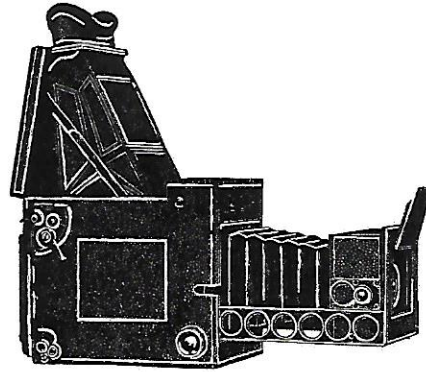


GRAFLEX HISTORIC QUARTERLY



VOLUME 9 ISSUE 4

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Will the Real W.E. Schwing Please Stand Up?

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Anybody who has researched Graflex or Folmer & Schwing has certainly found the trek difficult. Scarce primary material and a lot of dubious secondary material inevitably lead to more questions than answers. The most elusive of these questions is, "Who is W. E. Schwing?"

The earliest information comes from transcripts and reports made during the anti-monopoly trials in 1923. It's here I find that "W.F. Folmer and W.E. Schwing" are equal partners in the "Folmer & Schwing Manufacturing Company" incorporated on April 10, 1890, but which actually existed earlier. These files also have the only surviving interview of Mr. Folmer, where he states they were doing well in the "Gas light and novelty business."

Mr. Schwing's name is first revealed in The Story of Graflex, which states, "The Folmer & Schwing Manufacturing Company was incorporated on April 10, 1890, by William F. Folmer and William E. Schwing, partners, in New York City, who were manufacturing and selling cameras in a limited way." The Story of Graflex is a booklet of oral histories collected by Al Sisson in 1951 for the 25th anniversary¹ of Graflex and published by Graflex for new employees. While a laudable first attempt at the history of Graflex, it is hardly a scholarly work.

Dr. Rudolf Kingslake contributes the original address

FOURTH QUARTER

of Folmer and Schwing and its beginnings in his book, The Photographic Manufacturing Companies of Rochester, New York: "In 1887, William F. Folmer (1861-1936) and William E. Schwing entered into partnership to establish a metal-working company at 391 Broadway in New York City. In April 1890 they were incorporated as the Folmer & Schwing Manufacturing Company, with a capital stock of \$50,000."

In previous GHQs, Roger Adams also states the second man in the team is William Schwing. All of these articles and booklets are secondary sources, and there's no way to know if Dr. Kingslake or Mr. Adams found new primary sources for Mr. Schwing or simply used the information from The Story of Graflex.

It would be reasonable, even logical, to find original biographical sketches of the team that brought us the Graflex camera, not to mention several gas lights and a couple of bicycles. But reason and logic are scarce when dealing with F&S, and so is information on Mr. Schwing.

Mr. Schwing's name is absent when the company is sold to George Eastman in 1904². No corporate letters, memos or photographs exist today that show William Schwing ever set foot in the F&S offices. Todd Gustavson, a Curator of the Eastman House Museum, suggests he might have been a silent partner, possibly the financial backer, but admits, "He never shows up in census records either."

Serendipity is an unpredictable little sprite, and this time she showed herself as a glitch in our fearless editor's computer. Ken sent me a list of all 130 of William Folmer's patents³, asking if I could go to the

¹Apparently they weren't counting the years when Graflex was part of Kodak.

²Discovery notes taken in 1921, during the monopoly trials of Eastman Kodak. Courtesy of George Eastman House.

³Given to him by subscriber and great grandson of William Folmer, Peter Smealie.

US Patent website⁴ and print them out, because he couldn't, adding "Just print the ones dealing with photography."

I couldn't resist opening Pandora's camera case just a little, so I started on the early patents dealing with gas burners and billiard table lamps. It was the eighth patent that got my attention. Filed in August of 1890, granted in May of 1891, Pat. No 451,554 was for a toy cap pistol. The second line hit me like a shot: "William F. Folmer, of Independence, and Walter E. Schwing, of Louisville, Kentucky."

