THE AMALGAMATED PHOTO HISTORY NEWSLETTERS

• VOL. 2-6 2021

Welcome to our readings of the Amalgamated Newsletter for June 2021 to offset the effects of Covid.

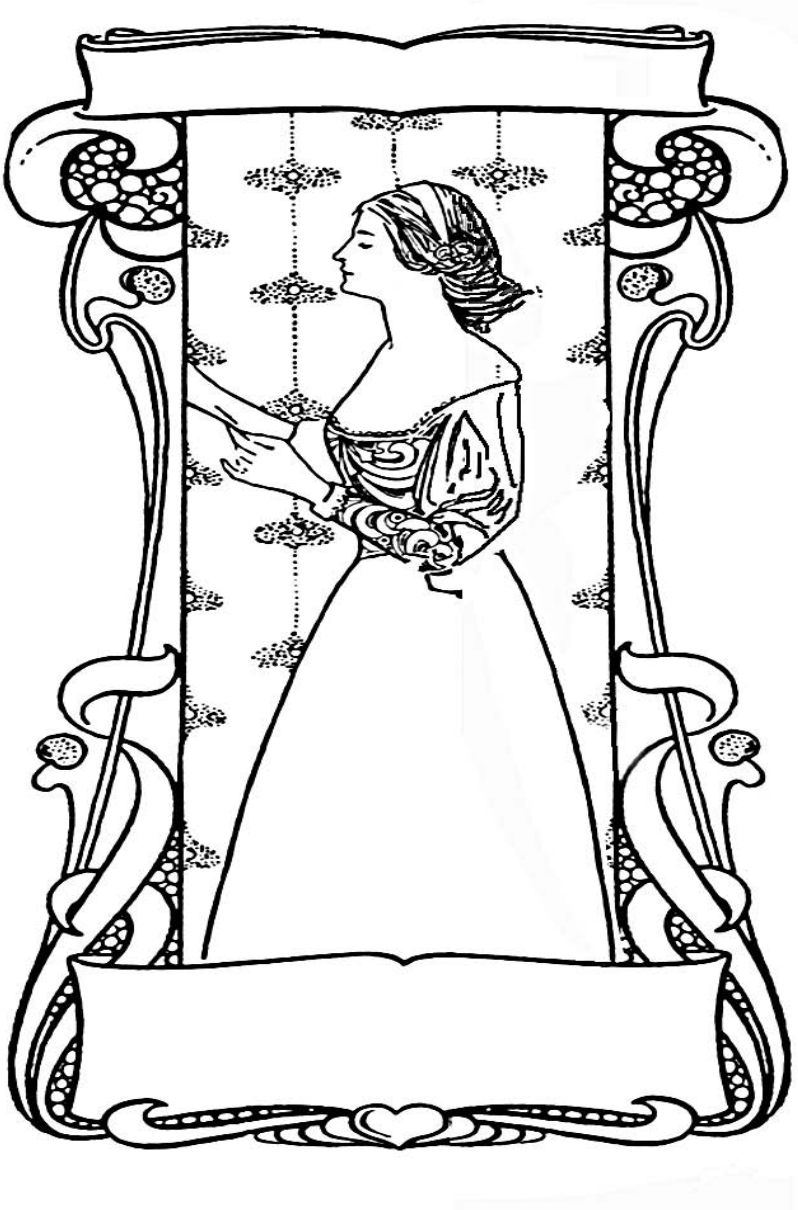
Martin Magid send us an issue of his home State newsletter, THE PHOTOGRAM from July 2010 where he undertook a series of “Panoramic Pinholes of Italy.”

Also an unusual query on FACEBOOK sent me into the back files to resurrect a story on the HICO camera and the Hicrome Colour process.

Martin Magid has prepared an INDEX of the Amalgamated Newsletters to assist you in finding a story.

Permissions granted:

The Photogram – Martin Magid
Photographic Historical Society of Canada –
–Robert Lansdale
Amalgamated INDEX to Vol 2-4
–Martin Magid



The Photogram

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Panoramic Pinholes of Italy

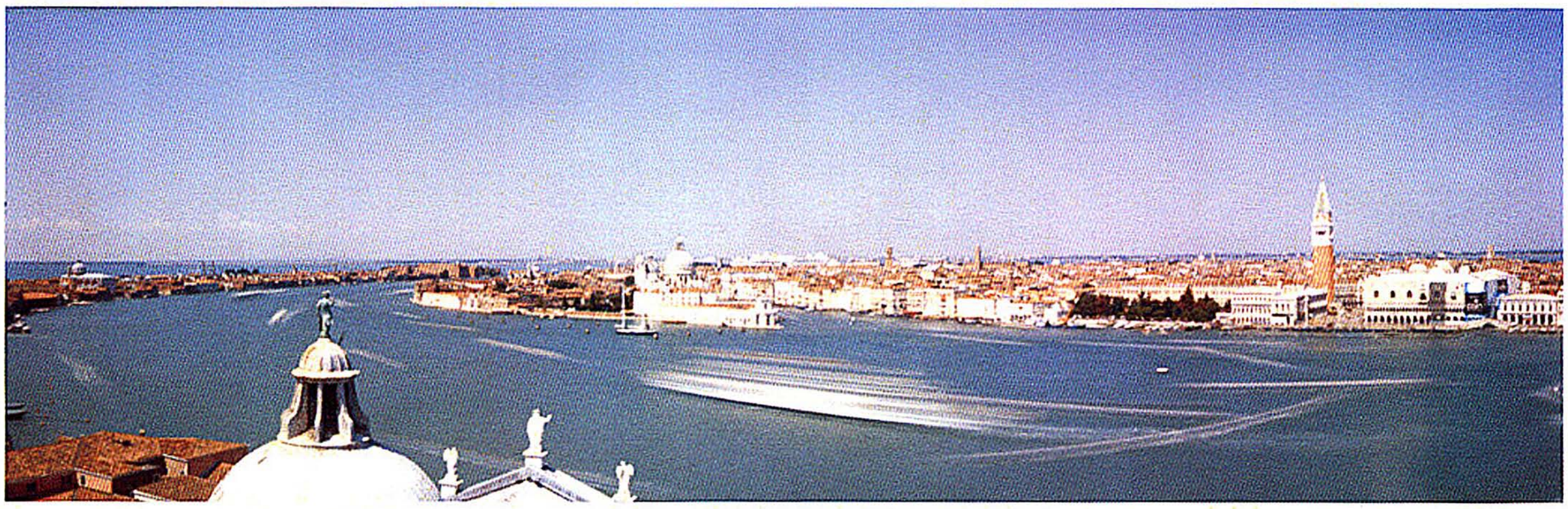
Martin K. Magid

A small hole like a pinhole in an otherwise enclosed space projects an upside-down view of the outside onto the inside wall opposite the hole. That fact has been known and written about for at least 6,000 years. Aristotle wrote about it in about 330 B.C. Alhazen wrote about pinhole optics in Egypt in 1020, and Gemma Frisius viewed the solar eclipse of 1544 using a pinhole. A drawing of the eclipsed sun and the pinholed room was published the next year. This is considered the first time a pinhole camera obscura, or dark chamber, was described by means of a published illustration. The term camera obscura came to mean an enclosure with a lens. With ground glass and mirrors, camera obscuras were used by artists to aid in duplicating a scene with pencil, pen or paint. David Hockney has said that such devices were used as early as 1420 A.D. by Jan van Eyck to project scenes onto his canvas.

The photography discoveries announced by Daguerre and Fox Talbot in 1839 involved camera obscuras with sensitized metal or paper at the focal plane. It was soon realized that photographs could be taken without a glass lens, using only a pinhole at the aperture. Pinhole photography became one of the first processes of what are now called "alternative photography," and its popularity has continued to increase. Thousands of photographers from nearly every country took pinhole photographs on April 25, 2010, the annual Worldwide Pinhole Photography Day, and posted them on the internet. See www.pinholeday.org

LEANING TOWER OF PISA ~ The magnificent delicate beauty of the tower as well as the nearby church and other buildings in the area was a surprise, instead of the expected tourist cliché. The flare from the pinhole lens, not typical of the process but also not uncommon, adds drama to the photo.

Martin Magid is a member and former President of MiPHS, and also belongs to the Detroit Stereographic Society and the Photographic Collectors Club of Great Britain.



GRAND CANAL OF VENICE ~ This is one of a series of four photos taken from the bell tower of San Giorgio Maggiore. They can be stitched together for a 360-degree view of Venice, and that may be done someday. We were there precisely at noon, and the sound and vibration of the bells stayed with us all day. The Doge's Palace is at the right, near St. Mark's Square and the St. Mark's Basilica Bell Tower. The large white streak in the canal is a cruise ship.

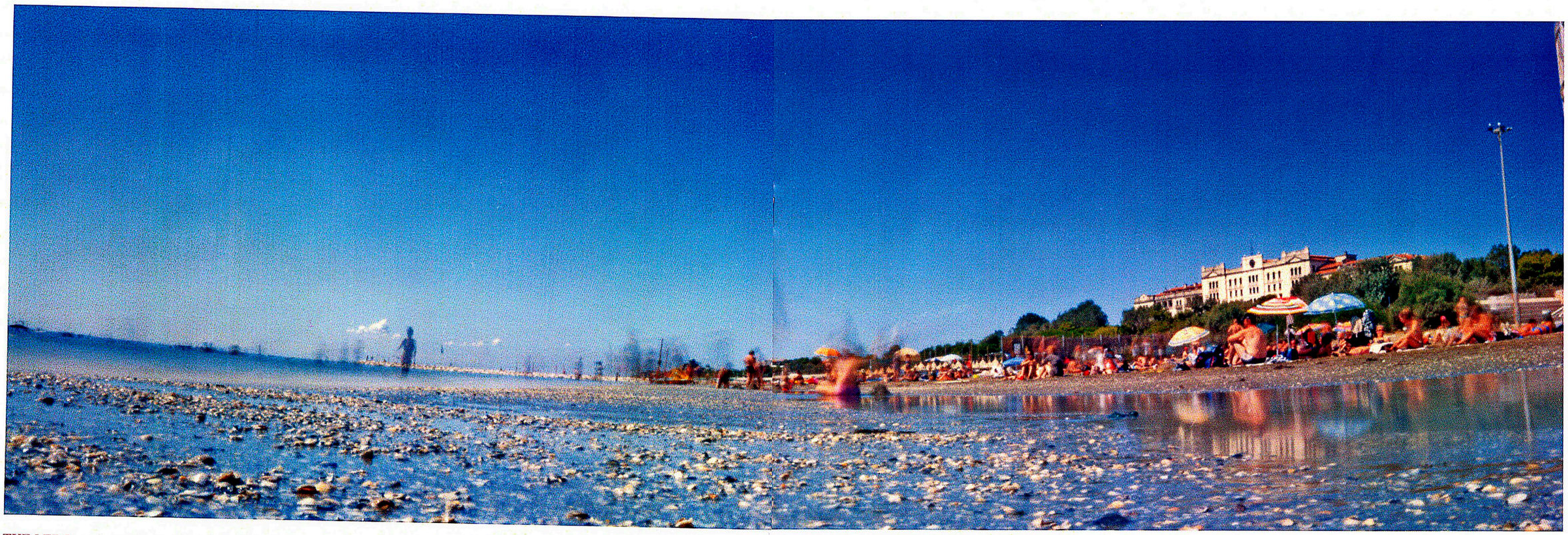
SIENA ~ The town square of Siena is built like a saucer to collect the little rain that falls in this arid part of Tuscany. The curved focal plane of the PanPin exaggerates the shape. The Town Hall and the Bell Tower are at the center.

