# GRAFLEX Journal

SHARING INFORMATION ABOUT GRAFLEX AND THEIR CAMERAS

ISSUE 1 2021

FEATURED



## HOLD IT! Part 2

By Ken Metcalf

### The Newest Holder, the 4x5" Graphic Riteway

In my opinion, this is the best holder made by Graflex, as is demonstrated by its continued use and selling price. In most cases three patents are shown, several pending, and one related patent is not shown.

| Number | Application | Granted |
|---|---|---|
| 2,450,841 | 12/21/1946 | 10/5/1948 |
| 2,497,270 | 3/3/1948 | 2/14/1950 |
| 2,552,905 | 2/14/1950 | 5/15/1951 |
| PATS. PEN. | | |
| 2,676,901 | 7/11/1950 | 4/27/1954 |

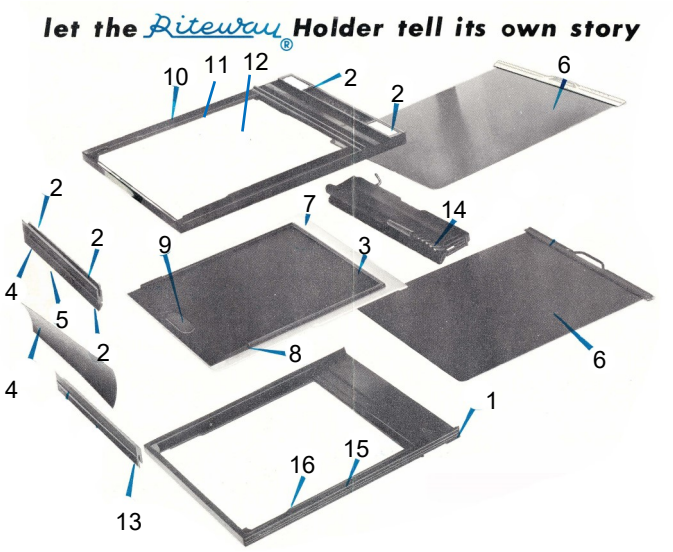
From samples it appears the PATS. PEND. was never updated to show additional patents.

The Riteway trademark was first registered in 1934 and renewed through 1974[1].

A 5x7" sample shows the name first used with their commercial line.


From the Joel Havens collection is a rare transition holder without the third patent and with "PRESS FILM HOLDER" in the legend.


### Features




**MORE ACCURATE**
1. Rigid aluminum core assures registration and tolerances for closer than A.S.A. standards.
2. Bonding film sheaths to core remove usual variable affecting accuracy.
3. Formed septum rails hold film perfectly flat.
4. Wear-resistant outer material retains accuracy of tolerances indefinitely.

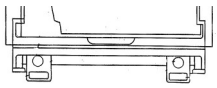
**EASIER TO USE**
5. Thinner construction permits faster, easier insertion in camera ... storage in less space.
6. Dual identification with larger erasable tabs (5/16" x 13/16") outside, provision for negative tabs inside.
7. Finger recess facilitates inserting and removing film.
8. Flap folds completely for easier loading, for longer hinge life (Hinge made of bonded vinyl).
9. Anti-slip flap prevents film from shifting position.
10. Non-static dark slides have familiar Graflex visual and touch signals; are completely opaque to all actinic light.

**COMPLETELY LIGHT TIGHT**
11. One-piece welded construction ... no rivets, joints or seams.
12. Multiple step flap . . . positive light lock at hinged end.
13. Spring fingered light trap . . . pioneered by Graflex.
14. External serrations prevent leakage of stray light.
15. Solid color ... no paint to rub off.

**MORE RUGGED**

16. Shock-resistant material plus unitized construction is three times stronger than wood, less vulnerable to damage than metal.

In item 6 inside "negative tabs" are listed. Dyrite ink and Ethylene Dichlaride glue were recommended for the tabs. Graflex patented a tab system, but there is no evidence it was put into production. It took Fidelity to come up with a usable solution.

In item 8 the hinge continued to be made of vinyl. Although more subject to wear, holders still seem to be okay.

**Production**

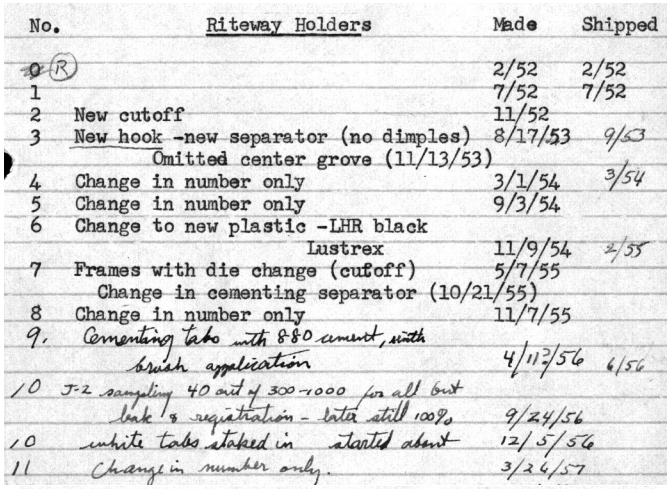

The first batch of 4x5 holders was shipped in February 1952, and the total number of batches may have been around 20, with the last one shipped in 1964 or later.[2] The start date is also noted in the January-February 1952 issue of Trade Notes.

According to Graflex dealer catalogs for 1951 and 1952, only the regular holder (No. 1214, $4.40) was shown, and in the following year only the Riteway (No. 1284, $4.05) holder was shown. A lower price was a rarity, possibly due to lower production costs.

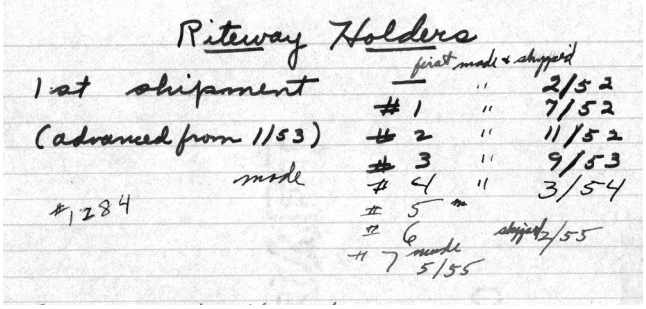
**Holder numbers**

After the first batch with the ® symbol alone, holders added batch numbers, which were shown in Tim Holden's data book[2]. I could not find a listing of holders per batch, so total production numbers remain unknown.