Walter!? Yep. His name wasn't William at all; it was Walter! Then came the question of what in heaven's name are partners of a major Manhattan-based manufacturing business doing in Kentucky?? And why are they 100 miles away from each other? One question answered, two more asked. It's the Graflex way.

The online version of the US Census records⁵ certainly sped up the process of wading through miles of microfilm. In less than an hour, I had the answer to both of the above questions: They went home.

According to the 1880 census, William Folmer was born in 1861 and living in Independence, Kentucky, the sixth of eight children of Daniel and Bridget Folmer. At 19 he was a farm boy.

Walter Essex⁶ Schwing was born in 1856 (or 1853 by the 1870 census) to William and Sarah L. Schwing and living in Louisville, Kentucky, the youngest of four children. He was 24, a retail grocer, single and living at home. Walter's dad, William, was a miller and had a net worth of around \$15,000. Not a pauper by any means, but not exactly the profile of a financier. It's possible William Folmer and Walter Schwing borrowed money from Walter's father, but Walter is by no means capable of being a silent partner or moneyman.

William would be the creative force behind the team; Walter would be his match in business management.

How they met is still a mystery, why they were back home when they had a business to run in New York has many potential answers, each as unprovable as another. Could this be the time of *The Big Break Up* where Walter has had it with William and The City and goes home, never to return? Probably not. To settle William's parent's estate then? Again, doubtful. The farm would have been in Daniel's name, and he doesn't die until 1912⁷.

In today's hyper-kinetic world, the idea of taking weeks off during the summer sounds like a plan for disaster. But remember this is Manhattan without air conditioning or a subway and home for 1.4 mil-

lion⁸ people and 100,000 horses⁹. I know I'd want to be somewhere else when the August heat arrives. Summer homes were popular with the upper class. Perhaps, instead of renting a house on Martha's Vineyard, they went home for the summer.

This explanation sounded right until I saw the next patent. Filed on January 26, 1891, this also states William Folmer as a resident of Independence, Kentucky. The hot summer months I can see, but January? Okay, so maybe he came home for Christmas and stayed for mom's cooking. But does a long vacation explain a change in residency? The 1890 New York Directory has William at 49 E. 9th Ave., so he hasn't moved. Do you have to file patents in the same city as you reside? Hmmmm. More questions. Interestingly, 49 E. 9th Ave. is also Mr. Schwing's residence. Their business is located at 391 Broadway, but I doubt they are doing much manufacturing, as the same address houses more than a dozen¹⁰ other businesses including six agents, two railroad companies, two cloak makers and two umbrella makers.

It would be nice to see what the 1890 U.S. census could tell us, but due to a 19th century version of a hard-drive crash (building fire), there isn't a U.S. census to check.

By 1900 both Walter and William are married, have children and are living separately in Brooklyn. William and Eleanor Folmer now have a daughter Florence and a son Walter F. They've been married 11 years, which means they were probably married while living on E. 9th Ave. The fact that William names a son Walter pretty much eliminates that Big Tiff theory about living in Kentucky. In the 1900 census, Mr. Folmer lists his occupation as "manufacturer of cameras."

Walter and Mathilde Schwing have been married for nine years and have one daughter, Sara Gertrude, age five. Both Walter and William have a servant.

⁴<http://www.ustpo.gov>

⁵<http://www.ancestry.com>

⁶Essex. Walter's daughter's obituary is the only place I found his middle name. Sarah Gertrude Schwing; Wilmington Morning Star; April 1, 1978 pg. 2B.

⁷Kentucky death records via www.ancestry.com

⁸1890 Census, New York, facts on file

⁹In a Ken Burns PBS show on the automobile, he stated at the turn of the century, Manhattan alone had 100,000 horses brought in and taken out every day. Each left 10 gallons of urine and an equally unmanageable amount of manure, thus making the auto a healthy alternative to the horse.

¹⁰<http://www.ancestry.com/> New York City directory, 1890. I get 25 entries, but three are for F&S alone. There are many agents, but there's no way to know if these are all independent or part of two or three agent companies.

