# GRAFLEX HISTORIC QUARTERLY

### VOLUME 16 ISSUE 4

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#### Folmer & Schwing Parts Guide

By Ken Metcalf

**C** rom the collection of Jerry Spiegel is a unique untitled 14-page  $4\frac{3}{4} \times 6$ " booklet, thread-bound and taped between heavy cardboard covers. On facing pages, below, are photographs of Graflex camera parts laid out and photographed on boards and a printed list of parts and parts numbers, with "Folmer & Schwing Division, Eastman Kodak Co." prominently displayed on each printed page. All pictures and parts lists are neatly mounted on thick cardboard pages. The guide covers four Folmer & Schwing-made still cameras, the 3-A Graflex, the 4x5 R.B. Telescopic Graflex, the  $6\frac{1}{2} \times 8\frac{1}{2}$  R.B. Cycle Graphic, and the Type C "Aeroplane" camera.





## FOURTH QUARTER 2011

On several pages, the date "1-29-18" is shown, probably having been written on the original negative, along with the camera name.

**Since 1996** 

On the first page is the inscription at right.

St. Last. Private Richard Back. School of Aerial Left Rochester M.J. 5/21-1918 My address is now 280 Gerial Squadron Richfuld Waco

This article will cover what has been discovered about Mr. Bach, the training he received, and speculation on the purpose of the book-let.

#### United States School of Aerial Photography

First, some background on the First World War and the School of Aerial Photography at Kodak Park, in Rochester, NY.

War was declared in July 1914 and ended with an armistice in November 1918, and during that time, the United States was an active participant between April 1917 through the armistice in November 1918. The U.S. Army Signal Corps' School of Aerial Photography was open for about 10 months, between March 1918 and December 1918.

With anti-German sentiment growing after their sinking of the Lusitania in 1915, "the U.S. Army started a program of expansion with the Army Appropriations Act of 1916. One result was the purchase of land along the Back River, on the Virginia Peninsula, that would eventually become Langley Field, whose mission would be aerial training...In 1917 Langley Field was opened in Hampton, Virginia, with a large air field and schools for aerial observation and photography. It included a pilot school, a school of photographers, observers, and a photo detachment. In 1918 the School of Aerial Photography was transferred to Rochester, New York [and Langley Field training was discontinued]."<sup>1</sup> "Still were needed, however, the hundreds of developers, printers, and laboratory experts for the great ground force which should make all this material available. Plans were made to open large schools at Ohio State and Princeton Universities, when an old offer made on July 14, 1917, by the Eastman Kodak Company of Rochester, New York, was recalled, and a letter was sent them on January 14 asking what facilities they had available. The Company at once renewed its offer to provide for six months without charge a whole new building and the instructional force necessary for a school of 1,000 men, and to arrange for rations at the standard Army rate of 90 cents a day. This plan was approved by the Secretary of War on January 21, and by March 10 several hundred specially qualified men had been sorted out, courses outlined, additional instructors secured, and the quarters arranged, so that the school opened on May 25 with 575 students.

The course lasted five weeks and followed three main lines. First came the laboratory and darkroom instruction, especially designed for fast news photographers familiar with developing, printing, enlarging, retouching and panchromatic photography, who were to be able to take a plate from an airman and develop it within ten minutes in large motor lorries or cellars close behind the front. Next was taught how to fit these finished prints into their proper places in the photographic reproduction of the German front, requiring men familiar with map compilation and interpretation, topographical science, and drafting. Third was instruction necessary to keep all this equipment in good condition, requiring camera and optical construction and repair men [bold added], lens experts, cabinetmakers, instrument makers, and other careful and expert workers...The first class of 462 men were graduated on May 11. Most of them went straightaway to overseas squadrons or to the photographic 'huts' which were now assuming very appreciable form at all the flying fields.....aerial photographic 'huts' had been opened at the flying fields for the double purpose of instructing the future airmen in this science and of giving continued and advanced work to the photographic personnel."<sup>2</sup>

