GRAFLEX HISTORIC QUARTERLY



VOLUME 8 ISSUE 2

FEATURES

French David Beats American Goliath by	
Robert Goldman]
The Graflex Magazine Plate & Cut Film	
Holder by William E. Inman, Sr	4
Ask Tim Holden	(
Meet the Subscriber	7

French David Beats American Goliath

By Robert Goldman

With a demonstration of stereo imaging to Queen Victoria at the Crystal Palace exhibition in 1850, mass market acceptance of stereo photography as a legitimate entertainment and documentary medium was assured. Though by the turn of the century the initial wave of interest had waned, innovations were soon to create a second great surge in interest. However, the 5x7 Stereo Graflex, while employing some clever and innovative features, failed to ride this wave.

This author is not an expert on Graflex cameras, and I cannot quote factory production figures or serial number ranges. But empirical evidence, gleaned through over a decade of collecting and using stereo camera equipment, suggests Stereo Graflex cameras are not rare because they were all used up. They are probably quite rare because few customers stepped up to buy them. If the combination of reflex viewing, a fast focal plane shutter, and light and flexible sheet film were a great boon to the 2D Graflex, why were these same features passed over in the stereo market?

SECOND QUARTER 2003

The answer to this lies, I believe, in the simple fact that by the time the big Graflex hit the market, somebody else had a better answer. It is ironic, and not for the only time in history, that the better answer was built on inferior technology. To understand all of this, we must first have a look at the special requirements of stereo photography.

There are two key issues at work. First, to view a stereo image, we need a viewer which presents the two images to the eyes in a way our brains can use to merge them into a single three dimensional view. This virtually eliminates press use of stereo images. To do any good, every reader must have a viewing device, and for what size image is the viewer designed? We'll touch on image size again later.

The second important requirement for good stereo is maximum depth of field. While this is not an absolute rule, most any stereo photographer will tell you they shoot the bulk of their images with the lenses stopped way down. Slow film speeds of the day made the Stereo Graflex's fast shutter speeds useless. The press didn't buy stereo cameras because they had no use for stereo, and there was no practical method provided to view the camera's 5 x 7-inch images.

The popular Holmes style parlor stereo card viewers of the day were designed around a standard 3.5 x 7-inch stereo card. Graflex images would have to be arbitrarily cropped to fit, and if Graflex ever made a viewer to support their own format, somebody please sell me one or at least show me what it looked like. Against this bleak background, we must overlay the concurrent bright-looking future of obsolete

glass plates. By the time our beloved Graflex hit the market, the French company of Richard Brothers had already set a standard, based on small simple glass plate cameras and viewers, which would come to dominate the market and survive until WWII.

Richard scored on three fronts. Their cameras were small and portable, suiting them to the active lifestyle of an affluent upper middle class family. I have carried one inside my parka skiing. while Imagine trying that with a big, heavy Stereo Graflex! The Richard developed 45 x 107size was rapidly slide viewer. adopted by other



oped 45 x 107millimeter image
size was rapidly slide viewer.

Left to right: Stereo Auto Graflex, Richard Verascope with early roll film back and accessory self-timer, case for glass plate magazine showing operation of plate changing mechanism, and Taxiphote

manufacturers, so cameras and viewers were interchangeable between brands. While Eastman was winning the film battle with a flexible film base, Richard took advantage of the fact that stereo transparencies always view better than stereo prints. In those days, glass was still the way to go for trannies.

Richard overcame the technological disadvantages of glass by providing clever interchangeable glass plate magazine backs (The Graflex "bagchanger" magazines are remarkably similar.) and a better viewing experience in the form of transparencies. They overcame any technological advantages in the Graflex camera itself by making wiser choices in what features to incorporate. At the end of the day, composing in stereo is nice, but strictly speaking, not necessary, and as slow shutter speeds were the norm, simple in-lens shutters were lighter and cheaper.

While Richard was not the only player, their line of cameras and accessories was truly impressive. Within the 45 x 107 format, they offered a plethora of camera, viewer and accessory choices. The entry level Le Glyphoscope doubled as camera and viewer. Viewers ran the

gamut from the aforementioned camera/viewer to deluxe multi-image cabinet viewers known as Taxiphotes. These devices incorporated a magazine fed changing mechanism. A storage cabinet in the base held 300 images, and additional storage cabinets holding up to

2,000 images were cataloged. There was even a mechanical self-timer available.