A TUSCANY VALLEY ~ This is exactly how I visualized Tuscany. The scene came into view while walking from the bus to the main square of San Gimignano.

FLORENCE AND THE RIVER ARNO ~ Shooting from the edge of the Ponte Vecchio bridge, where merchants of diamonds, hand-made jewelry and gelatto share the space with classical and jazz musicians, and lovers lock padlocks onto the fence around the statue of Benvenuto Cellini and throw the keys into the Arno. The series of arches is next to a main street where Vespas whiz by, while locals sell their souvenirs on the steps below the roof. Our hotel's rooftop bar is at the notch of the buildings at the upper left.

THE GHETTO OF VENICE ~ The word "ghetto" originated in Venice. In 1516 the Jews of Venice were forced to relocate to a remote part of the city, at the site of a 14th-century abandoned foundry. In the Venetian dialect, "ghetto" meant "foundry." The word was soon used throughout Europe for any isolated minority group. Once a mosquito-infested swamp, it is now a pleasant part of the city. This shop sells books, posters, paintings and original lithographs of Venetian scenes at modest prices.

PEGGY GUGGENHEIM MUSEUM, VENICE ~ This is the canal entrance to the museum, formerly Ms. Guggenheim's home, now a small but world-class repository of modern art. Marino Marini's 1948 sculpture, "The Angel of the City," with its arms outstretched, includes a permanent erection, not surprising given that Ms. Guggenheim reportedly had many affairs with artists. The original erection was broken off by a vandal, but the replacement is bolted onto the body.



THE LEDO ~ I read Thomas Mann's *Death in Venice* to get a flavor of Venice before we went. Most of the novel takes place on the beach and in a resort hotel on The Ledo, a narrow strip of land near Venice. For this photo, the tripod was in an inch or so of water. This part of the beach and the hotel could have been the inspirations for the locale of Mann's story.

By the time my favorite shooting camera, a Kodak No. 1 Panoram, broke beyond repair, I already owned the first edition of Eric Renner's Pinhole Photography: Rediscovering a Historic Technique, my bible of pinhole photography. I was also very familiar with the multiple-lens pinhole work of Dana Booth, who presented his astonishing photographs to an MiPHS audience in 1991. In addition, I had recently seen the photographs of Abelardo Morell at the Detroit Institute of Arts. Morell darkens hotel rooms, offices and homes, except for a small hole at a window, and takes lens photographs of the images that are projected onto the walls and furniture. The effects are surreal.

Hundreds of thousands of schoolchildren and adults over many decades have made successful pinhole cameras from round oatmeal boxes and coffee cans. Therefore, my broken Panoram, with its curved focal plane, seemed like a worthwhile candidate to become a pinhole camera. In mid-2007, I removed all the mechanism and shroud of the rotating lens assembly, and made a wooden lens board to cover the resulting large hole in front. A 7/16-inch hole was drilled in the center of the lensboard, and a pinhole lens made from a thin sheet of brass shim was taped to the center of the hole.

The exposure for 400-speed 120 film was tested on a sunny day using a scene that included bright highlights, deep shadows, and everything in-between. Exposures of 10, 20, 40 and 80 seconds showed that 20 seconds produced the best combination of detail in the highlights and shadows. Therefore, 20 seconds became my "Sunny f/270" rule. Variations in exposure are made according to the weather and the scene. I have had very few poorly exposed negatives from this camera, which produces four negatives from a roll of 120 film, each one about 2-1/4 × 7 inches.

When the decision to visit Florence and Venice was made in 2009, I was getting consistent results from the camera, which I renamed the "PanPin," and was confident in using it even at locations I knew I would visit only once. I realized that my wife, daughter and her fiancee would all be using their digital cameras. Though I own a good compact digital camera, I decided to bring only the PanPin, a very small flexible tripod , and 15 rolls of film. I had 60 exposures to spread over 13 days, 2 major cities, and 2-4 side trips. I had to be very choosy, and ration my film with a lot of thought.

My favorite photographs from that trip are here. Hope you like them!

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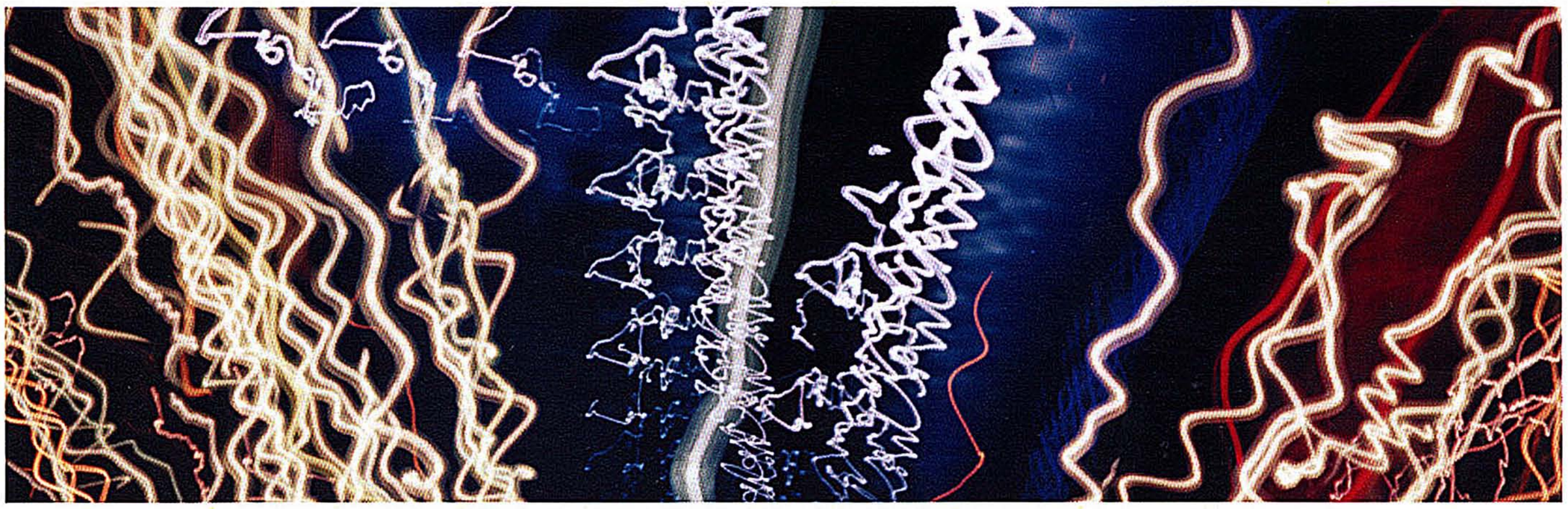
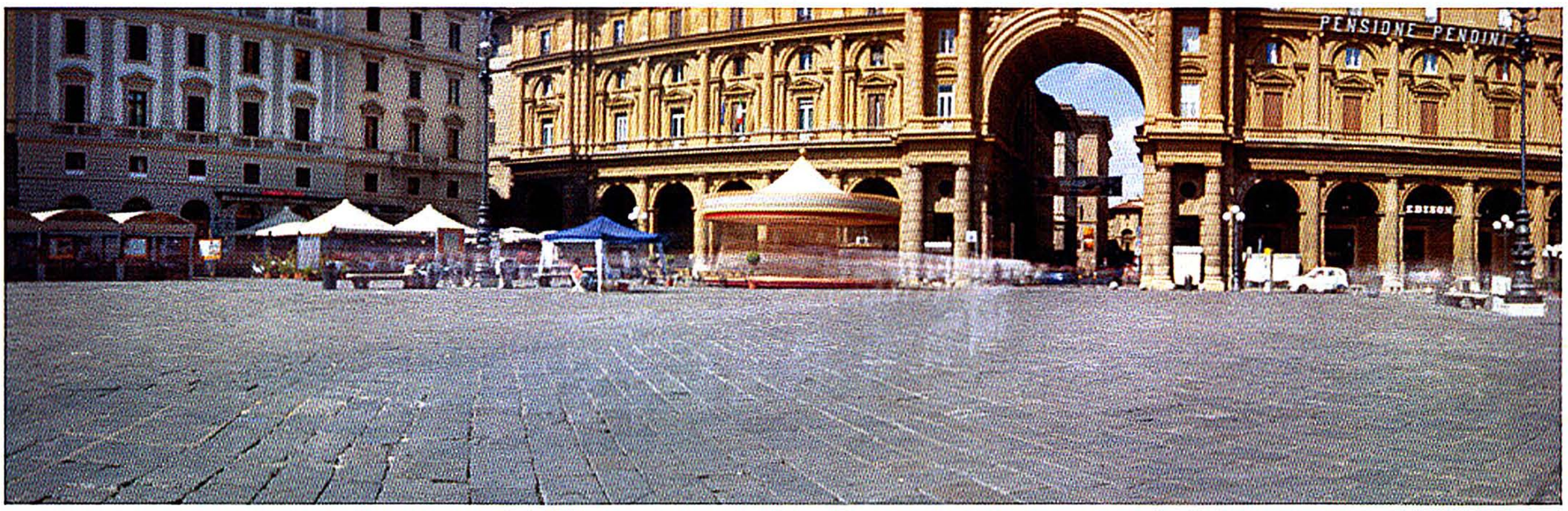


GONDOLA RIDE ~ Photographers such as Man Ray and Harry Callahan showed the possibilities of creating abstraction and impressionism with a camera, or in the darkroom. This photo was made during a night-time 35- minute ride from the Grand Canal through narrow interior canals, keeping the pinhole open during the entire trip.

