GRAFLEX HISTORIC QUARTERLY

10th ANNIVERSARY
GRAFLEX
1996 - 2006

FEATURES

The PH-6 Ordnance Camera

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I found this camera on eBay in 2002 advertised as a Graflex Wide Angle Camera. I had not seen anything or heard rumors about any camera like this. It's a simple box camera, without bellows or any focus ability at all. There's a ground glass for accurate framing, a folding viewfinder up top and a wide-angle lens behind a spring-loaded cover.

That's all I knew until the friendly UPS lady delivered it. After giving it a good, hard look, I decided that this camera must have been designed for the military because it could have never survived the commercial market. There are a pair of standard Graflex handles (complete with broken strap), but they are on the sides, rather than the top. While the straps look like you should use them to steady the camera, you can't put your hands through them and still reach the shutter plunger. The folding viewfinder is mounted at the front of the camera, forcing you to look through the finder from some 4 inches away, too far to make any accurate framing. Getting my eye as close as possible to the viewfinder, it covers approximately 70% of what the lens sees.

The lens and shutter combination is the most intriguing. The lens is a Bausch and Lomb Series V f18 Extreme Wide Angle Protar for 5x7, sitting in a black Betax shutter. The Series V Protars were very common and well respected for the first half of the 20th century, but at f18 they were the slowest production lenses made for pictorial use and best used stopped down even further. These lenses are not usually seen in a shutter for two reasons: The first is the exposure usually runs several seconds, and a shutter is not needed; and, two, the space between the front and rear cell is so small that, at least persistent rumors claim, the Volute shutter is the only shutter it will work on, because the Volute uses the same iris for both aperture and shutter control.

This Betax has been modified in the oddest way. There are a pair of tapped holes, for setscrews that limit the shutter speeds to either 1/50 or 1/25. The aperture lever is similarly limited, but there isn't an aperture scale, and there doesn't seem to have ever been one! Removing the front cell answered the second curiosity: the aperture blades, placed too far back in the shutter, do indeed hit the rear cell.

The camera was designed to have only two shutter speeds and one aperture…wide open!

The design of the camera is unique, but there are some obvious parts from other Graflex cameras: The lens cover is from a Series B Graflex, the catch for both the door and the ground glass cover can be found keeping the back locked on every Revolving Back Cycle Graphic, and the viewfinder, as well as the Graphic Back springs, came from a 5x7 Speed Graphic. The ground glass frame is unique to the camera, as the cover hinges down, is made of wood with no side wings, and adds a brass knurled knob to lock the frame and film holder in place. I thought this last piece was obviously unnecessary until I actually tried to use the camera. The camera is made intentionally narrower than other 5x7 cameras, and the light trap is very close to the edge of the camera, allowing the shorter Type 4 film holders to stick out more than normal. This would aid in rapid changing of the film holders but adds the risk of fogging the film, unless you used the lock, which ....would ....then ...slow ...down ...film ...holder ... changing. Oh, this has to be a military camera!

Lastly, the camera is covered in leatherette, rather than the typical leather found on production Graflex cameras.

After a couple of weeks of on and off searching, I found the serial number stamped in the bottom of the camera through the leatherette: 228,806. In Tim's book, this camera is listed as the 4th of 8 "PH-6 (Target practice 5x7)" cameras entered into the book on December 7, 1937. In looking through the book, there are only two other batches of PH-6 cameras: one in October of 1937 for 4, and another in October of 1940 for 15. Now having one of only 27 cameras may be a call for celebration, but it's common for military cameras not to get logged into the serial number book, and there were probably many more made.

But just how did you use a Target Practice Camera? By its design, the camera was a 3-dimensional oxymoron: the shutter is too slow to stop a bullet or moving target like a clay pigeon, and angle of view would make any static target as used on a rifle range too small to see.

For answers I turned to the Signal Corps Museum, in Fort Gordon, Georgia, and the National Archives in Washington, DC. The National Archives had only two facts: by 1945 the camera was known as a PH-6A, and the British used them during WWII.

Delores Oplinger, Collections Manager of the Signal Corp Museum, was more forthcoming. While they didn't have the typical military Tech Manual for this, they do have one of these in their collection, and the notes for their camera state that it was "...used for photographing shell splashes of coastal artillery guns fired at towed marine targets. This Folmer Graflex [sic] camera was produced about 1915-16 in very small quantities and is identified in record books as a '5x7 Ordnance camera.' It was the first standardized Signal Corp camera." Their camera has a Wollensak or Victor-type pneumatic shutter with unrestricted shutter speeds, but no aperture scale. The only other change is the latch for the lens door is on the left, while mine is on the right.

Going back through the serial number book for 5x7 Ordnance Cameras, I found four more entries from 1915 to 1933 that add 26 more cameras to bring the total known production to 53 cameras. There are two additional entries for "Ordnance camera" in 1940 (40 more cameras), but these are not listed as 5x7 and are interspersed with the PH-6 designated cameras; therefore, they are probably a different model camera.

While working on this article, a third example showed up, owned by Jim Chasse. His is like the Signal Corps Museum's camera (left-handed door and leather-covered) but uses an unrestricted Regno shutter with an aperture scale.

So far no examples or even photographs have been discovered of a PH-6A camera, although military literature hints that this camera was produced at least until 1951, but not by Graflex. I still don't know how the British used the camera.

Despite it's rarity, I still use my camera on occasion. It's great for scenics and group shots where time is short and people won't stand long enough to get a view camera dialed in.

Photo four. Baseball hit - photo taken with Speed Graphic with the use of the focal plane shutter, 1957.

Sports Photography with the Speed Graphic

By Joe Koski

Before autofocus, autoexposure, and zoom telephoto lenses on a single lens reflex camera, the Speed Graphic ruled supreme in sports photography. In the late 1950s, local newspaper photographers used their trusty Pacemaker Speed Graphics to cover both college and high school sports. For day games, maybe they also had a Big Bertha telephoto camera in the press box, but most likely, the newspaper photographer on the sidelines or courtside was carrying a 4x5 Speed Graphic.

During the late 1930s and the 1940s, national magazine photographers migrated to 35 mm, while the local newspaper folks observed the results. When 35 mm Tri-X film at ASA (now ISO) 400 arrived in the mid-50s, it made 35 mm rangefinder cameras, such as the Leica M3 and the Nikon S2, even more attractive. By the time I was introduced to Speed Graphic photography in the middle 1950s, the switch to 35 mm cameras by the local newspaper photographer was beginning.

As a high school student in Fort Worth, Texas, I was surprised when my dad arrived home one day during late 1955 with a 1940 pre-WWII 4x5 Anniversary Speed Graphic with Kalart rangefinder. He announced that I could use it for my high school newspaper photography. Over my four years of high school usage, this allowed me to get at least some idea of the challenges that newspaper Speed Graphic photographers faced with the camera in everyday use.

