



GRAFLEX Journal

SHARING INFORMATION ABOUT GRAFLEX AND THEIR CAMERAS

ISSUE 2 2015

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Micha Kuhmann has a master's degree in History and Culture of Science and Technology at the Technical University Berlin and has written his master's thesis about the color research of Edwin H. Land. In November Mr. Kuhmann gave a lecture on the Graphic Graflex Photography books by Morgan and Lester at the Museum of Photography in Berlin. Micha's email address is michakuhmann@web.de.

GRAPHIC GRAFLEX PHOTOGRAPHY The Master Book for the Larger Camera UNITED STATES ARMY MEDICAL DEPARTMENT

By Micha Kuhmann

In this article, I describe the photographic handbook, GRAPHIC GRAFLEX Photography, The Master Book for the Larger Camera¹ by Willard D. Morgan and Henry M. Lester, mostly from the 1945 edition. My focus will be on the history of a specific issue of this edition in bigger libraries in Germany, and my approach is to describe this form of camera handbook not only as a resource of information – how to use a Graphic or Graflex camera – but also as a resource of contemporary and economic history and, naturally, the history of science and technology. As you can see, I sometimes use the

history of this handbook as a description of Berlin, Germany, and a little bit of the world.

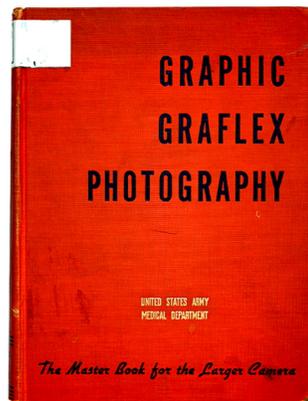
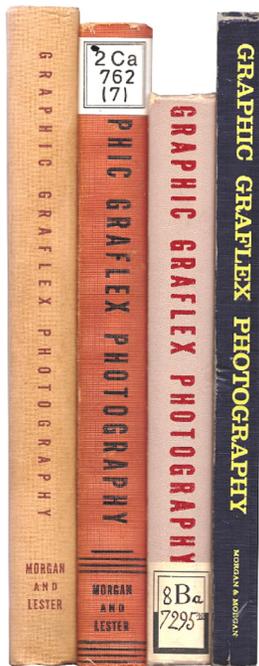
In the following lines, I'll present a brief outline of the "GGP"-Handbook (as necessary).

Willard D. Morgan and Henry M. Lester first published this handbook in their own press in New York at 100 East 42nd Street. Through 1958 eleven editions were published. The name of the press changed for the last edition in 1958 to "Morgan & Morgan Incorporated". The last edition of this book was published by Morgan & Morgan in 1971, two years before Singer Corporation closed its Graflex Division, but it was only a facsimile of the 1952 edition. The potential targets for this handbook were mainly large format users – professionals and amateurs. The dominant film format for the described cameras in this book was 4x5, but beginning with the National Graflex of 1933 with its film format of 2¼x2½ on 120 rollfilm over the Miniature Speed Graphic of 1938 to a camera like the KE-4 or Graphic 70 camera which used 70mm roll film (described in the 1958 edition) medium format cameras for sheet or roll film got more room.

In the postwar editions, 35mm cameras like the Ciro 35 from 1950 to the Graphic 35 camera of 1955 were mentioned and described. Interestingly, the Ciro 35 camera was formerly produced by the Ciro Cameras Incorporation in Delaware, Ohio, which bought both the design and dies from the Camera Corporation of Chicago.² Also, the body of the Graphic 35 camera was still produced in the United States, but the lens and shutter were made in Germany.³ Not mentioned in "GGP," the Graphic 35 Jet Camera of 1961 was made by the Japanese company Kowa.⁴ This is representative of the process of shifting the workforce from the United States to Germany and later to Japan, due to the cost of labor.

