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Interchangeable Magazine Backs

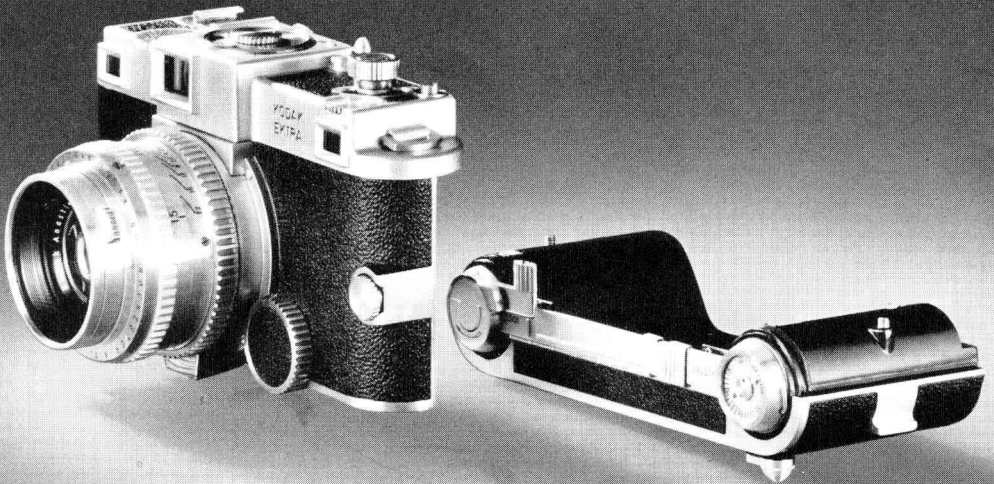
IN MANY respects the most arresting exclusive feature of Kodak Ektra is the provision for the use of interchangeable magazine backs . . . an advance offered by no other miniature camera. These backs make the Ektra a unique "multi-film" camera. Together with the interchangeable lenses, they place at the user's disposal not only a practically limitless picture-making scope, but also unequalled facility in meeting the requirements of varied picture situations.