I already had an Agfa Isolette that used 120 film for school photography purposes, but switching to a Speed Graphic was a new adventure. Since my dad was a master horse trader, mechanic, and repairman, the Speed Graphic soon acquired a Graflok back, and the uncoated f4.5 135 mm Zeiss Tessar lens acquired X-sync contacts for use with electronic flash. A local camera repair shop added the flash contacts, a common modification at the time. In essence, the 1940 camera had been updated to 1955 standards.

I soon discovered a trick. If you walked into the side of the football stands away from the student entrance, while carrying your Speed Graphic, the gate guard would wave you inside without making you pay. He assumed that anyone carrying a Speed Graphic must be a professional press photographer. With the Speed Graphic, I soon found that my photos were often as good as those taken by the local professionals.

By that time, we had acquired a "portable" 200 watt-second electronic flash. We mounted the flashgun to the photographer's left, on the side of the camera body. The Anniversary Speed Graphic lacks a body release for the front (lens) shutter that is found in the newer Graphics. We determined a way to trip the front shutter conveniently. First, we kept the standard Graflex flashgun for use with flashbulbs, but without a reflector, in its normal position on the photographer's right. When you pressed the old flash button on the right, the flash solenoid responded, which tripped the shutter, which in turn fired the electronic flash via X-sync. Though Rube Goldberg in nature, it worked. In operation, you held onto a flashgun tube on each side of the camera body and peered through the wire frame sports finder. Push one button with your right thumb, as you normally did for flash photography, and you had your picture. With one shoulder supporting a leather strap for the 10-pound-plus electronic flash power supply, and a load of 4x5 film holders in your jacket pocket, the total weight of the setup was probably over 25 pounds.

How my dad came up with the portable electronic flash unit, I don't know, but he acquired it used, and probably had to repair it before it would work properly. I was pleased to find that it was identical to the flash unit used by Al Panzera, the Fort Worth Star-Telegram photographer who covered all the local high school and college games. The shoulder pack had a gray metal case and had lead-acid batteries that required recharging after every use. The batteries leaked acid, and often my blue jeans had holes eaten in them, much to my mother's consternation. Inside the case was a large oil-filled capacitor that accounted for at least half of the weight of the shoulder pack. It had a mechanical vibrator, like the ones used in old vacuum tube car radios, in the power supply, that buzzed when the unit was on. An orange neon ready light on top of the shoulder unit told you when the capacitor was charged. It wasn't as nice as the Graflex Stroboflash units of the day, but it worked well.

For football action with Kodak Royal Pan film (ISO 400) at night, which was typical, you focused the Speed Graphic on a yard line about 20 ft. away (There was no time to focus during a play.) and set the 135 mm lens to about f11. Standing about 5 to 10 yards downfield from the line of scrimmage, with the dark slide pulled, you were ready for action. When the play happened to come in your direction, you had one shot. The goal was to get one good shot per game. This is certainly different from modern techniques where every play is photographed from many angles in hopes of getting all the key plays.

In our home darkroom, I used Kodak DK-50 developer, recently discontinued by Kodak, for the 4x5 sheet film. Because the electronic flash had a very short duration of 1/5000s, the recommendations of the day were to increase development times by 50 percent to compensate for film reciprocity failure effects. This often led to very high contrast negatives, which was good, because our Durst diffusion type enlarger was not as "contrasty" as the Omega D-2 condenser type enlargers used by the real newspaper photographers. The electronic flash did an excellent job of stopping the action, even though the lens' maximum shutter speed was only 1/200s. Typically, the prints were done on DuPont Velour Black paper, again because it was a cold-toned paper with high contrast.

The 135 mm lens on 4x5 film is roughly equivalent to a 35 mm wide-angle lens on a 35 mm camera, so you just blasted the entire scene in front of you as best you could and then composed the final picture in the enlarger. Photos one and two are an example of this technique. The photos were taken during a game in November 1957 on Royal Pan film. In the first photo, which shows the entire negative, many players and even the stadium lights can be seen. By carefully cropping in the enlarger, a telephoto "zoom" effect on the runner and blocker is achieved in the second photo. Despite using only a small portion of the 4x5 negative, the white bandage on the defensive player's nose can be clearly seen, and film grain is not a problem. The technique of using only a small portion of the negative in the final print did not work well, for example, with
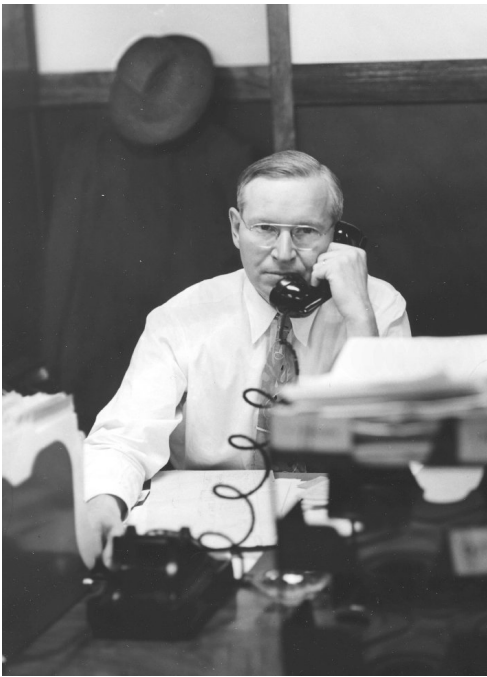
the smaller negatives made on 35 mm film. This technique was common in Speed Graphic photography. Even in photos of one or two people standing, I would often shoot from a distance of 10 feet or more, and crop to a head-and-shoulders composition with the enlarger.

For basketball, a position on the floor to one side of the basket worked best. As with football, with a Speed Graphic, you usually photographed a wide scene and did final composition in the enlarger. There is a story behind the third photo of the basketball shooter. This photo, taken during January 1957, won an honorable mention in a nationwide Kodak contest for high school photographers. The original negative is a wide, horizontal format, and only the center portion is selected to make the vertical composition shown. Note the well-balanced lighting, with shadows on the gym floor, as well as light from the electronic flash on the camera. Apparently Al Panzera, the Star-Telegram photographer, accidentally left the power to his remote flash units that were permanently mounted in the rafters of the Public Schools Gymnasium, when he left after an earlier game to meet his deadline or cover another event. Since my flash setup was identical to his, it also tripped the remote photocell, causing the enhanced lighting. It wasn't until halftime at the game that I realized what was happening. A photographer for the Fort Worth Press, who was covering the game at the other end of the floor, asked if that was my flash unit in the rafters. I said, "What flash unit?" From my camera position, I couldn't see that I was getting help from above.

The fourth photo, taken from a position behind the first base coach, is a day baseball game shot cropped into a panoramic format. Again the enlarger technique was to create the telephoto effect. Note the catcher's left foot in the air and his mask frozen in mid-air. The shot was taken during a game in the spring of 1957 with the focal plane shutter on the Anniversary Speed Graphic set to 1/1000s (setting D-6 on the top table). The negative has enough resolution to permit the identification of people in the stands behind the backstop.

