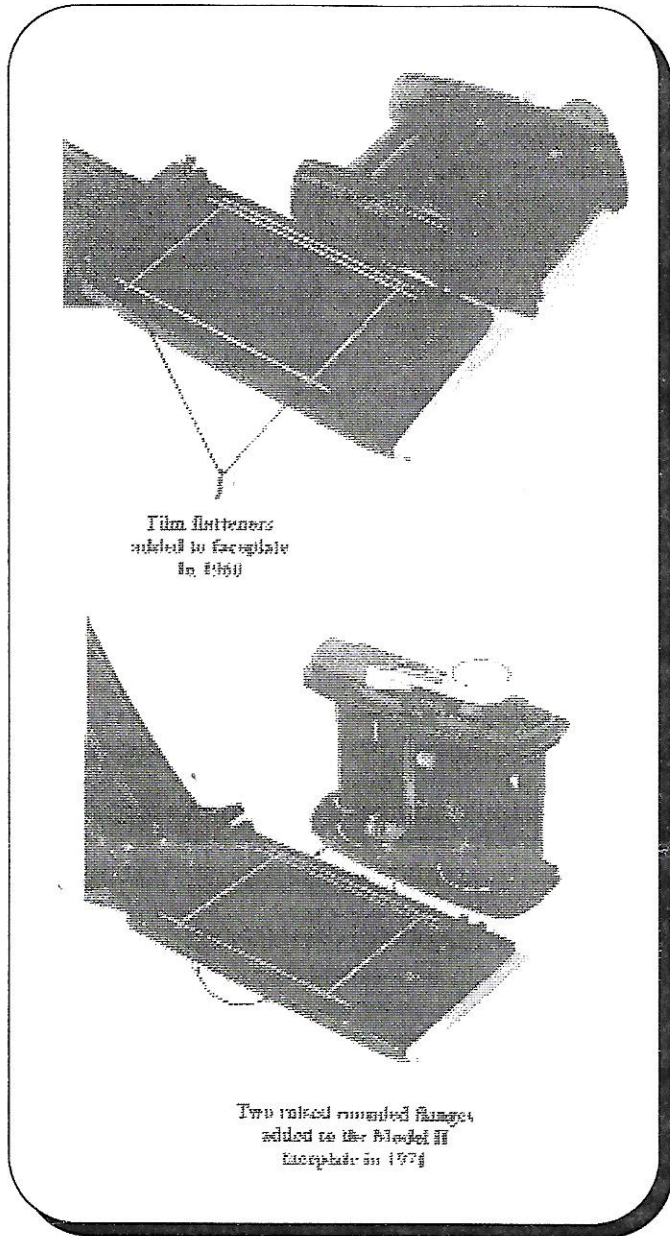
In 1888 Eastman Kodak developed the first commercial roll film. Later, in 1891, the company marketed daylight load roll film. When Folmer and Schwing began manufacturing cameras, the first listing of their roll film holder was in 1904 for their Graflex cameras. The 1904 roll film holder used a 12- exposure film. The roll holder came in three sizes, 3-1/4 X4-1/4, 4x5, and 5x7.

After Eastman Kodak acquired Folmer and Schwing in 1905, the roll film holder was changed to accept a daylight load 6-exposure cartridge that used a paper backing. A 2-1/4 x 3-1/4" and a 3-1/4 x 5-1/2" roll holder were added to the line. In 1926 the Folmer and Schwing division of Eastman Kodak was separated from Kodak at the Federal Government's request and became the Folmer Graflex Corp. After WW II, the 5x7 roll holder only continued to be available until 1946. All these early roll film holders were designed to fit the Graflex back only. If you had a Speed Graphic, it was necessary to have the camera fitted with a Graflex back to use the roll holder.



1915 Graflex Roll holder, 6-exposure model.
Five sizes manufactured, 2 1/4, 3 1/4, 4 1/2, 4 5/8, & 5 7/8.
All discontinued by 1941 except the 5 7/8 which
was discontinued in 1946.