Besides the editors, photographers, and scientists, people from the business world or the civil service and others contributed to the "GGP." These were well-known photographers such as Berenice Abbott and Ansel Adams, but also today's lesser-known photographers such as the German-born Hansel Mieth (staff photographer, "Life Magazine") and Torkel Korling (children's photographer, Graflex employee and inventor of the automatic diaphragm).⁵

Among the scientists, people such as Rudolf Kingslake (professor of optics, University of Rochester, New York), or Harold E. Edgerton (professor of electrical engineering, Massachusetts Institute of Technology, Cambridge,



and pioneer of photographic use of the stroboscope) wrote articles for the "GGP."

As mentioned above, the last "real" edition of the "GGP" was published in 1958, followed by the facsimile edition in 1971. One interesting aspect of that reprint shows us that – in technical history - the "GGP" is the conjunction between the first and the second half of the 20th century (until today).⁶ In the introduction, T. T. Holden presented a short history of the book and the company which produced the cameras: "[The equipment] chapter in its various forms is, in fact, a detailed history of the development, and sometimes the discontinuance, of almost twenty years of Graflex products."⁷

This short quotation portrays the equipment chapter, and also the complete "GGP" first of all, as a technical history of Graflex – the company – and its products. But beyond that, the "GGP" is not only the expression of one company, but also an indicator of the changes and mutations of the US-American society. The first edition came out in 1940 at the end of the Great Depression and in the second year of World War II. In the following years, the "GGP" was a companion and tutor during WWII and the post-war era of prosperity.

To come back for a last time to the 1971 edition, this facsimile was published two years before Singer closed its photographic division. The United States was in the midst of the (second) Vietnam War. The "Whole Earth Catalogue" by Stewart Brand was in the third year of its publishing. A new era – the Information Age - was on the rise but outside the daily experiences of most people.

In contrast, today it is common for most of us to use first the Internet to get information - for example, about the Home Portrait Graflex and who used it regularly (if it's possible over the net). But in the second half of my article, I'll report which was, at the beginning, complete without the use of a computer and today a mixture of both – the analog and digital world – in writing this article, naturally, on my laptop but also in direct reading in the editions of the "GGP" from 1940 to 1958.

Beginning with my personal history of Graflex and the "GGP," I look back to the 90s to the University Library of Stuttgart in Southern Germany where one day I found in the card tray with the photographic handbooks a card with the following:

Autor	Morgan, Willard D.
Titel	Graphic Graflex Photography: the master book for the larger camera / Willard D. Morgan....
erschienen	New York: Morgan & Lester, 1945
Umfang/Seiten	VIII, 430 S.
Ausgabe	7. ed., 2. print.
Sprache	Englisch

Shooting mostly at this time with 35mm and 6x6, I found by reading this book a "new world" – an easy way to handle a large format camera, especially without a tripod.

In the following years, I first shot completely analog; however, I now also shoot digital like most of us. I built my own darkroom and am now in the finishing process of converting a Polaroid 110A to 4x5.

Last November I gave a lecture during a conference at the Museum of Photography in Berlin titled "A Guide to Picture Making – Graphic Photography - a Photographic Handbook between 1940 and 1958." In preparation, I found editions of the handbook in different libraries in Berlin, but as I wanted to compare in my lecture the editions from 1940 and 1944 to those from 1954 and 1958, I had to buy the edition from 1940 in the United States over the Internet as, to my knowledge, no library in Germany has this book – and I needed it.

It was no problem to get the editions from 1954 and 1958 from the Technical University Library Berlin, as I've borrowed them there in the past. With the war edition from 1945, it was a little bit different, as at first I didn't find one through my normal search with the meta online catalogue for Berlin.

Finally, I got one from the Library of Economics of the Free University of Berlin. Talking with one guy from the library, he told me that I'm the second one who borrowed this book for many years. After holding it in my hands, I noticed the same gold-colored engraving, "UNITED STATES ARMY MEDICAL DEPARTMENT," which also could be found in the edition from the University Library Stuttgart. It is one of many traces which I'll use in the following for a process of philological and historical reconstruction. The next trace is on page I with some pen and pencil remarks and a round stamp from the Institute of Business Administration of the Free University of Berlin⁸. (right).