In a letter from George Eastman on January 16, 1918, Mr. Eastman made the following offer "...hence, in order to save time, we have made substitute plans and now offer the Government the use of the fourth floor of our building No. 50 [Photographic Paper Mill], just being completed (see photographs herewith) [not included], for a period not exceeding six months from February 1st, free of charge. This floor is ample to provide both for the instruction part of the school and the housing of one thousand men (see blue print herewith) [not included]. The expense of fitting up for the barracks would be less in this building than in the restaurant building and it would be more desirable in many respects. The ground floor of the restaurant building can be used for feeding the men and for a club room in the evening, in accordance with the terms of our letter of the 14th inst. before referred to. By taking the barracks out of the top floor of the restaurant building, which is approximately 75x175 feet, the Government might if desired avail itself of that floor for indoor exercises. If so, the use of the floor is offered for that purpose without charge, the only condition being that the Government will make good any injury resulting from their use of it.

#### SUMMARY OF PLAN:

House and instruct one thousand men. 4th floor Building No. 50. Commissary. Use kitchen and men's restaurant. Evening Club Room. Men's restaurant. Indoor exercise. Top floor restaurant building."<sup>3</sup>



From the booklet <u>Kodak Park in War Time</u>, courtesy of the Rochester Museum & Science Center.

A number of civilian instructors were loaned to the school, including Dr. C.E. Kenneth Mees, Director of the Kodak Research Laboratory.

The article continues "Two courses of training were organized in the School, one in photography and one in **camera repairs** [bold added]. The course in photography covered at first a period of four weeks, three weeks being devoted to instruction and one week to examination. This period of instruction was afterward extended to five weeks, with a further week at Baker Field when the School Flying Field was established there in August. At Baker Field the students had instruction in the photographic hut and lorry under conditions approximating those in actual service...From the photographic course 1995 students were graduated between March 25, 1918, when the classes were started, and the end of the year. These, with the 182 graduates from the Camera Repair course, made a total of 2177 men [230 of whom were from Rochester] trained in the nine and one-half months of the School's existence.

# Classes for the camera repair course were selected from those qualified as instrument-makers, watch-makers, or those with mechanical training or aptitude. This course, which was of three weeks duration, was taken in the camera factories of the company under four company instructors.<sup>34</sup>

Eastman Kodak published "little book" of 28 pages for the "soldier photographers," titled <u>Kodak Park in War Time</u>. Although interesting, most of the book is devoted to covering the general facilities of Eastman Kodak.<sup>5</sup>

#### **Richard John Bach**

Second, Private Bach served first in units of the Aviation Section of the Signal Corps, then his squadron became an independent unit of the War Department in May 1918, although on a functional basis, he probably saw little change.

Based on valuable research done by Mr. Karl Kabelac, Richard John Bach was born in Rochester July 25, 1893, and died on June 2, 1967, and he was buried in Holy Sepulcher Cemetery in Rochester. According to the 1913 city directory, Mr. Bach first worked as a "camera maker" at 333 State Street (the home office address of Eastman Kodak), and in the 1958 directory, he was listed as a "camera worker." In 1918 he was listed in the city directory as being in the "National Army." So one could hypothesize that, other than his war service, he worked for Eastman Kodak for 45 or so years.

His father died of pneumonia at the age of 33 on October 17, 1897, leaving the widow with 6 children ages 10 and under. The youngest was only 3 months. There were 2 boys and 4 girls. Richard's brother, who was older, also served in the First World War and worked at Eastman Kodak for 35 years, according to his 1960 obituary.

According to <u>World War Service Records of Rochester and</u> <u>Monroe County</u>, Volume II, Mr. Bach of 2 Miller Street in Rochester entered the U.S. Army in Rochester on March 12, 1918, at the age of 24 and was assigned to the School of Aerial Photography at Kodak Park. Upon completion of his course work, he was transferred to the 280<sup>th</sup> Aero Squadron at Rich Field, Texas, May 21, 1918; the 249th Aero Squadron, Air Service, Rich Field, June 6, 1918; the Photo Detachment No. 47, Air Service Training School, at Rich Field on July 20, 1918; the Photo Section 50, Ellington Field, Texas on August 15, 1918. Finally, he was promoted to Chauffeur, March 1, 1919 and discharged on April 12, 1919. Quite a lot of transfers in a short time span, culminating in being "promoted" to chauffeur.<sup>4,6</sup>

I have yet to find out much about Private Bach's units or bases, other than by November 1918, Rich Field was listed as a flying field, with a capacity for 300 "Cadets."<sup>2</sup> As Bach recorded his new address as "Richfield" on May 21, 1918, he probably had not yet arrived at his first field assignment.