In 1942 Kodak introduced 120 Kodacolor roll film that became very popular with both the amateur and professional photographers. As a result, in 1949 Graflex introduced an all-new 120 roll film holder for the 23 Century Graphic, 23 Pacemaker Speed, and 23 Crown Graphic cameras. The 23 Graflok back was introduced at the same time replacing the Graphic back, allowing the adaptation of the roll holder but keeping the use of Graphic sheet film holders. By this time, the Folmer



Graflex Corp. had changed their name again to Graflex Inc.

Two models of the knob advance Graphic roll holders were made available: a 6x9 cm. 8-exposure and a 6x6 cm. 12- exposure. Two models were also made for the Graflex back.. A year later, in 1948, Graflex introduced the 3-1/4x4-1/4 and 4x5 120 film Graphic and Graflex roll film holders along with the 3-1/4x4-1/4 and 4x5 Graflok backs. As time went on, modification had to be made due to changes in film specifications. Large idlers and film guides at the take up end of the carriage assemble were added to keep film on track. In 1960, film flatteners were

added to the inside of the faceplate. The film flatteners were designed to hold the film in flatter registration.

The use of the roll film holder increased and professional photographers pressed for a rapid advance lever on the roll holders. In 1964 Graflex (now under GPE) introduced a new rapid advance lever roll film holder for the 2-1/4 x 3-1/4" and 4x5" Graphic cameras replacing the knob model. Three formats were introduced: an 8-exposure, 12-exposure, and a new 10- exposure format model. The rapid advance was black and the back cover was gray with silver lettering. A pencil notation tab was added to the top of the carriage assembly like that on a Riteway film holder. The 23 34, and 45 Graflex knob roll film holders were discontinued.

In 1965, when Graflex introduced the Graflex XL system, the 23 rapid advance roll holders' appearance was changed. The 23 roll holder's rapid advance levers were color coded & designated RH-8 (Red), RH-10 (Blue), RH-12 (Green). Also introduced was a new 20 exposure model, the RH -20 (yellow). The covering reverted to black with no lettering on the back. The dark slide end was also color coded to match the 23 rapid advance lever. The 4x5 Graphic rapid advance roll holders were changed to all black color, including the rapid advance lever and were available in 8, 10, 12, and 20 exposure models. All the roll holders retained the pencil notation tab on the top of the carriage assembly as well. Graflex also introduced a 70mm, 50 -exposure lever advance roll film holder for the XL camera system and the 4x5 Graphic cameras.

In 1971 Graflex (now under Singer) introduced the Graphic Model II Pro rapid advance roll holders. It was a much-improved version over the previous models. The color coding of the advance lever and dark slide was dropped as well as the pencil notation tab on the top of the carriage. The design of the rapid advance lever was changed to look more closely like the type you see on a 35mm camera and it color was black and silver. A nameplate was added to the back of the roll holder with the Singer/Graflex name on it. In addition the inside of the roll holder faceplate assembly was changed by adding two rounded flanges in the middle, one on each side, to assist in aligning and positioning the carriage. The new carriages had recesses on the bottom side in the middle that accept the raised flanges on the faceplate. This additional new feature prevented earlier carriage assemblies to be interchanged with those of the new model. They will not seat properly on the new roll holder faceplate.

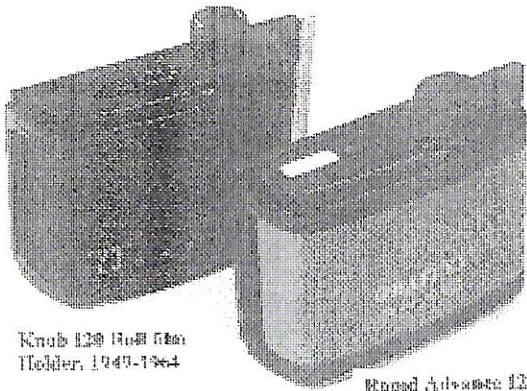
Unfortunately in 1973 Graflex was dissolved, and all production of photo products ceased, bringing an end to a

Letters to the Editor

As a follow-up to the Letters to the Editor section of the Second Quarter 2002 Quarterly, here are several updates:

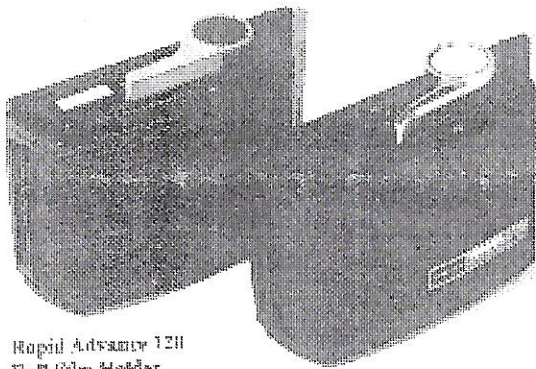
1. The use of a Graflex holder with a Graphic back did not start with the 1935 introduction of the 3 x 4 pre-Anniversary Speed Graphic. According to Graflex collector and Quarterly subscriber, Jerry Spiegel, the earliest Graflex-style cameras having spring backs used holders similar to those used on the later Graphics. This early holder, pictured on page 61 of the 1904 Folmer & Schwing catalog, is grooved across both faces, but lacks the side grooves introduced in 1906 with the Auto Graflex.
2. Though the "top handle" Speed Graphic was discontinued in 1927, the 3 x 4 format version of it was discontinued in 1925.
3. After publication, a camera was discovered with serial number 196740, indicating a production date of 1937, thus calling into question prior statements that this type of camera was produced for only two years. Other examples (including serial numbers) from Quarterly subscribers would be very helpful in better defining the production range of this style back.

Ken Metcalf



Knub 120 Roll Film Holder, 1949-1964

Rapid Advance 120 Roll Film Holder Gray 1964-1965

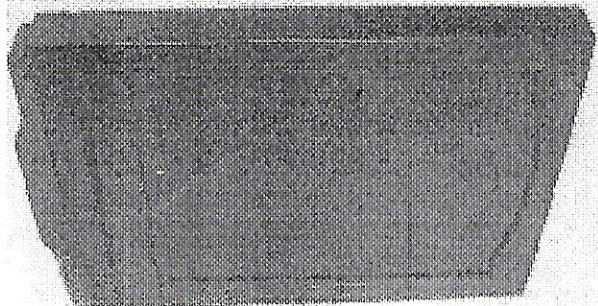


Rapid Advance 120 Roll Film Holder Color Coated Lens 1965-1971

Rapid Advance 120 Roll Film Holder Pro-Mach II 1971-1973

great company after 86 years. Then in 1974 Lenzar Optical Corp. in Florida acquired the accessory line of film holders, Graflok backs, Graflite flash units, and

electronic flash units. The Graflite Division was created and the new model II roll holder continued until 1976. It's not clear if the accessory line came from assembled stock or from parts acquired from Graflex at the time of the sale. The roll holders supplied from Florida carried a nameplate of Graflex Inc. After 1976 Lenzar and Graflite gradually went out of business. The reason for its demise is unknown.