A system for calculating the production date centered on rounding the batch number up to an even number, dividing by 2 and adding the result to 1950. This system has not proven to be accurate per Tim notes.



| No. | Riteway Holders | Made | Shipped |
|---|---|---|---|
| 0 (R) | | 2/52 | 2/52 |
| 1 | | 7/52 | 7/52 |
| 2 | New cutoff | 11/52 | |
| 3 | New hook -new separator (no dimples) | 8/17/53 | 9/53 |
| | Omitted center grove (11/13/53) | | |
| 4 | Change in number only | 3/1/54 | 3/54 |
| 5 | Change in number only | 9/3/54 | |
| 6 | Change to new plastic -LHR black Lustrex | 11/9/54 | 2/55 |
| 7 | Frames with die change (cutoff) | 5/7/55 | |
| | Change in cementing separator (10/21/55) | | |
| 8 | Change in number only | 11/7/55 | |
| 9. | Cementing tabs with 880 cement, with brush application | 4/11?/56 | 6/56 |
| 10 | J-2 sampling 40 out of 300-1000 for all but back & registration - later still 100% | 9/24/56 | |
| 10 | white tabs staked in started about | 12/5/56 | |
| 11 | Change in number only. | 3/24/57 | |




**Fidelity Riteway**

CatLABS is one of the places specifically for large format photography, which carries a wide range of cameras, lenses, film holders, tripods, film and related accessories. They also refurbish and service all large format brands and represent several leading camera brands and makers in the US (info@catlabs.info). Here is what they believe is the story of the Fidelity Riteway.

"From time to time you can find these holders brand new in their boxes, and there you can see Lisco/ Riteway's own marketing information.

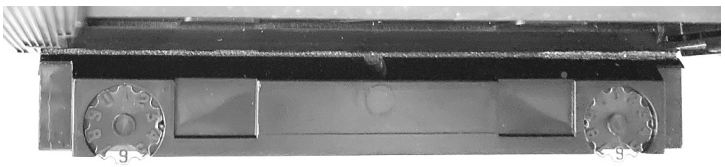
In the mid-90s, Calumet bought out Lisco, Fidelity and Riteway and consolidated them into a single workshop.

The 'MARK II' [aka MKII] holders (Lisco) or 'TYPE II' (Riteway) were introduced shortly after this takeover. I think they were made for only a relatively short period of time and were not as successful due to high price and decline in market demand.

They used different stamps for the different brands; however, all were made by the same people, in the same shop on the same machines.

Calumet ended production in 2006, and the factories were sold off. Bits and parts of the machines were auctioned on eBay over the past 5 years; however, most of the actual manufacturing machines were long gone by this time, and all that was auctioned was stuff from the 60-70s."





Although (except for the dark-slide lock and numbering wheels) visually similar to the Graflex Riteway holder, no Graflex patents are shown.

Unburdened by practical experience, I believe the slide lock is ingenious, although when wearing mittens, not so much.[3] The wheel-system to number sheets of film to correspond to numbers on the external ID tabs is, I believe, superior to Graflex's ink-pot/glue solution in patent 2,552,905, although vulnerable to mitten damage.

**Fidelity Astra and Lisco Mark II**



Astra - Very similar to Fidelity
Riteway, and possibly sold only in the European market.
Mark II - Similar, but without the wheel numbering system.

*Here is subscriber Jim Hurtel's response to the reader question about Riteway film holders:*

"All four of my Riteway film holders are identical to your picture. I believe they were all acquired with a nearly NOS 4x5 Crown Graphic built in 1968, that I bought at a photo swap in 1997. It was a Crown Graphic Special with the 135mm Xenar with the last type of Compur MXV shutter with the plastic-tipped levers. According to the dealer I bought the camera from, some scientist or doctor bought the camera brand new in order to take closeup photos. It had an RH10 back (as well as the Graflok ground glass 4x5 back). He had accurately and carefully marked the 6x7 format on the ground glass back. He told the dealer that I bought the camera from that he could never take a sharp photo with the setup, so he shelved the camera and its accessories and bought a Nikon F with a macro lens. He sold it to the dealer with very little use (in its original box). I bought it for a fair price, which I considered a bargain for its like-new condition, including the four Riteway 4x5 film holders. Since the camera's original owner used 120 roll film in the RH10, I may have been the first to ever load/use these splendid Riteway holders.

I checked the focus, and it was off. Further inspection indicated that the Fresnel lens and ground glass were swapped! I corrected this, and it sure took sharp photographs after that. The rangefinder worked perfectly, and the original range light battery door was in the box (no corroded AA's in the finder housing).

It's the classic camera I use at home and don't take out in the woods. I have another earlier one from 1961 that's more worn that gets out in the Jeep."

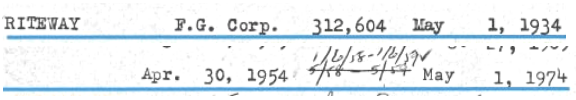
**Conclusions.**

When first listed in Graflex catalogs, plate holders were touted for exclusive and valuable features. Later, they were listed without comment, then not at all. Based on the number of patents issued, overcoming light leaks was the most used reason for updates.

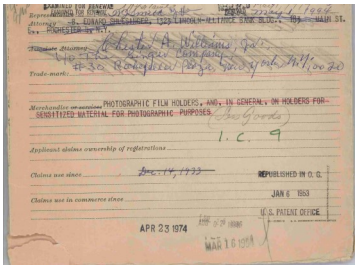
In Richard Paine's book A Review of Graflex, he contends the Graflok back was Graflex's most important contribution to photography. Based on current availability and price, I believe the 4x5 Riteway film holder is a close second.

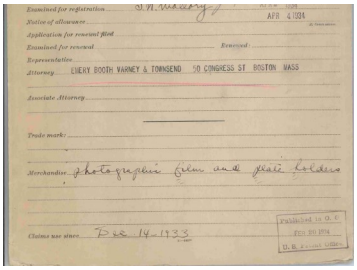
**Footnotes**

[1]Graflex, Inc., United States and Foreign Patents and Trade Marks, p. 18.