In order to provide off-duty support for the students, a "Recreation Hut" was established by the Y.M.C.A. and the K. of C. (Knights of Columbus) at nearby Baker Field. A weekly publication, <u>The Airscout's Snapshot</u>, was published for students and distributed free to them. Although Private Bach is not mentioned in the newspaper, it can be assumed that he was a visitor. Again lacking specific information, here are some excerpts from a letter about and from a Private Cortright published in the July 6<sup>th</sup> issue of the <u>Snapshot</u> about his introduction to camp life at Rich Field. "Among other things in his letter, he says the weather at Rich Field at present is 104 in the shade, which may or may not be comforting to Rochesterians who have been shivering and shaking for most of this season. Young Cortright's first

experience after arriving at Rich Field was to be quarantined for two weeks, in which time he says the most he did was to police tents, dig trenches and repel gas attacks.



Y.M.C.A., Knights of Columbus recreation hut, Albert Stone picture, courtesy Rochester Museum & Science Center.

Raw recruits are first given a share of guard duty to perform; kitchen work, collecting garbage and detailed for photographic work with fellows that have been engaged in that work at camp for five or six months." Apparently as one who went on to pilot training, "photographic work" was considered an onerous task, along with collecting garbage.

After Private Bach left for Rich Field, the <u>Snapshot</u> published this interesting description of a photo demonstration. "As soon as the men were off the field, there followed a remarkable exhibition of field photography. While the ceremony of presentation had been taking place, photographers had had their cameras busy. Immediately after the review a large motor lorrie with a darkroom trailer came on to the field and drew up in front of the grandstand. Its crew set up tables and paraphernalia for developing and printing photographic plates in an incredible short time, and then a motor-cycle dispatch bearer with an aviator in full field attire dashed on to the field to bring plates.

It was exactly eight minutes from the time that the plates were delivered into the darkroom until a finished print of the photograph was placed in the hands of Mayor



"Inspecting plates" from an album of pictures taken by Leslie Williams, courtesy of Kodak historian, Dr. George Layne.

#### The Booklet

In the chapter on the Kodak School of Aerial Photography,<sup>4</sup> a number of Bulletins were listed, but none dealt with camera repair. As previously noted, "This course [classes for camera repair] was taken in the camera factories of the company...," thus, since all the cameras were made by the Folmer & Schwing Division separate from Kodak Park, I think it can be assumed that most of the classes were given at the Folmer & Schwing facilities.

Graflex military collector and historian Bruce Thomas has the following observations about the booklet:

1. Although the guide is well put together, it seems out of the ordinary for a military book in that it has no description of any type on or inside the cover. I have a "Military Photography" army manual from 1917, and the cover is printed with plenty of military "wordage." It does look more like a Folmer & Schwing publication than a military one, mainly as F&S is mentioned in large type on every second page.

2. Again, probably F&S photos, as they would have all the parts on hand. Anyone else would have to completely pull apart the four cameras to shoot all the bits, then match the numbers to the description pages. Photos probably shot by incandescent or even window light in those days (1918), which would account for some inconsistency in exposure/printing.

3. The parts lists would be F&S due to all their own advertising on the pages. I have a feeling these were part of a larger parts book that went out to F&S agents and covered all models. The book you have was possibly whittled down to include just the cameras used by the Aerial School and then rebound by someone into the smaller version.

4. Finally, because Private Bach wrote in the booklet, it can be assumed that it was his to use in the field.

As this is the only item of this type so far located, let's call it a Folmer & Schwing classroom and field Parts Guide of known ownership, but unknown authorship.

<sup>1</sup><u>Images of America World War I on the Virginia Peninsula</u> by John V. Quarstein, Arcadia Publishing, 1998, pp. 7, 50, 53.

<sup>2</sup><u>The American Air Service</u> by Arthur Sweetser, D. Appelton and Co., 384 pages, 1919, and available on the internet from Google Books, pp. 132-135, 348.

