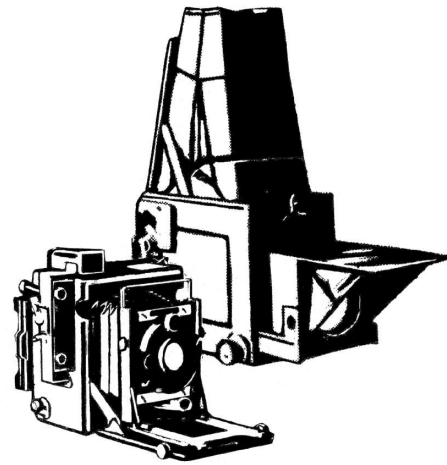


# GRAFLEX HISTORIC QUARTERLY

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**Stereo Auto Graflex, 1906-1922**

By Thomas Evans

The Folmer & Schwing Manufacturing Company had offered stereo cameras since the Folding Stereoscopic Camera of 1894. This first camera was improved in about 1902 by the addition of the variable-aperture focal plane shutter (by this time, the camera had been renamed the Stereoscopic Graphic), and it was further improved in 1906 by the incorporation of the multi-aperture focal plane shutter, first introduced in the Auto Graflex. In addition to the Stereoscopic Graphic, F&S offered the Telescopic Stereo

Graphic, which featured a Graflex-like front standard that racked forward from the body of the camera on side rails, and the Triple Lens Stereo Graphic, which added a viewing and focusing lens to the top of a Telescopic Stereo-like camera. Folmer & Schwing introduced their first Stereo-Graflex camera in 1904, which was like other 5x7" format, fixed-back Graflex cameras of the time, except that it had a wide front lens standard to accommodate a pair of matched lenses, and the body was shorter to allow the use of six-inch focal-length lenses.

The Stereo-Graflex was introduced ten years after the launch of the Folding Stereoscopic Camera and two years after the improved Stereoscopic Graphic. The Stereoscopic Graphic was 42% less expensive, 25% lighter and about 30% smaller in volume than the new Graflex-based camera, so why would William Folmer think that it would be just the camera that the stereoscopic customer was longing for?

In U.S. patent number 756,614 (see Insert), approved April 5, 1904, Mr. Folmer described his purposes for developing the Stereo Graflex: "The purpose of this invention is to provide a simple form of stereoscopic camera so constructed that in focusing the object or objects will be perfectly blended, appearing to the operator with all the depth, detail, and definition obtainable when a stereoscopically-photographed object is viewed through a proper instrument..." To this he added the purpose of obtaining other advantages of the Graflex camera, such as the ingenious reflex mirror and folding focusing hood, "providing simple and effective" operation of a stereoscopic camera. This patent describes "coacting but independent focusing-mirrors," one for each lens, but this idea was abandoned by the time production began.

It appears that the Stereo-Graflex was developed from the 5x7" Graflex to meet the demands of professional photographers who were in business to supply the popular demand for stereo views. The original version of the camera was brought into production by the Folmer & Schwing Manufacturing Company in 1904, and it did not have the rising/falling lensboard, the stereoscopic prisms in the viewing hood, nor the coupled lens apertures, which all appeared in 1906 with the Folmer & Schwing Division of Eastman Kodak Co. version of the camera, the Stereo Auto Graflex.

The 1908 Folmer & Schwing catalog promoted the "Graflex idea," as applied to the stereo camera, making possible "the production of a class of stereograms which otherwise could not be secured." The catalog states: "The beauty of stereoscopic pictures and the fascination of producing them with a thoroughly modern equipment, is

being more and more appreciated by an increasing number of photographers. This accounts for the growing popularity of the finest outfit ever made for stereo work, - the Stereo Auto Graflex.”

In the 1914 Graflex catalog, the description of the Stereo Auto Graflex begins with the statement that “There is probably no branch of photography that affords greater pleasure than the making of stereoscopic pictures, and the steadily increasing number of purchasers of the Stereo Graflex indicates that stereo photography is growing in popularity.” So one can assume that interest in stereoscopic photography was increasing and that business was good among amateur, as well as professional, photographers.

The catalog goes on to describe key selling points: “It differs entirely from any other form of stereo camera, not only in its unique design and perfect adjustment, but in the method of focusing. The hood at the top is practically a stereoscope, as it contains a pair of stereo prisms. These prisms are arranged to give the stereoscopic effect when focusing, as the operator sees but one image on the ground-glass screen --- right-side up --- not inverted. The object is viewed just as one would see the finished stereogram through a stereoscope.”

“A rising front operated by a rack and pinion enables the operator to cut off the foreground when desired. The stereo partition is a part of the camera and is not removable.” [The partition in the Stereoscopic Graphic was removable, allowing its use as a 5x7" format camera.]

“The Stereo Auto Graflex is fitted with the regular Graflex Focal Plane Shutter with safety device, giving exposures of any duration from time to 1/1000 of a second.”

The 1922 Graflex catalog addressed the reasoning behind providing a 5-inch high image: “Another advantage is that whereas the standard size stereo photograph is 3 3/16 inches high, the negative made by this camera is 5 inches high. Thus by trimming, the amount of foreground and sky is controlled, and the best part of the image is utilized.”