William owns his house, Walter rents. Perhaps he was thinking of moving on even then. Walter's occupation is "camera manufacturer," so apparently he hung around for a while.

Neither partner shows up in the 1910 census.

After discovering all of this new information, it seems that extended vacation back in 1890 was just that and nothing more. Walter Scwing's talent in hiring the right people certainly shines here. How else do you keep a business going without the head partners?

In talking with several patent attorneys and historians, it's pretty clear the patent office doesn't really care where you lived, so the term "resident" must have had a less rigid legal definition at the time. The two patents where William states he is a resident of Kentucky were probably filed in Kentucky, as the witnesses and attorneys on these two patents differ from the patents filed in New York.

Exactly when Walter disappeared isn't clear, but by the time the company is sold in 1904, Walter is gone for good. Walter's daughter, Sarah G., shows up in the 1920 census as a niece, 24, living with Edward Prince and his wife, Carrie, in Wilmington, North Carolina. So what happened to Walter and Mathilde? Why is their daughter living with Walter's sister¹¹? Walter would have been 67, not young but should still be kicking. Mathilde would have been a spry 47. Sarah has no occupation. She doesn't have any occupation again in 1930. She never moves and never marries. She died at age 83 in 1978. Her estate, including the house that she inherited from her aunt and uncle, was willed to the Trinity United Methodist Church, which played a major part in her very quiet life. It is not known if the Princes ever officially adopted "Sally" Schwing, and since these records are closed to all except immediate family, it's doubtful we ever will know.

William and Eleanor Folmer show up for the last time in the 1920 census in Rochester, absent Florence, now 29. Walter F., 21, is there, accompanied by two sisters, Melville age 19, and Elsie age 15. William's occupation is "Division Manager at Kodak."

William's daughters grow up and get married. Florence married New York attorney, Charles Faas. Melville married Harold Harrower, and will become the grandparents of Peter Smealie. Walter F. died in Hollywood, Florida, in 1972 unmarried and without children. Elsie, (or Elise as is sometimes written) like so much of Graflex history, is still unaccounted for.

When the Folmer & Schwing Division is sold in 1927, William, at least according to The Story of Graflex, briefly became president of the newly formed Folmer-Graflex Corporation, then retired due to health problems.

He seemed to make a dramatic recovery, however, as he managed to file another eight patents and start two more companies (another article, another time) before he died in 1936. There were several obituaries announcing his passing. They credit him with inventing a self-lighting gas lamp, revolutionizing action photography with the Graflex camera, inventing the first aerial camera for WWI, and airplane periscopes for WWII. They also give him credit for graduating from the University of Kentucky, something that the Alumni Association doesn't.

So Pandora's camera case is open, and in it I found the key to one of the great Graflex mysteries, only to let many more mysteries out. It's the Graflex way.

¹¹1870 and 1880 US Census show Carrie is the youngest sister of Walter.

Insert - "The Graflex Way" 11"x16½" cardboard advertisement showing Auto Graflex c: 1916-1920.

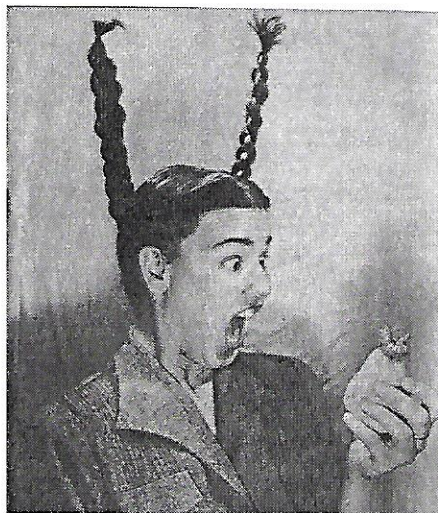


Illustration from 1953 price list.

Restoration Tip

The following techniques are suggested only for display cameras.

For small holes (screw holes, etc.) in black leather, a reversible technique is to fill the hole with black Crayola®. It should be applied after any dyeing and/or leather treatment is done. Using a small smooth tool (such as a small screw-driver, etc.), burnish and mold to match the leather texture.