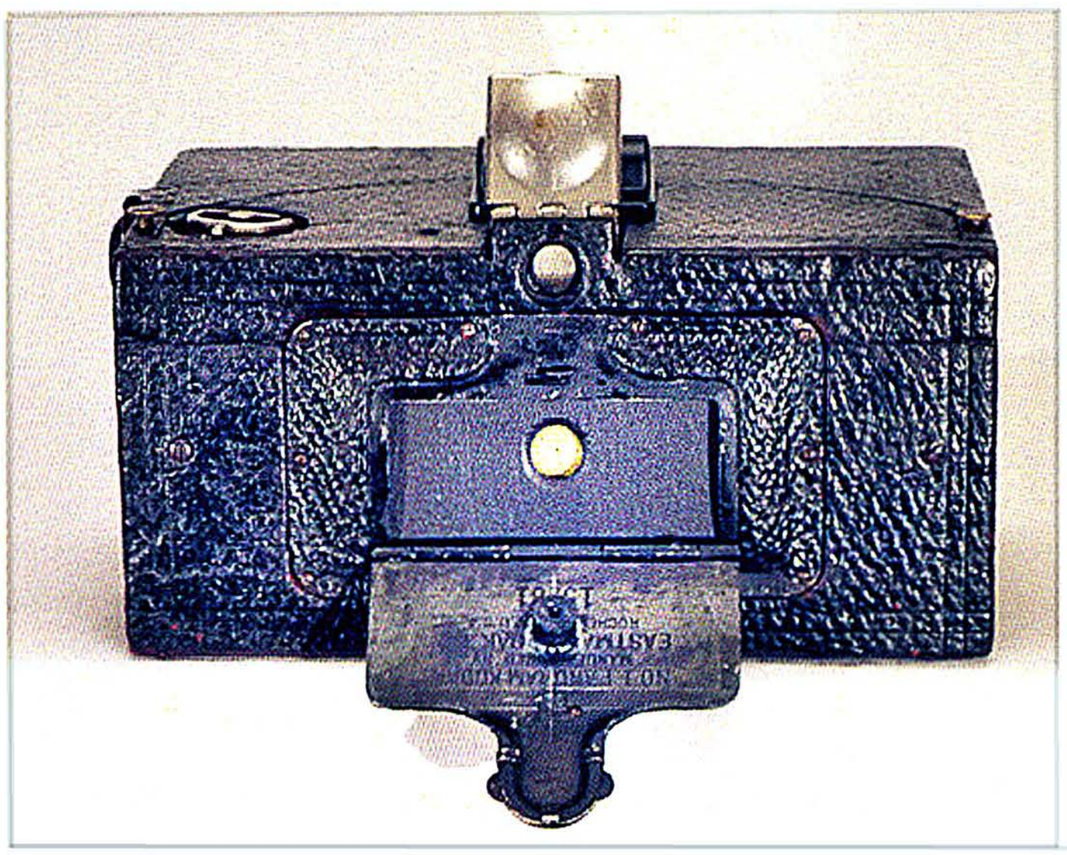
VENICE CANAL ~ This canal was a short walk from our hotel via a back street, and may have been one of the canals we rode on. While it is a good representation, for me "Gondola Ride" is a more exciting photo.

MURANO GLASS ~ The island of Murano near Venice is a center for manufacturing fine works of glass. The shop we visited had its own manufacturing facility, and we observed the dexterity and skill of its craftsmen. We purchased these glasses and other items, which were all shipped home. The photograph was taken on Worldwide Pinhole Photography Day, April 25, 2010, but was not used as my entry for the WPPD website. See www.pinholeday.org/gallery/2010



FLORENCE: PIAZZA DELLA REPUBLICCA ~ Our first stroll in Florence took us to the Piazza della Republicca, past the Picci family carousel and the Arcone arch. The blurred movement of the carousel and the ghostly images of other walkers and scooters illustrate the effects of the 20-second exposure.

FLORENCE FROM THE PIAZZALE MICHELANGELO ~ This photo was taken late in the afternoon of our last day in Florence, at the Piazzale Michelangelo. Nearby is a copy of the David statue (we had seen the real thing) and this magnificent view of the city. The Ponte Vecchio bridge is at the left, the Duomo in the center and the mountains to the north in the background. About one-third from the right is the Church of Santa Croce, where Michelangelo is buried.



THE PANPIN in shooting position. The front door, with dowel attached, serves as the shutter.

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ON FINDING A HICRO AT A TRADE SHOW?

by Robert Lansdale

PHOTO BY ROBERT LANSDALE

The floor of the PhotoHistory Symposium Trade Show in Rochester October 23, 2011 where the Hicro camera was found.

Boy! Have I got a great story to tell you. Its got all the bits and details that a collector can hope to obtain when he acquires a new prize for his collection.

It began at the PhotoHistory Symposium last fall in Rochester - at their Trade Show that is the final phase of a three-day event.

I had spent my allotted money, as usual on books and magazines as every editor needs reference material to lead him onto further stories.

It is a great place the find treasures as many old-time collectors are downsizing their personal collections and you can select some of the best items to carry them onwards for the next tenure of time. You can only hold onto those treasures so long.

But I digress.....

Having finished my shopping at the Symposium Trade Show, I was perusing through the collection of cameras as if visiting a museum and learning as much as possible from the array of photographica throughout the room. It was interesting to engage the dealers in conversation as to when and where they acquired some of their collection.

I was running my eyes over a bunch of dusty black-leather cameras that seemed to have no meaning at all. Every trade show seems to have such orphans. I was attracted to a little white label that tagged one camera with information. I flipped it over and was astonished to read "HICRO CAMERA." Now I had written a story several years ago based on colour photography systems in vogue in the early 1900s. Part of that story gave a meager description of the Hicro camera based on articles I had found in 1915 photographic journals. It carried a sketchy B&W illustration. So here was a true representative camera of that very image.

I knew very well that I wanted the camera but was hesitant that I might be buying something of a dog. I don't know cameras and my knowledge in that field is limited. But what could I do about it as I had spent all my money and was down to pennies to get home!

After careful studying the camera, which is more important for its inside guts than its exterior, I decided to take a chance and buy it. That meant I had to find a good Canadian friend that still had some cash to bankroll my purchase. Bob Wilson became my financial supporter and I successfully acquired the prize.

Dealer Steven Rudd said that he had acquired it through the auctions of the Eaton Lothrop estate. That was nice to know that it had come from a most esteemed collector. But that little white label on the camera had other information. It read: "Jan. 15,'76, Matt Isenberg [sic], LXY." Supposedly Lothrop had placed it there as a way of identifying where and when he had obtained it. Indeed it had come from Matt and he offered much to the provenance of the camera.

Isenburg relates the story: "In late 1974 or early '75 I went to a trade show in Manhattan, run by the New York Photo Historical Society. In those early days dealers ("pickers") came in with boxes of "junk" and loaded down their tables. What a paradise for camera collectors! One of the dealers, (I don't remember who) had a large cardboard box that apparently had been in a partially flooded cellar. It contained more than a dozen Hicro cameras. The price for the whole box was less than $100.00. Three of them were perfect including the original boxes they came in. The rest ran the gamut from crushed mush to only slightly damaged. I kept the best one for myself, the next two were for trade and then I let friends like Eaton rummage through the box and make a good one out of two or three damaged ones. Eaton took a yellow filter from the extra parts since the one in his camera was broken and there were good ones in the box. Eventually I threw out the left over pieces with the water-stained box. That is how Eaton ended up with his Hicro. All my color cameras were sold by Tepper in 1979 except the high end ones that went to Leif Preuss in Norway."

Steven remembers there were several of Eaton's cameras that "I was excited to bid on, and I was pleased to be the high bidder on many items. There were two different auctions, as I recall, the items that did not sell in the first auction were re-offered with little or no reserve at the second auction. Many of the cameras were grouped together in mass lots. I was again high bidder on several of these group lots during the second auction. The lot in question contained 24 cameras, mostly Kodaks, which is my main category of collecting. The description did mention the Hicro but they featured an Ansco folder and a Jiffy Kodak. So you see, the Hicro did not really fit into any of my personal categories and thus was a camera I was happy to pass along to a fellow collector. I am thus especially excited that it ended up in your hands!"

Steven added that I could probably still search the Lothrop auction results on the "iGAVEL" website even though the auctions ended a year ago. Well, I was curious and did search the web site. It was quite tedious as I could not identify the lot. But finally by going through them slowly, item-by-item, I came to item 1853934. Folders predominated and my little Hicro was tucked down, almost hidden, at the far right corner. Nothing to give it identity or pride of position. I am sure Steven didn't even consider it. But what did I see right beside my Hicro, most visible from its size, was a bigger brother to my little camera, a 3¼ x 5½ (post card size) Hicro with bellows adjustment. I could recognize it easily from illustrations I had seen, even though it was shown on its side on the web site. I immediate contacted Steven if it was so and was it available? Steven could offer no information as the cameras were at his Mother-in-law's home in New Jersey. Eventually he did come back with the data that it indeed was a bigger Hicro but sadly all the internal mechanism had been taken out to convert it to a normal camera. I passed on it – close but not close enough!

PHOTOS OF CAMERA AND DETAILS BY ROBERT LANSDALE

THE HICRO CAMERA

COURTEY OF iGAVEL

Lot 1853934 with my Hicro lost in upper right corner. Bigger post-card Hicro is to the immediate left of it.