Commercial applifor cations Graflex did exist, but there were any number of competing 5 x 7 view cameras to overcome. Underwood & Underwood and Keystone, two of the largest American producers of commercial stereo views, must have used at least a few Stereo Graflex cameras. In the 1930s,

well after they had been dropped by Graflex, the Tru View Company used Stereo Graflex cameras to shoot original images which were then printed onto film strips.

Is it possible the Stereo Graflex was merely ahead of its time, produced a century too soon? Today, we have fast, modern color negative and positive film. High quality achromat viewers, in appropriate sizes, can be bought on the internet. With modern lighting technology, it would be simple to build a backlit viewer for color trannies. It's funny, but right now, today an intrepid photographer (read kook) could produce truly stunning results.

There is one last truism of stereo photography. The larger the image, the more immersive the viewing experience. Modern 35mm stereo slides produce considerable wow factor. 6 x 13-millimeter pairs on 120 roll film draw gasps of appreciation. This author has yet to see a well-composed and exposed 5 x 7 stereo pair. Thanks to the forethought of the people at Graflex, this $21^{\rm st}$ century photographer will get the chance.

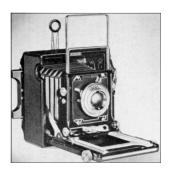
NAMING GRAFLEX CAMERAS



The 1.A., 3.A. and 0

Kodak started numbering film formats in 1913, beginning with film number 101 and increasing from there. Prior to that, the film was named for the camera in which it was used. Thus, 1A Kodak film was named for their 1A Folding Pocket Kodak of 1899, 0 Kodak film was named for their 0 Folding Pocket Kodak of 1902, and 3A Kodak film was named for their 3A Folding Pocket Kodak of 1903.

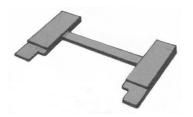
Graflex also named three of their cameras based on the Kodak film used: The 1909 0, the 1909 1.A. and the 1907 3.A.



The Century Graphic

The molded plastic 2¼x3¼ Century Graphic was introduced in 1949. The camera was named Century because the company priced it to sell for \$100, targeting the "budget minded" photographer, plus the company also owned "Century" as a registered trademark.

In the March 1950 Price List, this camera fitted with a Graflok back and a 103mm f4.5 4-1/16" Trioptar lens, but excluding an optical viewfinder or rangefinder, was priced at \$99.50. With the optical finder, the price became \$106.50, or \$170.35 with the premium 105mm 4-1/8 f3.7 Kodak Ektar lens.



The Auxiliary Wide Angle Bed

readers owning or having an interest in "pre-Anniversary" (1928-1939) Graphic, here is an interesting accessory for use with wide angle lenses. The Auxiliary Wide Angle Bed was not available for the "top-handle" Speed Graphic (1912-1927) and not needed for the Anniversary (because this camera had a moveable two-pieced link, or "tandem," track for focusing). According to the 1940 edition of Graphic and Graflex Photography, the new form of track was an improvement over earlier models: "Because of the short focal length of the wide-angle lenses, they have to remain pretty close to the focal plane of the camera. This results in the front standard remaining mostly on the rear portion of the track and often entirely within the body of the camera. As that part of the track was fixed in the former models of the Graphic, the lens had to be focused manually, which was both inconvenient and not sufficiently accurate."

The following description is given for the pre-Anniversary method of using a wide angle lens: "To drop the camera bed for wide-angle lens work, the camera should be partly closed, until the circular portion of the cut-out part of the supporting side arm will meet the guide pieces. The side-arms are then slipped off those pins and the bed allowed to drop out of the way."

Though a modest improvement in convenience and accuracy, snapping on the auxiliary bed did extend the focusing range of the lens.

According to Graflex historian, Tim Holden, it was not necessary to use this track for lenses 90mm or longer, but anything shorter, such as an 80mm lens, required the add-on bed.