Another reversible technique for the ebonized finish on cameras is to sparingly apply black Kiwi® shoe polish (paste), then buff to a luster after it is thoroughly dry.

KM

Graflex Women



1906



1940



1966

Special Find

By Ronn Tuttle

Most camera collectors dream of finding that one elusive, special "find" of a lifetime. Some dream of finding a Kodak Super 620, or Ektra 35; while some imagine finding Leicas or Nikon and Canon rangefinder models. Perhaps your dream is of finding a German tropical plate camera, or of finding a French stereo plate camera. Recently I found all of the above plus many more, from sub-miniatures to ultra large format panorama view cameras. No, I wasn't dreaming. I was helping sort through the collection of a friend who had recently passed away. Being rather fond of Graflex related items, I was delighted to find the 5x8 Folmer & Schwing, but was completely shocked to find the 5x7 Stereoscopic Graphic. I had never known he had these stashed away. He was a quiet collector.

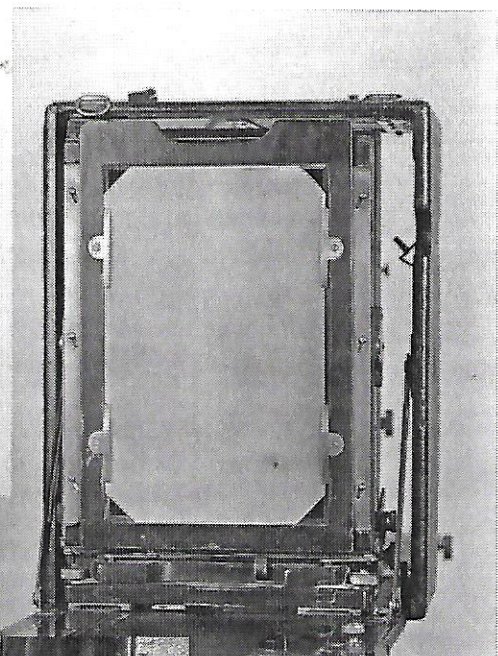
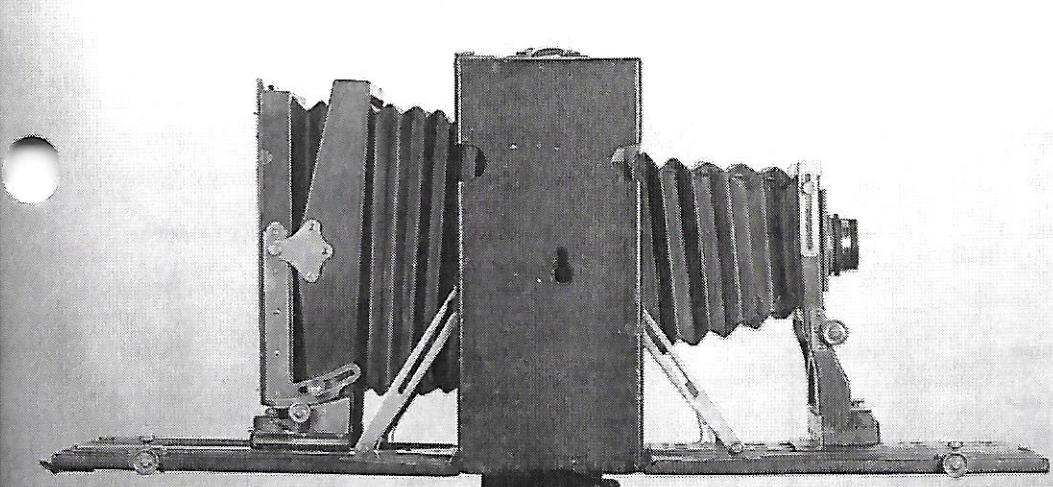
Alas, I can't afford to add items like the stereo to my collection, but am happy to have had the opportunity to photograph both of these treasures. I thought it would be nice to share the photos with other readers of the Graflex Historic Quarterly.