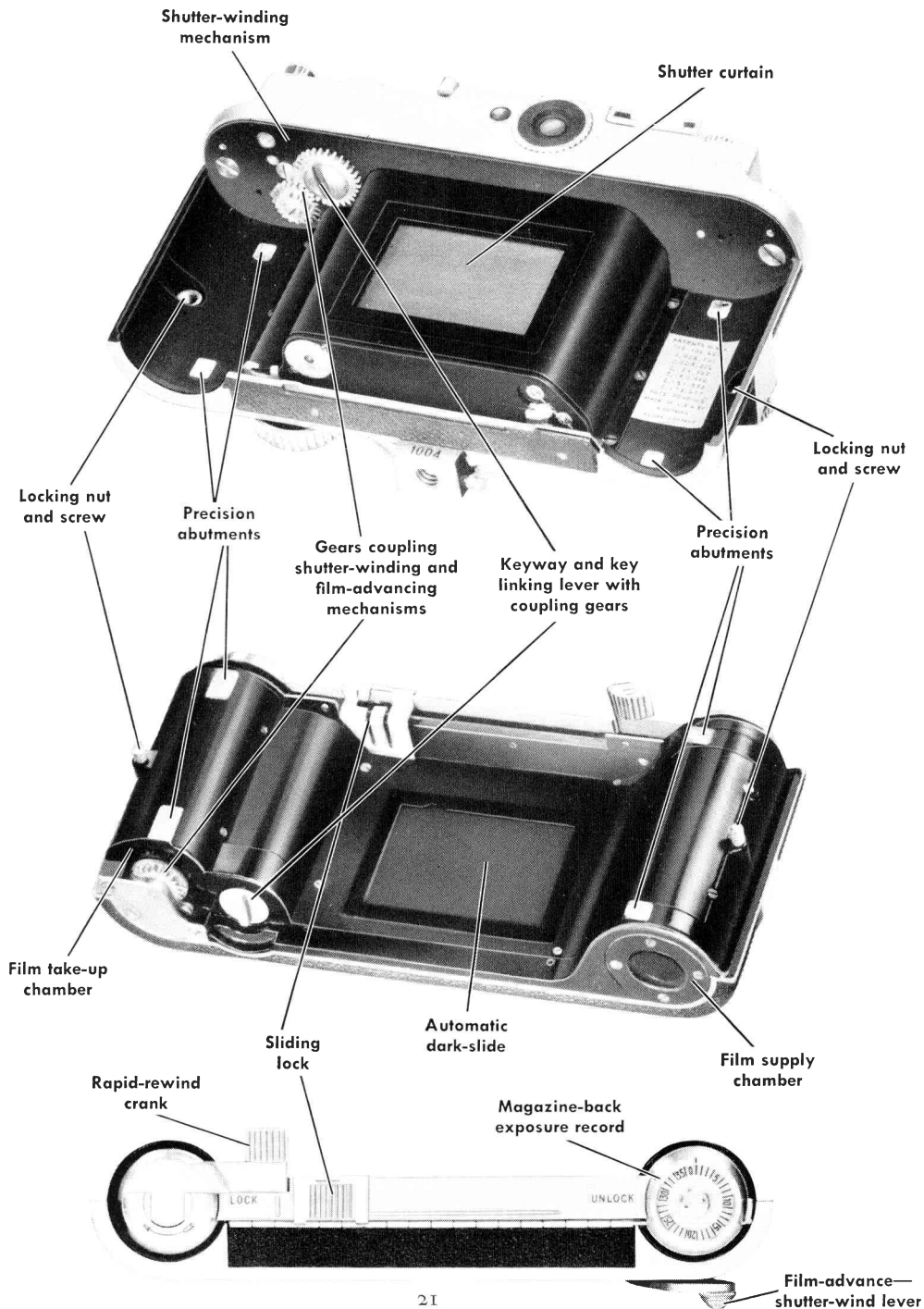
Specifically, they permit the use of eight different Kodak films interchangeably. After making several exposures on Kodak Plus-X Film, for example, the user may remove the entire back and replace it with one loaded with Kodak Panatomic-X, Super-XX, Kodachrome, Type A Kodachrome, Infra-Red, Micro-File, or Direct Positive Film. He can have at hand as many backs as he desires, changing them, as his needs dictate, without the loss of a single frame of film.

