

# THE SUBMINIATURE TIMES

The Subminiature Times is published monthly by Doylejet, P.O. Box 60311, Houston, TX. 77205 (713) 443-3409  
Supporting 110, 16mm, 9.5mm, 8mm, 4mm, 1mm, Microdot, & Electronic Still Photography.



## EARN MONEY WITH YOUR SUBMINIATURE.

I saw this accident, and stepped from my car shooting quickly. Immediately after I made the fourth exposure, a cloud-burst obscured everything. The cars were pushed to the side, and the street was swept clean to get traffic moving.

When the counting was done, this series of photographs earned over \$500 from the parties involved; about 20 times what I'd paid for the camera. Grabshots of accidents can be a neat reward for being the only person with a camera handy.

Al D.

Camera : Mamiya Super-16

Update: The short focal length enlarging lenses.

The current list has only three lenses. The Schneider Componon name speaks for itself, for quality. The Rodenstock is supposed to be the best bargain in the group. Ironically, the true test of an enlarging lens is the sharpness of the image out at the edges of the print.

With subminiature negatives, you'll only be using the center portion. All of them work fine!

25/3.5	\$26.95	Bogen-Voss
25/4	57.50	Rodenstock Rogonar
28/4	149.50	Schneider Componon

Cambridge Camera Exchange  
7th Ave & 13th St. NYC NY 10011  
(212) 675-8600



Examples of small, vanishing cameras. Expo Watch Camera, Rubina 16 Model II, Tynar 16, Coronet Midget, Micro 16, Univex, Stylophot-focusing model.

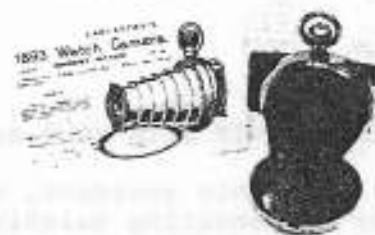
## Small Cameras — Almost Extinct

by Morris G. Moses

With the advent of the space age, the old box and folding cameras have given way to the 35mm single lens reflex camera, the pocket "Instamatic" (Reg. T.M., Eastman Kodak Co), and the disc camera. Few camera users realize that the present day pocket camera is the descendant of some very unusual forerunners in tiny cameras.

As early as 1887, an English camera was made in pocket watch form in which telescoping metal sections took the place of the more common bellows. This watch

camera—the Lancaster—was followed in the early 1900s by the Expo—another watch camera sold for \$2.50 by the famous mail order house of Johnson-Smith in Detroit, Michigan. After the introduction of the world famous Leica camera in 1925, a German inventor, Friedrich Kaftanski, further shrunk the Leica body style further into what became known as the Miniflex—a tiny camera using 16mm film. During the 1930s, several tiny cameras, sometimes called subminiature cameras, appeared on the world



Reduced Leica body style became the Miniflex.

### Lancaster Watch Camera of 1887

markets. One such camera, the Coronet Midget, was sold during the British coronation in 1937. It was also promoted in the U.S. as a cereal giveaway. The Univex, a 39 cent pocket-size "poor man's" camera, had already made its appearance here in 1933. Manufactured by the Universal Camera Company of New York, the Univex took 6 pictures, approximately one inch square, on a 10-cent roll of film. However, the majority of tiny cameras up to the late 1930s were hardly more than novelties.

The first "tiny camera" to have left a lasting mark in photographic circles made its appearance in 1938. Originating in Latvia, the camera was the world-famous Minox, sometimes referred to as the "spy camera" used by the F.B.I. and undercover agents all over the world. The Minox camera was the product of the VEF (Valsts Elektrotehniskā Fabrika or State Electrotechnical Factory) in Riga, Latvia. It is a classic subminiature camera in both external design and internal function. The designer responsible for the externals and outside cosmetic appearance was Adolfs Irbītis, and the man credited with the invention of the functional Minox internals was Walter Zapp.



*Precision gold Minox camera presented to President Eisenhower in 1953.*

Irbītis was born in 1910 at Riga, Latvia, and had been an art student. Zapp was born in Riga in 1905, the son of a merchant. A strange series of events brought these two men, along with several others, together in the shops of the VEF in the mid-1930s. With the three successive World War II invasions of Latvia from 1940 to 1945—Russian, German, and finally Russian occupation—manufacture of the camera ceased in Latvia and was recommenced in part of a converted German cigar factory in 1948. The Minox has been produced in several models, including a gold-plated version as well as a black finish for extra low visibility use. Over 1½ million of its 9.5mm film-width models have been sold world wide. Although Minox cameras have occasionally been given to F.B.I. agents as gifts on special occasions, more compact cameras have been contrived for modern surveillance work. Nevertheless, the Minox mystique still remains and makes this camera a special item for photographers and collectors who continue to admire the peak in practical subminiature camera design.