On the next page, there are two stamps: One with the meaning of discarded or invalid and another one under it which is a little difficult to decipher but which means Scientific Central Library of Greater Berlin. (left)



On the inner surface of the back board, there is the last trace in this book: a bar code label from the Library of Economics, Free University of Berlin. Right there you can find a date "13.10.14." (below - back board).

Beginning from the front to the back of this edition of GRAPHIC GRAFLEX Photography, I'll tell you a story which lasted over 70 years beginning in the 1940s to 2010. It is also a story from WWII through the Cold War to the Reunification of Germany in 1989/90.

As I've mentioned earlier, "my" edition from 1945 bears the engraving "UNITED STATES ARMY MEDICAL DEPARTMENT." It seems probable that this book was first bought for the United States Army in former West Berlin. The

279th Station Hospital as part of the "Berlin Brigade" which later became US Army Hospital Berlin in 1976 was located in Fabeckstraße/Unter den Eichen in Berlin-Dahlem and was part of the "McNair Barracks," also in Dahlem. The barracks, originally built by AEG-Telefunken, are located in Goertzstraße, which is a memento from the former lens and camera maker, C. P. Goertz, which merged with Contessa-Nettel, Ernemann and Ica in 1926 to form Zeiss-Ikon. The former US Army Hospital Berlin since 1994 is part of the university hospital, Benjamin Franklin. As I borrowed, for a second time, the 1945 edition of the "GGP" a few minutes' walk from the Free University of Berlin Library of Economics, the same guy as before told me, after a common sight in the hand-written book of arrivals, that they got this book probably in 1952 as part of a mixed lot. He couldn't give any newer information. Here the stamp from page II could help a little bit. The Scientific Central Library of Greater Berlin was founded in 1949 in Dahlem through the magistrate of West Berlin in association with the Free University. This continued for only four years from 1950 till 1954 when most of its books formed the foundation of the America Memorial Library in Berlin-Kreuzberg (co-financed by a \$1.285 million donation from the United States). Today it is unknown why this book wasn't sent, as most of the others were, to the Memorial Library, as this library still has a good collection of photographic handbooks. But what is known is the transfer from the United States Army to the Scientific Central Library was probably a gift or donation.

As I noted previously, this edition was part of the Library of Economics of the Free University of Berlin since 1952. The library marks in the book show a change in technology: beginning with the hand-written remarks in the book of arrival over the blue-colored stamps to the machine-readable bar code at the back cover. Interestingly, librarians today still use a pencil for their remarks in the books.

As you can see, editions of the "GGP" can still be found in libraries of some bigger cities of Germany but, interestingly, in only the former western part including West Berlin. The following chart shows first the state, then the city, and finally the edition:

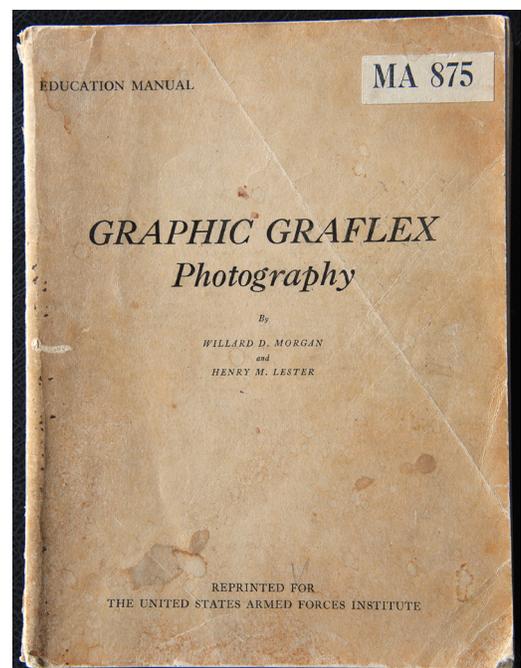
This list could be incomplete, as I've searched the six union-catalogues for Germany, and their listings are sometimes incomplete. But with one exception – Göttingen is located in the area of the former British occupation zone – all other cities were part of the American occupation zone. But it is significant that readers of the book and users of the camera – probably most often US-Army personnel – used Graphic or Graflex cameras in Germany, beginning from the end of WWII in Europe 1945 to the mid or end of the 1950s, according to the existing editions in the libraries. See following column.