Well now, I wanted to find out just what I had. The camera 5" x 5" x 6" in black leather for 3¼ x 4¼ pictures, has an F16 fixed-focus lens in an Ultro shutter. This somewhat gawky lens is mounted on a reversible lens board so that for convenient travel you can store the lens inside. A ground glass panel is an accessory mounted on the back. No holder came with my camera.

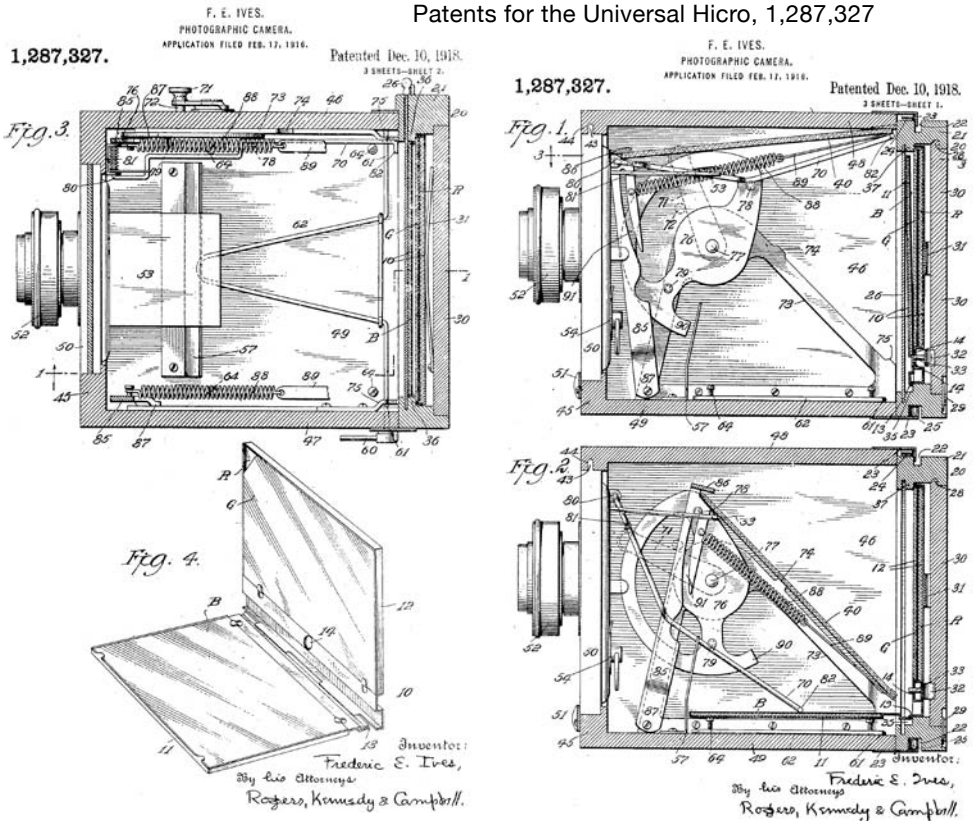
What seems unique about the camera is a crank at the side of the camera body which when unlatched, is rotated counter-clockwise to work the mechanism inside. A large cam slowly lowers down a wire with a bent end then commences to lower a large yellow filter to a 45° angle to the floor of the camera. Its heavy construction denotes precision engineering. A light orange-pink filter covers the back of the lens.

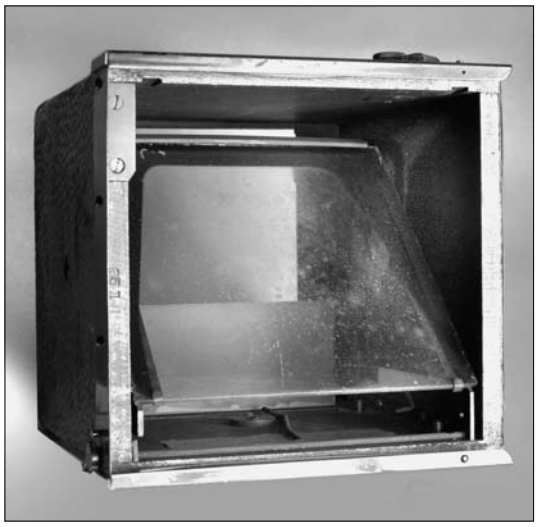
A sign at the side of the camera gives instructions on how and when to operate the handle properly. I learned that this was not on earlier models so it must have been added to alleviate confusion.

So what do all these do. I turned to the patents to understand the fixtures and working of the camera. And by the way I have learned that my Hicro IS complete except for a holder and mirror coatings.

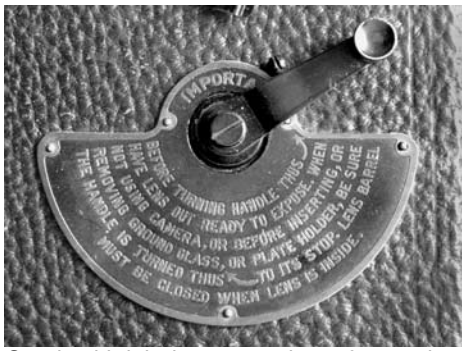
The camera is designed for colour photography utilizing a special photographic plate consisting of "two plates" hinged together with a "film" squeezed in the middle. When this "tripak" is unveiled in the camera (slide removed), the front plate hinges down (falls forward) to the floor of the camera. The wire with a bent hook on coming down makes sure that the plate is fixed in its proper place. Only after this plate is in position can the yellow filter/reflector hinge down into position. This plate will receive a reflected image off the front-glass surface of the yellow filter. Since the plate is only sensitive to blue light, then it records only the blue image. There is some discussion that the front surface of the glass was coated with a dichroic filter to enhance the blue ray reflection.

Patents for the Universal Hicro, 1,287,327





The large cam is revolved by the exterior crank and is seen at its halfway point where the wire with a hook, having caught the first plate, locks it is place on the floor of the camera. Then the yellow filter is brought down to 45° angle as part mirror and filter for the image.



Crank with label on procedures for moving mirror and exposing the plates.

Light passing through the yellow filter will be minus the blue rays. The image then strikes the "film" which is sensitive to the green spectrum then passes through a coating of red or orange dye and onto the final plate which is red sensitive.

With the mirror and wire retracted an extra wire (lever) on the floor of the camera helps lift the first plate back into the holder and the slide is returned. Turning the camera on its back assists in this operation.

Other details include a filter that covers the inside of the lens. The orange-pink colour reduces the actinic effect of the blue rays and to better equalize the photographic effects upon the three sensitive plates.

The plate holder holds only one tripak plate and is loaded from its back with pressure plates to hold it securely in place.

A baffle at the front of the camera on the floor prevents extraneous light from reflecting onto the plates during exposure. A hood that covers the lens (when stored) must be raised during the exposure – this acts also to prevent extraneous light reflections.

The camera was offered by the Hess-Ives Corporation of Philadelphia ca. 1915 but manufactured under contract by the Hawk-Eye Works of the Eastman Kodak Company. Henry Hess, the financial backer of the project, was in the steel and ball bearing industries. Federic Eugene Ives was the prolific inventor of many image processes. More noted in photographic history for his Kromskop camera and viewer of 1895, he had 71 U.S. patents as listed in his autobiography. The list includes a noteable Half-tone process of 1881 and improvements in later years, a tri-colour camera of 1899 that pre-empted the identically-designed "Jos-Pe" camera, the binocular microscope of 1901, various colour printing and colour camera systems of the 1899 through 1915, and a number of patents pertaining to cine colour-print

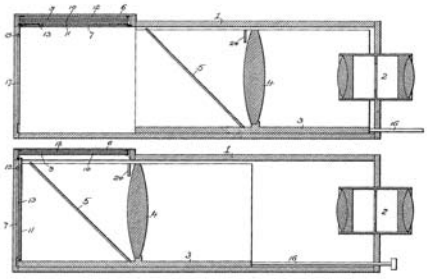
processes (Technicolor). His inventions were medalled by Franklin Institute and the Royal Photographic Society.

We will concentrate on the patents when he turned his attention to making coloured transparencies and coloured images on paper. The magic lantern of the day called for full colour scenery and subjects. The successful Lumiere's Autochrome filled that need but produced only single (unique) exposures. But there was a need for a way to produce multiple photographs from one primary image. There also existed a desire to produce colour pictures on paper without going through an elaborate costly process to achieve the same (three-colour carbon).

OTHER COMPETITORS

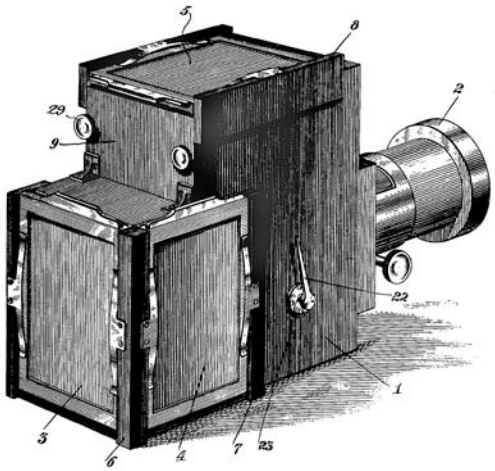
There were competing apparatus on the market prior to Ives's inventions: A Sanger-Shepherd camera of 1902 which had two reflectors behind the lens which directed light to plates on either side of the camera; light passing through them reached a third plate in the back. A 1907 version used prisms to split the light into three images on a single plate. Bennetto's camera reflected light upwards to a bipack of a blue and a green sensitive plate(s) while passing the image through a red glass to a red sensitive plate at the back of the camera. The more sophisticated Butler camera sent images to three individual plates: "A" through a red filter to a red sensitive plate on top of the camera, "B" through a blue filter to a blue sensitive plate also on the top, and "C" to a green sensitive plate at the rear. It used two glass reflector - cyan and yellow to assist in separating the colours.

Ives capitalized much on his research for the Kromskop camera and in 1911 patented a trichromatic camera (U.S. patent 980,961) that resembled a long tube. The Tripak plates (U.S. patent 927,244, July 6, 1909) were inserted at the top of the camera at the rear. On pulling the slide, the front plate was allowed to fall into the camera by gravity. A secondary lens and reflector within an inner box is slid to the back of the camera, entrapping this plate. The exposure is divided by the reflecting glass to the blue and green sensitive plates within the holder (at the top of the camera) and the red sensitive plate at the back of the camera. The lens and reflector assembly are withdrawn and the plate at the back of camera is dropped back into the holder by tipping the camera on its top. The secondary lens was considered necessary to "parallelize" the diverging cone of rays from the objective lens.