Over 66 years since its manufacture, and many repairs later, the same Speed Graphic still takes good photos. Now relegated to use as a Polaroid camera at family gatherings, it still gets used with regularity. I still have many of the negatives from its high school use and submit scans from the negatives to our high school alumni website. Other than being black-and-white, the quality of the photos is as good or better than those taken with more modern equipment. I do admit that modern cameras are much easier to use, though. I have thanked my dad for the opportunity to learn what Speed Graphic newspaper photography in the 1950s was all about.
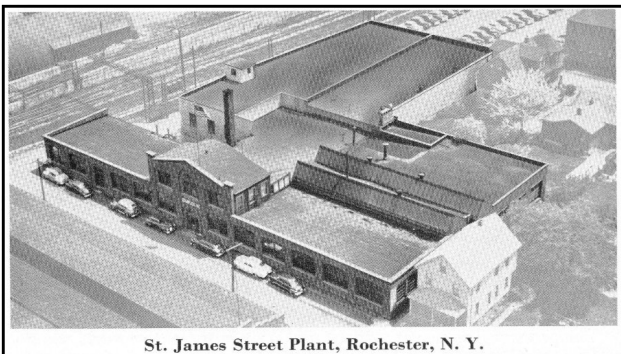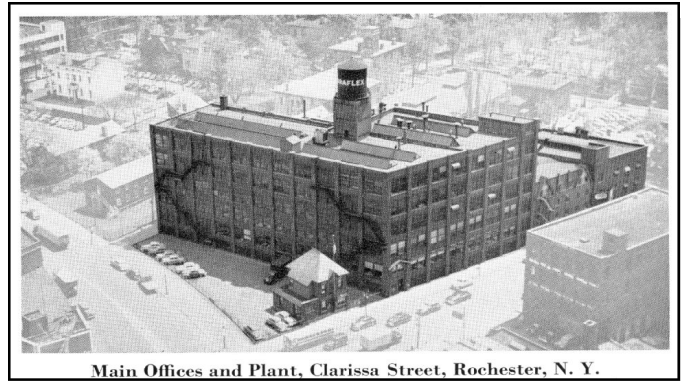
Working at Graflex

Part II

By Tim Holden

When WWII production started, the company leased a building on St. James Street, as well as other buildings (some for storage) in the area and used a courier to keep in touch. The St. James building was devoted almost entirely to military work. We purchased the building after the war. Also, some departments ran two or three shifts to meet production goals. According to the serial number book, we produced about 40,000 4x5 Speed Graphics, as well as some 3¼x4¼ and 2¼x3¼ Speed Graphics, identification cameras, in addition to military-type aerial cameras and parts. I was given the job of coordinating the sale of equipment and supplies for the Photorecord outfit for the military. There were over 1¼ million cards issued during the war.

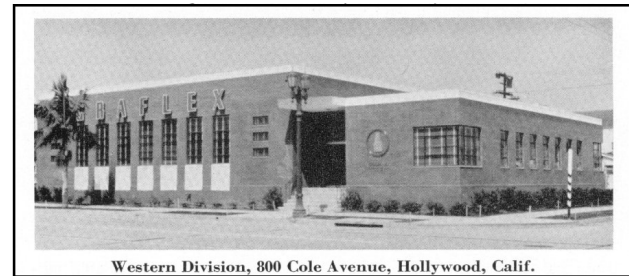St. James Street Plant, Rochester, N. Y.

Shown in some pictures of the Clarissa St. building is a two-story building that housed the Hathaway

Main Offices and Plant, Clarissa Street, Rochester, N. Y.

Bakery. As there was a shortage of gasoline during WWII, the bakery relied on horse drawn carts, thus we were subjected to an awful stench from the horse barn during the summer!

Our Western Division opened in 1941 on Wilshire Boulevard. "Tiny" Richards set up the division. Tiny was known to every dealer in the U.S., and though heavy, no one could keep up with him. In addition, he had a good memory. He came from Fulton, N.Y., where President N.L. Whitaker was from. Tiny's dad was in N.L.'s bank. He worked in Rochester first and traveled a lot before he went to L.A. He spent two weeks training me, then started traveling all over the United States.

Western Division, 800 Cole Avenue, Hollywood, Calif.

They were not supposed to be independent, but they sure were. Basically, they were separate. Jim Liccison, the division manager, said that they were three thousand miles away, so sometimes they just did things we didn't know about. Vice President "Hod" Schumacher did not like it, but because they were accomplishing more than they would otherwise, he tolerated the arrangement.

With the introduction of the Pacemaker Speed Graphic models in 1947, and the general growth in photography, my department exploded, and we added the responsibility for all instruction manuals. We also passed on designs for new and revised products. It was a very busy time and, as I look back, a very exciting time. I had been responsible for checking the copy for Graphic Graflex Photography since 1940.

I recall a laudatory article in American Machinist in 1953, in which they said we had "small-lot production, inspection by operators rather than inspectors, full

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freedom of action by foremen, excellent methods work, total control, and production engineering, and first-class housekeeping." "...using little specialized equipment but many skilled employees." "...there are no 'employees,' in this family-operated business; everyone is a 'member' of the organization." All true.

N.L. Whitaker bought most of the company himself, but a few friends had been included, although they owned some stock, but not a great deal. One of the principal friends was John E. B. Murphy. He was a New York lawyer with considerable influence over N.L. and would occasionally come up when N.L. was in a tizzy and try to figure what to do about a problem. Murphy would show up early in the morning, since he had taken a night train out of New York City, and he would try to go back as soon as he could during the day.

There were three of us in a large office outside where Hod Schumacher, G.C. and N.L. had their offices. The front man, Lou Johnroe, (who was in charge of the repair department and unfortunately was not always on deck) and I had to fill in. This became confusing at times, as I was the only other person in the company who knew how to run the department. Behind Lou was Johnny McDowell, who was in charge of the new product stockroom on the third floor and knew more about finished products than anybody else. I sat behind him and handled correspondences with individuals, while he handled correspondences with dealers.

A New York display room was opened in 1939 at 50 Rockefeller Plaza, and shortly a service department was added. In 1941 a Los Angeles distribution and service office was opened at 3045 Wilshire Boulevard, which was moved in 1951 to 800 North Cole Avenue.

We purchased Photometrics Ltd., based in Toronto, and used them for maintenance, warranty inspection and customer service.

With General Precision Equipment's purchase of Graflex in 1956, audio-visual equipment was added to the already successful Pacemaker production. In 1955 Graflex submitted plans for a new plant in the Rochester suburb of Pittsford (to be numbered 3750 Monroe Ave.). When Graflex was purchased by General Precision, the plans were enlarged to add Ampro and SVE audio-visual products. Opened in 1957, it was a modern facility, which consolidated all of our operations (including my office) into one location, at a cost of over $3 million. It had had the best plating department in the city, and the company took in outside work to keep the plating part fully used.