The operation of changing from one back to another is a matter of seconds. A slide at the bottom joint of body and back is shifted, two lock nuts are loosened, and the back lifts off, to be replaced just as quickly by the alternate. The action of shifting the slide on the bottom automatically moves a metal dark slide that closes the film chamber, thus providing it with a lighttight covering before the back can be removed, and leaving the film in place for later exposure.

Complete, independent film systems

Each magazine back is constructed as a self-contained unit, equipped with a complete film system. A cover, hinged at the bottom, opens easily for loading and unloading. Inside it are a recess for the film magazine and another fitted with the permanent take-up spool. The core of this spool has, in addition to the con-



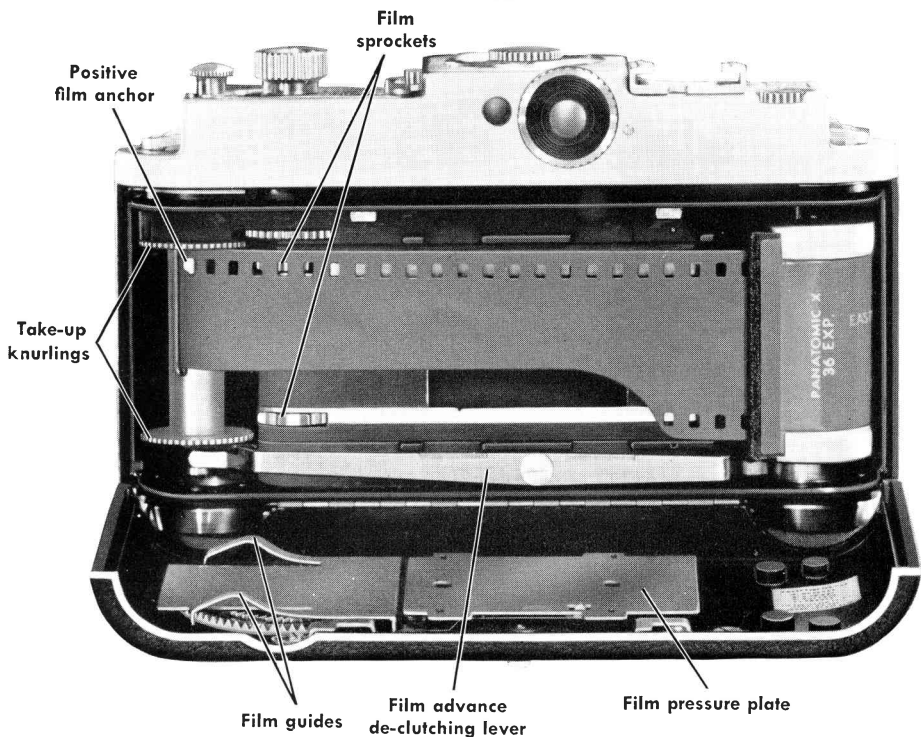


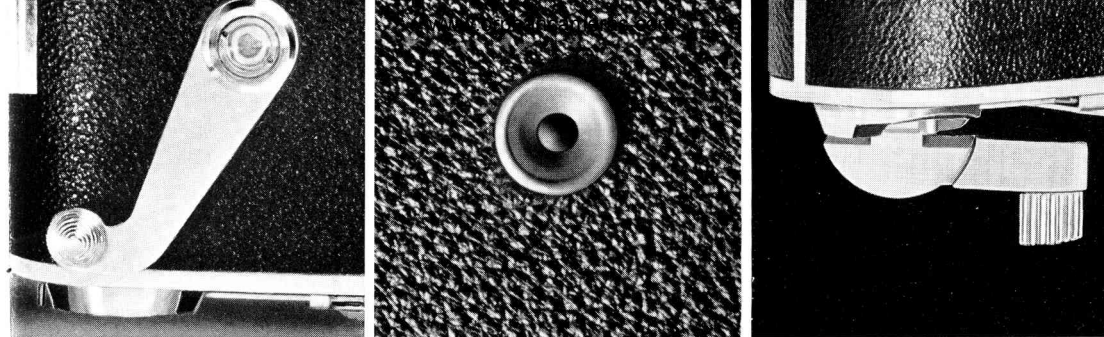
ventional slot for inserting the film leader, a projecting lip to which the film is hooked by one of its perforations to insure positive threading. Knurled flanges on the take-up spool simplify winding up slack leader. The film passes over smooth-surfaced tracks, and, when the cover is closed, is held in minute register in the focal plane by a mirror-like chrome-finished pressure plate. At the same time a pair of positive guides take their positions on the outside film margins, adjacent to carefully machined sprockets. The guides assure proper engagement of the film by the sprockets, and remove all danger of slippage over the teeth.

With the closed cover held by a dependable slide-and-turn latch, the Ektra user winds the film by means of the magazine back's integral rapid film advance, which is actuated by a large, easy-to-use swing lever. This cannot be operated until the back is in position, so that no film can be wasted. Two full strokes advance the film one frame and wind the shutter. This arrangement prevents double exposures, since the shutter-release plunger cannot be depressed until the film has been fully advanced. Double exposures for "trick" effects can, however, be made by a special procedure explained in the instruction manual.

Devices for effective functioning

Progress of the film is easily verified by means of a red signal set in a polished reflecting cup on the magazine back. Pulsating several times at every stroke of the advancing lever, it supplies a visible check on the functioning of the mechanism. It also operates as the film is being rewound into the magazine, cessation of the





At left: Dual-purpose lever, two short strokes of which wind the shutter and advance the film to the next exposure. Center: Film-movement indicator on the back of the camera indicates the movement of film during advancing or rewinding. Right: Rapid rewind crank, which folds flat against the bottom of the camera when not in use, makes film rewinding easy and quick.

pulse indicating that the rewinding is complete and that the back cover can safely be opened to remove the exposed film. By stopping the rewinding operation as soon as the pulse ceases, the user can avoid drawing the leader completely into the magazine—an important point if he intends to develop the film in a daylight-loading tank.

The rewinding itself is controlled by a folding crank on the bottom of the back. When extended to operating position it simultaneously engages the core of the film magazine and, by means of an associated de-clutching bar, disengages the film-advancing mechanism and take-up spool, permitting free, fast rewinding.