In contrast, the only library to my knowledge which owns most editions from 1940 through 1958, with two exceptions, as would seem natural, is the Rochester Institute of Technology Library in the United States, in the hometown of Graflex.

Baden-Wuerttemberg	Karlsruhe Stuttgart	1945 1945, 1954
Bavaria	Erlangen- Nuremberg Munich	1945 1945
Berlin	Berlin	1945, 1954, 1958
Bremen	Bremen	1945
Hessen	Frankfurt Giessen Marburg	1945 1945 1945
Lower Saxony	Göttingen	1948
North Rhine-Westphalia	Cologne	1954

References:

- ¹ Abbreviated in the following as "GGP" (-Handbook).
- ² McKeown, James M. and Joan C. (Ed.), Price Guide to Antique and Classic Cameras. Ninth Edition. 1995-1996, Grantsburg 1994, p. 120.
- ³ McKeown, p. 221.
- ⁴ McKeown, p. 221.
- ⁵ Korling, Torkel, Camera Mechanism, US-Patent US2029238 (A)— 1936-01-28, http://worldwide.espacenet.com/publicationDetails/originalDocument?CC=US&NR=2029238A&KC=A&FT=D&ND=3&date=19360128&DB=EPODOC&locale=en_EP (14.5.2015).
- ⁶ Thanks to Ken Metcalf for the hint and to make the introduction accessible to me.
- ⁷ Holden, T. T.: Introduction, in: Morgan, Willard D. and Lester, Henry M. (ed.), Graphic Graflex photography: the master book for the larger camera, New York (1952) 1971.
- ⁸ In the following, I translate in this article the traces into English until otherwise noted. The original in German can be read in the illustrations.





Laurent de Miollis is a one of several long-term French subscribers to the GHQ and the Graflex Journal, and based on his appreciation of Graflex cameras has done a masterful job of restoring this top handle Speed Graphic. He is currently working on a Telescopic R.B. Auto Graflex. More about his work can be found at : https://www.facebook.com/pages/The-Graflex-Speed-Workshop_-L-de-Miollis/940056326011194

CAMERA RESTORATION

The 5x7 "Top Handle" Speed Graphic

By Laurent de Miollis

The Speed Graphic (5x7 Top Handle) first appeared in the 1912 Graflex catalog and offered photographers a compact, folding camera, with a rear focal plane shutter for use with barrel lenses. The first 5x7 models had a 3¾ x 3¾ lensboard, and before 1918 a hook-on cable release system for triggering the shutter, and a folding open winding key. The Graphic back was the standard until 1916, when a Graflex back was available as an option.

This article describes and pictures the restoration of one of these early 5x7 cameras. This camera is from the early years of manufacture (number 32569 – 1912-1914), although I do not know more precisely the date of manufacture. I searched for many years for a top handle model from the first years of manufacture.

The camera had led a rough life and had been modified in many ways. My restoration incorporated the Graflex back that had been an option. Beyond the considerable work on the wood components (I am a violin maker, which is a big advantage), a large amount of effort went into researching the camera to determine its original configuration. The documentation that I found allowed me to restore the camera to its original state.