Made by Folmer Graflex Corp., this item could be attached to the revolving back $2\frac{1}{4}$ x $3\frac{1}{4}$ (because the back was fitted to a $3\frac{1}{4}$ x $4\frac{1}{4}$ camera body), $3\frac{1}{4}$ x $4\frac{1}{4}$, or 4x5 camera. This accessory was listed in Graflex catalogs from 1935 through 1938 for \$4.50.

Illustration courtesy Mr. Richard Paine.



Cover of 12-page brochure c: 1926-1935.

The Graflex Magazine Plate & Cut Film Holder

By William E. Inman, Sr.

In the 1800s, glass dry plates were in wide use and were loaded in double plate holders, which were heavy and bulky when carried around in large quantities. Because something better was needed, William F. Folmer came up with a 12-septum magazine for these plates. It was certainly lighter and less bulky than six plate holders.

The Graphic Magazine Plate Holder, as it was called when first shown in the Graflex catalog of 1899, was, at the time, an ingenious device, designed to carry 12 glass plates loaded into separate metal "septums," which were numbered on the back from one to twelve so the photographer could keep track of exposures. The number appears "before" the ruby window on the back of the magazine as each exposure is made. "When a plate is exposed, the septum is, by means of a brass rod, drawn into a leather bag attached to the end of the magazine and reinserted by hand into the rear of the magazine holder." The Graphic Magazine Plate Holder, offered in three sizes: $3\frac{1}{4}$ x4 $\frac{1}{4}$, 4x5 and

5x7, was priced from \$12 to \$15.

In 1904 Folmer & Schwing Manufacturing listed a 4x5 and 5x7 Graflex Magazine Cut Film Holder.

In 1906 the Folmer & Schwing Co. (now owned by Eastman Kodak) combined the plate and cut film magazines and produced a Graflex Magazine Plate and Cut Film Holder, using cards behind the film of a thickness that would give correct registration for the film. This combined holder was offered in $3\frac{1}{4}x4\frac{1}{4}$, 4x5 and 5x7 sizes, and priced from \$13 to \$15. In 1915 the $2\frac{1}{4}x3\frac{1}{4}$ and $3\frac{1}{4}x5\frac{1}{2}$ sizes were added.

As sheet film became more popular, the Folmer & Schwing Department of Kodak introduced in 1922 an improved model of the Graflex Magazine, specifically for cut film. This new model can be identified by the relocation of the leather strap across the middle of the leather bag when it is in the folded position, which then snaps to the back of the magazine. In addition, there is a spring hinged cover over the ruby window. This was necessary because of the introduction of Kodak panchromatic film, though Kodak continued to make orthochromatic film.

The Graflex Magazine Plate Holder continued to be manufactured as a separate accessory, and Kodak aluminum, ribbed cut film sheaths were introduced for the Plate Holder to ensure perfect registration.

In 1929 the new Folmer Graflex Corporation listed a 4x5 18-septum Graflex Cut Film Magazine, and in 1936 an 18-septum 3¼x4¼ model became available.

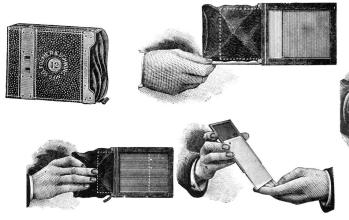
By 1945 the new Graflex, Inc. had dropped the 3½x5½ Cut Film Magazine, while the 5x7 Graflex Plate Magazine remained until 1949. The 5x7 Graflex Cut Film Magazine remained until 1953.

The 2\frac{1}{4}x3\frac{1}{4} and 4x5 Graflex Cut Film Magazines were discontinued in 1951 with the introduction of Grafmatic Holders.

The 3½x4½ Graflex Magazine Cut Film Holder remained in the line until 1955.

The Graphic Magazine Plate Holder

Folmer's Patent, August 15, 1899.





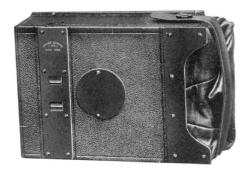


Graflex Magazine Cut Film Holder

THE GRAFLEX MAGAZINE PLATE OR CUT FILM HOLDER

FOLMER'S PATENT AUGUST 15, 1899

1906



Folmer's Patent, June 7, 1904

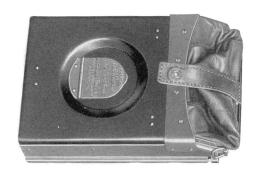


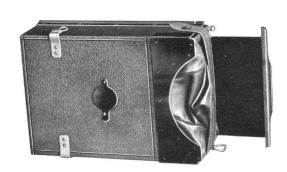
The GRAFLEX MAGAZINE PLATE OR CUT FILM HOLDER

1911

Graflex Cut Film Magazine

1922







Ask Tim Holden....