<sup>3</sup> In addition to the <u>World War Service Record</u> noted in footnote 4 is the following additional information from a wall note: "Eastman had met with Assistant Secretary of the Navy Franklin Delano Roosevelt late in 1917, who asked him to coordinate a Government request for binoculars, telescopes, spy glasses and navigation instruments from citizens, and Eastman had previously told Roosevelt that he was prepared to supply the Government with cellulose acetate for weatherproofing airplane wings and with unbreakable lenses for gas masks. An earlier Eastman offer to set up a school of aerial photography in Rochester was turned down by the Secretary of War. Eastman suspected that this rebuff was related to the protracted Government antitrust suit against the company and was gratified when the Army changed course and decided to consolidate three existing schools of aerial photography (at Cornell, Langley Field in Virginia, and Fort Sill Oklahoma) in Rochester." Photo exhibit wall label courtesy Joe R. Struble, Archivist, George Eastman House Photo Collection.

<sup>4</sup>World War Service Record of Rochester and Monroe County New <u>York</u>, Volume II (1928), p. 47 (Richard Bach entry) & III (1930), pp. 353-356 (from Kodak School of Aerial Photography chapter), published by the City of Rochester.

<sup>5</sup>Kodak Park in War Time, For the Soldiers who are at the United States School of Aerial Photography, Eastman Kodak Company, 28 pages, ca. 1918. This publication is provided courtesy of Lea Kemp at the Rochester Museum & Science Center, documents and images can be found at http://collections.rmsc.org/LibCat/rights.html.

<sup>6</sup>Karl Kabelac, friend of the <u>Quarterly</u> and expert in data research. <u>Rochester Democrat and Chronicle</u>, October 18, 1897.
Military Registration Card of Richard Bach (Ancestry.com). Central Library of Rochester, City Directory Collection. Online. Mt. Hope Cemetery log. Internet records online.
<u>Webster Herald</u>, Thursday, March 17, 1960.

#### <sup>7</sup>The Airscout's Snapshot

http://www.libraryweb.org/~digitized/newspapers/airscouts\_snapshot/vol.1no.1.pdf; 1918, Vol. 1, No. 6, Vol. 1, No.14.

General source:

Getting the Message Through, A Branch History of the U.S. Army Signal Corps by Rebecca Robbins Raines, Center of Military History, United States Army, 1996.



A First Lieut, Phota Division - U.S. Signal Gorps En Route to make the Kaiser's Portrait. Not Official-Passed (up) by the Committe on Public Information

Cartoon from <u>The Airscout's Snapshot</u> newspaper, 1918, Vol. 1, No. 3.

# Leigh Klotz





In April 2000 I took a view camera photography workshop called *Disappearing Architecture*, taught by Mark Citret (http://www.mcitret.com/). Mark showed us his luminous photos of architecture and landscapes, all done with a view camera and hand developed with his own water-bath technique.

Mark had just finished a series on a water treatment plant near San Francisco, which itself would soon be submerged in a reservoir, and forever inaccessible. With this theme put forth, Mark then challenged the students to do a study of endangered architecture.

At the end of the class, students presented their work. *Old Middlefield Way* was my project, and I presented it as a spiral-bound book. I took my photos using a 4x5 Pacemaker Speed Graphic, and used T-max 400 and Fuji Provia 100.

For a full view of the project, see: http://graflex.org/klotz/disappearing-architecture/.



Ed. To view each image properly, the Adobe Reader should be set to at least 200%.





#### Speed Graphic Cameras in the U.S. Marine Corps During WWII, Revisited

#### Part I

#### By Theo Servetas

D ue to the popularity of my previous <u>GHQ</u> article, "Speed Graphic Cameras Used in the Pacific by the United States Marine Corps, 1942-1945" (Vol. 15, Issue 3), I promised the Editor, Ken Metcalf, this series of articles, which takes a closer look at WWII era Speed Graphic camera sets. Many of these cameras will be featured in my upcoming book, tentatively titled <u>War Paint: A Pictorial History of the 4<sup>th</sup> Marine Division</u> <u>During WWII</u>. Most of the images in my book were taken with Speed Graphic cameras, and the book focuses on those combat photographers and artists who made it happen.