Ed. Because Ronn's pictures are so well done, we asked him to tell us how they were taken.

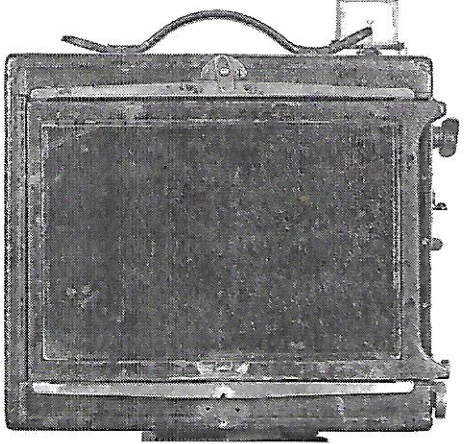
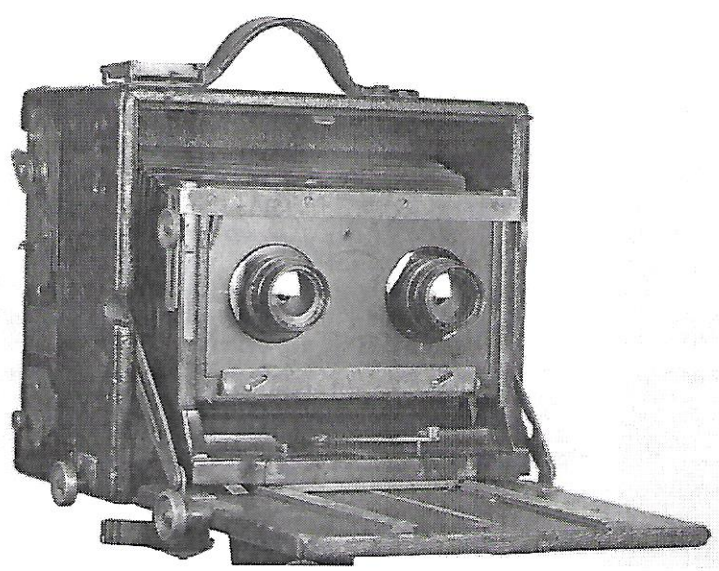
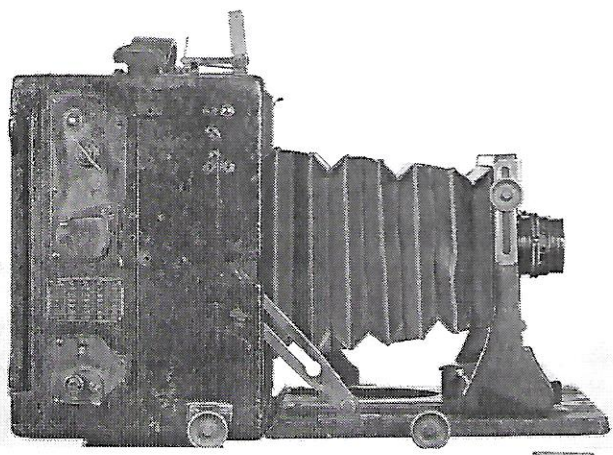
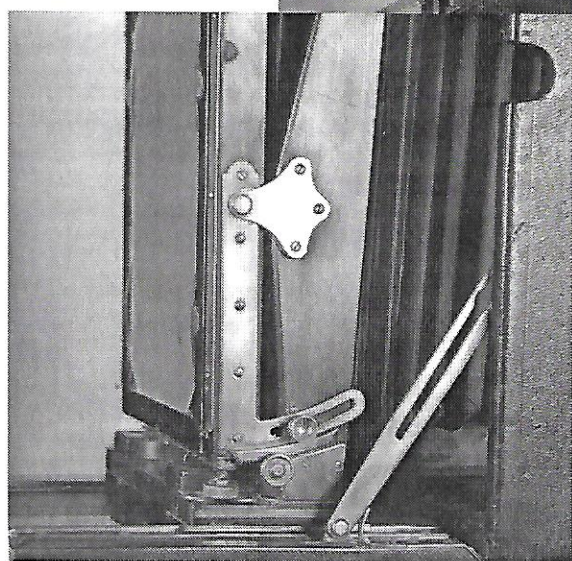
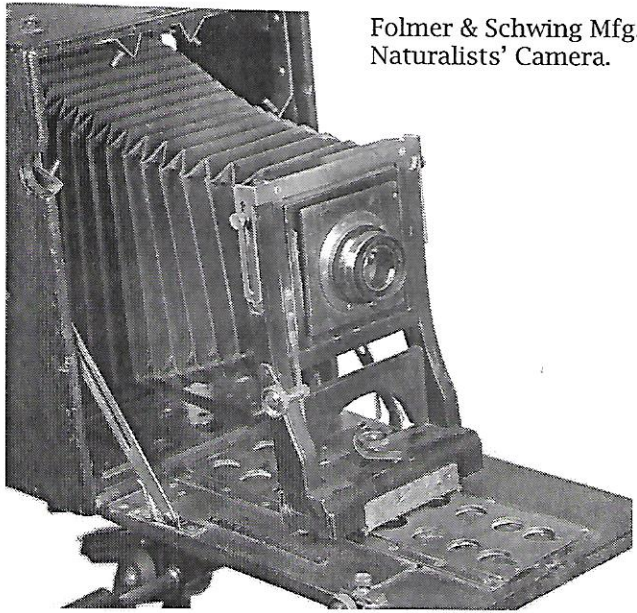
My lighting setup is very basic: a main light facing the front of the camera, a fill light to the side, and an overhead light. The main and fill lights are Photogenies in softboxes, and the overhead light is an old Graflex Strobe 500 mounted between the floor joists of my basement "studio," with a layer of white diffusion cloth beneath, thus forming a much cheaper softbox. The photos of the Stereo and the Nauturalists' cameras were taken with a Hasselblad 500CM, using a 150mm lens and a close-up diopter lens.