Clearly, the company felt that they had a fine camera, enhanced by features that had proved to be so successful in their Auto Graflex models, which met the needs of the day, and they offered it to the public at rather high-end prices. With a matched pair of Zeiss Series VIIa No. 7 lenses, the price was \$364 in 1904. With Bausch & Lomb Zeiss Tessar, Series IIb, f/6.3 lenses, the price was \$267 in 1906, \$280 in 1908, \$222 in 1914, and with a Bausch & Lomb Kodak Anastigmat at \$252.00 in 1922. In today’s dollars, this kind of price would probably get you the latest Leica.

### **A Brief History of Stereo Photography**

In 1838 Charles Wheatstone presented his ideas on binocular vision to the British Royal Society in London. Leonardo da Vinci had thought that the perception of three-dimensional relief was due to an illusion of transparency that resulted from one eye being able to “see behind” an object viewed by the other eye, and *vice versa*. Wheatstone had realized that the perception of relief resulted from each eye seeing a slightly different image of the scene, which the mind combined in a way to allow the discernment of distance. He demonstrated this binocular disparity with slightly dissimilar drawings that produced the 3-D effect. By the time he gave his second talk to the Royal Society, photography had been announced to the world, and he demonstrated his theory with stereoscopic Daguerreotypes.

The popularity of stereoscopic photography had increased dramatically after Queen Victoria found them to be marvelous while viewing examples at the Great Exhibition in London in 1851.

Some idea of the enthusiasm with which this “New Art” was embraced may be gathered from Oliver Wendell Holmes’ Soundings From The Atlantic, published in 1864. He writes: “This triumph of human ingenuity is the most audacious, remote, improbable, incredible...” invention with which “...a man should paint his miniature by looking at a blank tablet, and the multitudinous wilderness of forest foliage or an endless Babel of roofs and spires stamp itself, in a moment, so faithfully and so minutely, that one may creep over the picture with his microscope and find every leaf perfect...” And: “To this charm of fidelity in the minutest details the stereoscope adds its astonishing illusion of solidity, and this completes the effect which so enhances the imagination.” He declared that: “The stereograph is to be the card of introduction to make all mankind acquaintances,” And that by it “Form is henceforth divorced from matter.” This allows the gathering of many “forms” together without great mass. He went on to propose that National Libraries of stereocards be established, “...where all men can find the special forms they particularly desire to see as artists, or as scholars, or as mechanics, or in any other capacity.” “The cream of the visible creation has been skimmed off; and the sights which men risk their lives and spend their money and endure sea-sickness to behold, -- the views of Nature and Art...gathered from Alps, temples, palaces, pyramids, are offered you for a trifle, to carry home with you, that you may look at them at your leisure, by your fireside, with perpetual fair weather...” And he mentions that stereograms were already being used by door-to-door salesmen to show such things as furniture.

There were a great number of stereo images made of the destruction from the San Francisco earthquake of 1906 (David Burkhart), the year the Stereo Auto Graflex was introduced. The stereoscope with its set of stereograms was well established as a parlor room entertainment.

However, the popularity of the stereoview would soon decline.

Camera Craft Magazine ran a regular feature, “Stereoscopic Department” during the early years of the 20<sup>th</sup> century, which provided practical advice on making and mounting stereoviews, but the final “Stereoscopic Department” ran in the July 1913 issue and was entitled “Why is Stereo-Photography Unpopular?” Some possible causes were the need to view the stereograms through a device (The author, Oren Grubbs, encouraged training one’s eyes to see stereoscopically without the stereo-viewer.), and eyestrain caused by the common commercial practice of mounting the images 3 inches apart on center rather than the correct distance of 2½ inches. Perhaps more telling is a brief, humorous article in the March 1913 issue of Camera Craft, “Art Versus Stereoscapy” (W. C. Marley), which concludes that stereograms were not artistic because they require a smooth surface (and focused detail) while Pictorial photography required a rough surface (and a suppression of detail). “A ‘Picture’ must not resemble Nature; if it does, it is a ‘Record’, it is not Art.”

By 1919 Camera Craft printed very few references to stereoscapy and, indeed, provided a couple of notes on using a stereo camera to produce two different images on one plate (by alternately capping one lens) and using the stereo-viewer for the novel effect of combining two different photographs (portraits) into one apparent image.

Stereo photography enthusiasts resisted the fading of their beloved pursuit and would occasionally launch a campaign to revitalize its former passionate embrace by photographers. Several articles in Photo Era Magazine, such as the 1914 articles by Wilbur C. Smith (Stereo Smith) and the 1924 and 1925 articles by A. Jupenlax and Paul B. Webber, expressed optimism and stressed the relative ease of producing good results with modern equipment and materials. It was held that most photographers were interested in recording scenes to serve as mnemonic devices, and that only a few photographers were interested in producing Pictorial (artistic) results, so the stereo camera was seen to be ideal for most amateurs and would catch on if only they would give it a try. It was alternately recommended that one procure a good 5x7" camera that could be fitted with both a pair of stereo lenses and a single lens to make 5x7" negatives, or that one procure a modern "vest pocket" stereo camera such as those being made in France and Germany, which made 45mm x 107mm positive glass slides. None of these writers suggested that the ardent amateur obtain the Stereo Auto Graflex.