Long tube colour camera, patent 980,961

Then there was a triple plate camera patented in Sept. 14, 1915 No. 1,153,229. It featured two mirrors to split the image onto three plates (as shown above) but the front mirror was silvered in stripes; this to secure a more equitable exposure for upper first plate. The mirror was required to be moved sideways during the exposure, twice the width of the stripe, to guarantee shadowless exposures on the upper plate.



Triple plate camera, patent 1,153,229

Ives even experimented with a film holder to hold three plates. Patent 1,089,445 of June 2, 1914 provided means whereby each separation negative could be exposed one after the other without disturbing the camera too much.

In patent 1,238,775 Sept. 4, 1917, Ives describes a dichroic filter being applied to the front of the glass reflector. "It is much more efficient than plain glass reflectors." A coal-tar dye (eosin) in alcoholic solution is applied to a perfectly clean glass and allowed to dry. We were unable to see such a coating on my camera reflector but Eaton Lothop in assembling the camera from a variety of parts may have wiped this coating to clean it. But there is some skepticism as to whether a dichroic filter is part of the system. In the patent 1,287,327 which describes the parts and workings of the camera, there is no reference to a dichroic filter. A dichroic filter would increase the quantity of the blue exposure by double -from 10% up to 20% according to figures contained in patent 1,238,775. But the inclusion in the system of a filter, just behind the lens, of a "orange-pink color for the purpose of reducing the actinic effect of the blue, and some extent the green, rays of light, so as to give a better equalization of photographic results upon the three sensitive plates." So the plus of a dichroic filter would be contrary to the minus factor of the orange-pink filter. The two don't mix.

But there is a rather blatant red label in the back of my camera that warns:

CAUTION

To avoid injury the coated side of the reflector (side to top of camera) must under no circumstances be rubbed.

To remove dust, use a soft camel's hair brush. The uncoated side may be cleaned with soft cloth.

So we have the perplexing question as to what **is** coated on the filter/reflector that must not be rubbed. We may have to wait to find other Hicro cameras with untouched reflectors.

THE HICRO CAMERA

Now we come to the camera under discussion as seen in patent 1,287,327 of December 10, 1918. Such patent was applied for February 17, 1916 which is a closer date when it came to market. Brian Coe in *Color Photography First Hundred Years* says that the Hicro Universal camera was introduced commercially in 1914 (?).

Ives describes it in his patent "to afford a more simple and effective multiple camera." It is the object to improve the camera of patent 980,961 which is his long tube camera of 1911. The internal mechanism to lower the mirror into place was most novel and precise. The camera is brought down to compact size with the aim of attracting more photographers to colour photography. It emulated closely one of George Eastman's push-button Kodaks.

The camera came to market with a series of artful ads in 1915. The *National Geographic* magazine for August, September and October were first to run the ads with leading headline of *You Can Now Make Photographs in Color*, *Color is the life of the picture* and *Nature's Colorings in Your Photographs*. A picture of the Universal Hicro decorated the bottom of the ad. *Outing* magazine carried the same ads.

The October and December issues of *National Geographic* switched to a

half-page ad featuring a portrait of a woman and the more sumptuous 5x7 Hicro camera with extended bellows and more professional Rapid Rectilinear lens. They noted it was the invention of F. E. Ives. They were switching their advertising to a more appealing level using professional equipment and content.

The December 1915 *American Photography* went one better with a full page ad of the above with the subtle wording: "A Christmas color camera will prove most acceptable." In addition they carried a full-color frontispiece of a fruit-and-wine still life that was marked "Reproduced from Hicrome Photograph on Paper." An editorial comment is include:

> **With the co-operation of the Hess-Ives Company of Philadelphia we have prepared a Christmas present for the readers of AMERICAN PHOTOGRAPHY in the shape of a Van Dyck photogravure reproduction of a Hichrome print in natural colors. Man proposes and the printer disposes, however, and as we are closing the text forms of the magazine there is some doubt as to whether these color inserts will arrive in time to be bound in the December issue. If this is not the case, we will have to insert them in the January, together with an article descriptive of this process, which arrived too late for our December issue. Mean while those interested in color photography are referred to the advertising pages of this issue.**

Evidently they did make it in time. The colour reproduction is very vibrant and must have utilized the skills of the engravers to enhance the image. (See special colour supplement).

Advertisements from the *National Geographic* of August, September and November 1915

National Geographic December 1915

Meanwhile the company was hard at work trying to get editorial comment and stories within the many American photo magazines. Their success seemed to evolve around how much advertising they placed in each magazine.

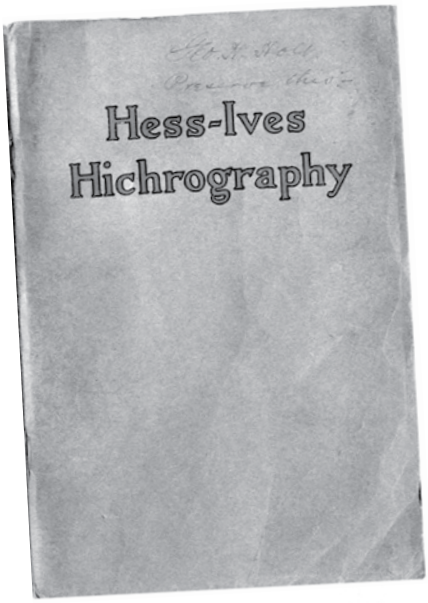
The noted portraitist Elias Goldensky was commissioned to make a series of portraits in colour to prove its adaptability to the professional portrait field. (See special colour supplement). Samples of Goldensky's Hicro prints are at the George Eastman House Library.

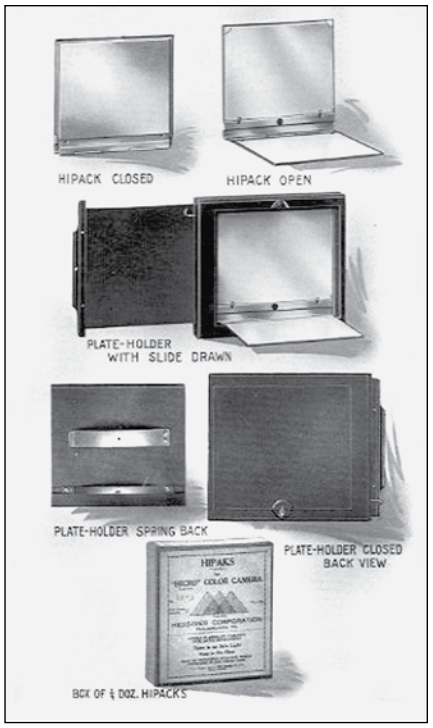
Lejaren Hiller relates his experience making a colour cover for *The American Magazine* with the very slow plates. "Mr. Hess came up from Philadelphia to give last minute advice and instructions. The subject chosen was a baseball player and his best girl. On the roof of my studio, I set up a plain background painted emerald green. The girl had on a screaming red dress, the baseball player had his mitt. Between them and the background I placed a flash-pan holding four ounces of magnesium powder; on both sides of them [were pans with] six ounces each and above the camera another six ounces. They were all wired up to go off simultaneously. Having given the proper warning, I let 'er fly. It wasn't that anyone was hurt but we had a little trouble to find everything – the background for

instance. I managed to grab the end of the tripod while the camera was hopping away, so everything was hunky-dory. Across the street the members of the Lambs Club were hanging out the windows and likewise the transients of the Bellmore Hotel next door. I sent the separation negatives to Mr. Hess and in the course of time received the finished print with the suggestion that I use a trifle more light." *–A Half Century of Color* by Louis Walton Sipley.

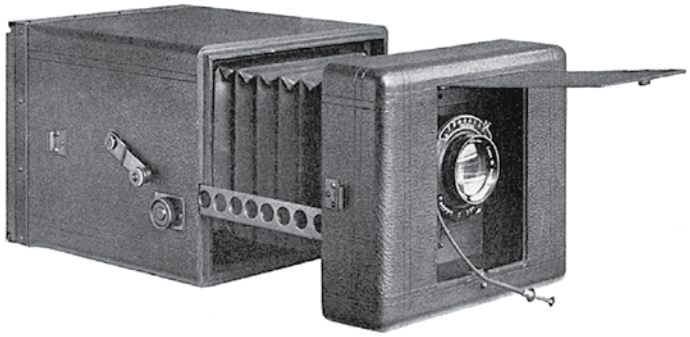
3¼ x 4½ fixed focus Hicro

3¼ x 5½ post card Hicro with bellows



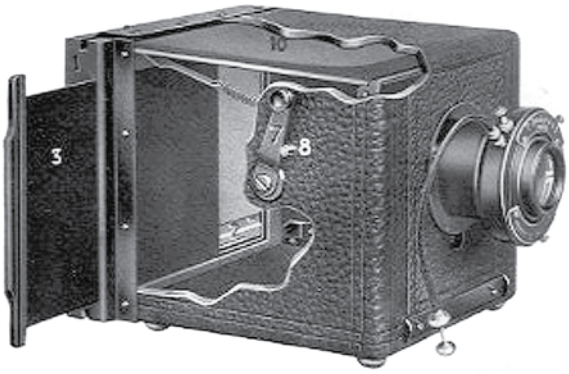


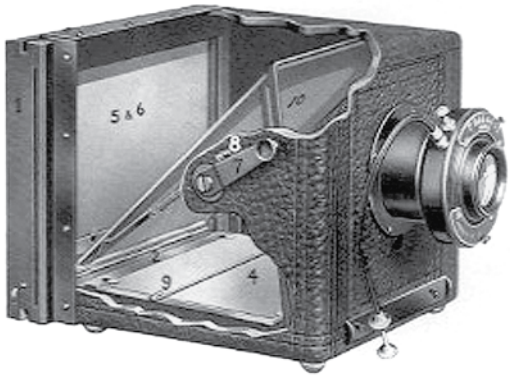
The holders – how to load



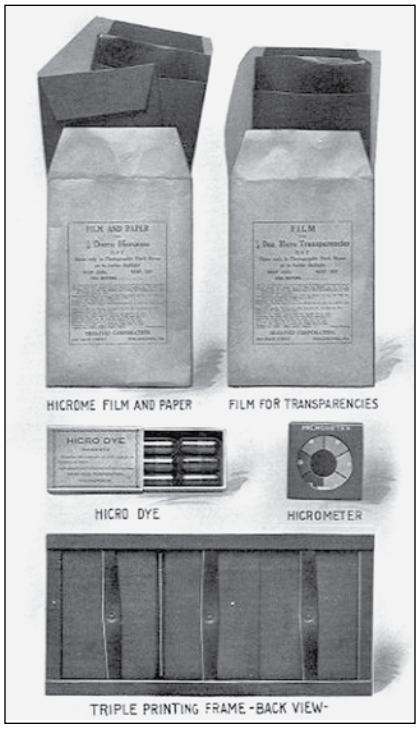
The 5x7 Hicro with bellows adjustment and F8 R.R. lens