First, let's take a broader look at the Marine Corps Photographic Services, to appreciate the role of the Speed Graphic cameras that they were issued and used. According to Norm Hatch in his article, "Never Volunteer, Wallace Nelson and the Origin of the Marine Corps Photographic Services" (Leatherneck, August 2009 pp. 46-47), prior to 1941, the Marine Corps had no formal photographic service. Then, there may have been some cameramen assigned to some of the Engineer units, but overall the Marine Corps had no formal capability to photographically document its history. When Captain Wallace made this astute observation, he recommended to Major General and Commandant Thomas Holcomb that an organization be formed to create training films, and train photographers for combat duty. That organization, the Marine Corps Photographic Services, became a reality around May of 1941.

At about the same time, Brigadier General Robert L. Denig formed the Combat Correspondents program – initially recruiting pressmen from American newspapers. These early writers, often referred to as "Denig's Demons," served to promote the public relations of the Corps by keeping the public back home informed. Most of those writers (CC's) relied on the photographers from the Marine Corps Photographic Services to illustrate what they were reporting. Their respective assignments would vary from campaign to campaign, but ultimately reporting to the Divisional Public Relations Officer (PRO).

For example, S/Sgt. Federico Claveria, a famous combat cinematographer who made the CC roster list as a "mo-pic," had received all sorts of formal training in still photography (Marine Corps Schools, Quantico, Virginia, December 1942) and motion picture (March of Time School, New York, June, 1943). Indeed, Freddy was very adaptable at his craft and knew how to use an Anniversary Speed Graphic, but he is known best for his cinematography, filmed with a Bell and Howell 35mm motion picture camera. But other Marines would become official combat photographers, not primarily for public relations – such as Sergeant Theo Hios. He was trained as a combat photographer with the Engineer School (July 1943), primarily using a 4x5 Anniversary Speed Graphic, with the Engineer Battalions. But, over time, his photographs (and artwork) were deemed worthy by the PRO for their public relations value. There were many such multi-taskers, and sometimes some of the combat correspondents had to rely on their own photographic skills when camera men from the Marine Corp Photographs Services could not be spared.



Figure 1. Private Federico Claveria, taking a course in still photography at the Marine Corps Schools, Quantico, Virginia, ca. December 1942. (I was able to determine his location from his Official Military Service Record.) To his right is a brand spanking new Folmer Graflex Anniversary Speed Graphic. Note the data plate is on the top of the camera. My observation is that the data plates were relocated to the left side of the camera starting in 1943. This camera is in classic black, which no longer had most of the bright finish, as of 1942. This "Anny" has a Kodak Ektar 127mm lens, most likely an "EA" (1942) prefix for the lens serial number. Here, the bright finished solenoid and shutter. (Kodak did not manufacture the Supermatic shutters in black until about 1942 – based on observations of several "EA" (1942) series lenses.) Also, note the classroom setting displaying GE flash bulb products (U.S. Marine Corps photo, courtesy of Carlos Claveria).



Figure 2.

Figure 2. **A Camera Collector's Heaven!!!** Staff Sergeant Federico Claveria of the 5<sup>th</sup> Amphibious Corps focuses his Bell and Howell 35mm Eyemo Model Q motion picture camera. There are several other motion picture cameras present, some 35mm, others 16mm. This photograph was taken in 1944 at Camp Catlin, near Pearl Harbor, Oahu Island, Territory of Hawaii. In front of the Quonset hut, where all this equipment was stored, is displayed an eclectic collection of motion picture and still cameras. Regarding the still cameras (I can't begin to identify all the models, but formats are obvious, such as 35mm). To the extreme left is a 4x5 Folmer Graflex "Combat Graphic" camera. In the middle are a few 35mm cameras, above is a large format view camera (possibly from Eastman Kodak), and on top of its transit crate is a Folmer Graflex model K-20 aircraft camera, and to the right is an early manufactured Anniversary Speed Graphic 4x5 with a metal lensboard, holding a 127mm lens (U.S. Marine Corps photo courtesy of Carlos Claveria).