RITEWAY F.G. Corp. 312,604 May 1, 1934
Apr. 30, 1954 May 1, 1974

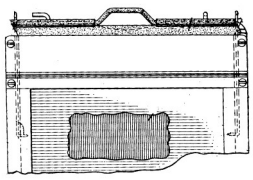
When patents and trademarks were done by hand. Courtesy Joel Havens.

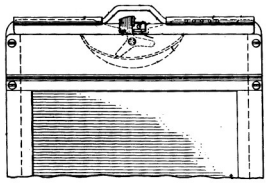

PHOTOGRAPHIC FILM HOLDERS, AND, IN GENERAL, ON HOLDERS FOR SENSITIZED MATERIAL FOR PHOTOGRAPHIC PURPOSES
I. C. 9
REPUBLISHED IN O. G.
JAN 6 1953
U.S. PATENT OFFICE
APR 23 1974


APR 4 1934
EMERY BOOTH VARNEY & TOWNSEND 50 CONGRESS ST BOSTON MASS
photographic film and plate holders
Dec 14 1933

[2]Holden, Tim, data book.

[3] 1934 co-patents 1,954,917 and 1,954,918.





Three double exposure prevention methods were patented, but there is no evidence any reached production.

And then there are the holders that appear odd.


Premo, EKC, Graflex 1904 patent. Fiber board center. Spring plate holder. Tongue on faces.

Graflex patent date stamped on frame. Metal center. Spring plate holder. Tongue on faces.

No maker marks. Metal center. Spring plate holder. Tongue on faces and grove on face and sides.

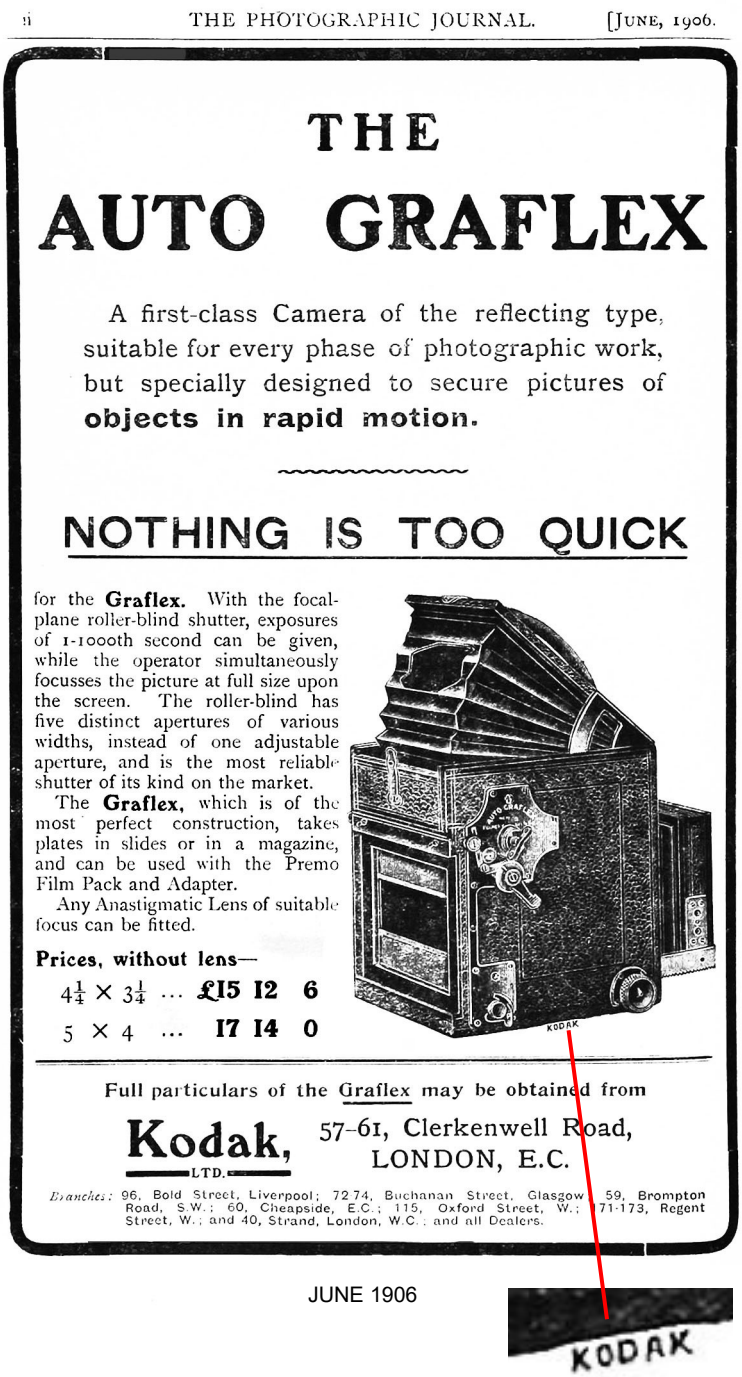
A - 6⅛" on all.
B - 4" on all.
Opening - 3 5/16 x 5⅜" on all.
Spring-bar was shown on Rochester Optical holders.

## The Royal Photographic Society Journals
https://archive.rps.org/

The Royal Photographic Society Journal is the oldest continuously published photographic periodical in the world. The RPS Journal has covered the artistic and technical developments within photography, it has recorded many of the key personalities and events and, of course, it has reported on Society activities.

This digital archive of some 30,000 pages provides searchable access to all issues from the first in March 1853 up to 2018. Future years will be added as they are completed.

Whether you are a photographic historian, family historian, researching your local history or a Society member, the Journal archive offers a unique opportunity to support your interest. The archive has been made available by The Society to commemorate The Society's 160th anniversary.



ii THE PHOTOGRAPHIC JOURNAL. [JUNE, 1906.