An odd GraFLEX holder without side grooves

110 GRAFLEX?

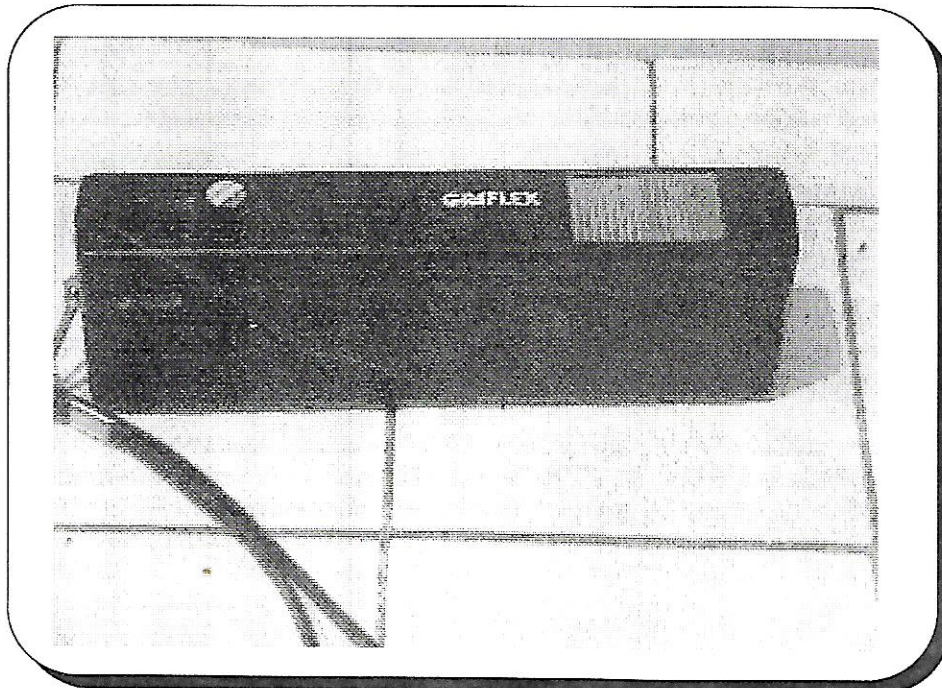


ONCE MORE TO AUSTRALIA
by Mike Hanemann

In several past issues we have presented the story of the last use of the Graflex name, noting that it was purchased by several Australians. Here is the latest find from down under. It's a 110 camera with built in flash. The unit

claims "AUTOFLASH" but is "auto" only in that if turned on, it fires every time the shutter does. The flash does not flash by sensing the light as some cameras do. The camera was built in China.

The watch goes on for more of these from Australia.



FOCUSING ON KALART

by Ken Metcalf

Since the advent of faster films and thus the development of the "instantaneous" shutter, there was a diminished need for a tripod; therefore, photographers looked for innovative hand-held cameras which would help them get away from slow ground glass focusing. With Graflex (as with other manufacturers) this led to the introduction of the reflex (Graflex) and the lighter, footage-estimated viewfinder (Graphic) cameras. With either style, the ground glass focusing option remained.

Initially, Graphic cameras were focused by estimating the footage and manually setting the camera's focusing scale, or by using the ground glass. An excellent description of creating a focusing scale is given by Tim Holden in the third quarter 1998 issue of the GHQ.

An early solution to focusing Graphic cameras without the use of the ground glass or footage estimation was the top mounted uncoupled Leitz FOKOS rangefinder. The FOKOS, which was initially listed in Leitz catalogs in 1933, was first illustrated in the 1936 Graflex catalog, and was listed and sold as an accessory (along with a mounting bracket) until 1945. The obvious disadvantage was that the distance indicated on the rangefinder had to be manually transferred to the camera's bed scale.

According to Todd Gustavson, Curator of Technology at George Eastman House, "The first camera with a coupled rangefinder was the 3A Autographic Special, introduced as an option by the Eastman Kodak Company in 1916. Not the easiest to use, the rangefinder had to be used at eye-level while the camera had a waist-level finder, but it was the first."

The initial practical and widely used lens-coupled rangefinder for American professional photographers was developed and sold by the Kalart Company of New York, NY. It was sold for the "pre-Anniversary" Speed Graphic in 1938 as the "Model G". Interestingly, the origin of the name Kalart is from the founder's father's name KALman SchwARTz. The introduction of the Kalart rangefinder is best described by quoting a 1993 letter by Morris Schwartz, the founder and first president of Kalart: "I can still record the time when, in 1936, brother Hy, and five other news photographers covered the presidential elections with Speed Graphics fitted with our six prototypes of Kalart rangefinders on their cameras. As far as we then were concerned, Mr. F.D.R. was our best salesman. Every newspaper photographer who covered that event was exposed to our rangefinders. Then the fun began.. and we were in business."

The story is enhanced by these comments of Morris's brother Hy in a 1993 letter to John Manser: "Newspapers from

various parts of the country shortly thereafter [after the 1936 convention] sent to the KALART Company Speed Graphic cameras to be fitted with the Rangefinder. The word spread to camera dealers who then ordered new Speed Graphics from Graflex in Rochester with the instructions to have these cameras shipped to the KALART Company, 58 Warren St., New York City. It did not take long for Graflex officials to realize that something was up then [sic.] they were shipping new cameras to us rather than directly to their customers, and a delegation of Graflex executives visited the KALART Company to find out what it was all about. The result was that Graflex started ordering rangefinders from KALART to be shipped to their factory in Rochester and KALART technicians trained Graflex technicians on the installation and adjustment of the Rangefinders."