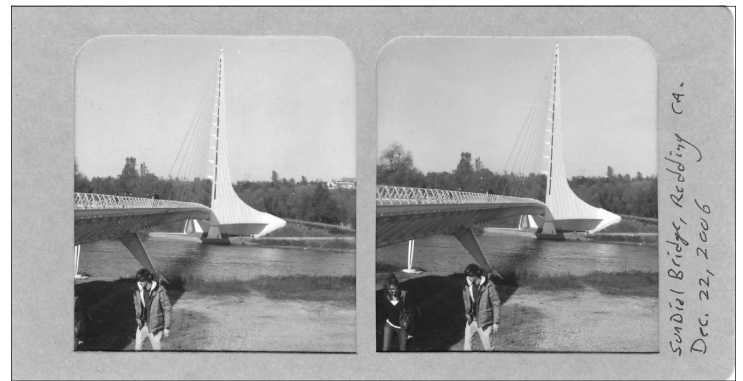
### The Stereo Auto Graflex

In his Graflex Historic Quarterly article (2003), Robert Goldman described his thoughts on why the Stereo Auto Graflex is so rare now, believing that it was not because they were well used up, but rather they are rare now because few were bought. It seems likely to him that by the time that the big Graflex hit the market, Richard Brothers of France had already set a standard with the 45mm x 170mm glass-slide stereogram, which many other manufacturers quickly adopted. The glass stereo plate made positive transparencies possible, which view better than stereo prints. Richard Brothers' stereo cameras were smaller and portable, suiting them to an active lifestyle.

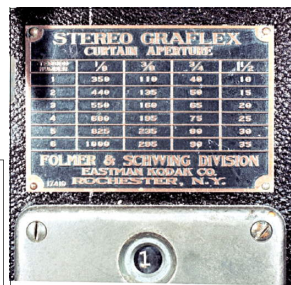
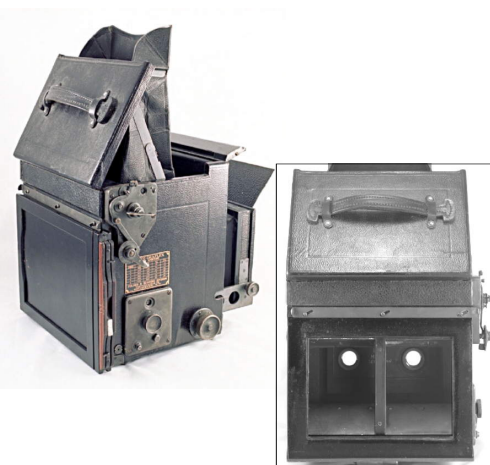
The advantages that the Stereo Auto Graflex had may not have outweighed its greater cost, size and heft. The operator had shutter speeds up to 1/1000<sup>th</sup> of a second, but since film speeds were slow, in order to secure adequate depth of field, small apertures were needed, and thus slow shutter speeds were more useful. The 5x7" size of the image seems excessive, since the standard Holms stereo-viewer used 3½x7-inch stereogram cards. And, while being able to focus and compose a stereographic, three-dimensional image on the ground glass was nice, it was not necessary. He concluded his article with the thought that the Stereo Auto Graflex may have just been ahead of its time. We now have faster color negative and positive films, and viewers are available that may take better advantage of the larger 5x7" stereo card.

The camera I examined was a Stereo Auto Graflex, serial number 102183 probably made in 1919, which was equipped with a pair of 4x5 (6¼") f/6.3 Bausch & Lomb Tessar IIB lenses. This camera has neither the stereoscopic viewing lenses in the focusing hood, nor the coupling device to operate both lens apertures together. Since production of the model would be dropped altogether in just a few years, could it be that sales had dropped off and corners were being cut to save production costs? The viewing hood is equipped with a magnifying glass on the right-hand side that is a tremendous aid to critical focusing, and perhaps this was found to be more practical than the stereoscopic viewing feature.

This Stereo Auto Graflex is hard to focus when stopped down, and it is awkward to focus and then stop down both lenses prior to exposure, but with fast films it is possible to hand-hold the camera while making exposures in the closed shade of a wooded area. I have made 5x7" stereo cards, and the old Holms-Bates style stereo-viewer does a good job of producing the three-dimensional effect from the entire image.



Top: stereo images - Bottom: completed stereocard.



A 5x7" stereo color transparency is a wonder to behold. The Stereo Auto Graflex of 1906 may well have been ahead of its time by a century.

Interest in taking and sharing stereo views is alive and well, as the numerous websites and clubs around the world can attest to. One need only search online for "Stereo Photography" to find a wealth of websites devoted to the history and/or the making of stereograms. There may indeed be more stereo enthusiasts now than there ever have been before.

More recently, stereo cameras have been launched into space. The NASA rover, Pathfinder, used its stereo camera to record images on the surface of Mars.



(Stereo Auto Graflex, 1906-1922 continued.)