THE

AUTO GRAFLEX

A first-class Camera of the reflecting type, suitable for every phase of photographic work, but specially designed to secure pictures of **objects in rapid motion.**

NOTHING IS TOO QUICK

for the **Graflex.** With the focal-plane roller-blind shutter, exposures of 1-1000th second can be given, while the operator simultaneously focusses the picture at full size upon the screen. The roller-blind has five distinct apertures of various widths, instead of one adjustable aperture, and is the most reliable shutter of its kind on the market.

The **Graflex,** which is of the most perfect construction, takes plates in slides or in a magazine, and can be used with the Premo Film Pack and Adapter.

Any Anastigmatic Lens of suitable focus can be fitted.

**Prices, without lens—**

$4\frac{1}{4} \times 3\frac{1}{4}$ ... £15 12 6

5 × 4 ... 17 14 0

Full particulars of the Graflex may be obtained from

**Kodak,** LTD. 57-61, Clerkenwell Road, LONDON, E.C.

*Branches:* 96, Bold Street, Liverpool; 72-74, Buchanan Street, Glasgow; 59, Brompton Road, S.W.; 60, Cheapside, E.C.; 115, Oxford Street, W.; 171-173, Regent Street, W.; and 40, Strand, London, W.C.; and all Dealers.

JUNE 1906

KODAK

### The 20th-century Thoroughbred

By Peter Harvey 2017

The Speed Graphic camera was the must-have piece of equipment for press photographers.

No depiction of a press photographer in the 1930s-1950s would be complete without a Speed Graphic camera. This was the workhorse of professional photographers for nearly 61 years. It was the camera of choice for the likes of Weegee and for countless War II photographers – Joe Rosenthal's iconic image *Raising the Flag* was shot on one.

During her time as a reporter at the Washington Times-Herald, Jacqueline Bouvier (under the byline of the "Inquiring Camera Girl") photographed Richard Nixon and her future husband Senator Jack Kennedy, using a Speed Graphic. And even today the camera enjoys favour among some photographers. American photojournalist David Burnett used one at the London 2012 Olympics.

The Anniversary model of the camera in the Society Collection was manufactured between 1940 and 1947 and marked the company's 50th year of making cameras. Available in two formats, 3¼x4¼ and 4x5", it was equipped with both a rangefinder and wire frame viewfinder. Although originally the camera used a two-shot sheet film holder, it was later possible to use six- and 12-sheet magazines. The photographer had the choice of two shutters , a built -in focal plane (up to 1/1,000sec, hence the "Speed" in the camera's name) and that on the lens. Meanwhile, its front panel could accommodate a huge variety of lenses.

The Speed Graphic camera produced many award winning and memorable images until the early 1960s. The 1961 Pulitzer Prize winning shot of the assassination of Japanese politician Inejiro Asanuma was one of the last before smaller cameras took over.

Nowadays we can admire the photographers who used the Speed Graphic, who did not have the questionable luxuries of motor drives and SD cards and auto-everything. Perhaps we could all learn from their necessarily economical approach.

## STALKING A MOUNTAIN-SOMETIMES NOT SO SUCCESSFULLY

By J. A. Morris 2021

It is a beautiful day in northeastern New Mexico. During Covid, during late fall, during the week. As we wind through meadows and forests crisscrossed with fences, the unpaved road takes us closer toward the northeastern face of Hermit's Peak (10,267'). The mountain has been a photographic project over the last seven years or so. The objective is complicated by opportunities of traveling to Las Vegas (NEW MEXICO!), the time of day, the weather, and decidedly creaky knees. But these conditions affect most photographic efforts, especially for those whose endeavors are now covering a half-century or more. Anyway, this day was just right –a wintering sun, no wind, clear sky (alas, no arty-like clouds), a few snacks and a bottle of water.

Author working the Century Graphic. @ jrroussy 2020.

After finding a suitable spot to position the truck bed, the next task is to get into the truck bed. Suggested field equipment is small kitchen step stool. Anyway, setting up in the truck bed sometimes allows for a better perspective and, in this case, keep out of the weeds and overlooking a barbed wire fence. Note the loupe around neck to aide in viewing on the ground glass. The milk bottle is filled with water and hung on tripod for greater stability, especially during windy days. Also, in the desert southwest and high plains of the mountain west, the water may be needed; so to fill before each photo trek. Not sure– but the hat probably dates from OSS days somewhere in occupied France around 1943!

Century Graphic (1964) w/ 120 Graflex "23" rollfilm back, 6x9 cm, Kodak T-Max 100. Schneider-Kreuznach 135mm Xenar f/4.7-32 (1961) w/ Kodak Series VI shade and red filter; Tiltall Prof. tripod #4602.

And so, the great day, in the truck, aiming the Century, fiddling with eyeglasses, loupe, and ground glass, ready to mount the rollfilm back, set exposure, compensate for red filter, cock the shutter, pull the dark slide, look at mountain, push the cable release, advance the film while holding onto the rollfilm back. Good idea to put dark slide back in. Remove film back; open shutter to refocus or compose slightly different. Repeat process. Remember to keep balance and not trip over tripod leg. Catch breath.

What could go wrong? The equipment is only 70 years old or older. Have you exercised your shutter lately? Why does the film back wobble just a little when mounted? Did you remember that a red filter takes 3 stops compensation? Why is the film advancing with difficulty? And so it goes, no? Sorry about all the questions, but . . . What's next?

Well, get home safely. Make sure film has been advanced so it can be unloaded properly. "Of course!", you say. Then you have to wait till dark in order to load 120 film onto reel and place into developing tank without causing those half moon crinkles. The developer, oh darn, how long has it been? Well, anyway, process the roll, fix, and start the wash. Naturally, no one wants to wait, so a peek, be careful not to scrape the soft emulsion.

Wha! The negatives on the wet roll are almost blank! Horribly underexposed, or badly developed. That developer, that solution had died–another roll with fresh developer came out just fine. It just wasn't the mountain. So, just not worth washing this roll anymore. Hang it to dry. See what scanning can salvage.

To shorten this saga, the light leak can be salvaged by cropping, the scanning of the atrocious negative produced a less than desirable "digital image" but something could be done with it in post editing. But given the old developer and failure to follow through on the wash left an extremely dirty negative with dust, dirt, junk embedded in the already bad negative. While digital editing can do wonders, there are limits. A brilliant clear sky does not need dozens of "leopard" spots.