The formation of the Kalart company, as told by Mr. Schwartz, is also interesting. While working as a news photographer for The New York Times, Morris formed the original company as the Kalart Photographic Studios around 1922, which Mr. Schwartz recalls was his moonlighting operation during his night shift at the paper. He left the Times in 1926 when Kalart was earning more than his salary at the paper. Again to quote Mr. Schwartz:, "Kalart, by 1936, had a small thriving manufacturing shop with a very competent mechanical engineer who I was fortunate to meet at a machine shop where I had my flash synchronizers made. William Castedello joined the Kalart Company, which was then located on Warren Street, in downtown New York City. I and brother Hy still engaged in commercial and news photography for a number of clients. I discussed my thoughts about flash synchronization, and also other camera operating problems, especially focusing, which was limited to ground glass viewing, and brought to William Castedello the ideas which eventually resulted in a fulcrum and levers system for adjusting for various focal lengths as opposed to a cam system which was then employed in the Leica; each cam specifically machined to each individual lens assembly."

Given that coupled rangefinders existed prior to the introduction of the Kalart, why did this company's product become so popular? The answer, I believe, is contained in this quote from a 1938 article in International Photographer: "While the miniatures are wonderful in their record of accomplishment, they have several grave faults. Serious photographers clung to the larger cameras. The problem lay in the fact that these cameras were equipped with every conceivable type of lens; lenses with focal lengths far, far from that with which they were labeled. The Kalart range-finder may be accurately adjusted to any lens regardless of its true focal length."

The Kalart rangefinder is a testament to American entrepreneurship at its best. Starting with the flash

synchronizer, then the rangefinder, the company recognized a need and responded by producing a series of practical products. Sales promotion at the company is both interesting and revealing of the times in which they were used. See Figure 1. for an illustration from the 1937 ad for the Model G rangefinder. A 1938 brochure proclaimed that the "Kalart

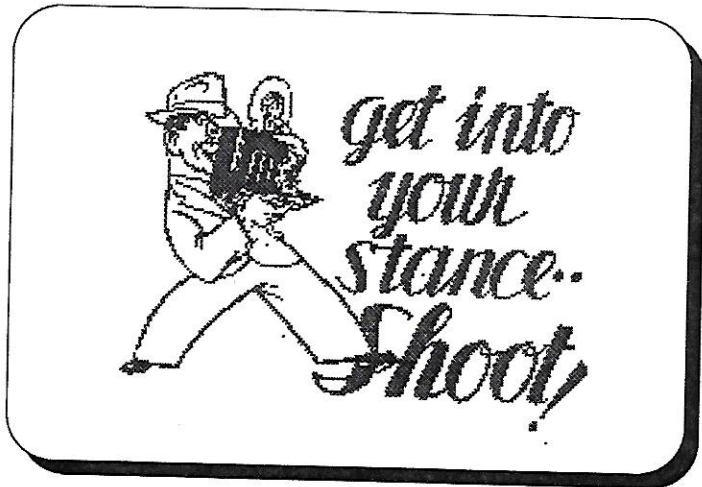


figure 1

Synchronized Range Finder supplies all the focusing conveniences of a candid camera, plus the added feature of man-sized negatives." In a 1942 ad, the Model E was thus described: "It was designed by Kalart engineers to answer the needs of the Army and Navy for equipment that would stand up under the severe conditions of modern warfare, and is 'Soldier-Proof'"

During World War II, the company boasted in a 1943 Kalart War Bulletin that "Our production facilities have been increased and converted 100% to War Work, though the W.P.B. did approve the sale of quite a number of rangefinders, Focusspots and Speed Flashes to essential users." These users included defense plants, newspapers and other publications, public utilities, hospitals, communication groups and many others.

According to records kept by Tim Holden (a nearly 40-year employee of Graflex and currently a volunteer, working on identifying and cataloging Graflex cameras at the George Eastman House), a chart of various models [from Kalart literature] may be found in figure 2.