IMAGES COURTESY OF ANDREW CAHAN

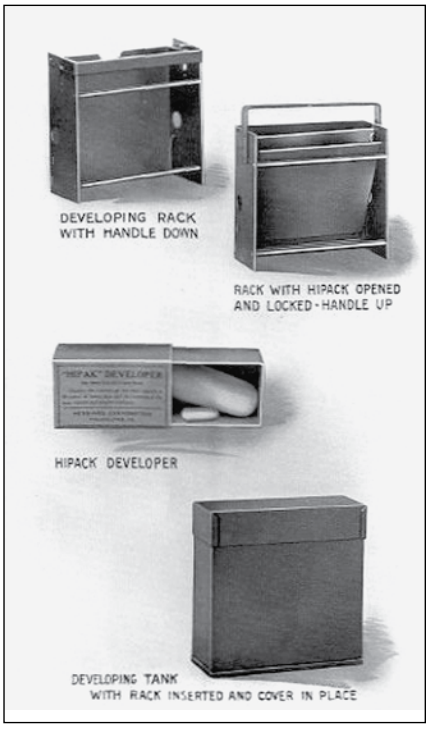




Dissection of the Universal Hicro camera



Packaging of plates and paper etc



Processing tanks and chemicals

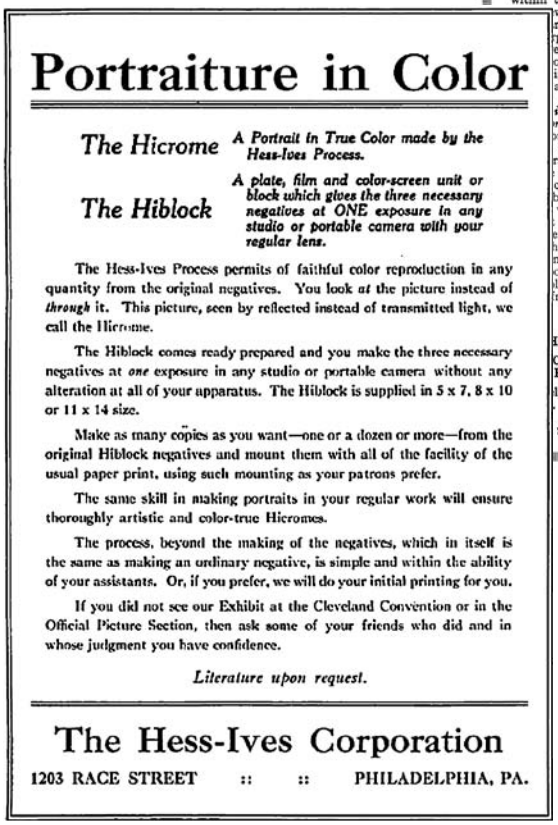
The advertisements constantly mention that a catalogue or booklet was available on request. The George Eastman Library has a booklet *Hess-Ives Hichrography* that is stamped RECEIVED OCT 13 1915. Its 12 pages give a cursory description of the process with a few pictures. Andrew Cahan, bookseller in Akron, Ohio kindly sent a more elaborate 34 page brochure that was commissioned the next year in "February Nineteen-Sixteen." It contained pictures of the cameras, prices, loading of the plates, processing of the film, and the prices for prints should you wish the Hess-Ives Corporation to make Hicrome prints or transparencies for you. Prices of the cameras varied from $25.00 for the smallest to $75.00 for the 5x7 camera.

Hess-Ives increased their advertising for the year 1916 and 1917 and started to impress the editors of the photo magazine who published short notices and full stories. *Popular Science* magazine gave it good play with headlines: *–Is This Actual Color Photography at Last?* or *–Three Plates and Three Color Screens Used in New Color Photography* or *–PHOTOGRAPHS IN NATURAL COLORS: New Process Makes Reproduction of Unlimited Number of Prints Practicable for the First Time*.

THE HIBOCK SYSTEM

But a new term was entering the Hess-Ives ads. This was the "Hiblock" system which was a new product and direct competition to sell the colour camera. Ives had further developed the Tripak so that it could be exposed as a single plate, referring to it as a plate-pack. Now, the exposure could be made in **any** large camera in sizes 5x7, 8x10 and even 11x14. Described in Patent 1,173,429 of February 29, 1916, Ives had overcome the problem of making the red and green sensitive plates with identical gradation-giving qualities. This he achieved by taking half of his supply of green-sensitized plates and soaking them in a weak solution of pinachrome or pinacyanol dye to make that batch sensitive **also** to the red spectrum. Since the two batches are of the same emulsion they will have the same gradation tones – often unachieved by other colour inventors. Since the red sensitized plate continues to be sensitive to green, a red filter screen is coated thereon to eliminate green rays from reaching the red sensitive emulsion.

For a Hiblock you commence first with an ordinary plate that is blue sensitive, the support glass base faces the lens, a yellow colour screen (filter) is coated on the backside of the emulsion layer so blue light will not travel back to the other plates; next you have a green film with emulsion coated on the back side of the support, a red colour screen (filter) is coated on this layer to prevent any green rays from travelling to the red plate; then you have the red sensitive plate at the rear of the Hiblock with emulsion on the front surface. All are bound together as a single unit to go in the Hiblock holder, one of which was supplied with the



HICROGRAPHY
HESS-IVES COLOR PHOTOGRAPHY

No special apparatus is needed to make Color Photographs—Hicromes

The Hiblock, the Hess-Ives triple effect plate, is given a single exposure in your regular camera with your regular lens; its

HICROGRAPHY
HESS-IVES COLOR PHOTOGRAPHY

Color Photography for amateur as well as professional with the Hiblock

Though the previous issues of this series have dealt more especially with the use of the Hiblock by the professional photographer, we desire in this letter to deal more with its use by the amat

HICROGRAPHY
HESS-IVES COLOR PHOTOGRAPHY

Think of this—You can now photograph in color, using your own camera

Think of taking a pack composed of two plates and a sensitized film, slipping it like an ordinary single plate into your own camera whatever the make of that camera may be, and taking a photograph in color of which you may make as many reproductions as you want. This is what has been made possible to amateur and professional alike by

The Hiblock

Many felt that color photography was to them a forbidden field so long as a special camera was required. But the Hiblock does away with all that. Here, bound together, are two sensitized blue and red plates with a green film interposed. One exposure only, as usual, and you have the colors separated and held by the three plates. Like every large epoch-making development, it is marvelously simple and it is just as simple for you to perfect yourself in its use. Why restrict yourself to black and white work when Hess-Ives Hicrography has opened to you a new vista — the dream of the photographers for generations? We will gladly send you a booklet telling you fully about the Hiblock and its possibilities — a subject that no progressive photographer whether he be professional or amateur should pass by without full investigation. Simply a line, and this literature is yours for the asking.

Respectfully,

THE HESS-IVES CORPORATION

N.W. Cor. 12th & Race
Philadelphia Pa.

Feb. 15, 1917 — President

Portraiture in Color

The Hicrome — *A Portrait in True Color made by the Hess-Ives Process.*

The Hiblock — *A plate, film and color-screen unit or block which gives the three necessary negatives at ONE exposure in any studio or portable camera with your regular lens.*

The Hess-Ives Process permits of faithful color reproduction in any quantity from the original negatives. You look *at* the picture instead of *through* it. This picture, seen by reflected instead of transmitted light, we call the Hicrome.

The Hiblock comes ready prepared and you make the three necessary negatives at *one* exposure in any studio or portable camera without any alteration at all of your apparatus. The Hiblock is supplied in 5 x 7, 8 x 10 or 11 x 14 size.

Make as many copies as you want—one or a dozen or more—from the original Hiblock negatives and mount them with all of the facility of the usual paper print, using such mounting as your patrons prefer.

The same skill in making portraits in your regular work will ensure thoroughly artistic and color-true Hicromes.

The process, beyond the making of the negatives, which in itself is the same as making an ordinary negative, is simple and within the ability of your assistants. Or, if you prefer, we will do your initial printing for you.

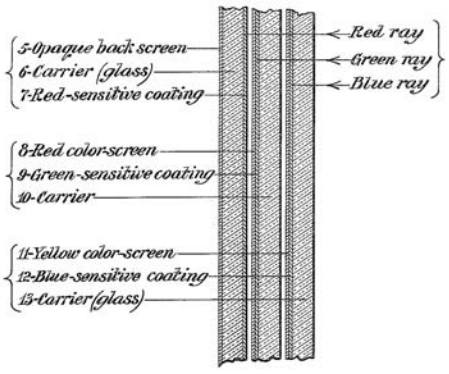
If you did not see our Exhibit at the Cleveland Convention or in the Official Picture Section, then ask some of your friends who did and in whose judgment you have confidence.

Literature upon request.