Another unique "spy camera" developed for espionage was the Kodak Match Box camera which found its way into the OSS catalog of 1943. With prototypes first made by an independent private camera repairman, the final design was refined by Eastman Kodak into a remarkably reliable palm-sized package. The Match Box utilized 16mm film and was issued to several underground groups in World War II, complete with chemical processing kits and other accessories. Fewer than 1000 were made, and only 315 or so are accounted for today.

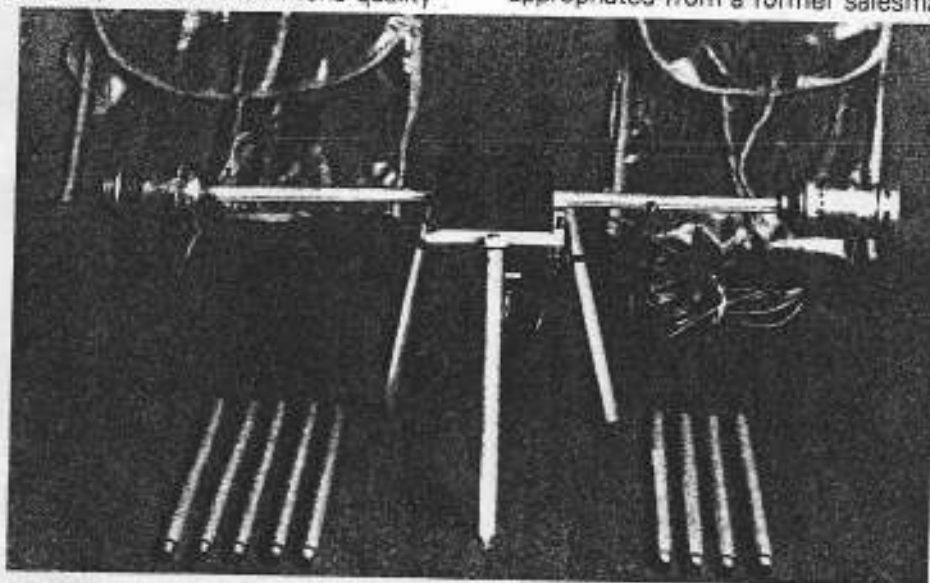
The period following World War II saw the introduction of a legion of "spy type" cameras, among the earliest of which was the Whittaker Micro-16. Designed by Raymond LaRose and two others, the camera was manufactured by Robert and William Whittaker, aircraft parts manufacturers in Los Angeles. The dimensions of the Micro-16 were held just smaller than those of a standard size cigarette package. One promotional ad in *Popular Mechanics* magazine in December, 1947, showed Phil Harris and Alice Faye posing for a picture being taken with the Micro-16 by their daughter who was only an amazing 5 years old at the time. In 1948, Universal Camera Company began marketing their Minute-16 subminiature camera, designed by J.D. Marks and Wallace Ward. The major problem with most of the post World War II American cameras was their somewhat crude mechanical design, and it was common for the shutters to fail often, or for the film to encounter transport problems going through the body. The choice of lens quality



*Stellar camera from Parker Pen Company*

and shutter speeds in American subminiature cameras was barely superior to those of many box cameras at the time.

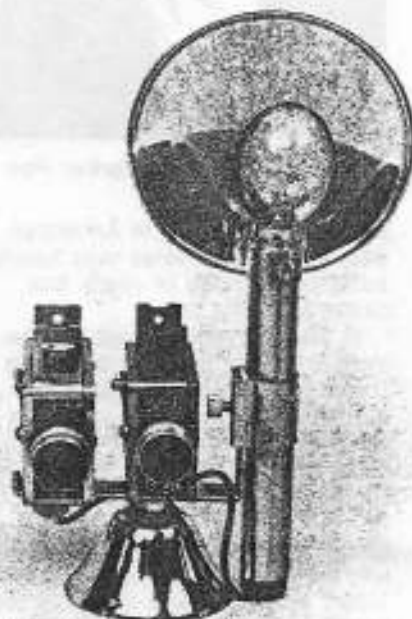
In 1949, Charles Frank, a New York importer, brought over one of the first group of diverse subminiature Japanese cameras whose designs were of much higher calibre. Included in the imports were the Micro camera and Rubix and Rubina cameras. Equipped with lenses having speeds as high as f3.5 and variable shutters up to speeds of 1/200 second, these cameras took reasonably sharp pictures when enlarged to 4 by 5 inches or more from the original ½ inch-square negatives. With the brief appearance of the 16mm Tynar camera in 1950, the last production-run American subminiature camera made its ill-fated debut. The design was appropriated from a former salesman