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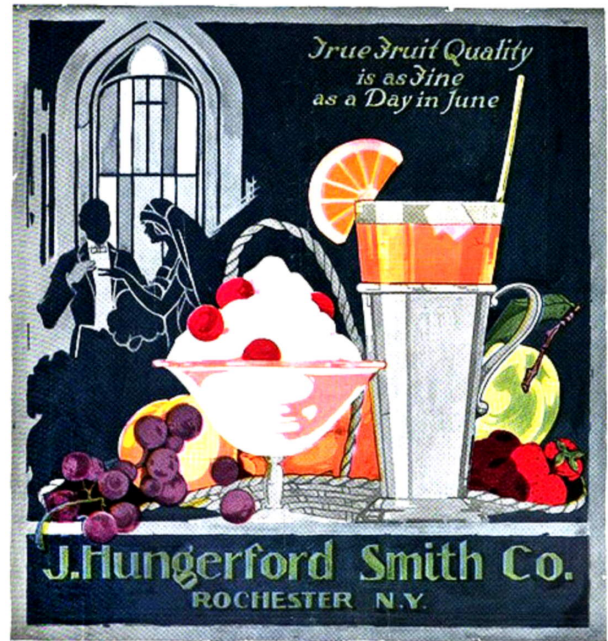
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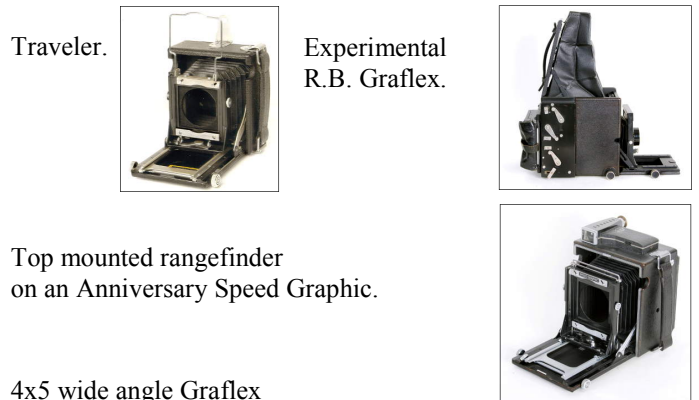


### Syrup

Jim Chasse's article on the Traveler (GHQ, 16, 3) references the catalog description of an "abandoned warehouse of the J. Hungerford." With help from Nick Graver and the Internet, it appears that the warehouse was a building of the J. Hungerford Smith syrup company, that appears to have vacated their properties in Rochester when they were purchased by Conagra. It is now simply called the "Hungerford Building."



Here are several prototype or experimental cameras that were believed to have been in the building as late as the 1990s:



Traveler.

Experimental R.B. Graflex.

Top mounted rangefinder on an Anniversary Speed Graphic.

4x5 wide angle Graflex with drop bed. Not found.

Roll film adapter. Not found.

Although the story is far from complete, someone saved some very interesting Graflex cameras. If anyone has a camera from the warehouse or additional information, please let us know.

KM

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

### Part II

By Theo Servetas

In Part I, I presented material on the Marine Corps Photographic Services derived from an article written by Norman Hatch (Leatherneck, August 2009) and some of the cameras used by motion picture photographer, Federico Claveria, who was versatile in his craft and in the use of a Speed Graphic Anniversary camera. This article will continue in the spirit of presenting the equipment likely encountered by the Marine Combat Photographers in the field and highlight some of those individuals who have contributed so much material on behalf of combat photography – especially while using a Speed Graphic camera. This article thus features little-known Marine Corps Combat Photographer Staff Sergeant Bob Cooke.

SSgt Cooke is an enigma to me, as not much is known of his background as a Marine Corps Combat Photographer or Correspondent, since his name does not appear in any of the USMCCCA rosters I have researched at the Marine Corps Historic Division – yet Mr. Cooke’s photographs are at the National Archives (NARA), and his writings can be found at The National Museum of the Marine Corps and the Smithsonian. I took a personal interest in Bob Cooke because of a little-known article he wrote concerning my uncle, Sgt Theo Hios, found at The National Museum of the Marine Corps archive at Triangle, Virginia. And throughout subsequent research of all the landings done by the 4<sup>th</sup> Marine Division (Roi-Namur, Saipan-Tinian, and Iwo Jima), Bob Cooke’s photographs consistently appear at the NARA, and he also contributed more of his writing. It was during the Iwo Jima campaign that SSgt Bob Cooke wrote an article which made the front page of the Marine Corps Battle News (April 2, 1945).

Norm Hatch made it very clear to me that Combat Correspondents (CCs) were writers, and the CCs were supported by the photographers from the Marine Corps’ Photographic Services. Yet, Bob Cooke appeared to be both his own writer and photographer – which led to a lot of confusion on my part as to what exactly a CC was supposed to be, and thus Norm Hatch and I really had some memorable debates over this point.

Therefore, Sergeant Cooke was multitasking as a writer and photographer. Perhaps he was the right man at the right place at the right time. After all, the Marine Corps Photographic Services was short-handed in providing photographers, and Cooke had to improvise, or his primary occupation was combat photographer, and he learned to write like a combat correspondent, acquiring skills on the job, as Norm Hatch would put it: “learning by osmosis.”