And so another trek to the mountain and hopes for another bright day. This time with more awareness and thought. Care of the vintage equipment; a reminder that we have to focus (ahem!) upon procedure and process. And, so it goes.

Negative (depicted as in rollfilm holder) underexposed or not developed properly. A light leak appears on left side of film holder. This does always appear–slide, bad fit to body of Century?

Same day view of Hermit's Peak taken with Fuji X-30 digital camera. A version of author's vision he hoped to achieve with the Century, film, development, scanning, and . . . .


## BEAST INTENTIONS

By O.H. Billmann

As an engine technician under contract to Allison, I worked at Edwards Air Force Base in the early 1950s on an experimental turbojet engine. For test purposes, the Allison X-71 was installed in a modified North American B-45 Tornado four-engine bomber. The engine was mounted in the reworked bomb bay on a retractable mount. Due to its location in the B-45 and the engine's size, we nicknamed it the Beast in the Belly.

In flight, the X-71 was extended and fired up for testing. The five-engine bomber gave the F-86 chase planes a run for their money, particularly in the rate-of-climb.

For documentation purposes, Allison wanted a photograph of their borrowed B-45. Further, they wanted pictures with the Beast extended and running, and beyond that, they wanted the airplane hurtling at full speed at ground level, with all five engines churning and burning.

You didn't just wander around Edwards carrying a camera, which was, for obvious reasons, a restricted item. Allison asked the Air Force for permission for me to carry a camera to take some company photographs. I was given a card identifying me as an Official Air Force Flight Test Center Photographer.

The photos of the B-45 would be taken head-on. The control tower was to be phoned in advance of the takeoff and advised that I would be on the main runway centerline to photograph each of two passes. The B-45 was to take off, lower the Beast from the bomb bay, fire it up, and call the tower for permission to make two high-speed, low-altitude passes. When the B-45 took off, I jumped in a jeep, carrying my Speed Graphic Press camera and a stereoscopic camera. The driver took me out between the taxiway and the runway.

I looked in both directions, and with some trepidation ran out on the runway toward the black tire marks. Thoroughly winded when I reached the center, I flopped down on my back. My feet were pointing toward the approaching B-45, which was about four miles out over Rogers Dry Lake. I pointed the big Speed Graphic toward the bomber, which was now building up speed and streaming black smoke. I spread my legs to keep my size-13 shoes from framing the picture.

Watching the bomber drift lower, I felt a mounting concern, and by the time it came thundering toward me I was feeling distinctly vulnerable. It was at a much lower altitude than I expected, with the Beast hanging down like the Sword of Damocles. The instant the bomber filled the viewfinder, I tripped the shutter, then flopped flat on my back to avoid getting my head knocked off. The noise was deafening and the jet exhaust nearly lifted me off the ground. The air around me crackled loudly with static electricity. It occurred to me that this whole procedure wasn't a very good idea.

Glad that it was over, I picked up my cameras and ran for the jeep. As I jumped in, I sensed something was amiss. The driver seemed quite anxious to get moving. We roared off without a word.

'The tower has been screaming on the radio, There's a man lying on the runway!"

"Well, sure," I said. "That was me. The tower knew from the phone call what our plan was. They knew I was going to be out there lying on the runway. Right?"

Silence.

"Well, didn't they?" I persisted.

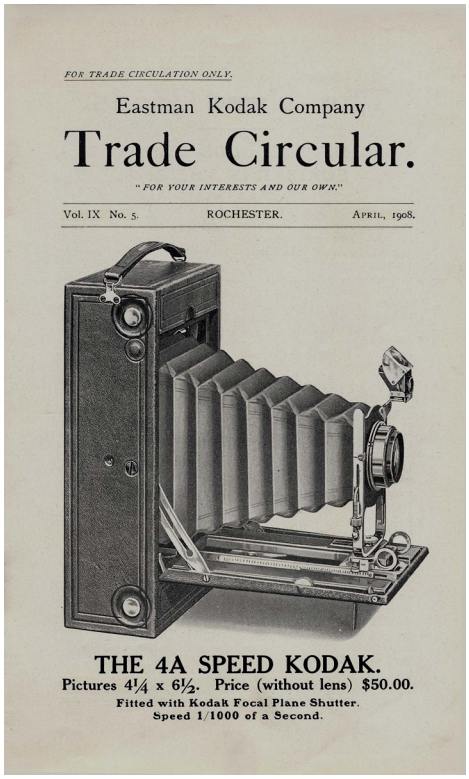
In a barely audible voice, he replied: "Harry forgot to call."

Looking back over my shoulder, I saw the air police vehicles milling around the runway where I had been lying. I was a fugitive. When we got back to the building, I hid in the darkroom, ostensibly to develop my film. I stayed there for quite some time, long enough to develop all the footage shot.

*From Air & Space magazine, December 1994/January 1995, courtesy Jim Chasse.*

* * * * *

Below is an Eastman Kodak Trade Circular courtesy the George Eastman Museum, dated April, 1908. "For the trade only".


FOR TRADE CIRCULATION ONLY.

Eastman Kodak Company

Trade Circular.

"FOR YOUR INTERESTS AND OUR OWN."

Vol. IX No. 5. ROCHESTER. APRIL, 1908.

THE 4A SPEED KODAK.

Pictures 4¼ x 6½. Price (without lens) $50.00.

Fitted with Kodak Focal Plane Shutter.
Speed 1/1000 of a Second.

COURTESY GEORGE EASTMAN MUSEUM

## WHO MANUFACTURED THE 1.A. GRAFLEX AND THE 1A SPEED KODAK?

By Bruce Tyo

I would say, looking at samples, the sophisticated Graflex focal plane shutter, and the obviously common parts, that these cameras were assembled by the Graflex factory using Kodak lens, as the Folmer-Century works were all part of the Folmer & Schwing Division of Eastman Kodak at that time. If I were the guys at Graflex, I would have insisted that the cameras be assembled at their factory with that fancy shutter.

It looks like both companies were using common components, such as the same gun-metal finished parts and lens. Both cameras offer the same Bausch and Lomb lens. Graflex had been making cameras for Kodak, with their parts, from the very first days as seen in the serial/production number book. Unfortunately, there are no Graflex production records prior to 1915 and last produced in 1913.