The rear curtain was in relatively good condition, so I managed to adjust the speeds, allowing me to use this camera. The left side of the body was heavily damaged, but was completely restored. The missing back and front door were fabricated to duplicate the original pieces. A view back was also made, and I chose the early design with the cover opening down as was done on the 5X7 Press Graflex.



I used the old bellows as a template for a new bellows. I use a synthetic leather from DALBE www.dalbe.fr. The handle leather is also from Chapat. I use a 1909 Singer sewing machine for the heavy leather. Another good leather source is www.cuirdeco.fr.



It was difficult to obtain leather with a texture most approaching the original grain. For the body leather, I bought it as a special order from Chapat www.tannerie-chapat.com. The glue is a special type for leather and paper, available at DALBE (www.dalbe.fr), their stock item 598008100 COLLE BI B RELIURE POT 500G. The covering technique is to make a pattern to determine the size, then cut out the leather piece and glue it to the body. When the glue is dry, I use a medical surgical knife for trimming and fit the corners with scissors. The embossed designs on the leather are duplicated with a soldering iron. When finished, the black color is applied and then bees wax applied.

Over time, I have managed to accumulate parts which have been of great use for this restoration. As you can see from the images, the camera had suffered a great deal of damage and was missing many significant parts. Most missing hardware came from my parts inventory. Items that could not be found were made on my lathe. Where possible the original hardware was repaired and refinished for continued use.

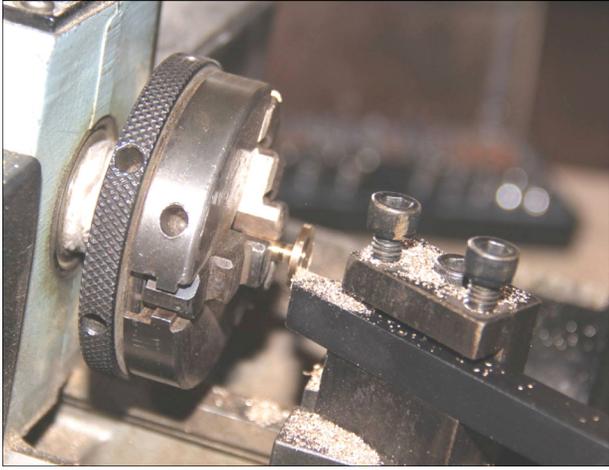


Items in red are from a 4x5 parts camera, and in green, fabricated elements. Closing 4x5 compasses were cut and lengthened by 3 centimeters, made of brass and silver soldered. Insert, parts to be fabricated.

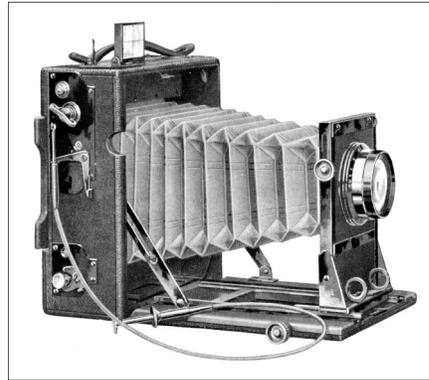


Shown is the modification of the focus knob. At the top is an original 4x5 pre-Anniversary model and at the bottom an original Top Handle 4x5 model. Shown in green are the parts brazed and turned.