Thanks to the photographic images and writings of Bob Cooke, we have a clear picture of the reality of my uncle, Combat Artist and Photographer Sergeant Theo Hios, and the other Marines Corps Photographers of the 20<sup>th</sup> Marines Engineer Battalion, 4<sup>th</sup> Marine Division. And now witness the world of the Marine Corp Combat Photographer from this abbreviated article written by Bob Cooke on a portable mechanical typewriter while on Roi-Namur Island (Marshall Islands), February 13, 1944:

“PHOTO STUDIO ON ROI... Within 48 hours after the Fourth Marines stormed ashore on Roi Airfield, the first pre-war Japanese territory to be invaded in the battle of the Marshalls, three Marines from New York had set up a portable darkroom and

were turning out pictures of the invasion. In charge was Marine Gunner Kenneth Traver. With him were Sergeant Theodore Hios, and Private First Class George Fitzgerald, Jr. Snipers were still giving Marine demolitions squads trouble when the photography crew hit the beach, lugged ashore their 550-pound box of equipment, and started digging...until they had a fox-hole 9 feet long, 5 feet wide and 4 feet deep, reinforced by sandbags. How many tons of coral sand they moved in that 8+ hours of digging is beyond calculation. But when they moved in, under a camouflaged canvas cover, and set up their portable darkroom, there was room for living quarters and work room for 5 men, if 2 men stayed outside as armed guards and couriers. Five days later, right under this deluxe foxhole-laboratory, demolitions squads discovered 5 Jap snipers hiding in a tunnel running from the seawall, stocked with provisions and ammunition.”



Figure 1. ROI PHOTOS, INC. The original caption reads: “HOME, OFFICE AND AIR-RAID SHELTER, was this foxhole laboratory set up by three New York Marine photographers on Roi Airfield in the Marshalls. Six days after landing, they discovered Jap snipers living in a tunnel directly beneath them. Four days later, the shelter was filled with 8 men and 2 dogs while sandbags fell in on them and shrapnel ripped the overhead camouflage when Jap planes raided the island. Unhurt, the three Marines acted as stretcher-bearers. L to R: Sgt. Theodore Hios, of 98 Christopher St., Manhattan; Marine Warrant Officer Kenneth A. Traver of Cherry St., Inwood, L.I.; PFC George G. Fitzgerald, of 2234 Ryer Ave., Bronx.” 10 February, 1944. Roi Island. Photograph by Sgt. Bob Cooke (U.S. Marine Corps photo, NARA).

Sergeant Cooke continues from his article:

“The New York boys had already learned to be cautious, even in supposedly ‘secured’ territory. On their first trip across the causeway armed only with cameras, they saw a Marine struck down only 10 ft. ahead of them. They hurried back and grabbed carbines for the rest of their tour of the smoking battlefield. Although they photographed hundreds of dead Japs, they never saw a live one to take a shot at. The only shots fired from their carbines were at the big rats which crept out of the tunnels and sniper holes at night.

Living and working conditions on Roi were crude. The men had to kneel while developing films; for the first days, they lived on K-Rations and captured Jap canned goods....And they turned out pictures. A high spot of the achievement was when an Army B-24 bomber landed at dusk, between rows of cheering



Seabees and Marines, the first U.S. planes to use captured Roi Airfield. Marine Gunner Traver, former free-lance photographer and instructor in Marine Corps photo-litho schools, caught a flash picture of the landing, rushed it to the laboratory, and had it developed and ready to print within 15 minutes.

That night, the Japanese retaliation raid lit most of Roi Island up in a volcano of burning tents and exploding ammunition. The photographers, refused permission to go near the exploding ammunition dump, finally dove in their 3-man foxhole, and found it occupied by 5 other guys. There were other occupants, too. ‘Somebody lay across my legs and shivered for half an hour straight’ recalled Gunner Traver. ‘I finally turned around to see if he was all right – and found it was a dog. There were two of them in with us, besides 8 men.’

Daisy-cutter bombs burst only 25 yards away, cutting holes through the canvas roof of the foxhole. Sandbags were knocked down by concussion. But the occupants escaped, to spend a busy 24 hours in which photography was forgotten while they acted as stretcher-bearers. Then the order came to evacuate, and the darkroom, which had taken 48 hours to set up, and survived the worst of the Jap attack, was dismantled and packed aboard a ship in half an hour....” (Art Collection, National Museum of the Marine Corps, Triangle, Virginia)

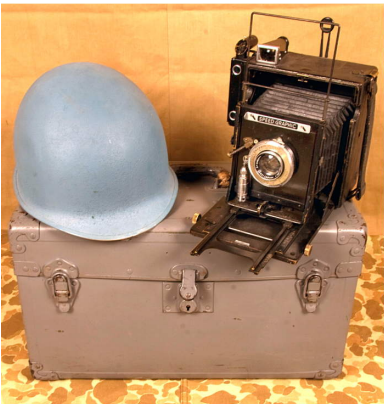


Figure 2. Anniversay model Speed Graphic camera kit – US Navy issue: This recreation of a Navy gray issue camera kit could have found its way into Marine Corps hands by what Norm Hatch would define as a “midnight requisition.” The Marine Corps was part of the Naval Services, and it was possible for a Speed Graphic camera set from the Navy supply chain to

end up in the hands of The Marine Corps Photographic Services. Note the carry case is factory painted Navy gray. To the left, a Navy blue helmet, and to the right is a wartime black Anniversay 4x5” Speed Graphic camera (author’s collection).