Now, let's focus on the Folmer Graflex manufactured still cameras (the Speed Graphics and the Combat Graphic) from examples in my personal collection, and artwork at the National Museum of the Marine Corps. The next picture gives a general view of some of the cameras to be studied.



Figure 3. Anniversary Speed Graphic camera sets. The Anniversary camera to the left, on top of the Navy gray painted transit case, can be interpreted as ca. 1943 Navy issue finding its way to the Marines in combat. Marines relied heavily on the store items from the Department of Navy. A standard M1 helmet illustrates the relative size. Period manuals from the Folmer Graflex Corporation were standard items. In the middle, mounted on the tripod, is a Graflex Army Air Corps 1941 contract camera, and to the right is an Army Signal Corps issue ca. 1944 camera. Various film packs, film holders and filter accessories are seen in the foreground (author's collection).

Figure 4 (right column). **The Tools Of The Marine Corps Combat Cameraman.** To the left is a Bell & Howell 35mm Eyemo Model M motion picture camera. Just next to the Eyemo is a Kodak can that holds 100 feet of 35mm film. To the right is a Folmer Graflex Anniversary Speed Graphic. This "Anny" is virtually all black, except for the chrome plated Graflex #3 solenoid. The wood "C" board is fitted with a No. 2 Kodak Supermatic shutter, housing a Kodak Ektar lens, serial number EE1584 (1944), although the body was probably made in late 1942, since it has a data plate mounted on the top and a body serial number of 308693. While based on current evidence, the black Supermatic, for the Speed Graphic, was made only for the U.S. Army Signal Corps, it could have been added in a wartime "trade." The black rubberized canvas bag in the rear is a typical invasion bag. While wading in the surf when hitting the beach, this bag was a must for any combat cameraman. These bags were readily available by D-Day in Normandy, France, and commonly seen in stock photos of Iwo Jima (author's collection).



Figure 5. Combat Photographer - Saipan by Sergeant Harry Jackson: This artwork depicts the combat correspondent and photographer Art Kiely of the 5<sup>th</sup> Amphibious Corps. Detail elements show Kiely's Speed Graphic camera in the foreground and a 1919A4 .30 caliber machine gunner in the background. Both the artist and his subject were good friends of Freddy Claveria. (Art Collection, National Museum of the Marine Corps, Triangle, VA)

# **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/users, and is not a for-profit publication. Other photographic groups may reprint uncopyrighted material provided credit is given <u>GHQ</u> and the author. We would appreciate a copy of the reprint.





"Camera Repairs," showing what appears to be an English Model C aerial camera, on the back bench, and an English Model E on the right bench, on which the soldier may be modifying the lens cone. Also shown is an Eastman Kodak made Automatic Gun Camera.

Interestingly, of 64 gelatin prints from the school, in the Eastman House collection, only these three show cameras.



"Aerial Cameras" Pictured are four interesting cameras. Upper left, an early version (possibly for training) of the Folmer & Schwing Model A hand-held camera. To the right of the "C 17" case is the American modification of the English type "L" semi-automatic camera, and above, possibly an English Model C. Below the "49" box is what appears to be a Model E, from above. On the lap of the student at lower left is the Kodak Automatic Gun Camera.

At right is a 1918 photo of Australian photographer, Captain Frank Hurley, with a camera similar to the F&S Model A. Photo courtesy Bruce Thomas.



"Copying Department" Shown are Folmer & Schwing made Enlarging, Reducing and Copying Cameras. Although these cameras were initially sold in 8x10, 11x14, 11x17 & 18x22 formats, the picture suggests the smaller 8x10 size.







Three U.S.A. School of Aerial Photography photographs courtesy of George Eastman House, International Museum of Photography and Film. Images are scanned from prints (7.5 x 9-5/8 inches) on mounts (10-15/16 x 15-7/8 inches). Eastman House does not have the negatives or plates, so it cannot be determined if they are contact prints or enlargements.





Above, darkroom motor lorrie, from an album of pictures taken by Leslie Williams, courtesy of Dr. George Layne.

Left, soldiers from School of Aerial Photography sell war bonds. Albert Stone photograph, courtesy Rochester Museum & Science Center.

Below, officers of the School of Aerial Photography . Albert Stone photograph, courtesy Rochester Museum & Science Center.