Anniversary cameras produced during the Second World War? Also, could civilians purchase this camera during the war?

Q: Could you explain the relationship between Morgan & Lester and Graflex, relative to publishing Graphic Graflex

<u>Photography</u>? Specifically, how much work was done on the publication by Graflex?

A: I was responsible for reviewing every word that went into every edition and every printing of the book, <u>Graphic Graflex Photography</u>. I read each word three different times: in the original manuscript, in the galley proof, and when the book was to be rerun and we reviewed it to see what changes needed to be made. Toward the end of the run, I wrote the chapter on lenses, which originally had been written by Kingslake, rewriting to bring it up-to-date. I wrote all of the equipment section at the back of the book, with the exception of the first one or two printings, which Henry Lester wrote. This was a job thrown into my lap to do on a "hope you can get it done" basis and during off hours away from the office.

Graflex did not have any special arrangement with Morgan & Lester. It was much the same as the Leica manual, which they had prepared and was such a success. As a matter of fact, there were a few of us who were a little unhappy about the success of the Leica manual and its promotion of the Leica, and wished there were a similar book about the use of Graflex equipment. While we were mulling that over, Henry Lester and Willard Morgan came out and told us they would like to supply a book about Graflex. Since I was the one who had complained the most, I was the one given the job of acting as a go-between for Graflex and Morgan & Lester, with the exception of the financial arrangement. They acted as the publisher, and we, in turn, bought the books from them. We did not have the responsibility of publishing. Other than my work, as far as work done by other people from Graflex, there was not a great deal of it. However, Jimmy Liccion, of Graflex, wrote the chapter on identification equipment, and I think someone else wrote another chapter, but I'm not sure. These chapters varied from time-to-time, and in my estimation, the eighth edition had the best set of chapters covering many phases of photography. I can tell you this much. I learned an awful lot about photography, particularly how to use equipment by the professionals one way or another, just by reading all their material.

Q: Could you explain the use of chrome on 4x5

A: Originally, these cameras had chrome parts on the front. The military, of course, did not want chrome, since that would reflect sunlight. Their contracts called for the metal parts to be blackened. At the outset, I think we merely reworked or covered the parts which had already been chrome finished, since the government was in a big hurry to get a lot of cameras. To the best of my knowledge, we did not produce any cameras with chrome finish until after the war. A very few of the cameras were made available to non-military customers, mostly defense industries and newspapers. They, of course, had the necessary high priority and were able to get the cameras when we had them available. Since the 4x5 Graphics were in almost constant production, the overruns on a particular job, of course, became available. For instance, there might be 5,000 cameras going through on a particular job, and we would make parts for 5,050. Whatever cameras remained were then added to that particular job number in the book, and they were available to those with the necessary priority. But as far as "Joe Blow civilian" was concerned, he didn't have a prayer of a chance of getting a camera. That wasn't necessarily our choice. It was primarily the rules and regulations set down the board, establishing the priorities.

Q: The 1944 edition of <u>Graphic Graflex Photogra-phy</u> has a Graflex ad for a special service called the "RENEWAL PLAN." Could you explain why this was offered and how it worked?

A: During the Second Word War, it became quite important to be able to take care of our regular customers, particularly professionals who were working for themselves and also on contracts for the industries that were supplying equipment for the government, so they needed the cameras. Because they couldn't afford to be without them for any length of time, Graflex set up a special arrangement whereby a replacement camera could be ordered by a dealer to whom we would ship a reworked, reconditioned camera. The customer, in turn, could take that camera and use it while his was sent in by the dealer for repair. Also, if they had any time on their hands, or did not need the equipment all of the time, we had a renewal program which covered standard upgrading and general overhaul of the equipment. As soon as the war was over and cameras were readily available, there was no further need for this program.