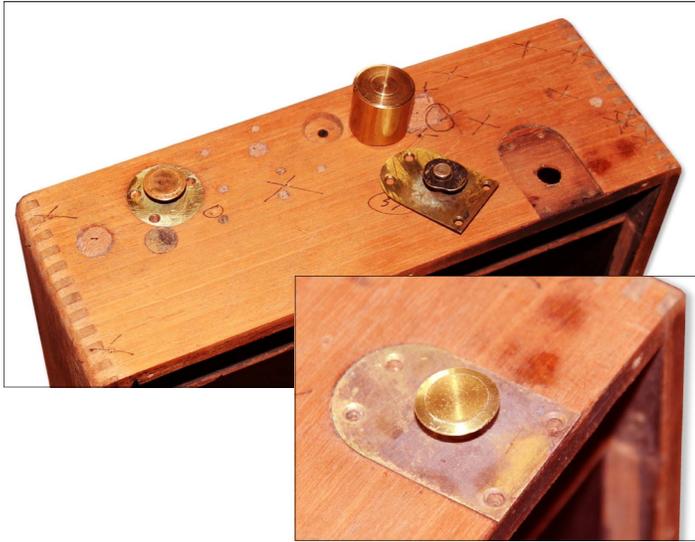
You can note a slight difference between the end part (for the fingers) between a pre-Anni and the Top (the part is 0.5 millimeter in diameter less on the pre-Anni), and the part between the gear part and the axle is simpler on the pre-Anni. (more easily to fabricate.... Money is money !!).



AS PURCHASED



1912-16 CATALOG
PROBABLY 4X5 SIZE



RESTORED 5X7





A MINOR GRAFLEX CURIOSITY

By John Semia

As collectors, we delight in finding minor differences between the cameras we examine. A few of the differences are, however, as large and easily spotted as the nose on Jimmy Durante's face. The case in hand is a 3¼ x 4¼" RB Tele Graflex (serial number 8931). It's "nose" is a very unusual domed lens door that provides clearance for an oversized lens.

The camera came to me quite a few years ago as part of a large group of Graflex cameras. It is an early camera with flat hardware. The door is a later product, with gray paint on the inside and on the hinge plate that mounts to the body. The gray paint is a match for that seen on the hardware of many Graflex products of the '30s. Apart from the dome itself, the door looks like every other metal Graflex door you're going to see. When I got it, the door's outer surfaces were bare aluminum, with traces of glue and light corrosion. To improve its appearance, I painted the bare surfaces satin black, since there was no hope of my producing a leather skin to fit the complex surface. I have no doubt that it was originally leather covered. In terms of construction, the door is very well made and exhibits the level of quality that can be expected from a factory product.

It has been suggested that the door is intended to provide clearance for an especially fast lens. My thought is that the more likely candidate would be a short tele. Obviously, it would benefit any lens that is too large to allow the standard door to close.

The door measures 3½ x 3¼", and the dome is ¾" high. While it is on a Tele Graflex, I'm sure there are other models whose dimensions would also permit it to be fitted.

The domed door seems like a sensible option, and I've run into problems myself in fitting some lenses that were too big to allow standard doors to close. Based on the details seen on the door, I would be surprised if it was not produced by Graflex themselves and not a modification by a third party. So, if it is so sensible, why do we not see more of them? Perhaps some of our readers have examples and can tell us about what they have.





GRAFLEX

Trade Notes

Transcribed from *Graflex Trade Notes* of November 1946, page 3. *Trade Notes* was mailed to Graflex dealers from 1938 through 1961.

MINIATURE SPEED GRAPHICS NOW KIDSKIN COVERED

All are, we believe, aware of the critical situation which latterly prevailed in the leather markets generally, that situation having affected us very specifically with respect to the available supply of top-quality morocco leather such as we use for the cover of our cameras. When adequate supplies of the morocco were unobtainable some weeks ago due to a price situation which precluded importers from bringing in the skins, we were faced with the alternative either of slowing or stopping certain production lines or of locating and acquiring a suitable alternative.

The second course was pursued and resulted in our acquiring a quantity of the finest quality kidskin of glove-like texture—which cost us almost twice the amount per square foot that we have been paying for our top-quality morocco. We believed that we would be better serving our Dealer interests and those of an impatient public by keeping the production lines moving even though it was a costly course for us to pursue.

Because the kidskin is of such soft texture and recognizing that the Miniature Graphics are for the most part acquired by fastidious hobbyists who take pride in and are accustomed to care for their equipment and who do not have to subject it to the rough going to which the larger sized Graphics are expectedly subjected, the decision was made to confine the use of the kidskin covering to the Miniature Graphics being currently produced.