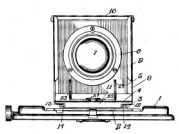
Patents were issued to William Folmer for two cameras and one shutter (6/21/04, 2/5/07, and 6/8/09).* The 1907 patent is shown in the Graflex catalog, but no patent is shown in the Kodak catalog. Interestingly, patents specific to this camera (932,458-1909; 989,240-1911; 1,023,931-1912; 1,270,281-1918; and 1,278,323-1918) were never shown on the cameras, including for the 1917 revised Graflex 1.A..

| Specifications | 1A Speed Kodak | 1. A. Graflex |
|---|---|---|
| Lifespan | 1909-1913 | 1909-1925 |
| Film type | "1A" (116 roll film) | Same |
| Picture dimensions | 2½x4¼" | Same |
| Weight | "3 pounds" | "59 oz." (3.7 pounds) |
| Standard lenses | Zeiss Kodak Anastigmat f6.3, B & L Zeiss Tessar f4.5 or f6.3 & Cooke f5.6. | Same |
| Depth, height and width. | 2¼x4½x9¾" | 1909 -3x4½x9½", 1917 - same |
| Autographic feature | Could be fitted after 1915. | 1915 |
| Initial price with lens | $50 | $82-$79** |
| Shutter | "Graflex Focal Plane type" | "regular Focal Plane shutter" |
| View finding | direct view with 45° mirror attachment | direct viewing (SLR) |

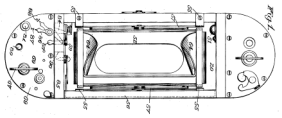
*Folmer patents were acquired in the 1905 purchase of Graflex by Eastman Kodak.

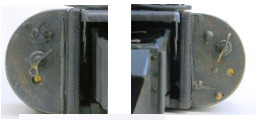
**1909 and 1917.

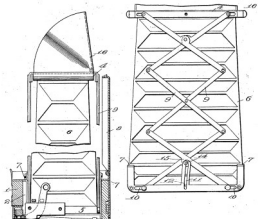
Here are Folmer patent drawings compared to cameras produced:



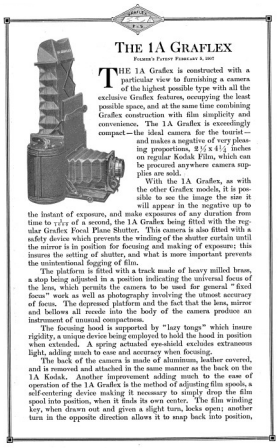
**Kodak** **Graflex**







1. Sample cameras courtesy George Eastman Museum and Ken Metcalf.
2. Evans, Thomas; Graflex Journal, Issue 1, 2015; "The 1A Speed Kodak and the 1.A. Graflex." The definitive article on these cameras.
3. Patents https://sites.google.com/site/fromthefocalplanetoinfinity/patents.


1909

## ONE OLDIE SALVAGES ANOTHER

By Ronn Tuttle


The subject of this writing is an 8x10 camera made by The Folmer & Schwing Division of The Eastman Kodak Co. (1907 -1916). I acquired it several decades ago at a camera show in Springfield, IL , I was never aware of any earlier shows there nor of any since, good timing on my part. As usual, a few parts were missing, such trivial things as a lens & shutter, lensboard, and focusing panel. The wooden body had a few battle scars, and not much of the original finish remained. A nice project camera. As usual with projects of this nature, I refinished the wooden parts, found an 8x10 focusing panel, ground glass, an 8x10 Imperial Rapid Rectilinear lens marked "No. 220 Sweet Wallach & Co. Sole Agent Chicago". I mounted it on a home-crafted lensboard with a synched Packard shutter. I added a modern P.C. cord to the shutter to make it compatible with my studio strobes.

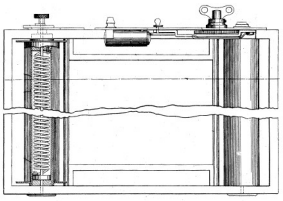

I do not know how to classify the camera. It isn't really a flatbed such as a Deardorff, nor a rail camera like a B&L Grover, or even like a more normal bed design like the Kodak 2-D or other Century studio cameras. It is on a 5" wide x 2 1/4" thick base rail system 19" long. The front standard is stationary with a very limited amount of rise. The finish on my lensboard does not quite match the rest of the camera, but I am otherwise happy with the results.

Once again, one "Oldie" (me) salvages another.

*In an attempt to understand the purpose and significance of 1908 patent 885,236, I sent it to Jim Flack, a subscriber, patent holder, GHQ author, and Graflex collector. KM*

## A REVIEW OF PATENT 885,236

By Jim Flack

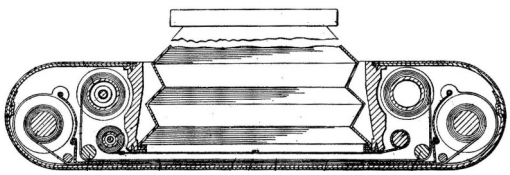


Companies often file patents on top of patents to cover as many variations of their implementation as possible or to add patent coverage for a new variant that they plan to introduce or to block a competitor from introducing. So, the patent cited above should be read in the context of all the other patents filed by Folmer & Schwing/Kodak prior to this one.

The claims at the end of the patent specifically relate to methods to "arrest movement" of the focal plane shutter and/or to "prevent retrograde movement" of the focal plane shutter. This may be particularly applicable to the 1A Speed Kodak because it does not have the mirror box that is used in Graflex-style cameras for through the lens focusing. The mirror box in a Graflex camera also acts to block light from the lens to prevent unintentional film exposure, such as when film is wound to the next frame. I am not sure what specific methods they are using to arrest movement and prevent retrograde. I believe the 1A Speed Kodak, and perhaps the 4A Speed Kodak, uses a secondary cloth shutter that closes to prevent light from reaching film, in lieu of a reflex mirror. See U.S. Patent 994,914.