Meet the Subscriber:

William E. Inman, Sr., a former Graflex sales rep and frequent contributor to the <u>Quarterly</u>, has been involved in photography for over 50 years. He became interested in photography early in life and has had his own B&W darkroom. During his first year of high school, his parents bought him a 2 1/4 x 3 1/4 press camera. While still in high school, he became an apprentice photographer at the local newspaper, <u>The Pueblo Star Journal and Chieftain</u>, where he learned to use the 4x5 Anniv. Speed Graphic.

After graduation he went into the Air Force for a brief period. He returned to Denver and worked for various photo companies, including S.O. Lindahl Photo Sales. S.O. Lindahl was the inventor of the Heiland SOL Solenoid and Flash Unit back in the late '30s. Bill acquired his first 4x5 Pacemaker Speed Graphic and continued on with his freelance photography.

In 1953, Bill moved to Hollywood, California, and was hired bv Graflex Hollywood as the assistant to the branch manager in the Sales Dept. At that time, Irving Jacobson was the Graflex Western Division Service Dept. Manager, and also the inventor of the Jacobson Synchronizer for flashbulbs back in the late '30s, in 1940 the Graflex Solenoid, and in 1948 the Graflite Flash Unit. Irving Jacobson left Graflex in 1955. Shortly thereafter, Bill was moved over to the Service Dept. as Assistant Service Dept. Mgr., where he learned to repair the Stroboflash Electronic Flash Units.

In 1960 he was promoted to a District Sales Manager and moved to Milwaukee and later to Minneapolis. Along with his duties, he worked with John King, Graflex National Service Manager, to establish reliable Graflex Warranty Service Dealers in his area, with Training Seminars for the Service Dealers and Schools Service Dept. for both Graflex cameras and audio visual products. As a Graflex District Sales Manager, he had the distinction of being in the top five of all the managers in sales. He left Graflex in 1969, after 16 years with the company as a result of the acquisition of the company by Singer. Six years later in 1972, Singer/Graflex closed its doors.

Bill continued his career in photo sales and as a commercial and wedding photographer. In 1979 he was hired by Pro Lab Inc. in Denver, Colorado, a professional photo lab, as Account Manager for Studio and Services. He retired from Pro Lab Inc., after 19 years, in 1998.

He has been a member of the Professional Photographers of America for 10 years and received in 1989 The PP of A National Award for his service to the photographic industry.

Since his retirement, Bill has been researching the history of Graflex, as well as the history of the flashbulb and early flash equipment. His research is directed at completing a book in the near future. He also has a collection of over 40 Graflex cameras plus all the accessories, including flash units as well as 3,000 flashbulbs, some of which date back to 1930, the first manufacture.

Bill continues to pursue photography vigorously and enjoy his computer. He has 15,000 slides and negatives in his files, a 300-photography book library, and a B&W darkroom in his home. His e-mail address is: graflex3@aol.com.

[This material, prepared by Mr. Inman, is presented without content editing, at Mr. Inman's request.]



Ed Romney, an enthusiastic photographer, author and publisher, recently passed away. Ed had been a long-time subscriber and contributor to the <u>Quarterly</u> and had written several books on repairing Graflex cameras and making bellows. His latest book, <u>The Super D Graflex</u>, a <u>Repair and User's Manual</u>, was co-authored with Cliff Scofield. His autobiography, <u>Ed Romney and His Cameras</u>, contains a number of interesting Graflex stories.

Graflex Historic Quarterly

The <u>Quarterly</u> 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 <u>GHO</u> and the author. We would appreciate a copy of the reprint.

WANT AD POLICY:

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

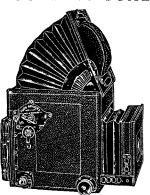
WANTED

Parts from the lens standard on a 5x7 Pre-Anniversary Speed Graphic. Contact Bob at (614) 833-1192 or BGGRAFLEX@MSN.COM

I will send photos of it.

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WITH UNRELIABLE FINDERS OR FOCUSING SCALES



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Folmer & Schwing Mfg. Co. ad, introducing the Auto Graflex. Published in the October 1905 issue of <u>The Photo-Miniature</u> and the November 1905 issue of <u>American Amateur Photographer</u>.