*Kodak Matchbox Camera of World War II. This tiny spy camera also known as "MB" or "Camera X". Original copy stand for documents is shown with camera in place.*



for Defender Photo Products; and although it was an optical and mechanical design disaster, it proved to be a fascinating experiment in merchandising effrontery. Pushed into drugstores, supermarkets, and on unsuspecting retailers everywhere possible, the Tynar was one of many wild adventures of Phillip Kalech, a pharmaceutical salesman who would go down in history as a moving force in the introduction of the famous Toni home permanent hair wave.



*Universal Minute 16 cameras mounted on factory made stereo flash bracket. Did it work? Doubtful!*

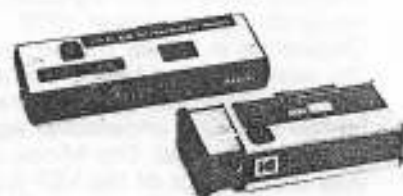
In 1952, another tiny camera was doomed before its time when the Parker Stellar, designed for the Parker Pen Company, was held back from production. Of the 100 or so cameras purportedly made as test and prototype cameras, barely 5 dozen have been tracked down by the author.

By 1955, Friedrich Kaftanski, who had met with little success in his Minifex of the 1930s, designed the Stylophot camera. The Stylophot was fountain pen-like in appearance, and two major models were produced using 16mm film in rolls of 20 exposures. One advertisement touted the Stylophot as being used by the French Surete (a claim the author has never been successful in having confirmed by either the Surete or Interpol). Only some 37,000 Stylophots found their way off the assembly lines, but repeat film sales were nearly eight times that figure. The processing was as much a part of the profit picture as the camera sale. At the time of his death in 1971, Kaftanski had another

tiny camera design on his drawing board, but the introduction of the Kodak 110 Pocket Instamatic in 1972 was to spell doom for most of the under 35mm size cameras that were subsequently brought out.

Throughout five decades from the Minox of 1938 to the "110" size (a new designation for the old 16mm) Kodak Pocket Instamatic of 1972, the Minox had held its own as the widest selling, highest quality subminiature camera ever made. But even in the case of the Minox, the end came eventually. Despite an auto-exposure model in 1971 and a fully automated version with light-emitting diode warning signals in 1978, the Minox factory in Giessen, Germany finally went to a highly successful, ultra-compact 35mm model in 1979. Currently only one sophisticated full-system under 35mm size camera is being marketed widely—the Asahi Pentax 110 system camera which features full lens interchangeabilities and automatic power film winding.

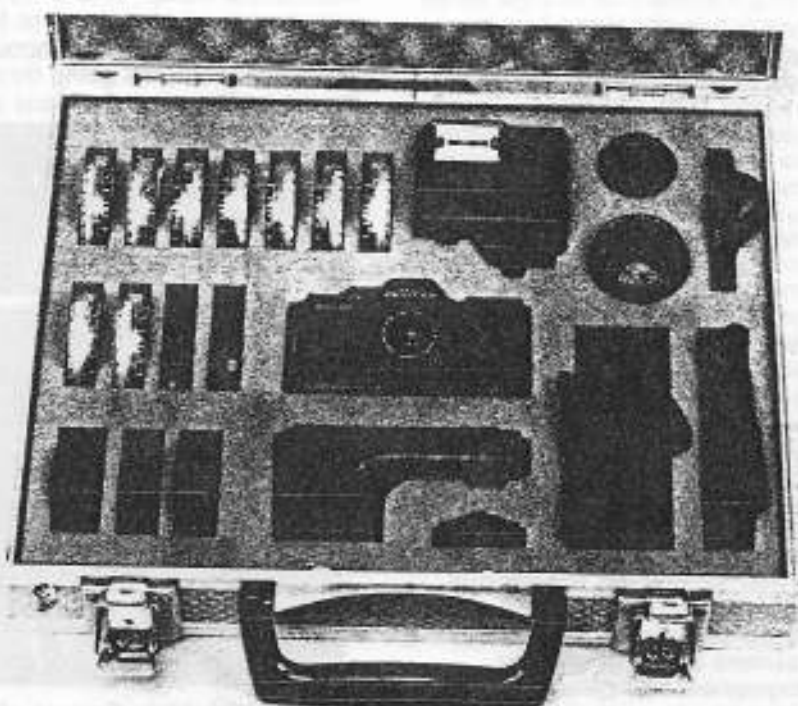
What was yesterday's 16mm tiny camera has become today's "110" and disc cameras, and the hundreds of sophisticated and novelty "tiny cameras" produced from 1880 to 1980 have converged into the Asahi Pentax 110 system camera or the Kodak Pocket Instamatic and its copies. It is worth noting that most of the tiny cameras failed to reach wide popularity mainly for two reasons. The first was that film sizes