While there was a short period around the middle of the month when both morocco-covered and kidskin-covered Miniature Graphics were going forward to Dealers, that transition period was short and confusion at the Dealer level minimized by avoiding mixed shipments to any given Dealer, although it is entirely likely that a given Dealer might have received a shipment of the morocco-covered cameras and some days later a shipment of the kidskin-covered cameras.

The kid-covered Miniature Graphics will be shipped throughout the last half of November and throughout December with a possible modest carry-over into January. Each of those cameras will carry a string tag calling attention to the change in the covering material and suggesting that its fine quality be preserved through a bit of extra care on the part of the purchaser—a suggestion which our Dealers might well bring to the attention of the customer.

FOR THE COLLECTOR: THE KIDSKIN-COVERED MINIATURE SPEED GRAPHIC

By Ken Metcalf

If you are demon possessed and collect Graflex cameras, and thought you had all of the Miniature Speed Graphic variants, you may be mistaken. The easier ones to find have a collapsible optical finder and then a tubular finder with a fixed mask. Now as noted at the left, a very few had kidskin leather instead of Morocco leather.

Hopefully, this article will help you find this camera, along with giving you information on the production of the Miniature.

Leather

A brief word about leather. No information has yet surfaced about the type of leather Graflex actually used, although in their catalogs, they proclaimed "fine grain leather," "the best quality black grain leather," "selected Morocco," "finest grain of leather," "fine Persian Morocco leather," and "handsome black grain leather," with the Graflex models having the better Morocco grade leather. The body coverings were never mentioned in ads for the Miniature, nor were they noted for any Graphic cameras after 1926.

A current listing in Wikipedia¹ states that "Goatskin refers to the skin of a goat, which by long-term usage, is denoted by the term Morocco leather. Used for gloves, shoes and other accessories, is traditionally goatskin, although other leathers such as sheep and kangaroo can be used to make kid." As early as 1906² "Imitation morocco leather is chiefly prepared from sheep and calf skins, and is extensively used for bags, bookbinding, chair-covers, and many other useful purposes, and as now manufactured bears a close resemblance to true Morocco. By the same process [electrotype copper rollers] morocco, seal, and other skins are reproduced, and form an extensive and greatly increasing branch of leather manufacture, some of the results obtained being exceedingly beautiful, the finest marking of the grain being reproduced with perfect fidelity." I doubt we will ever know for certain what leather they actually used.

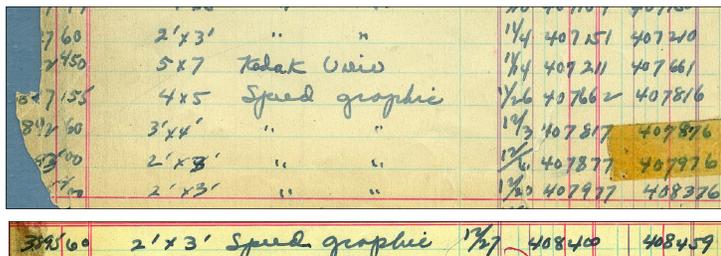
"Fastidious Hobbyists"

Whom are they calling too fussy?

Total Production

With a great deal of time and effort, Graflex collector and historian, Joel Havens, has input the entire serial number

book into a spreadsheet; therefore, based on sorts by serial number and date, it can be determined that a little more than 47,000 Miniatures were scheduled for production between 1938 and 1946. As notations were made when production runs were cancelled, and no notations were found, it is reasonable to assume the number is accurate. The starting number (272323) was found in Graflex employee and historian Tim Holden's record book. For the end of production, Tim noted the first 2¼ x 3¼ Pacemaker, thus the assumption that the preceding 2¼ x 3¼ order was for the Miniature (408459).