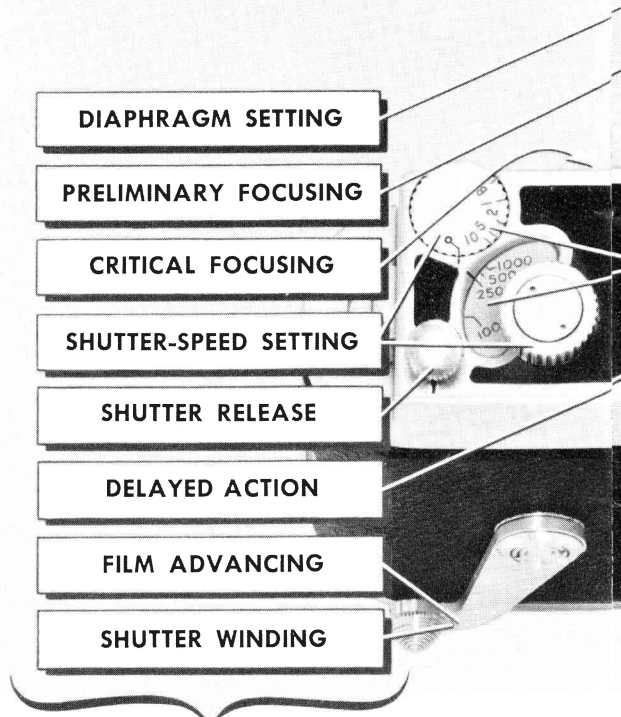
Two notably convenient devices complete the interchangeable back. On the bottom, opposite the rewind lever, is a countersunk, numbered dial, which can be hand-set to the exposure number—as registered by the automatic exposure counter on the camera top—before the back is removed. When the back is returned to the camera, the automatic counter is reset to the number shown on the exposure-record dial. Thus is provided a simple, accurate record of unused film. But a record of the type of film in the magazine is also important. This is supplied by a dial on the hinged cover. On it appear the names of all the Kodak Films with which the Ektra loads, and a turn of the dial brings the proper one opposite a recording index mark.

Typical Ektra precision

The great flexibility which the magazine backs give the Ektra is obvious. Yet without precision this flexibility would be useless. Each back is therefore constructed as carefully as the camera itself. Furthermore, four minutely gauged abutments inside the back, matched by corresponding ones in the camera, establish accurate contact points between the two. They provide the precision bases necessary to insure proper location of the film, and exact coordination in general between body and back. Each back is painstakingly checked with the particular camera with which it is to be used, and all extra backs for that camera are fitted to it either at the factory or at a Kodak branch.

OPERATION

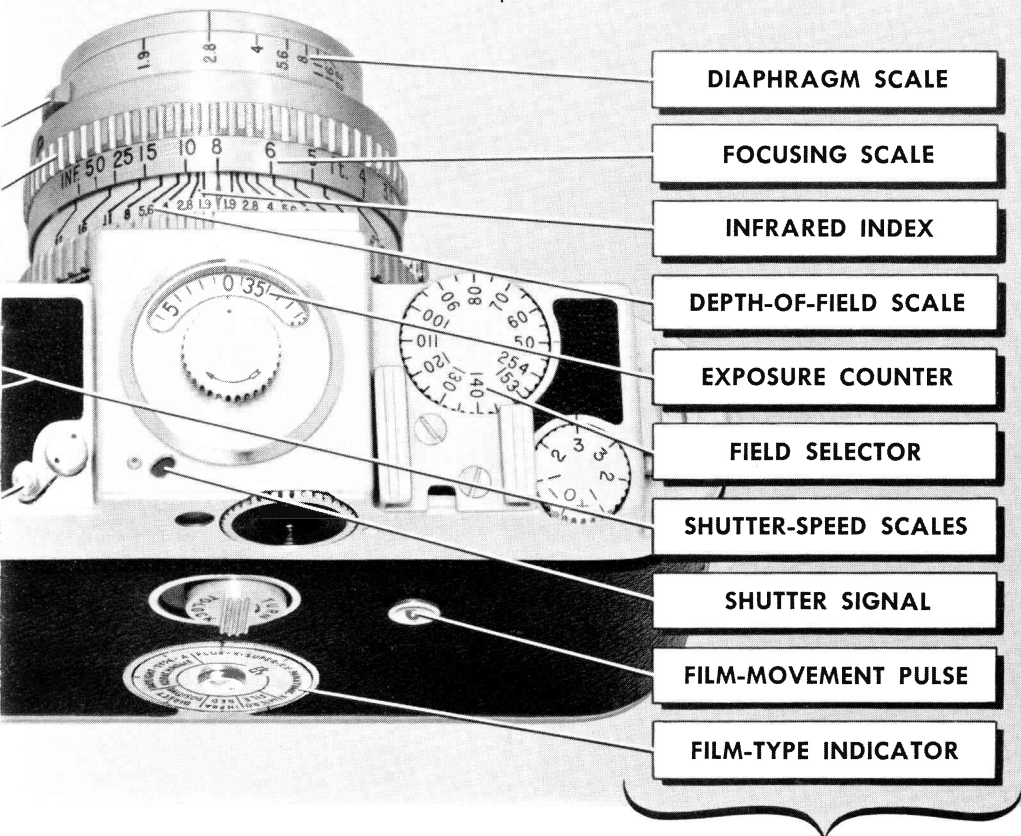
THE foregoing pages have stressed chiefly the unrestricted picture-making range and critical exactness of Kodak Ektra. A third basic element which the user has a right to expect in such a camera is utmost convenience and ease of manipulation . . . maximum possible operating facility. The Ektra has been planned and built with this third and completing fundamental in mind, and some references to it have previously been made. Here the composite result is demonstrated.