Figure 3. The “Navy” Folmer Graflex Anniversay 4x5 Speed Graphic displayed with a Marine Corps M1 steel helmet: Note the camera body details. On the camera’s left is a Kalart Rangefinder, which has the flash mount attached. A No. 2 Kodak Supermatic shutter is mounted on the lens-board (which trips the shutter when the flash is properly connected with a sync cord). Otherwise, this shutter is set up to take an exposure when the spring-loaded press stud is pushed (not with a



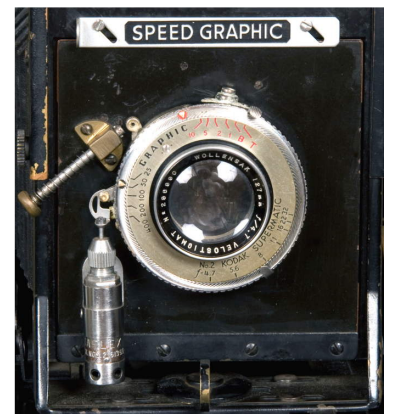
cable release). The shutter houses a Wollensak 127mm Velostigmat lens. (Generally Ektars have been observed, but given the demand for lenses during WWII, all the services were eager for any quality optics, and thus the Wollensak Velostigmat was also used.) In the foreground to the left is a Graflex three-cell flash with a 7” reflector, and to the right is a Weston Model 715 Universal Exposure Meter (author’s collection).



Figure 4. Contents of the Speed Graphic U.S. Navy Anniversay 4x5 camera set: Here is a typical assortment of accessories and components that make up this kit. The camera itself is supported by a Folmer Graflex wood tripod and head (here disassembled). There are Wabash and GE-brand flashbulbs, 12-exposure film pack adapters, a few double-sided film holders for 2 exposures, Weston Master Model 715 Universal Exposure Meter, various manuals concerning the Focuspot rangefinder and the

light meter, *The Manual of Correct Exposure* by H.P. Rockwell, Jr., boxes containing various cables and cords, and an eclectic collection of Kodak Series VI lens hood and filters. (Note: If you have a 127mm lens, you need Kodak Series VI components to mate with the lens diameter.) (author’s collection)

Figure 5. Closeup of the lensboard reveals the working of the shutter trip: A simple press stud mounted to the wood “C” board is all that is needed to trip the No. 2 Kodak Supermatic shutter. If the cameraman opted to use the flash mounted on the Kalart Rangefinder, a two conductor cable would run from the flash to the base of this Graflex No. 2 Solenoid, which would electro-mechanically trip the shutter.



A closeup view of the lens itself tells of its origin: a Wollensak 127mm Velostigmat lens, being a contender for the more commonly observed Ektar lens made by Kodak (author’s collection).

Figure 6. Following page. “All Metal Kodak Printer Model 3” is what the data plate on this equipment states. This is Marine Corps issued, painted in the USMC green hue. The photo printer works with a standard 110-volt light bulb – the dark-room operation is simple: lay a 4x5 negative on the glass, place a piece of printing paper over the negative, close the door and press the switch to expose the printing paper with light. This was a standard item to be found in the photo lab trailer at Camp Maui, but unlikely used when hitting the beach



where there was no electricity. On Roi Island, it is more than likely a standard glass frame photo printer was employed, exposing the printing paper to either a flashlight or the sun. In the foreground is an eclectic assortment of original 1944-1945 era 4x5 format film products procured by the Marine Corps during WWII. The top row

of boxes to the left and right are "Kodachrome Daylight Type" color film boxes containing "one-half dozen 4x5" film originally sealed in foil envelopes (and retained to store the developed film) with a "Develop before Apr. 1945" expiration date; in the middle of the top row is a box of "Aero Contact Mapping Paper" containing 144 sheets of 4x5 black and white printing paper. The bottom row exhibits 4x5 print envelopes, and the far right a box of "Kodak Super Panchro-Press Type B" color film with a "Tropical Packaging" stamp (author's collection).

Ultimately, it was up to the individual Combat Photographer to pack what was needed to accomplish the mission, and likely much of the bulk this camera set represents was compressed into more portable canvas packs. It is hard to imagine the hardship the Marines of the 20<sup>th</sup> Marine (Engineers) faced when setting up their darkroom on Roi Island and lugging a 550-pound box of darkroom equipment ashore. Yet I had to re-create or reverse engineer in my mind how they did it. Without the benefit of electricity and a studio enlarger, it was possible to make a contact print from a brief exposure to sunlight, and lacking the amenities of clean water, it was possible to develop black and white prints with sea water. A Kodak product, Elon (their trade name for monomethyl para-aminophenol sulfate), was a common developer for silver bromide salt-based films and print papers and was packaged in small pre-mixed pocket-sized disposable glass vials. But how did they process the film and printing paper in developing trays in a so-called darkroom that was just a simple shelter half and not light-tight (Perhaps using film changing bags, but those were too small.). Norm Hatch told me the Marine Corps Combat Photographer was versatile and adaptable in what he did – in one case, Norm recalled, a Marine developed film on the battlefield with a poncho draped over himself and the "soup" of chemical trays directly under his chest. But then I asked how did the Marines process prints in the not so light-tight Roi "Phoxhole Photo Lab"? Norm Hatch suggested to me that they probably developed film during the dark of night.