We named National Photographic Products of Memphis, Tennessee, as our southeast distributor in 1958. They were part of National Theater Supply Co., a General Precision company. It was forced on us by Gen-

Graflex Plant — 3750 Monroe Ave., Rochester, NY (1965 - 1968).

eral Precision. We did not need a Southeast Division, but some people thought it was a good idea. It was a lousy idea because the guy running it was the only one who knew anything about photography, but GP thought we should do it. In 1959 it became a total Graflex operation, under the direct control of the home office in Rochester.

I retired in 1973. The photo products were entirely discontinued at the end of the year --- coincidence, not cause. The audio-visual part of the operation continued as Singer Education Systems. In 1982 Telex Communications, Inc. purchased the operations and plant from Singer (who had purchased the operation and plant in 1968 from General Precision) and continued to operate audio-visual manufacturing at 3750 Monroe Avenue.
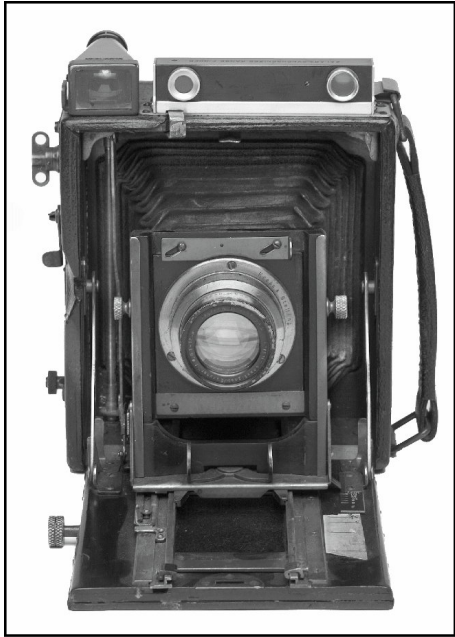
On our tenth anniversary, we at the GHQ would like to thank our subscribers for their support. In addition, we believe the longevity of our publication is also due to Graflex cameras, which still bring pleasure to both users and collectors.

Special thanks is owed to Tim Holden who, at 95, enthusiastically tells the Graflex story.

We would also like to thank our readers for their contributions and encourage you to send articles, ideas for articles and other material you think would be of interest to your fellow subscribers.

With this issue, we are changing our logo to include the Speed Graphic camera. The pen-and-ink drawing comes from the cover of Dick Paine's book, Collector's Guide to Graflex Cameras.
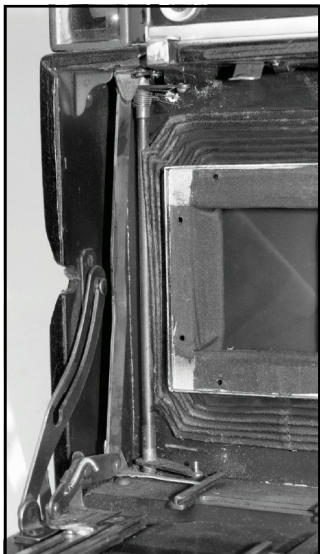
Mike
Ken
Les

The First Top Rangefinder Speed Graphic?

World War II was a time of limitation and sacrifice on the home front. A slogan from one of President Roosevelt's fireside chats, later turned into a poster was "Use it up, wear it out, make it do, or do without." To that end, Graflex embarked on the ReNEWal program. While not really a new program (you could always send your camera in for new items), the war afforded the opportunity to market this program, as new Speed Graphic cameras were going to the war effort.

Most of the cameras you find today that have gone through the ReNEWal program are Top Handle and Pre-Anniversary Speed Graphics, which have been updated with side handles, Model E or F Kalart rangefinders, and tubular view finders.

I bought this camera from a Rochester, NY, dealer, thinking it might have been one of the more challenging projects for Graflex—putting a Kalart Rangefinder on a 3¼x4¼ Top Handle Speed.

The posts for the handle and the folding view finder were removed, and an ingenious method of actuating the bed release was employed so the button could be relocated to the side. The top hole was neatly patched, and the leather on the side was carefully pulled back to drill the hole in the body and then carefully reglued---no cuts, no patches to the side leather.

The largest obstacle to overcome was transmitting the linear action of the bed rails to the radial action of the Kalart driveshaft now that the driveshaft is at a right angle to the bed. The engineer employed a second lever, pivoting from just below the top of the body to act as an intermediary between the yoke (which doesn't have linked internal rails) and the driveshaft. The finger on the end of the lever actuates a pin on a similar finger of the driveshaft.

And to top it off, the darn thing works! The camera came to me without a lens, and the 12cm Eurynar came from another Top Handle 3x4. The rangefinder is amazingly accurate for this lens, without any adjustment at all!

But is this a ReNEWal project? Alas, I doubt it. While the engineering is beyond most photographer/ engineer/tinkers, the quality of the workmanship in certain areas was not up to Graflex standards. Finally, the Model K rangefinder in black was designed for 9x12cm folding pack film cameras popular in Europe in 1936-39. Had Graflex done this during the war, I doubt they would have had one of these rangefinders around. Still, I wonder if this camera might have played a part in getting Graflex to move toward a top RF and a side release. Whoever did this certainly was doing his part in making do for the war effort.

LN

THE *New*
3¼ x 4¼ and 4 x 5
ANNIVERSARY
SPEED GRAPHICS

AMERICAN-MADE PRIZE-WINNING CAMERAS

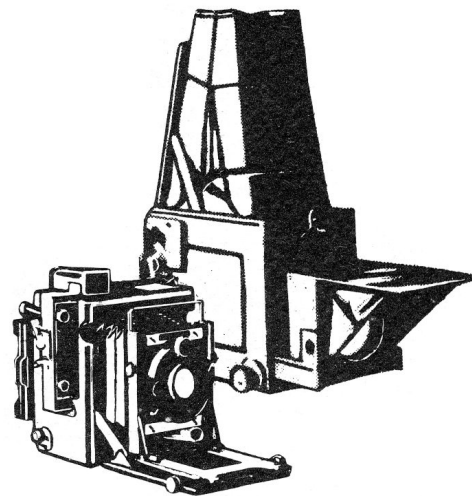1940 brochure announcing the new Anniversary Speed Graphic.

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That's all I knew until the friendly UPS lady delivered it. After giving it a good, hard look, I decided that this camera must have been designed for the military because it could have never survived the commercial market. There are a pair of standard Graflex handles (complete with broken strap), but they are on the sides, rather than the top. While the straps look like you should use them to steady the camera, you can't put your hands through them and still reach the shutter plunger. The folding viewfinder is mounted at the front of the camera, forcing you to look through the finder

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The lens and shutter combination is the most intriguing. The lens is a Bausch and Lomb Series V f18 Extreme Wide Angle Protar for 5x7, sitting in a black Betax shutter. The Series V Protars were very common and well respected for the first half of the 20th century, but at f18 they were the slowest production lenses made for pictorial use and best used stopped down even further. These lenses are not usually seen in a shutter for two reasons: The first is the exposure usually runs several seconds, and a shutter is not needed; and, two, the space between the front and rear cell is so small that, at least persistent rumors claim, the Volute shutter is the only shutter it will work on, because the Volute uses the same iris for both aperture and shutter control.