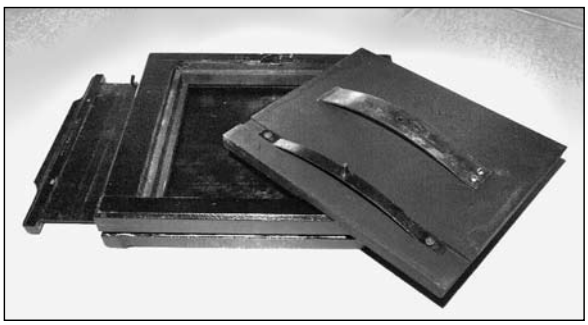
The Hess-Ives Corporation

1203 RACE STREET :: :: PHILADELPHIA, PA.

Series of ads from *American Photography* of 1917 and the *Bulletin of Photography* 1916



Cross section of the Hiblock plate-pack



Hicro plate holder with loading back removed.

The Hicro box

IMAGES COURTESY OF SCOTT BILOTTA

first order of plates. The filters were washed away during processing. Ives further improved the product by coating an opaque backing on the backside of the red plate to prevent halation. After processing this coating had to be removed with benzol.

Frederic Ives was kept busy promoting the new product giving addresses to various photographers gatherings. The company was in attendance at the annual convention of the Professional Photographers of America in Milwaukee. A full page ad explained that Mr. Ives could not go personally to every event nor could they send a representative so they would rely on giving their monthly message through their ads or editorial reports.

Noted pictorialist photographer Karl Struss was assigned to take photographs with the Hiblock system; Struss was a

AMERICAN PHOTOGRAPHY AUGUST 1917

The Butterfly by Karl Struss

specialist in nude female photography. He subsequently reported his experience in the *American Photography* magazine, August 1917 issue, with eight pages of text and two full colour illustrations. (See special colour supplement) Struss took great care to explain the full process from shooting to processing and finishing of the final colour prints.

Struss lamented that many deplored the lack of originality in the pictorial studies hung at the annual exhibitions. It seemed that every possible combination of gum, platinum, carbon, single and multiple prints, even photogravure had been tried with the same venerable and academic subjects and compositions. It seemed the possibilities of the medium had become exhausted. He welcomed the newest form of colour photography by the Hess-Ives method with unlimited reproduction. The Lumière Autochrome and the similar Paget process gave adequate results, but unfortunately the inability to print on paper and the relatively long exposures required, made these processes impractical from the pictorial point of view.

Struss commented on the choice of lens. Since the process produced soft images, then choosing a pictorial soft lens, particularly in the telephoto, would, in his estimation, be unwise. The speed of the Hiblock is 6½ American Photography and 6 Burroughs-Welcome, and it is always better to over-expose when in doubt. The development of the Hiblock is in Hitol developer as supplied. In the dark the paper ends holding the plates together are removed and the red-sensitive plate put in a light tight box. Under red safe light the front plate is developed for 2¼ minutes and the green sensitive film is developed for 4½ minutes. The back red-sensitive plate is then developed in total darkness for 2½ minutes.

For the print-films (positives) the negatives are printed by contact onto bichromate film through their celluloid base. Intense arc lamps are recommended for the exposure to shorten timing of 2 to 5 minutes. A varnish coating is removed with benzol and the films are developed in water at 95 degrees until highlights are clear. The films after drying are then dyed up in their respective blue, magenta and yellow dyes (Ives insisted on calling them cyan, magenta and yellow but here I am using Struss' description). The "peacock blue" film while still wet is then pressed down on a piece of dampened backing paper with a roller while the magenta and yellow are hung up to dry. The blue film can be peeled off after about five minutes leaving a blue transfer-print. The blue film could be used again for additional prints. Subsequently the magenta film and then the yellow film was registered on the dried blue base-print and held in register with lantern slide tape and clips. The combination is then lowered into an amyl acetate bath then pressed with a squeegee roller between blotters or run through an elastic roller press to remove all bubbles. After a short while, under pressure, the print is finished and can be varnished or colour retouched to improve imperfections. Later the process called for all three images to be transferred as dye images to the soft gelatin paper – dye imbibition process.

An editorial comment on the assignment commented:

Over two hundred negatives were made of ten of the best female models as selected. Of these, forty-eight were retained for [his] portfolio. The models were selected and posed by a group of three artists. Karl Struss whose pictorial work is so well known, made the color plates and prints. As a result of the effort of these pictorial workers, the pictures are on a very high plane, and the engraver has retained the values and spirit of the originals remarkably well. In his article on the Hess-Ives color process in this issue, Mr. Struss lays emphasis on the value of that process for reproduction by printing in three colors; his statement seems amply justified by the two studies reproduced.

COLOUR PHOTOGRAPHY: THE FIRST HUNDRED YEARS - Brian Coe

Frederic E. Ives

The accolades ran on such as the editorial of the *New Photo Miniature Vol. 13*: "It is only necessary to give the name of its inventor, Mr. F. E. Ives, to provide the assurance that is on a theoretically right principles. Mr. Ives is recognized throughout the world as the leading investigator and authority in color-photography. But in this new process, the 'Hicro,' he has done a good deal more than provide the theoretically right; he has reduced the practice to such a degree of simplicity and certain that the making of prints and diapositives in natural colors calls for little more skill than ordinary photography."

But was it successful? The ads petered out during 1917. After the sinking of seven U.S. merchant ships by submarines and the publication of the Zimmerman telegram, the U.S. Congress declared war on Germany on 6 April 1917. America's industry and populace turned to war.

WHO WAS HENRY HESS

Trying to assess the biography of Henry Hess becomes a difficult problem from time and space. He was the partner and the financial backer to the Hess-Ives Corporation which promoted the Hico camera..

Henry Hess was born in Darmstadt, Germany on 10 January 1863, coming to the United States shortly thereafter. He received his education in the New York schools, with several additional years of schooling in Germany. In America he worked for several top steel companies and spent several years in Germany as consulting engineer and managing director of the German Niles Tool Works Company of Berlin. In 1904 he founded The Hess-Bright Manufacturing Company, inaugurating the American heavy ball bearing industry. He was a leading expert in the manufacture and design of ball bearings. He disposed of these interests in 1913 and formed The Hess Steel Castings Company and The Hess-Ives Company. The Hess Steel Casting Company perfected the manufacture of the purest wrought iron material into castings via the electric furnace. Such steel was needed for electrical equipment where high magnetic permeability is essential and for manufactured steel items that withstood corrosion, high pressure and high temperature. It seemed the rising car industry heavily associated itself with Hess-Bright bearings as the creme-de-la-creme of bearings.

In 1917 the S.K.F. Administrative Company was formed to manage the Hess-Bright manufacturing Co, and the S.K.F. Ball Bearing Company. American shareholders bought out the minority interest in the Hess-Bright Company before the break with Germany occurred. Seemingly this was a public relations gesture to eliminate ties with Germany and to make it easier to gain future government contracts during the war.

But Henry Hess and his companies seem to have gotten into hard times. In August 23, 1920 the Baltimore Trust Co filed a petition to have the Hess Steel Corporation placed in the hands of a receiver. A lawsuit in 1920 harkens back to a contract with the U.S. government during the war years to deliver 24 tons of electric steel ingots, later reduced to 13,145 pounds. The company was suing for 16 nine inch ingots and experimental work that became part of that order. They were scrambling for $2,327.54.

But as part of the records it is reported that the Hess Steel Corporation was indebted to the War Credits Board to the sum of $100,000 and it had not been paid.

Mr. Henry Hess died in 1922.

Frederic Eugene Ives wrote his autobiography and had it published for his heirs to appreciate his accomplishments and not rely on history to give a tarnished version. He systematically went through his lifetime touching on his 70 patents. Through the 98 pages of text supplemented with an additional 19 pages of reference notes he gives particular arguments to his detractors and naysayers.

> The exploitation of the Tripak system was taken up by Mr. Henry Hess, in Philadelphia, but proved unprofitable as managed, and after Mr. Hess' death, I sold some of the patent rights to the Eastman Kodak Company, and with part of the proceeds cleared off a considerable indebtedness of the corporation and made a new contract with the stockholders which placed upon my shoulders the burden of undertaking to realize something from the remaining patent rights, which had to do chiefly with color cinematography.

Excerpt from *Autobiography of an Amateur Inventor* by Frederic E, Ives.

But when it comes to the Hess-Ives company and the whole Hicro camera episode he has but one short paragraph to dispose of the matter:

The exploitation of the Tripak system was taken up by Mr. Henry Hess, in Philadelphia, but proved unprofitable as managed, and after Mr. Hess' death, I sold some of the patent rights to the Eastman Kodak Company, and with part of the proceeds cleared of a considerable indebtedness of the corporation and made a new contract with the shareholders which placed upon my shoulders the burden of undertaking to realize something from the remaining patent rights, which had to do chiefly with color cinematography.

Obviously it was an unpleasant experience during years of triumph. But was it an expression to defend his personal ego or was it revulsion at the downward demise and loss of his friend, Henry Hess? He did quote further details in the reference notes.

Photographers had shied from the three-image colour process as *Wilson's Photographic Magazine* commented: "Many felt that color photography was to them a forbidden field so long as a special camera was required. But the Hiblock did away with all that."

The *American Annual of Photography* for 1918 said: "The prints on paper give the impression of wooliness – or fuzziness. They are not crisp and sharp, owing to the manner in which they are produced, and the amateur who looks to count the hair of Fido's tail in a color print has a large and varied surprise in store for him." For portraiture or pictorial photographs it seemed quite acceptable.

The consensus was that the camera was sold too cheaply in a limited market and the processing services could not sustain themselves catering to the few specialists.