## WANTED

### Century Riteway Film Holders

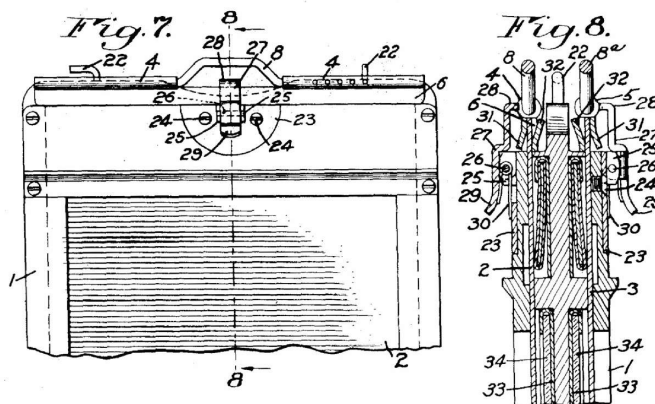
According to a 1937 Graflex Professional Photographic Apparatus catalog, "No longer need camera operators using 5x7 or 8X10 film fear the bugaboo of double exposures. For, the patented 'Riteway' Film Holder *eliminates accidental double exposures by means of a self-actuated slide lock that works in combination with special tapered slide pulls. If, after the exposure is made, the slide should accidentally be reinserted into the holder with the white side of the slide pull to the outside, the Riteway attachment stops it. When it is properly reinserted with the dark side of the slide pull to the outside, the slide goes all the way in, and the Riteway attachment springs into position to lock it there until it is deliberately released for unloading. By eliminating the occasional accidental development of unexposed films, it saves film, too. For, even in complete darkness one can tell which holders are locked and thus exposed ... and which holders are unlocked, and therefore still unexposed. The Riteway Attachment is built into all Century Film Holders in sizes 5x7 and 8x10."*

This Graflex-made wooden film holder, possibly based on patent 1,954,918, dated April 17, 1934, uses the Riteway name but was sold much earlier than the well-known plastic holder introduced in 1952. The Riteway name was trademarked May 1, 1934.

If a reader has one of these holders, please let me know, so we can present an illustrated description of this interesting item.

KM

April 17, 1934. W. E. BURNELL ET AL 1,954,918  
 MEANS TO PREVENT DOUBLE EXPOSURES IN USING PLATE OR FILM HOLDERS FOR CAMERAS  
 Filed Sept. 3, 1932 2 Sheets-Sheet 2



Assigned to the Folmer Graflex Corporation.



## 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/users, and is not a for-profit publication. Other photographic groups may reprint uncopyrighted material provided credit is given GHQ 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 GHQ for inclusion at no charge (at this time). The editor reserves final publication decisions.*

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# the Photographer

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The photograph that wraps around the front and back covers of the Fall 1982 issue of the Photographer was supplied by WPCA member Terry Wilkerson of Castro Volley, CA. It was taken by E.A. (Doc) Rogers about 1915 and shows a large group of professional photographers posed with their gigantic reflex (and other) cameras, in front of the San Francisco pier..... Rogers was a photographer on the staff of the Oakland Tribune and is famous for his many photos of the San Francisco earthquake.

If you see a Graflex, or can identify another brand of camera, please let Ken Metcalf know, and the Quarterly will identify the cameras in the next issue.

Milan Zahorcak, with the technical support of Rob Niederman, is nearing completion of the digitized "Journals Project" which includes complete sets of many of the great American photohistory journals from the late 1960s through the early 2000s. These journals include: The Photographic Collectors Newsletter (Eaton Lothrop), the Photographer (WPCA), Photographica (PHSNY/APHS), Graphic Antiquarian (Don Blake), Northlight (PHSA), The Allen Weiner Catalogs (Allen Weiner) and The Cascade Panorama (CPHS). The DVD, a mammoth undertaking, might be of interest to many of our readers and should be available in early April. Details are available from Milan at: [digitized.kcp@gmail.com](mailto:digitized.kcp@gmail.com)