Given the long production span of the rangefinder, there were few problems. One problem occurred when the E-1 model, with the shoe for attaching a battery case, was introduced. Press photographers tended to hold the camera by the battery case, thus (especially with the 4x5 size camera) pulling the rangefinder housing (attached with four small wood screws) loose. According to Tim Holden, this was initially addressed by adding inserts and machine screws. With the introduction of the Pacemaker, an encircling bracket was available from Graflex (as well as from Heiland Research). Also, over time, the front surface mirror lost its coating and had to be replaced. According to Kalart's last president, Leonard Quartin, there were also problems with the coating not lasting very long on the later dichroic mirror. Konnie Lang, a GHQ subscriber and a professional repairman for nearly forty years, related the following information on the rangefinder: Later models of the E had a screw on the front of the housing that allowed the photographer to field adjust the up and down

movement of the mirror. This, however, caused the infinity and high/low adjustments to be out of adjustment. Kalart eliminated this method of adjustment on later models.

John Manser, who has used all Kalart models, prefers the model F and prefers the Kalart over the Hugo Meyer because it is "field adjustable," plus there has always been more technical literature available for the Kalart.

In addition to the rangefinder, Kalart produced two rangefinder accessories:

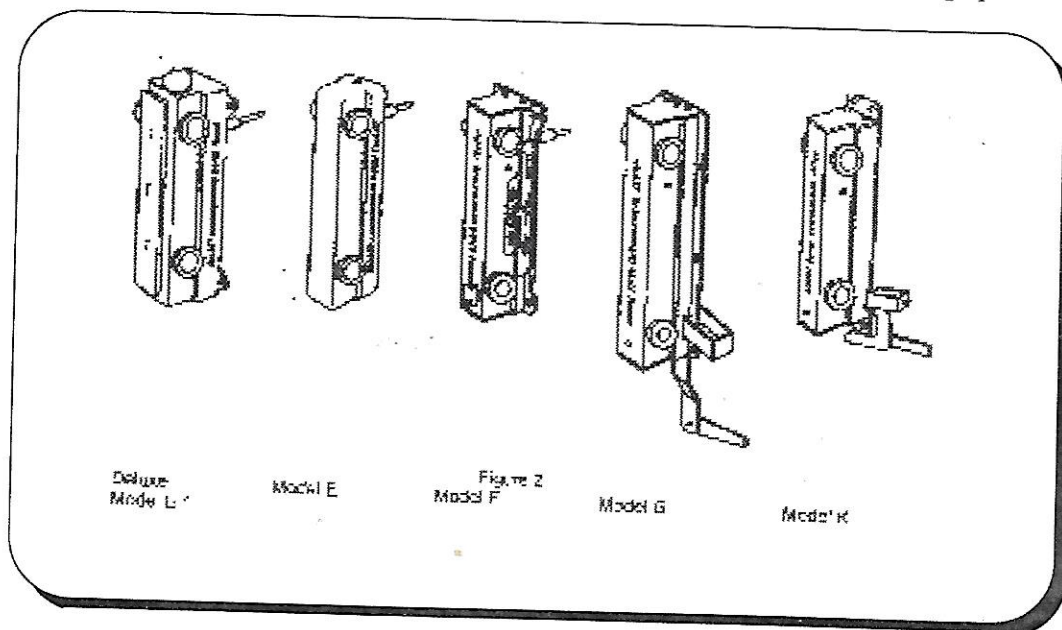


figure 2

1. FOCUSCOPE - A magnifying telescope originally attached to the rangefinder guard (initially a non-magnifying eyetube), then, starting with the E-1 model, to the rangefinder housing. Priced at \$2.95.

2. FOCUSPOT - This attachment offered a new method of focusing. It contained an electric bulb (powered by batteries in the Kalart or Graflex/Graflite battery case) which throws a beam of light through the rangefinder, split in two by the mirrors. These two beams are projected on the subject to be photographed. The focusing knob of the camera is turned in the usual way. When the two light beams are superimposed on each other, the subject will be in sharp focus. On the earlier Graflex battery case, Graflex provided a Focus Spot bulb and lens that were used to cast a beam of light for poor light conditions. This bulb and lens were removed and replaced with a Kalart sync cord that provided electricity for their Focuscope. This product, available in three models, was first offered to the military during WWII. Priced initially at \$9.95.