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Photo four. Baseball hit - photo taken with Speed Graphic with the use of the focal plane shutter, 1957.

Sports Photography with the Speed Graphic

By Joe Koski

Before autofocus, autoexposure, and zoom telephoto lenses on a single lens reflex camera, the Speed Graphic ruled supreme in sports photography. In the late 1950s, local newspaper photographers used their trusty Pacemaker Speed Graphics to cover both college and high school sports. For day games, maybe they also had a Big Bertha telephoto camera in the press box, but most likely, the newspaper photographer on the sidelines or courtside was carrying a 4x5 Speed Graphic.

During the late 1930s and the 1940s, national magazine photographers migrated to 35 mm, while the local newspaper folks observed the results. When 35 mm Tri-X film at ASA (now ISO) 400 arrived in the mid-50s, it made 35 mm rangefinder cameras, such as the Leica M3 and the Nikon S2, even more attractive. By the time I was introduced to Speed Graphic photography in the middle 1950s, the switch to 35 mm cameras by the local newspaper photographer was beginning.

As a high school student in Fort Worth, Texas, I was surprised when my dad arrived home one day during late 1955 with a 1940 pre-WWII 4x5 Anniversary Speed Graphic with Kalart rangefinder. He announced that I could use it for my high school newspaper photography. Over my four years of high school usage, this allowed me to get at least some idea of the challenges that newspaper Speed Graphic photographers faced with the camera in everyday use.

I already had an Agfa Isolette that used 120 film for school photography purposes, but switching to a Speed Graphic was a new adventure. Since my dad was a master horse trader, mechanic, and repairman, the Speed Graphic soon acquired a Graflok back, and the uncoated f4.5 135 mm Zeiss Tessar lens acquired X-sync contacts for use with electronic flash. A local camera repair shop added the flash contacts, a common modification at the time. In essence, the 1940 camera had been updated to 1955 standards.

I soon discovered a trick. If you walked into the side of the football stands away from the student entrance, while carrying your Speed Graphic, the gate guard would wave you inside without making you pay. He assumed that anyone carrying a Speed Graphic must be a professional press photographer. With the Speed Graphic, I soon found that my photos were often as good as those taken by the local professionals.

By that time, we had acquired a "portable" 200 watt-second electronic flash. We mounted the flashgun to the photographer's left, on the side of the camera body. The Anniversary Speed Graphic lacks a body release for the front (lens) shutter that is found in the newer Graphics. We determined a way to trip the front shutter conveniently. First, we kept the standard Graflex flashgun for use with flashbulbs, but without a reflector, in its normal position on the photographer's right. When you pressed the old flash button on the right, the flash solenoid responded, which tripped the shutter, which in turn fired the electronic flash via X-sync. Though Rube Goldberg in nature, it worked. In operation, you held onto a flashgun tube on each side of the camera body and peered through the wire frame sports finder. Push one button with your right thumb, as you normally did for flash photography, and you had your picture. With one shoulder supporting a leather strap for the 10-pound-plus electronic flash power supply, and a load of 4x5 film holders in your jacket pocket, the total weight of the setup was probably over 25 pounds.

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How my dad came up with the portable electronic flash unit, I don't know, but he acquired it used, and probably had to repair it before it would work properly. I was pleased to find that it was identical to the flash unit used by Al Panzera, the Fort Worth Star-Telegram photographer who covered all the local high school and college games. The shoulder pack had a gray metal case and had lead-acid batteries that required recharging after every use. The batteries leaked acid, and often my blue jeans had holes eaten in them, much to my mother's consternation. Inside the case was a large oil-filled capacitor that accounted for at least half of the weight of the shoulder pack. It had a mechanical vibrator, like the ones used in old vacuum tube car radios, in the power supply, that buzzed when the unit was on. An orange neon ready light on top of the shoulder unit told you when the capacitor was charged. It wasn't as nice as the Graflex Stroboflash units of the day, but it worked well.

For football action with Kodak Royal Pan film (ISO 400) at night, which was typical, you focused the Speed Graphic on a yard line about 20 ft. away (There was no time to focus during a play.) and set the 135 mm lens to about f11. Standing about 5 to 10 yards downfield from the line of scrimmage, with the dark slide pulled, you were ready for action. When the play happened to come in your direction, you had one shot. The goal was to get one good shot per game. This is certainly different from modern techniques where every play is photographed from many angles in hopes of getting all the key plays.

In our home darkroom, I used Kodak DK-50 developer, recently discontinued by Kodak, for the 4x5 sheet film. Because the electronic flash had a very short duration of 1/5000s, the recommendations of the day were to increase development times by 50 percent to compensate for film reciprocity failure effects. This often led to very high contrast negatives, which was good, because our Durst diffusion type enlarger was not as "contrasty" as the Omega D-2 condenser type enlargers used by the real newspaper photographers. The electronic flash did an excellent job of stopping the action, even though the lens' maximum shutter speed was only 1/200s. Typically, the prints were done on DuPont Velour Black paper, again because it was a cold-toned paper with high contrast.

The 135 mm lens on 4x5 film is roughly equivalent to a 35 mm wide-angle lens on a 35 mm camera, so you just blasted the entire scene in front of you as best you could and then composed the final picture in the enlarger. Photos one and two are an example of this technique. The photos were taken during a game in November 1957 on Royal Pan film. In the first photo, which shows the entire negative, many players and even the stadium lights can be seen. By carefully cropping in the enlarger, a telephoto "zoom" effect on the runner and blocker is achieved in the second photo. Despite using only a small portion of the 4x5 negative, the white bandage on the defensive player's nose can be clearly seen, and film grain is not a problem. The technique of using only a small portion of the negative in the final print did not work well, for example, with
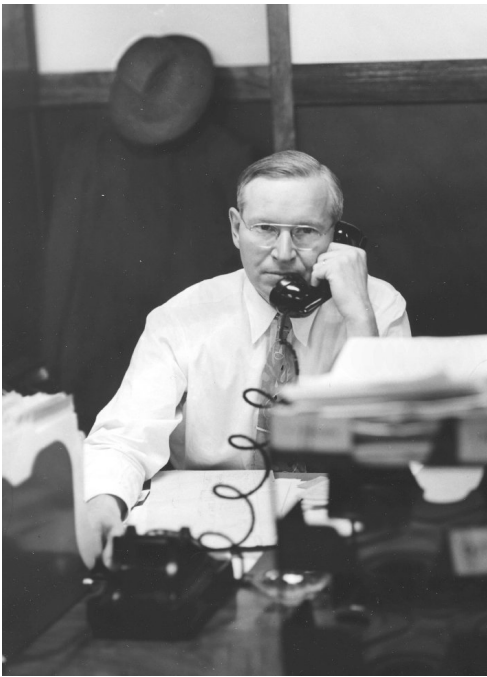
the smaller negatives made on 35 mm film. This technique was common in Speed Graphic photography. Even in photos of one or two people standing, I would often shoot from a distance of 10 feet or more, and crop to a head-and-shoulders composition with the enlarger.