I used Ilford 100 ASA film, developed in Ilford ID11 and printed on Ilford paper. The photos that appeared in a previous edition of GHO of the WWII aerial camera which were taken by me, were, however, taken with a 2¼ x 3¼ Speed Graphic. I chose to use the Hasselblad this time because it is quicker than using the Speed Graphic, and I didn't have the two cameras in my possession for very long.

After taking a meter reading, I opened up a couple of stops to accommodate for the fact that the cameras are black, not middle grey. This goes back to the basic premise when using negative film..."expose for the shadows..."



Folmer & Schwing Mfg. Graphic Naturalists' Camera.



The Graflex & Graflok Dividing Backs 1937-1972

Copyright 2004 William E. Inman, Sr.

The 4x5 Graflex Dividing Back, introduced in 1937, was priced at \$18.00. The back provides two exposures on any standard 4x5 cut film holder. Each half of the film is centered on the optical axis as the exposure is made, thus completely eliminating distortion problems. It was useful in police identification mug shots when full face and profile type photos were necessary, and it was also useful in portrait photography. As two pictures were recorded on one sheet of film, there was a 50% cost savings.

The Graflex Dividing Back was designed for use on the 4x5 Crown View Camera and the 4x5 Speed Graphic, when either camera was fitted with a Graflex back.

In 1938 Graflex introduced the 3¼ x 4¼ Graflex Dividing Back, also priced at \$18.00. This smaller back could be used on the 4x5 Crown View and the Graphic View I (from 1941), if it had a 3¼ x 4¼ reducing Graflex back or on a 3¼ x 4¼ Speed Graphic with a Graflex back. Because this back is very rare, I have yet to see one. The 3¼ x 4¼ Graflex Dividing Back was discontinued in 1944, as the popularity of the 3¼ x 4¼ film size waned.

In 1950 the 4x5 Graflok Back was introduced for the Pacemaker Speed and Crown Graphic cameras. At about the same time, the 4x5 Graflok Dividing Back was introduced and was priced at \$29.95. It was discontinued in 1972. The 4x5 Graflex Dividing Back continued in the line until 1957.