If the focal plane shutter moves quickly across the film plane and bounces back slightly at the end of travel, the edge of the film will get an unwanted extra exposure to light. It needs to be stopped (arrested) at the end of travel and prevented from bouncing backward (retrograde). In fact, my own National II has this problem. When the shutter curtain reaches the end of travel, it bounces back slightly, and I get an over exposed edge on every frame. I've attached a little black tape inside the camera at the end of shutter travel, so I don't get that light leak even if the shutter bounces, although all my images are slightly less than full frame for that camera.

So, I believe this patent may have been necessitated because of the innovations Kodak made to make a focal plane shutter compatible with non-SLR type cameras. All the previous patents covering focal plane shutter features would also still apply. Also, it is not uncommon for a patent to be submitted or approved after a product enters the market. The writing and filing of the patent may have proceeded its issuance by several years, and there can be some time-consuming back and forth questions and answers with the patent office during its review. So, the patent date and the production of the camera may be different.



994,914

Reproduced from McKeown's Price Guide to Cameras, Sixth Edition with permission.

(Please take their pre-publication survey at http://www.mckcamera.com/.)

# DATING CAMERAS BY UNITED STATES PATENT NUMBERS

Patent dates can often be helpful in dating cameras, shutters or other accessories. One must be careful, however, not to conclude that the item was manufactured in the year the patent was issued. This is usually not the case. The patent date serves to indicate the year *after* which the item was made. Often the patents had been issued for five years or more before an item was produced bearing the patent number. Many products continued to carry the patent numbers for many years after the patent was issued. Thus a camera manufactured in 1930 could have a 1905 patent date.

The first numbered patents were issued in 1836, just before the advent of photography. Originally the law required that the patent date (but not the number) be put on the product. The present requirement to place the patent number on the item or its container began on April 1, 1927. Many earlier products, however, bore the patent number even though it was not required by law.

The following table lists the first patent number for the indicated year.

| YEAR | NUMBER | YEAR | NUMBER | YEAR | NUMBER |
|---|---|---|---|---|---|
| 1836 | 1 | 1887 | 355,291 | 1938 | 2,104,004 |
| 1837 | 110 | 1888 | 375,720 | 1939 | 2,142,080 |
| 1838 | 546 | 1889 | 395,305 | 1940 | 2,185,170 |
| 1839 | 1,061 | 1890 | 418,665 | 1941 | 2,227,418 |
| 1840 | 1,465 | 1891 | 443,987 | 1942 | 2,268,540 |
| 1841 | 1,923 | 1892 | 466,315 | 1943 | 2,307,007 |
| 1842 | 2,413 | 1893 | 488,976 | 1944 | 2,338,081 |
| 1843 | 2,901 | 1894 | 511,744 | 1945 | 2,366,154 |
| 1844 | 3,395 | 1895 | 531,619 | 1946 | 2,391,856 |
| 1845 | 3,873 | 1896 | 552,502 | 1947 | 2,413,675 |
| 1846 | 4,348 | 1897 | 574,369 | 1948 | 2,433,824 |
| 1847 | 4,914 | 1898 | 596,467 | 1949 | 2,457,797 |
| 1848 | 5,409 | 1899 | 616,871 | 1950 | 2,492,941 |
| 1849 | 5,993 | 1900 | 640,167 | 1951 | 2,536,016 |
| 1850 | 6,891 | 1901 | 664,827 | 1952 | 2,580,379 |
| 1851 | 7,865 | 1902 | 690,385 | 1953 | 2,624,046 |
| 1852 | 8,622 | 1903 | 717,521 | 1954 | 2,664,562 |
| 1853 | 9,512 | 1904 | 748,567 | 1955 | 2,698,434 |
| 1854 | 10,358 | 1905 | 778,834 | 1956 | 2,728,913 |
| 1855 | 12,117 | 1906 | 808,618 | 1957 | 2,775,762 |
| 1856 | 14,009 | 1907 | 839,799 | 1958 | 2,818,567 |
| 1857 | 16,324 | 1908 | 875,679 | 1959 | 2,866,973 |
| 1858 | 19,010 | 1909 | 908,436 | 1960 | 2,919,443 |
| 1859 | 22,477 | 1910 | 945,010 | 1961 | 2,966,681 |
| 1860 | 26,642 | 1911 | 980,178 | 1962 | 3,015,103 |
| 1861 | 31,005 | 1912 | 1,013,095 | 1963 | 3,070,801 |
| 1862 | 34,045 | 1913 | 1,049,326 | 1964 | 3,116,487 |
| 1863 | 37,266 | 1914 | 1,083,267 | 1965 | 3,163,865 |
| 1864 | 41,047 | 1915 | 1,123,212 | 1966 | 3,226,729 |
| 1865 | 45,085 | 1916 | 1,166,419 | 1967 | 3,295,143 |
| 1866 | 51,784 | 1917 | 1,210,389 | 1968 | 3,360,800 |
| 1867 | 60,658 | 1918 | 1,251,458 | 1969 | 3,419,907 |
| 1868 | 72,959 | 1919 | 1,290,027 | 1970 | 3,487,470 |
| 1869 | 85,503 | 1920 | 1,326,899 | 1971 | 3,551,909 |
| 1870 | 98,460 | 1921 | 1,364,063 | 1972 | 3,631,539 |
| 1871 | 110,617 | 1922 | 1,401,948 | 1973 | 3,707,729 |
| 1872 | 122,304 | 1923 | 1,440,362 | 1974 | 3,781,914 |
| 1873 | 134,504 | 1924 | 1,478,996 | 1975 | 3,858,241 |
| 1874 | 146,120 | 1925 | 1,521,590 | 1976 | 3,930,271 |
| 1875 | 158,350 | 1926 | 1,568,040 | 1977 | 4,000,520 |
| 1876 | 171,641 | 1927 | 1,612,790 | 1978 | 4,065,812 |
| 1877 | 158,813 | 1928 | 1,654,521 | 1979 | 4,131,952 |
| 1878 | 198,733 | 1929 | 1,696,897 | 1980 | 4,180,167 |
| 1879 | 211,078 | 1930 | 1,742,181 | 1981 | 4,242,757 |
| 1880 | 223,211 | 1931 | 1,787,424 | 1982 | 4,308,622 |
| 1881 | 236,137 | 1932 | 1,839,190 | 1983 | 4,366,579 |
| 1882 | 251,685 | 1933 | 1,892,663 | 1984 | 4,423,523 |
| 1883 | 269,820 | 1934 | 1,941,449 | 1985 | 4,490,855 |
| 1884 | 291,016 | 1935 | 1,985,878 | | |
| 1885 | 310,163 | 1936 | 2,026,516 | | |
| 1886 | 333,494 | 1937 | 2,066,309 | | |