For basketball, a position on the floor to one side of the basket worked best. As with football, with a Speed Graphic, you usually photographed a wide scene and did final composition in the enlarger. There is a story behind the third photo of the basketball shooter. This photo, taken during January 1957, won an honorable mention in a nationwide Kodak contest for high school photographers. The original negative is a wide, horizontal format, and only the center portion is selected to make the vertical composition shown. Note the well-balanced lighting, with shadows on the gym floor, as well as light from the electronic flash on the camera. Apparently Al Panzera, the Star-Telegram photographer, accidentally left the power to his remote flash units that were permanently mounted in the rafters of the Public Schools Gymnasium, when he left after an earlier game to meet his deadline or cover another event. Since my flash setup was identical to his, it also tripped the remote photocell, causing the enhanced lighting. It wasn't until halftime at the game that I realized what was happening. A photographer for the Fort Worth Press, who was covering the game at the other end of the floor, asked if that was my flash unit in the rafters. I said, "What flash unit?" From my camera position, I couldn't see that I was getting help from above.

The fourth photo, taken from a position behind the first base coach, is a day baseball game shot cropped into a panoramic format. Again the enlarger technique was to create the telephoto effect. Note the catcher's left foot in the air and his mask frozen in mid-air. The shot was taken during a game in the spring of 1957 with the focal plane shutter on the Anniversary Speed Graphic set to 1/1000s (setting D-6 on the top table). The negative has enough resolution to permit the identification of people in the stands behind the backstop.

Over 66 years since its manufacture, and many repairs later, the same Speed Graphic still takes good photos. Now relegated to use as a Polaroid camera at family gatherings, it still gets used with regularity. I still have many of the negatives from its high school use and submit scans from the negatives to our high school alumni website. Other than being black-and-white, the quality of the photos is as good or better than those taken with more modern equipment. I do admit that modern cameras are much easier to use, though. I have thanked my dad for the opportunity to learn what Speed Graphic newspaper photography in the 1950s was all about.
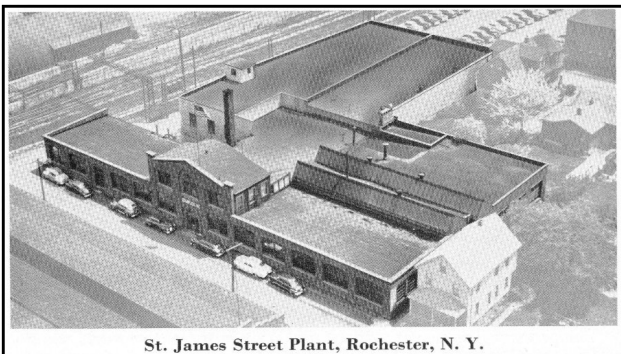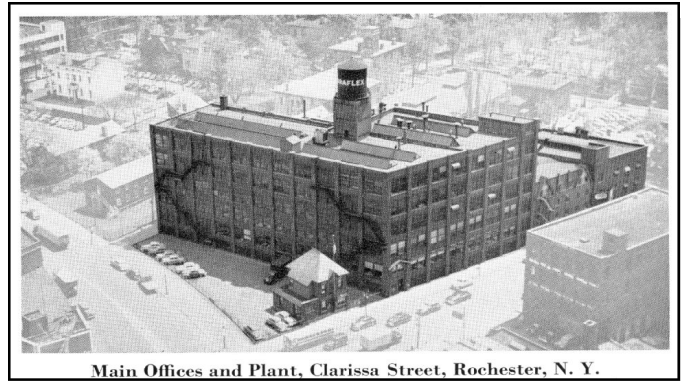
Working at Graflex

Part II

By Tim Holden

Wh, when WWII production started, the company leased a building on St. James Street, as well as other buildings (some for storage) in the area and used a courier to keep in touch. The St. James building was devoted almost entirely to military work. We purchased the building after the war. Also, some departments ran two or three shifts to meet production goals. According to the serial number book, we produced about 40,000 4x5 Speed Graphics, as well as some 3¼x4¼ and 2¼x3¼ Speed Graphics, identification cameras, in addition to military-type aerial cameras and parts. I was given the job of coordinating the sale of equipment and supplies for the Photorecord outfit for the military. There were over 1¼ million cards issued during the war.

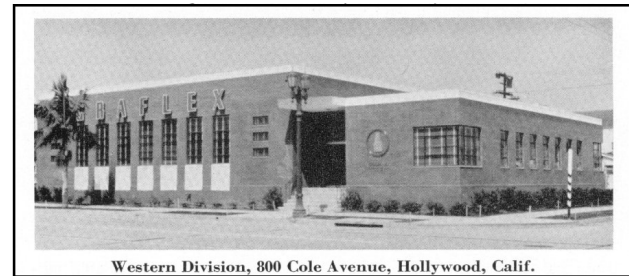St. James Street Plant, Rochester, N. Y.

Shown in some pictures of the Clarissa St. building is a two-story building that housed the Hathaway

Main Offices and Plant, Clarissa Street, Rochester, N. Y.

Bakery. As there was a shortage of gasoline during WWII, the bakery relied on horse drawn carts, thus we were subjected to an awful stench from the horse barn during the summer!

Our Western Division opened in 1941 on Wilshire Boulevard. "Tiny" Richards set up the division. Tiny was known to every dealer in the U.S., and though heavy, no one could keep up with him. In addition, he had a good memory. He came from Fulton, N.Y., where President N.L. Whitaker was from. Tiny's dad was in N.L.'s bank. He worked in Rochester first and traveled a lot before he went to L.A. He spent two weeks training me, then started traveling all over the United States.

Western Division, 800 Cole Avenue, Hollywood, Calif.

They were not supposed to be independent, but they sure were. Basically, they were separate. Jim Liccison, the division manager, said that they were three thousand miles away, so sometimes they just did things we didn't know about. Vice President "Hod" Schumacher did not like it, but because they were accomplishing more than they would otherwise, he tolerated the arrangement.

With the introduction of the Pacemaker Speed Graphic models in 1947, and the general growth in photography, my department exploded, and we added the responsibility for all instruction manuals. We also passed on designs for new and revised products. It was a very busy time and, as I look back, a very exciting time. I had been responsible for checking the copy for Graphic Graflex Photography since 1940.

I recall a laudatory article in American Machinist in 1953, in which they said we had "small-lot production, inspection by operators rather than inspectors, full

freedom of action by foremen, excellent methods work, total control, and production engineering, and first-class housekeeping." "…using little specialized equipment but many skilled employees." "…there are no 'employees,' in this family-operated business; everyone is a 'member' of the organization." All true.