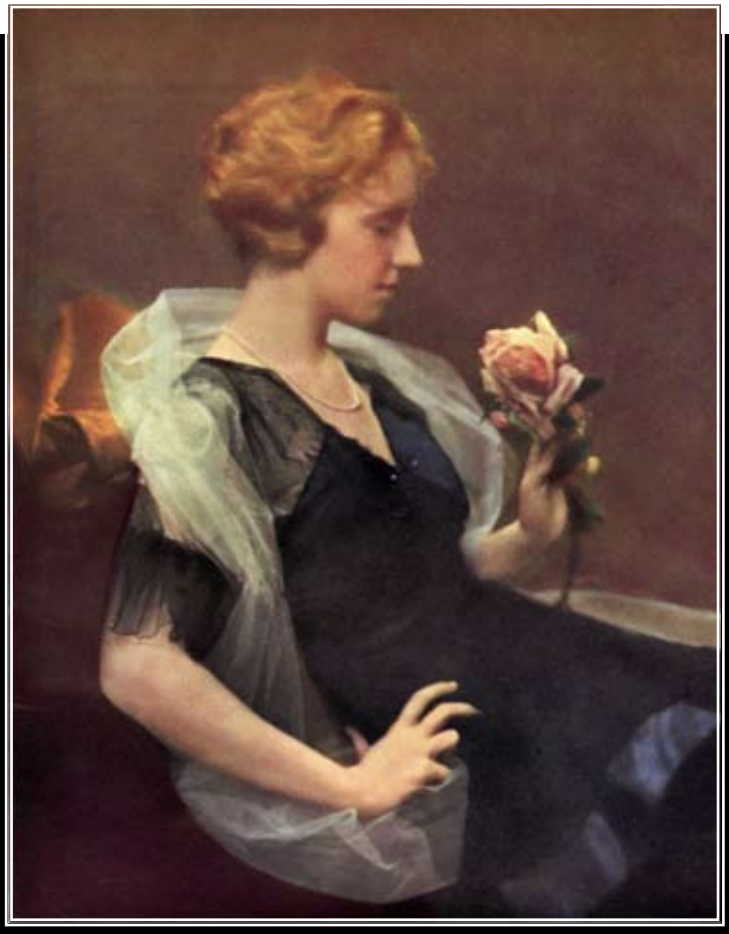
Colour photography went on to favour the one-shot tricolor cameras such as the Bermpohl, Vivex, Devin and National Photocolor using one and two mirrors.

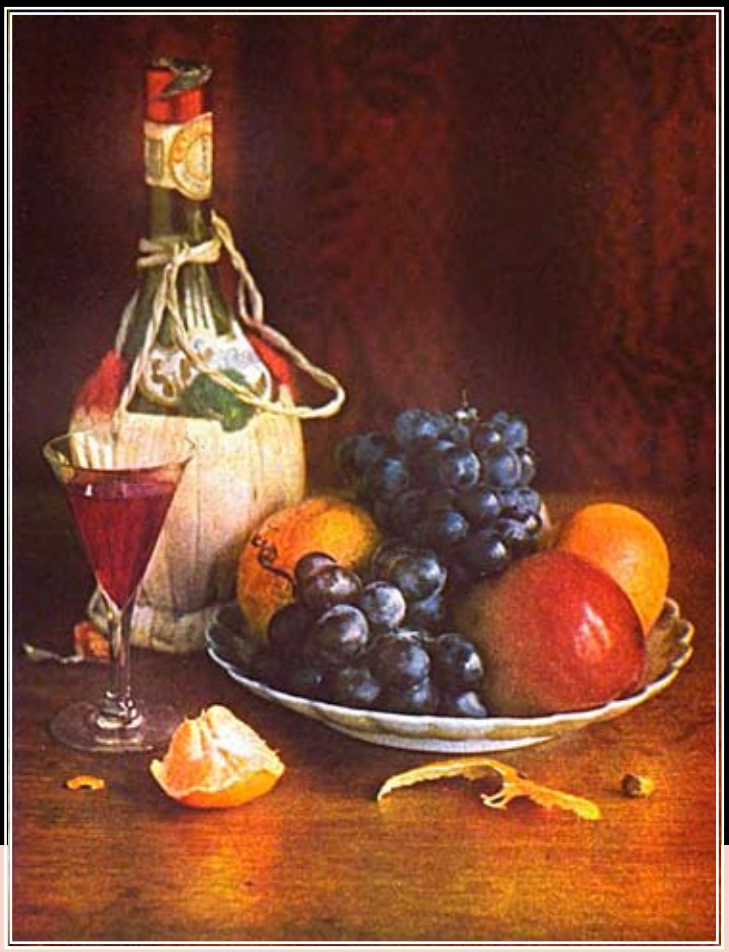
It is a sad tale that they should end up in a "pickers" box of junk. As saved by Matt Isenburg, the water-stained cardboard box with a dozen Hicro cameras may have been the last vestiges of this enterprise. Three cameras were still perfect to continue on to tell of the dream of early three-colour photography, the rest were but mere crushed mush or only slightly damaged. ❧

ACKNOWLEDGEMENT

My thanks to the many who took the time and interest to help pull the details together for this story: Chris Holmquist, Scott Bilotta, Robert Wilson, Rob McElroy, Todd Gustavson, Steve Rudd, Matthew Isenburg, Peter Kitchingman, Marcel Safier and Andrew Cahan.

Colour by the Hicrome and Hiblock systems





We've collected a number of images that are marked as having been done with the Hicrome system to show that it was a viable system. The still life of fruit and wine was commissioned for the December 1915 issue of *American Photography* magazine as a tip-in. Although credited as "Reproduced from Hicrome Photograph on Paper," its sharpness and vibrant colours seem to indicate the overwork of the graphic artist.

The portrait (above) by Elias Goldensky was engraved directly from the original colour print. It represents the best rendition we have seen in several books and magazines of this picture.

The cigar smoking mug shot is by Edward Steichen. It is unknown how deeply he was involved with the Hicrome system.

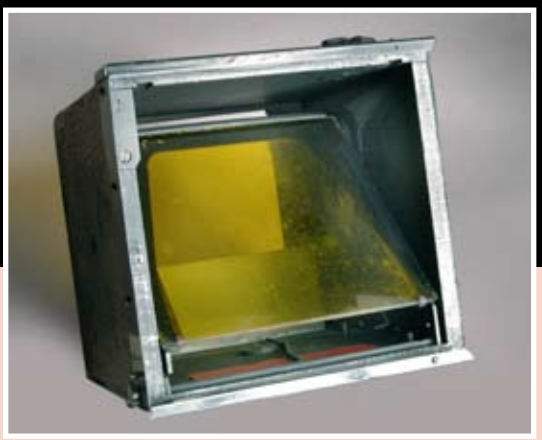
Portrait of girl - *Colour Photography – the First Hundred Years*, Brian Coe.

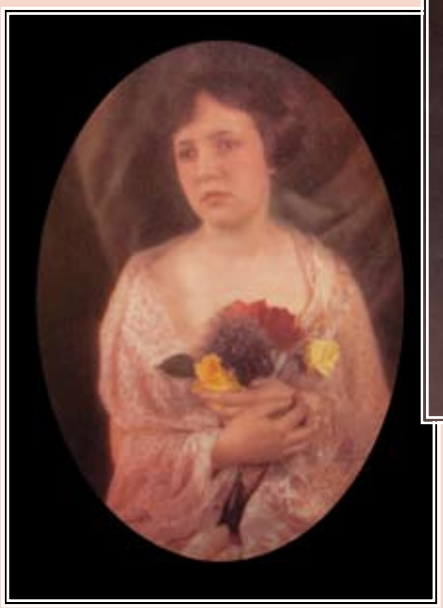
SUPPLEMENTARY COLOUR SHEET FOR PHOTOGRAPHIC CANADIANA Vol. 38 #1

The nude photograph is by Karl Struss. He was commissioned to produce the picture to encourage other pictorialists to make use of the process. A specialist in nude photography, the results were reproduced in *American Photography* magazine with a full report accompanying two images about his shooting, processing and printing of the photographs. The pictures, as reproduced in the magazine, were very low in contrast and overly orange in colour.

The consensus was that the pictures were too "fuzzy" for general acceptance – OK for portraiture. The poor reproduction of colour in magazines, at the time, didn't bode well for the general acceptance of the process.

At the far right, the equipment illustrations show the "orange-pink" filter behind the lens, the Hicro camera, the yellow reflector/filter inside the camera and the instruction panel on the side of the camera.






IMPORT
BEFORE TURNING HANDLE THUS
HAVE LENS OUT READY TO EXPOSE. WHEN
NOT USING CAMERA, OR BEFORE INSERTING, OR
REMOVING GROUND GLASS, OR PLATE HOLDER, BE SURE
THE HANDLE IS TURNED THUS TO ITS STOP. LENS BARREL
MUST BE CLOSED WHEN LENS IS INSIDE.

THE AMALGAMATED

PHOTO HISTORY

NEWSLETTER

INDEX, Vol. 1, Issue 1 through Vol. 2, Issue 4

Articles and Authors

The Amalgamated Photo History Newsletter is a cooperative venture initiated by Robert Lansdale of Ontario, Canada, and Ken Metcalf of North Carolina. These photo historical organizations have participated. Others are likely to join:

* All Japan Classic Camera Club (AJCC)
* The Photographic Historical Society of New England (PHSNE).
* The Photographic Historical Society (TPHS).
* The Photographic Historical Society of Canada (PHSC).
* The Western Canada Photographic Historical Association (WCPHA).
* The Australian Photographic Collectors Society, *BackFocus* (APCS).
* *The Graflex Journal* (GJ).
* Photographic Collectors Club of Great Britain (*Photographica World, Tail Board* (PCCGB)
* Wisconsin Historical Society Newsletter (WHSN)
* Michigan Photographic Historical Society (MiPHS)
* Cascade Photographic Historical Society (CPHS)
* Photographic Collectors Club of Queensland (PCQ)
* Photographical Historical Society of America, *Northern Light* (PHSA)

Articles have also been submitted by individuals who did not specify an affiliation, e.g., Martin Magid (MM), George Dunbar (GD).

Articles are listed alphabetically by title, followed by the author's name. Authors are also listed alphabetically. The *Amalgamated* issue where the item appears is identified by Volume and Issue #, separated by a hyphen, eg., 1-2.

The letters following the issue number identify the organization which submitted the article cited, e,g., APCS for the Australian Photographic Collectors Society. Page numbers seen in the *Amalgamated Newsletter* refer to that specific article, not to the *Amalgamated* pages.

Please distribute this **INDEX** to all who receive the *Newsletter.*

If you have questions, corrections, or ideas for Index changes, my email address is: martin.magid@gmail.com

Martin Magid
Bloomfield Hills, Michigan, USA

Sunday, April 25, 2021, is WORLDWIDE PINHOLE PHOTOGRAPHY DAY. Take pinhole photos that day, and send one to WPPD. Check the WPPD website for deadline and site requirements. All who participate will see their photo on the WPPD 2021 Gallery.

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