During WWII they also produced a hand-held artillery compass. After the war, in addition to press camera products, Kalart introduced a 3 x 4 camera (1948), and a line of movie editing equipment (acquired through purchase of the manufacturer and distributor, the Craig Company of Los Angeles). Also, according to George Gilbert in an article in Photographica, Kalart also had "giant sales" of flash units for Polaroid.

One of the last technical advances to their rangefinder was introduced in 1955, when a dichroic mirror was added. To quote from their Kalart Press News Bulletin, "A dichroic mirror is a special semi-transparent mirror. An image viewed through it is seen in a blue-green color. But the image that is reflected from the prism to its dichroic surface is seen in a yellow-orange color. When focusing, the images merge into a single in-focus image which is seen in its natural color. Since the colors produced by the mirror are in contrast, the two separate images are easily and quickly distinguished. Moreover, when the two images merge into a single in-focus image, the transmission of the colored images into a natural color image has the effect of snapping into focus." Although the company ceased operations in 1989, many of its products are still used and sold, both to the collector and the still and motion picture photographer.

Though never as popular as the Kalart, the well-made Hugo Meyer rangefinder was Kalart's first competitor (according to Mr. Quartin). The Meyer rangefinder was available for the Miniature in 1938, but it did not become listed as a Graflex-installed accessory until 1941. It continued to be available through Graflex when the Pacemaker was introduced. In 1941 it was priced five dollars higher than the Kalart at \$32.00. Photographic author and publisher Ed

Romney's opinion is that the Meyer rangefinder was good, but it was difficult to use because a separate cam was required for each lens.

Though maintaining a close working relationship, Kalart and Graflex became competitors with the introduction of the Kalart press camera and the in-house development of a rangefinder by Graflex. According to Tim Holden, Kalart was not involved in the development of their rangefinder. As an indication of this in-house work, a GHQ member has an interesting top mounted rangefinder prototype. The rangefinder is fitted to a 3 x 4 Anniversary Speed Graphic which was part of the first batch of this camera produced in August of 1939. This sleek black crackle painted aluminum prototype has a five-position dial that allows the camera user to recalibrate the rangefinder when lenses of different focal lengths are used.

The Kalart rangefinder was fast and accurate for one lens but lacked a quick method of recalibrating for other lenses. This problem was addressed with the introduction, in the late 1950s, of the 4x5 Pacemaker Speed Graphic, using the Graflex developed top-mounted rangefinder with automatic parallax control and interchangeable cams. According to Tim Holden, the Graflex rangefinder became the overwhelming choice of camera buyers. As an example, five cams (each with a number stamped on it) were available for the 135mm lens. When a lens was fitted to a camera, it was bench tested to determine which of the cams was best suited for that lens. This is similar to the system used to combine lenses and vernier bed scales. In 1965 Graflex introduced the XL. In a 1966 review of the XL, a Popular Photography test report, said: "The rangefinder is actually a combination viewfinder and superimposed-image rangefinder, with bright-line frames with automatic parallax correction. The rangefinder is very well designed, and employs a unique cam system that couples automatically. The barrel of each lens has its custom cam built in, individually cut. Though not totally lens specific, but probably mitigated by greater uniformity in lens production, these latter two advancements greatly simplified rangefinder focusing."

Acknowledgments: The Kalart portion of this article relies heavily on the invaluable groundwork done by GHG subscriber John Manser, who supplied letters written to him by Morris and Hy Schwartz and Leonard Quartin. In addition, Mr. Manser has provided literature used to describe various Kalart products. Also, Tim Holden and Richard Paine provided valuable information and insights. "Polaroid" is a registered trademark of the Polaroid Corporation.

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!

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.

Publisher: Mike Hanemann
Editor: J.C. Welch
One Year Subscription: \$14
[payable to Mike Hanemann]
Contact: Mike Hanemann
P.O. Box 22374
Milwaukee, OR 97269
Or J.C. Welch
1777 Lake Dr.
Eugene, OR 97404
e-mail hanemann @ europa.com
or staff@equinoxphotographic.com
[J.C. Welch's email address]

*What model and film size
is she using?*