# Graflex Journal

*The Graflex Journal 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 the Graflex Journal and the author. We would appreciate a copy of the reprint.*

Masthead picture Bulbs Bathing Suit courtesy Lurent De Miollis.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**This is the staff of the Sudbury, Ontario Daily Star with their 6 STROBOFLASH II's, 2 STROB III's, and 3 MONOSTROBS plus an assortment of SR Stands. Mike Dudowich, front row center, Photographic Supervisor, advises his SR equipment has been an important factor in the pictures his staff produces.**

From 1953, newsletter courtesy Davis Strong. Strobo Research was purchased by Graflex in 1955.

## ACCIDENT RECORD

SEPTEMBER, 1921

| PLANT | Accident Cases 1921 | 1920 | Accidents per 1000 Employees 1921 | 1920 |
|---|---|---|---|---|
| Kodak Park Works | 13 | 13 | 2.22 | 1.78 |
| Camera Works | .. | 10 | .... | 3.53 |
| Hawk-Eye Works | .. | 2 | .... | 2.55 |
| Premo Works | .. | .. | .... | .... |
| Folmer-Century Works | .. | .. | .... | .... |
| Total - Rochester Plants | 13 | 25 | 1.82 | 2.14 |

### NATURE OF ACCIDENTS DURING MONTH

7 cases of injury from falling tools and materials.
4 cases of injury through falling and slipping.
1 case of injury from stepping on nail.
1 case of injury through bruises, burns or lacerations.
13 employees' accident cases during the month.

## FOLMER-CENTURY

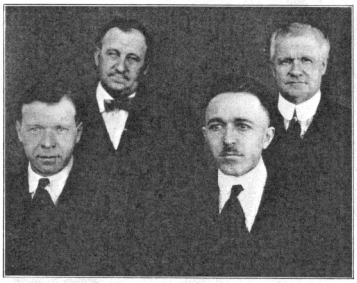
CLARENCE H. HARPER
*Editor*

### CIRKUT TEAM WINS BY WIDE MARGIN

When the smoke of battle had cleared away at the Grand Central Alleys, Wednesday evening, March 16, 1921, the Cirkut team composed of Roland, Sold, Mathis, Kirvan and Conolly, emerged winners in the Folmer-Century Bowling League. Weinman, of the Graflex team, carried off the honors for the highest average throughout the season, and also the high score for three games. George Jost, of the Stereo team, has the highest single game with a score of 242. The distribution of prizes for the season will take place April 2, 1921, at the annual Bowling League Banquet.

| NAME | WON | LOST | PCT. |
|---|---|---|---|
| Cirkut | 52 | 11 | 825 |
| Graflex | 36 | 27 | 571 |
| Studio | 34 | 29 | 539 |
| Graphic | 33 | 30 | 523 |
| Aero | 26 | 37 | 411 |
| Compact | 25 | 38 | 396 |
| Stereo | 24 | 39 | 380 |
| Auto Jr. | 22 | 41 | 349 |

| | | |
|---|---|---|
| High three games | Weinman | 609 |
| High single game | Jost | 242 |
| High three games | Cirkut | 2,552 |
| High single five men | Stereo | 878 |



FOUR MEMBERS OF THE WINNING CIRKUT TEAM
*Left to right: Upper Row:* Frank Mathis, James Kirvan.
*Lower Row:* Andrew Sold, J. E. Roland.

## SUBSCRIPTIONS TO EASTMAN SAVINGS AND LOAN ASSOCIATION SHARES AS OF OCTOBER 10, 1921

| ROCHESTER PLANTS | No. of Employees | No. of Members | Percentage of Employees Subscribing | Total Shares |
|---|---|---|---|---|
| Kodak Park | 5,756 | 4,177 | 72.5% | 30,685 |
| Camera Works | 784 | 728 | 92.8% | 4,553 |
| Hawk-Eye Works | 302 | 351 | 112.5%* | 2,275 |
| Premo Works | 124 | 80 | 64.5% | 725 |
| Folmer-Century Works | 235 | 86 | 36.6% | 863 |
| Kodak Office | 1,189 | 714 | 60.5% | 7,364 |
| OUT-OF-TOWN-PLANTS | | | | |
| New York Branch | 113 | 87 | 76.9% | 587 |
| Chicago Branch | 127 | 84 | 66.1% | 782 |
| San Francisco Branch | 71 | 44 | 61.9% | 230 |
| Taprell, Loomis & Co. | 201 | 104 | 51.7% | 756 |
| American Aristotype Co. | 28 | 1 | 3.6% | 20 |
| Sweet, Wallach & Co. | 74 | 45 | 60.8% | 519 |
| Northwestern Photo Supply Co. | 29 | 12 | 41.4% | 100 |
| Robey-French Co. | 57 | 28 | 49.1% | 198 |
| O. H. Peck Co. | 33 | 4 | 12.1% | 40 |
| Robert Dempster Co. | 23 | 12 | 52.1% | 63 |
| Glenn Photo Stock Co. | 24 | 18 | 75.0% | 112 |
| Des Moines Photo Materials Co. | 19 | 6 | 31.5% | 45 |
| John Haworth Co. | 61 | 19 | 31.1% | 106 |
| Zimmerman Brothers (Duluth) | 11 | 3 | 27.2% | 20 |
| Howland & Dewey Co. | 51 | 39 | 76.4% | 227 |
| Milwaukee Photo Materials Co. | 23 | 4 | 15.2% | 40 |
| Salesmen and Demonstrators | 136 | 57 | 41.9% | 964 |
| Total | 9,471 | 6,703 | 71.8% | 51,274 |

Average Subscription—7.6 shares.
Total Matured or Par Value—$5,127,400.00.
*A number of former Hawk-Eye employees still retain their Association membership.

The 1921 The Kodak Magazine for the various "works" and the Eastman Savings and Loan Association.