N.L. Whitaker bought most of the company himself, but a few friends had been included, although they owned some stock, but not a great deal. One of the principal friends was John E. B. Murphy. He was a New York lawyer with considerable influence over N.L. and would occasionally come up when N.L. was in a tizzy and try to figure what to do about a problem. Murphy would show up early in the morning, since he had taken a night train out of New York City, and he would try to go back as soon as he could during the day.

There were three of us in a large office outside where Hod Schumacher, G.C. and N.L. had their offices. The front man, Lou Johnroe, (who was in charge of the repair department and unfortunately was not always on deck) and I had to fill in. This became confusing at times, as I was the only other person in the company who knew how to run the department. Behind Lou was Johnny McDowell, who was in charge of the new product stockroom on the third floor and knew more about finished products than anybody else. I sat behind him and handled correspondences with individuals, while he handled correspondences with dealers.

A New York display room was opened in 1939 at 50 Rockefeller Plaza, and shortly a service department was added. In 1941 a Los Angeles distribution and service office was opened at 3045 Wilshire Boulevard, which was moved in 1951 to 800 North Cole Avenue.

We purchased Photometrics Ltd., based in Toronto, and used them for maintenance, warranty inspection and customer service.

With General Precision Equipment's purchase of Graflex in 1956, audio-visual equipment was added to the already successful Pacemaker production. In 1955 Graflex submitted plans for a new plant in the Rochester suburb of Pittsford (to be numbered 3750 Monroe Ave.). When Graflex was purchased by General Precision, the plans were enlarged to add Ampro and SVE audio-visual products. Opened in 1957, it was a modern facility, which consolidated all of our operations (including my office) into one location, at a cost of over $3 million. It had had the best plating department in the city, and the company took in outside work to keep the plating part fully used.

We named National Photographic Products of Memphis, Tennessee, as our southeast distributor in 1958. They were part of National Theater Supply Co., a General Precision company. It was forced on us by Gen-

Graflex Plant — 3750 Monroe Ave., Rochester, NY (1965 - 1968).

eral Precision. We did not need a Southeast Division, but some people thought it was a good idea. It was a lousy idea because the guy running it was the only one who knew anything about photography, but GP thought we should do it. In 1959 it became a total Graflex operation, under the direct control of the home office in Rochester.

I retired in 1973. The photo products were entirely discontinued at the end of the year --- coincidence, not cause. The audio-visual part of the operation continued as Singer Education Systems. In 1982 Telex Communications, Inc. purchased the operations and plant from Singer (who had purchased the operation and plant in 1968 from General Precision) and continued to operate audio-visual manufacturing at 3750 Monroe Avenue.
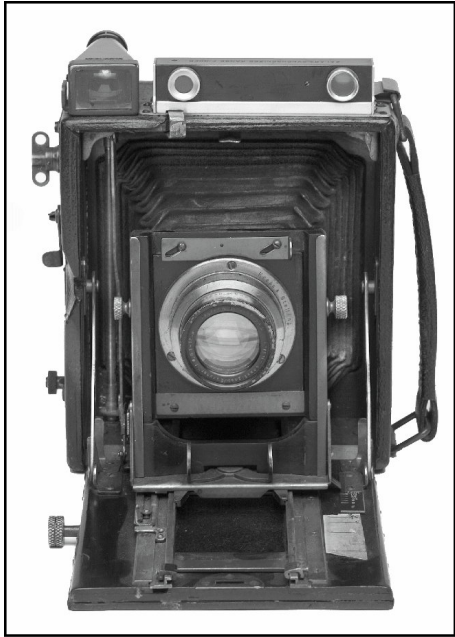
On our tenth anniversary, we at the GHQ would like to thank our subscribers for their support. In addition, we believe the longevity of our publication is also due to Graflex cameras, which still bring pleasure to both users and collectors.

Special thanks is owed to Tim Holden who, at 95, enthusiastically tells the Graflex story.

We would also like to thank our readers for their contributions and encourage you to send articles, ideas for articles and other material you think would be of interest to your fellow subscribers.

With this issue, we are changing our logo to include the Speed Graphic camera. The pen-and-ink drawing comes from the cover of Dick Paine's book, Collector's Guide to Graflex Cameras.
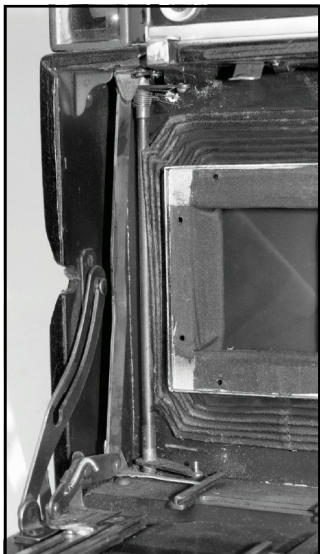
Mike
Ken
Les

The First Top Rangefinder Speed Graphic?

World War II was a time of limitation and sacrifice on the home front. A slogan from one of President Roosevelt's fireside chats, later turned into a poster was "Use it up, wear it out, make it do, or do without." To that end, Graflex embarked on the ReNEWal program. While not really a new program (you could always send your camera in for new items), the war afforded the opportunity to market this program, as new Speed Graphic cameras were going to the war effort.

Most of the cameras you find today that have gone through the ReNEWal program are Top Handle and Pre-Anniversary Speed Graphics, which have been updated with side handles, Model E or F Kalart rangefinders, and tubular view finders.

I bought this camera from a Rochester, NY, dealer, thinking it might have been one of the more challenging projects for Graflex—putting a Kalart Rangefinder on a 3¼x4¼ Top Handle Speed.

The posts for the handle and the folding view finder were removed, and an ingenious method of actuating the bed release was employed so the button could be relocated to the side. The top hole was neatly patched, and the leather on the side was carefully pulled back to drill the hole in the body and then carefully reglued---no cuts, no patches to the side leather.

The largest obstacle to overcome was transmitting the linear action of the bed rails to the radial action of the Kalart driveshaft now that the driveshaft is at a right angle to the bed. The engineer employed a second lever, pivoting from just below the top of the body to act as an intermediary between the yoke (which doesn't have linked internal rails) and the driveshaft. The finger on the end of the lever actuates a pin on a similar finger of the driveshaft.

And to top it off, the darn thing works! The camera came to me without a lens, and the 12cm Eurynar came from another Top Handle 3x4. The rangefinder is amazingly accurate for this lens, without any adjustment at all!

But is this a ReNEWal project? Alas, I doubt it. While the engineering is beyond most photographer/engineer/tinkers, the quality of the workmanship in certain areas was not up to Graflex standards. Finally, the Model K rangefinder in black was designed for 9x12cm folding pack film cameras popular in Europe in 1936-39. Had Graflex done this during the war, I doubt they would have had one of these rangefinders around. Still, I wonder if this camera might have played a part in getting Graflex to move toward a top RF and a side release. Whoever did this certainly was doing his part in making do for the war effort.