Using the Dividing Back

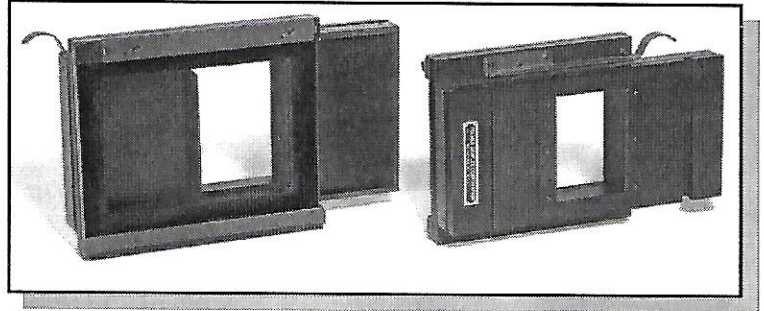
A Graflex Dividing Back requires a Graflex back on the camera, while a Graflok Dividing Back requires a Graflok back on the camera.

There is about a 1-3/16" difference in the film plane when the dividing back is fitted to the camera. The front lens standard must be shifted back 1-3/16" and locked down to adjust for the difference to the film plane. The ground glass focusing panel from the camera may be used to get a sharp image, or a set of infinity stops may be added to the track of the 4x5 Pacemaker Speed or Crown Graphic cameras. The rangefinder and primary focusing scale will also work with the dividing back.

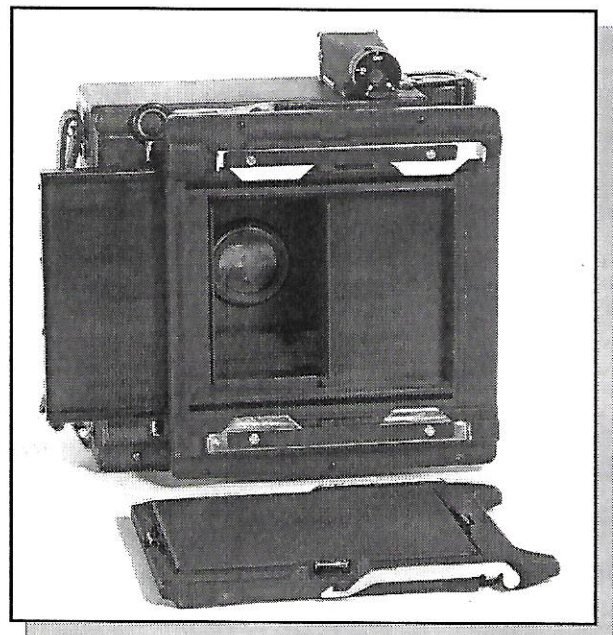
If a dividing back is used on the 4x5 Anniversary

Graphic, just shift the lens standard back about 1-3/16" and lock down the front standard.

The dividing backs can also be used on the Graphic View by focusing in the usual manner.



Back side of 4x5 Graflex Dividing Back (Cat. No. 9014)(1937-1957) and front side of 3¼ x 4¼ Graflex Dividing Back (1938-1944)(No Cat. No.).



4x5 Graflok Dividing Back (Cat. No. 9109) (1950-1972).



"Graflex" is simply a coined word; it is used by the Folmer & Schwing Mfg. Co., to designate a particular and exclusive camera.

This is a quote from a Graflex camera instruction booklet for the Reversible Back Graflex, circa 1902-1903.



Ask Tim Holden....

Portions reprinted from *Trade Notes*, May, 1940. LENSES AND THEIR FITTING

There has always been a certain amount of fitting of customers' lenses to Graphic and Graflex Cameras; today, with new lenses and shutters on tight priorities, this assumes major proportions.

Certain rigid specifications must be met if a camera is to be fitted with a lens capable of doing a proper job.

In the case of the Speed Graphic cameras, there are additional considerations which must receive the attention of the skilled workmen. Not only must the lens be properly and accurately fitted to the lensboard, but a focusing scale must be supplied which will indicate the correct positions of the lens for focusing on various distances.