*Kodak 110 Pocket Instamatic Cameras from U.S. and Germany*

for these pygmy cameras (another word for them, coined by our English cousins) were never completely standardized. The second and perhaps more important reason was that quality processing of films of such small size posed insurmountable headaches for all but large photo-finishing operators, such as Kodak.

It is unlikely that most collectors will ever see a Match Box camera in surveillance service today, since most of them are carefully preserved in museums and private collections. The Minox is still seen in use by photographic buffs and, infrequently, on old-time TV spy thrillers where someone has to copy those "secret documents." Whether you call them tiny cameras, subminiature cameras, or pocket cameras, there were over 250 varieties of these Lilliputian picture takers and they deserve a place in any photo or miniature enthusiast's heart.



*Pentax 110 camera outfit in fitted case.*

# FIRST LOOK

## GMI BEACON 200

Infrared wireless control has up to 200-ft. range

- Infrared transmitter and receiver for wireless, remote camera operation
- Allows sequence shooting with motorized cameras
- Operates on any one of three channels
- Transmission angle, about 30x40 degrees
- Receiving angle, about 60 degrees
- Transmitter recycling time, 1-3 sec
- Transmitter operates on two AA alkaline-manganese cells, receiver on one 9-volt battery
- Dimensions of transmitter: 48x113x34 mm (1.9x4.4x1.3 in.); of receiver, 68x71x55 mm (2.7x2.8x2.2 in.)
- Weight without batteries: transmitter 128 g (4.5 oz.), receiver 126 g (4.4 oz.)



Transmitter (l.) activates receiver (above) which, in turn, releases camera. Pair offers choice of three operating frequencies.

The GMI Beacon 200 is a wireless, infrared triggering system that can operate a camera from afar without the problem of radio interference. That can prove most valuable in, say, sports and nature photography. Specs give a maximum range of 200 ft., but that's with straight-line transmission under ideal conditions and in open terrain.

The system consists of three parts: the transmitter, which emits the infrared beam to the infrared sensor on the receiver, which then releases the camera or activates its motor drive via a matched connecting cord. With the camera aimed at the scene, its lens prefocused, all the photographer need to do is press the transmitter's button. Outdoors, or in large halls or stadiums, the transmitter should be pointed directly at the receiver's sensor. The latter, mounted on the camera's hot shoe, can be swiveled fully around.

In small, enclosed interiors, the transmitter need not be pointed directly at the receiver, as the beam will bounce off solid surfaces and hit the receiver's sensor anyway.

It is possible to make the triggering beam practically invisible by covering the transmitting head with an 87C Wratten filter. That might be a good precaution for dealing with certain subjects,

such as elusive wildlife.

Aside from obstructions, the operating range depends on the condition of the batteries. The transmitter uses two AA-size alkaline-manganese batteries, and the receiver a nine-volt one. With a fresh set, recycling time is about one sec. Nicad batteries may be used, but they may affect the operating range adversely. In any case, it is best to pretest the system under actual working conditions. The receiver has a red test light to help you do so, and you may also hear a very slight click.

The system can operate on three different channels; both the transmitter and the receiver must be set to the same channel. This three-channel selection allows two or more photographers to use this system without interfering with each other. If two receivers are on the same frequency, their cameras will be triggered simultaneously. But if you want to do this intentionally, you can do so only by buying a second outfit, as extra receivers are not sold separately at this time.