Date	Starting Serial No.	Ending Serial No.	Number in Order
11/4/46	407151	407210	60
12/6/46	407877	407976	100
12/20/46	407977	408376	400
12/27/46	408400	408459	60
		Total	620

Top, part of page 58 and 59 of the serial number book, and bottom, chart of possible kidskin-covered cameras.

The Camera to Look For

...the decision was made to confine the use of the kidskin covering to the Miniature Graphics being currently produced.

The kid-covered Miniature Graphics will be shipped throughout the last half of November and throughout December with a possible modest carry-over into January.

The best evidence of which cameras were shipped to dealers comes from the job order (serial number) record. Unfortunately, when a job order was entered and when it was completed and shipped are uncertain. If Trade Notes was sent in mid-November, there would have been only 60 cameras in production, as the next prior batch was entered in June, although it is hard to believe that 60 cameras could have been sufficient to carry over into January of 1947. It is unclear if kidskin was used after the mid-November batch.

As the actual number of kidskin cameras produced is unknown, it would be a good idea to look for cameras with any of the above serial numbers. To help identify the

camera, below is a late Miniature, which shows two single lines on each lensboard retainer and the "silver" Graflex Inc. speed plate.

If you have a camera in this serial number range, check it against other Graphic cameras to see if the leather grain looks different. Even if it is not different, I would appreciate your letting me know the serial number. I will not ask you to write anything for the Graflex Journal.

If you find this tag, it is icing on the cake!

Each of those cameras will carry a string tag calling attention to the change in the covering material and suggesting that its fine quality be preserved through a bit of extra care on the part of the purchaser—a suggestion which our Dealers might well bring to the attention of the customer.

¹[https://en.wikipedia.org/wiki/Goatskin_\(material\)](https://en.wikipedia.org/wiki/Goatskin_(material)).
²Leather Manufacture A Practical Handbook by Alexander Watt, Fifth Edition, D. Van Nostrand Company, New York, 1906, pages 287 and 432.



Graflex Journal

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



ASME Designates George Eastman House's Technology Collection an Historic Mechanical Engineering Landmark

On June 13, George Eastman House's Technology Collection was recognized as an Historic Mechanical Engineering Landmark by the American Society of Mechanical Engineers (ASME) for its historic significance as the world's leading collection of photographic and cinematographic technology. The vast collection includes a daguerreotype camera signed by Daguerre, an original 1888 Kodak, Ansel Adams's first cameras, Technicolor camera that filmed MGM classics, NASA Lunar Orbiter, Speed Graphic camera that captured the flag-raising at Iwo Jima, and many technical marvels that made photography possible for amateurs and professionals.

"The collection at George Eastman House promotes the legacy of a great inventor while telling the story of an industry that has brought fun, leisure, and entertainment to many," said Julio C. Guerrero, president of ASME. "Today's landmark designation pays a tribute to the mechanical engineering ingenuity which has been incorporated in these devices."*

Eastman House's Technology Archive is the 257th engineering marvel to be honored by ASME. Past recipients of this landmark designation are the Disneyland Monorail System, the Apollo Space Command Module and the Apollo Space Suit, the Model T, the Refrigeration Research Museum, the Howard Hughes Flying Boat, and the Radio City Music Hall Hydraulically Actuated Stage.

ASME has designated landmarks, sites, and collections of historic importance to mechanical engineering since 1971 through its History and Heritage Landmarks Program. Landmark status indicates that the artifact, site, or collection represents a significant step forward in the evolution of mechanical engineering and is the best known example of its kind.

** quote here from Bruce Barnes, director of George Eastman House*

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Black and white by regular mail, \$3.50 per issue, billed annually.

War Paint: A Pictorial History of the 4th Marine Division, by Theo Servetas, is now available via Barnes & Noble Nook, Kobo, and, Apple iBooks.

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Volume II - Saipan

Volume III – Tinian

Volume IV – Iwo Jima

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