You may or may not realize that each individual lens may vary slightly from the next lens. This is due to the fact that each lens is made up of several different elements of fine optical glass in which there are unavoidable minute variations of physical properties, so that by the time the complete unit has been finally assembled, checked, and thoroughly inspected, it will probably differ slightly from the next lens. This is especially true of the focal length.

It is because of this factor that GRAFLEX adopted the more accurate Vernier-type focusing scale. This scale can be used with extreme accuracy, and, consequently it must be made and installed with the same accuracy. This can be accomplished only by supplying with each individual lens a focusing scale *calibrated for it*.

This represented a considerable problem, which was finally solved through the use of a special collimator. A lens is fitted to the collimator, and the aerial image produced by this lens is then viewed under a magnification of 200x. It is then possible to determine the exact focal length and infinity position of the lens, and the infinity stops are placed accordingly on the track while the lens and camera are on the collimator. Furthermore, the scale is made to match that particular lens so that when the camera has been finished, it will be an accurately matched assembly of precision parts.

There are many various factors to be considered in the fitting of lenses to lensboards. Sometimes it is necessary to countersink the lensboard or even to mount the flange on the back of the lensboard in order that, when the lens is fitted, the front of the camera may close. In any event, it is necessary that the hole be cut in the exact center of the lensboard, so that the lens will be centered optically with respect to the center of the film and thus give uniform coverage. Also, the flange and the lens must be so mounted on the lensboard as to prevent, *absolutely*, the leaking of light through to the film at that point.

Perhaps many of you have already seen negatives marked with a peculiar crescent-shaped fogged area near the center of the film. This is characteristic of an

improperly fitted lens which allows light to slip between the flange and the lensboard and reflect down on the film.

Possibly many of you men and women behind the counters have had occasion to examine such [improperly fitted lenses on] cameras, and have found that the lens was fitted crudely by someone not in a position to take care of the fitting in a skillful manner. Of course, the customer usually blames you as well as GRAFLEX for this condition. There have been instances, furthermore, wherein it was impossible to focus a lens on infinity. This difficulty was brought about by the fact that the lens was not in the correct type of mount, so that when it was fitted to the lensboard, it could not be brought close enough to the film to permit focusing on distant subjects. Other frequent examples of poor fittings are revealed by cracked lensboards, holes in lensboards, failure of camera to close because the lens projects too far forward, and negatives fogged as described above.

Supplementary lenses when used with camera lenses alter the focal length. But other effects are also produced, and these do not permit the calibration of focusing scales for these combinations. One important thing to remember about supplementary lenses is that you must focus at the same aperture as that at which the exposure will be made.

Wide-angle lenses require careful handling, and GRAFLEX recommends ground-glass focusing and composing exclusively when these lenses are used. Because of the position most of these lenses occupy in the camera, it is not practical to supply focusing scales for them, and consequently they are not available.

A Few Cautions

Because, as we have mentioned, each lens may vary from the next, certain precautions should be observed:

Do not shift lens cells from one mount to another unless these mountings were supplied for the lens by the lens manufacturer.

If you must shift a lens from one camera to another, be sure you also shift the outside vernier scale attached to the camera bed.

If you have shifted lenses, be sure to change the position of the infinity stops. To do this, focus the lens upon a clearly defined object some 300 or 400 feet away. Move the sliding track all the way back, and adjust the position of the lens by moving the front standard over this track with your hand. When you have determined the infinity position, mark it and have someone else check it for you. Use a good 6x or 8x magnifier on the ground-glass focusing screen. Then, with the front standard locked in place, adjust the infinity stops to it.

When measuring object-distances to check the focusing scale, measure to the film plane.

You cannot accurately measure the focal length from any specific portion of the lens, such as the rear element, the diaphragm, or any other physical part. It is measured from a point determined optically by the collimator.

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 GHO and the author. We would appreciate a copy of the reprint.

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About 30 items including catalogs from 1914 to 1938, booklets, brochures, guidebooks and operating directions for Graflex cameras.

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