# Folmer Patents

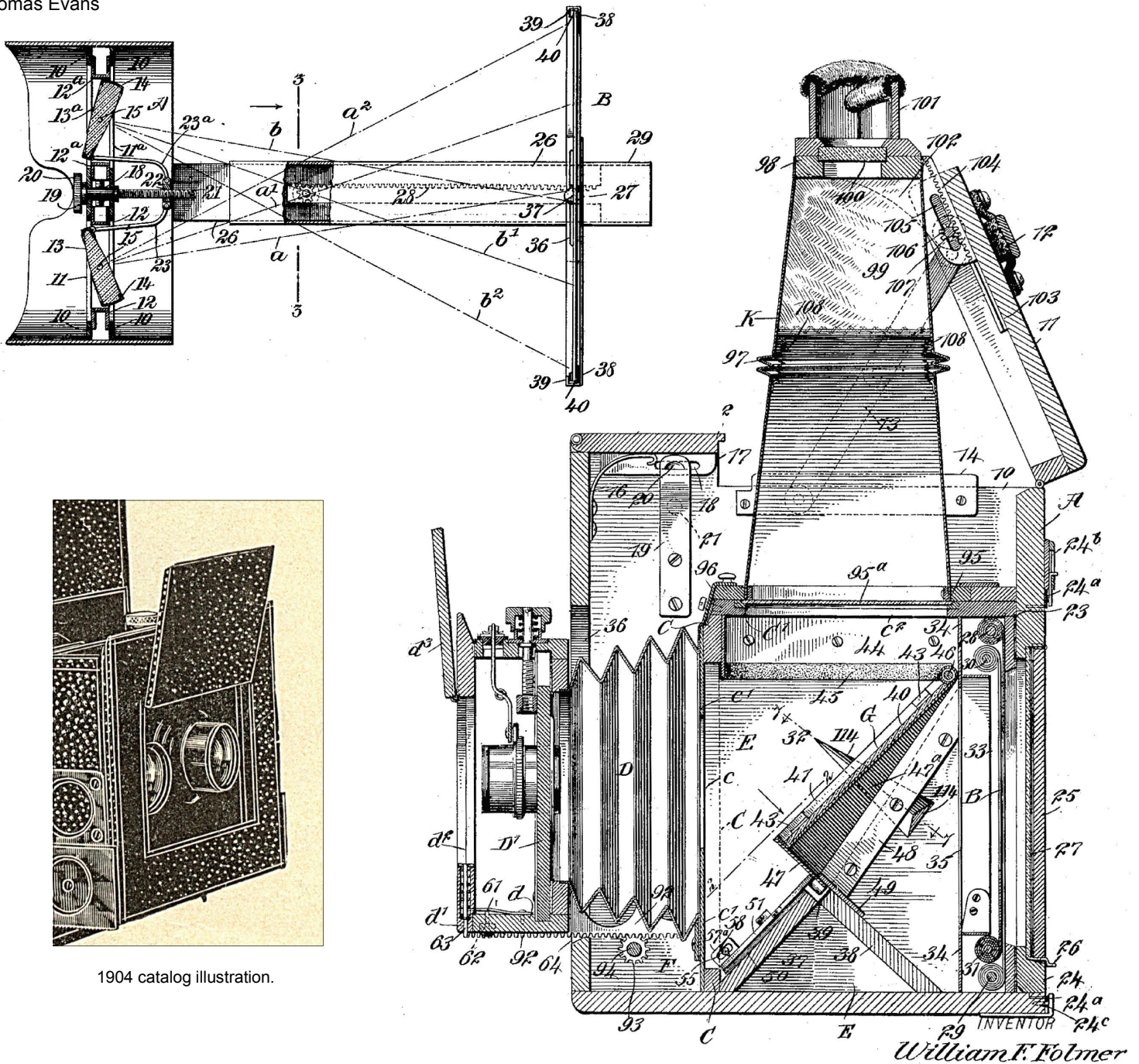
The patent (756,614) for the Stereo Graflex camera was applied for August 20, 1903, and was granted April 5, 1904. Just prior to this patent, Mr. Folmer patented a Stereoscope (patent 749,046, application May 2, 1903, granted January 5, 1904) which incorporated devices for adjusting the distance between the viewing lenses and also their angle relative to the eyes, in order to accommodate differences in the viewer's eyesight. It seems quite possible that it was while working on the Stereoscope patent that Mr. Folmer had the idea for a Stereo Graflex that would incorporate, in essence, a stereoscopic viewer within the focusing hood. This speculation may be supported by noting that the patent for the Stereo Graflex also included a device for increasing or decreasing the distance between the stereoscopic lenses at the top of the focusing hood and the ground glass, to accommodate differences in eyesight.

I suspect that the 1904 production run of the Stereo Graflex left out many things in the patent in order to facilitate getting the camera into production, and a few of these, such as the stereoscopic lenses and the coupled diaphragms, were added later.

In the detail of the camera patent, it looks like the knurled knob is a device for lens rise and fall, and that there is also a coupled aperture device coming out through the top of the lens standard box.

Incidentally, the style in which these patents are written may be conducive to defending them in court, but it makes them difficult to read. The summary at the end of the patent, the claims section, is especially repetitive and monotonous, leaving nothing open to conjecture. I find the claims section easier to comprehend if I imagine that I am reading something written in the strangely repetitive style of Gertrude Stein.

Thomas Evans



1904 catalog illustration.



25666

By Robert Goldman



Shown here is a pre-1915 Stereo Auto Graflex, serial number 25666, made by the Folmer & Schwing Division of Eastman Kodak. It is fitted with an early and rare interocular focusing assembly.

The assembly consists of multiple parts. There is a lensboard equipped with horizontal square channels at the top and bottom. The channels hold a pair of lens mounting panels, each holding one lens. Light seal at the top and bottom is accomplished by the fine fit of the lens panels in the channels. Light would have to make three 90-degree turns to enter the body of the camera. On the inside and outside vertical edges of the lensboards, there is either velvet or felt material attached to the back of the lensboards, to fill any possible gap on the sides. Interocular adjustment is accomplished by means of a center-mounted thumb wheel with a left-hand thread on one side and a right-hand thread on the other. A scale marked from 3-3.5 inches is attached at the lower front. When changing interocular distance, the lock screw on a male/female sliding bar is loosened. As one would expect, manufacturing quality is high, so there is no slop in the fit of any components. Two horizontal cutouts in the lensboard provide clearance for each lens to move. Vertical movement of the entire assembly is handled in the same fashion as a non-interocular adjustable lensboard, by means of a vertically mounted rack and pinion at the bottom center. As a side note, even 3" is pretty wide. By current standards, this camera would be considered better suited to the field than the studio.