LN

1940 brochure announcing the new Anniversary Speed Graphic.

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If anyone did not receive the previous issue of this newsletter, please contact the address above. Sometimes one goes astray!

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 editors reserve final publication decisions.

## Sports Photography with the Speed Graphic
By Joe Koski

Photo one. Full negative taken with a 4x5 Anniversary Speed Graphic. Of the 22 players on the field, at least 16 are visible.

Photo two. Final football action photo, composed in the enlarger, then submitted for publication in the high school newspaper.

Photo three. High school basketball action photo. Note shadows on floor that indicate flash units overhead.
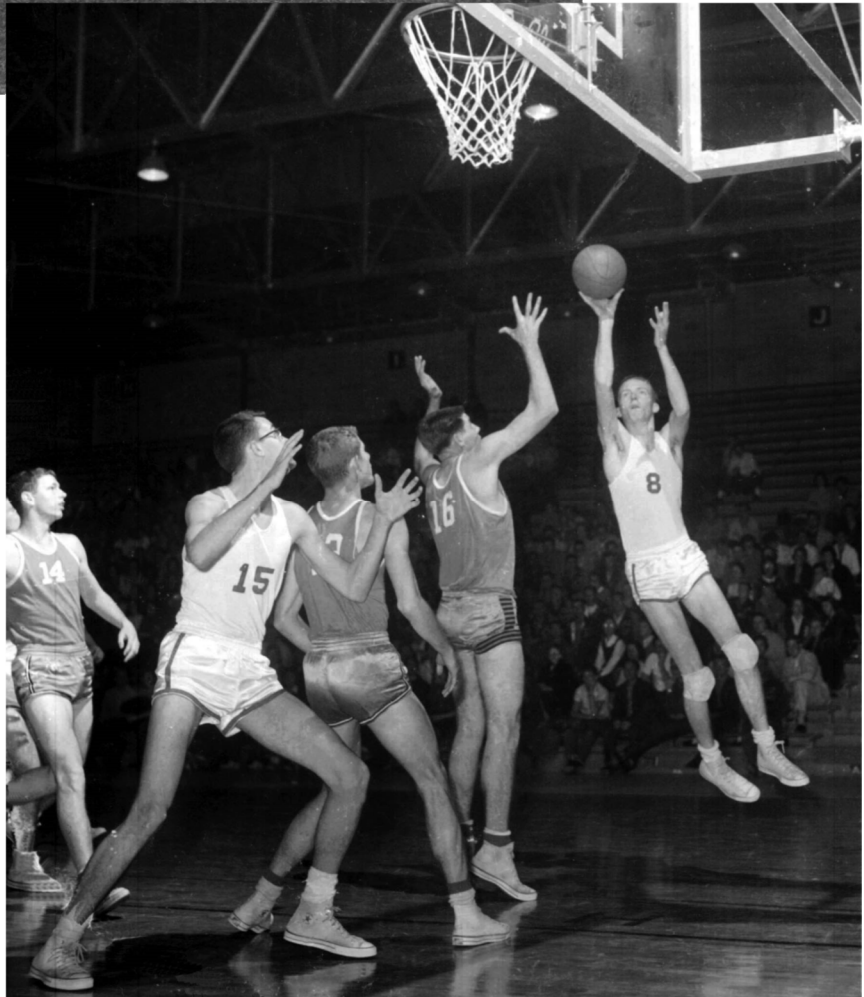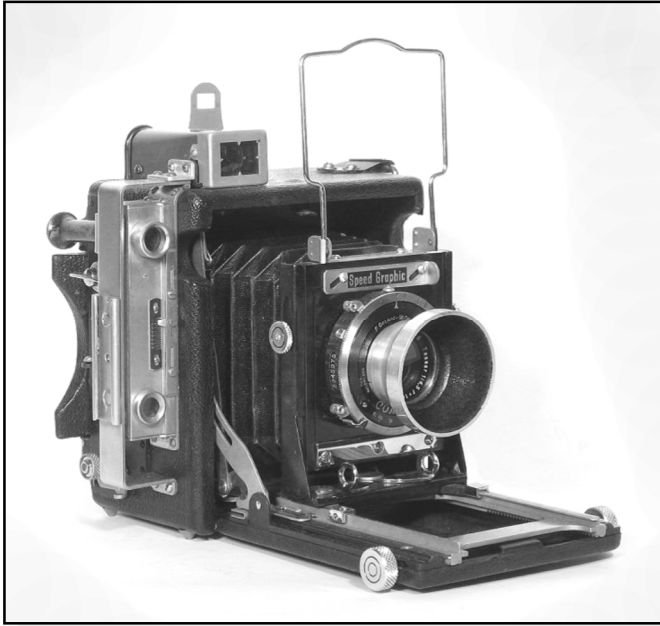
The Miniature Speed Graphic Tubular Finder

Although this Miniature Speed Graphic (serial number 236963) appears to be similar to many others, there are two interesting differences. The viewfinder has a non-removable mask, and it does not have parallax correction!

The Miniature was introduced in 1938 with a collapsible optical finder, which had been standard on Speed Graphic cameras since 1912. Graflex <u>Trade Notes</u> announced that as of May 15, 1939, a new tubular finder (without parallax correction or removable masks) would replace the collapsible finder. In a June 8, 1939, issue of <u>Trade Notes</u>, it was announced that a new model accepting interchangeable masks and with parallax adjustment would be available for three sizes (2¼x3¼, 3¼x4¼ and 4x5, but not 5x7). A "conversion" program was also announced which allowed owners of the old finder (According to Graflex <u>Trade Notes</u>, it had been available for "only two months.") to purchase the new finder for $6.50 or have it fitted by Graflex for $9.80.

In a May 1939 Graflex memo, it was stated that "…all carrying cases which have been made for the Miniature Speed Graphic Cameras to date have been fitted with a block in the camera compartment. This was necessary for cameras with the old-type finder. Your dealers and customers who purchase the Miniature Speed Graphic camera with Tubular View Finder will have to remove the block from the carrying case…"

Based on a very limited sample and notes kept by Tim Holden, it appears that a batch of 1,002 cameras with an end-of-run date of April 14, 1939, (serial numbers 236,530 through 237,529; and 240532 through 240533) was originally produced with this early tubular finder. No record remains showing if any of this batch was retrofitted, or how many took advantage of the conversion offer.

"PAT PEND" appears on the new-style tubular finder, I believe, because the patent for the finder (number 2,232,440) was applied for in 1939, but not granted until 1941. Does any reader have one of these finders with a patent number?

It appears that the Miniature Speed Graphic was the first model camera to get the tubular finder and the only model to get the old-style finder. The new-style tubular finder was fitted on very late 4x5 and 3¼x4¼ pre-Anniversary Speed Graphics, then on all Anniversary model Speed Graphics.

KM