Of course, with nonmotorized cameras, the Beacon can only be used for a single shot after each winding. With motor drives, it can be set for either single-frame or continuous shooting. In continuous mode, you press the transmitter's button to activate the camera, and it will

keep firing until you press again to stop it. This mode can also be used for time exposures without risk of causing camera shake. You activate the receiver for the necessary time interval, then deactivate it to end the exposure. The same setting also serves for filming.

Fit a slave unit to an electronic flash unit, and you can even use the transmitter to trigger flashing, and you don't need the receiver for that. Because of a slight delay, a shutter speed of 1/30 sec or longer should be used. And if you have a shoe-mount flash, it can even be mounted directly on the receiver; now that's really convenient!

Adapter cords are available for most SLRs. Some may work with more than one camera model. For example, I found the Minolta cord also suitable for a Contax 139 Quartz. In fact, I had trouble using it with the Minolta XD-11, but it worked flawlessly on the X-700. The explanation appears to be in the shutter-releasing mechanics and circuitry.

Price of the Beacon 200 is \$129.95; the connecting adapter cord, \$9.50. It is distributed by GMI Photographic, 1776 New Highway, Farmingdale, N.Y. 11735.

Jack Neubart

## THE SUBMINIATURE TIMES QUICKFINDER 7/89

Tasco Binocam in case	\$220	CT
Kodak Disc cameras:		
4000	29	CT
6000	20	CT
Minolta 110Z	80	CCG
Clip on rangefinders	17	CCG
Minolta-16 MG w/case	27	T
GaMi w/case	299	T
Minolta-16 EE	39	T
-16 QT Kit	69	T
Rollei-16 w/flash	89	T
Belt clip for Pentax 110	19	T
Magic Photoret (watchcam)	399	T

CCG Columbus Camera (614) 267-0686  
 CT Cliff Travis (914) 478-0931  
 E Eddie Tillis (516) 599-6013

### NEVER MIND VALHALLA SHIP ME TO JACK'S

When someone admits to having 6500 items on display in their private collection and several thousand additional items in storage, you know you've tapped into one of earth's major collections.

Jack Naylor collects cameras and prefers subminiatures. After trying unsuccessfully to contact the Boston area super collector by phone\* I realized that even if I were a next door neighbor with an open invitation to 'drop by' I'd suffer sensory overload. Rather than look at everything, I'd home in on particular models. Like the Edixa-16. I've never seen one.

The Edixa was manufactured from 1960 to 1965 by the Wirgin Brothers of Wiesbaden. It took unperforated 16mm film, had a 25mm/2.8 lens with a 12 x 16mm format and a match-needle meter. Sounds perfect. But I can't find a picture of the thing. I've searched all the quotable sources: White's McKeown's, Cooper's, and Christie's. No Edixa pictures.

And I'd look for the Echo-8s. Supposedly there were two models. I know about the one with the 15mm/3.5 lens. I'd like to see the other model.

I'd just look without touching. Leave them in the case. (I've already calculated that if I loaded a fresh camera every morning it would take 17 years, 9 months, and 21 days.) Then there's the stuff in storage! It would be a labor of love, and a lot of questions would be answered. Important questions, like: which subminiature has the sharpest lens, the GaMi, the Rollei-16, or my latest candidate the Minolta-16 QT?

How about the sharpest Minox? There's one that needs to be settled before the year 2000. I'd make a set of 20 x 30" prints from each model, and spend about a month looking at the prints through a microscope.

But it isn't to be. As you read this, parts of the collection are being sold off.

It's a pity. A collection that size probably has its own gravity, like a small planet. Sucking in cameras that pass through the neighborhood. You probably couldn't find an Instamatic within a mile of the house. Gotta keep a window open so that incoming doesn't tear up the roof.

The Norsemen thought it was pretty neat to be brought home from battle on a shield. It was a guaranteed trip to Valhalla.

I haven't wanted to carry a shield since I left New York City. But I can relate to a fresh subminiature camera every morning forever.

So if Mr Naylor keeps his subminiatures together, I'll keep a Minox film splitter in my pocket. And on the back of my Medic Alert I'll write "Ship Me To Jack's".

He'll understand.

\*Jack Naylor, c/o The Photographic Historical Society of New England, Inc. P.O. Box 189, West Newton, MA. 02165. (617) 573-6603

### FREE CLASSIFIED

HARD TO FIND 110 Kodak Gold 400 x 24 exp. \$2.99 ea. Also Kodak Gold 1600 35mm x 24 exp. \$1.99 ea. Columbus Camera Group, 55 E. Blake. Columbus, OH 43202 1-800-325-7664