Action

Picture making with the Ektra follows a new, rhythmic operating cycle. The carefully designed main operating controls are so grouped as to be at the finger tips of one hand, the other hand being free for holding the camera firmly. The operating hand quickly adjusts the aperture by means of corrugated controls on the diaphragm sleeve. A turn of a prominently milled ring gives approximate focus, and the thumb completes the operation by activating the focusing knob. Instantaneous and retard shutter speed dials are located side by side on the operating end of the camera. The index finger falls naturally on the adjacent shutter release button. When the user wishes to include himself in the picture, one thrust with the thumb of the operating hand starts the delayed-action shutter mechanism.

Film advancing and shutter winding are accomplished with similar efficiency. Two thumb strokes of the combination lever complete the operation, and in a situation demanding a quick series of exposures this action is simply alternated with the tripping of the shutter, without moving the camera from the eye.



Visibility

Besides optimum control of operative action, the Ektra provides complete operative visibility . . . the instant ability to verify performance of operations and correctness of settings. All operating scales, dials, special index marks, and signals can be seen from above—those on the lenses as well as those atop the camera—and visible at the same time are the film-movement indicator and film-type record on the back.

The significance of this concentration of data can best be appreciated in connection with the operative action. Adjustment, operation, checking . . . all can be accomplished without changing one's grip on the camera, and without turning or twisting it at awkward angles. There is no lost motion . . . no lost time . . . no undue diversion of attention from the subject.

Without this operating facility, the design of the camera would have fallen short of its goal. With it, Kodak Ektra becomes instantly and surely responsive to the user's wishes . . . fully capitalizes its splendid equipment . . . and ranks indeed as the world's most distinguished camera.

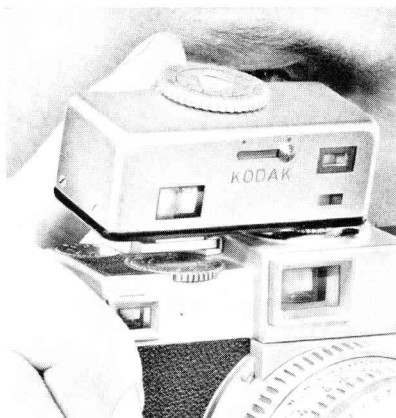
Kodak Ektra Accessories



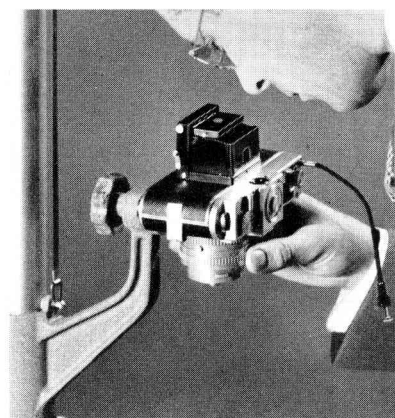
HIGH-LOW ANGLE FINDER is a reflecting, magnifying view finder which fits the Ektra's universal accessory bracket. Enables user to hold camera at arm's length—right side up or reversed—and shoot over the heads of a crowd. Also useful for making horizontal pictures below eye level.



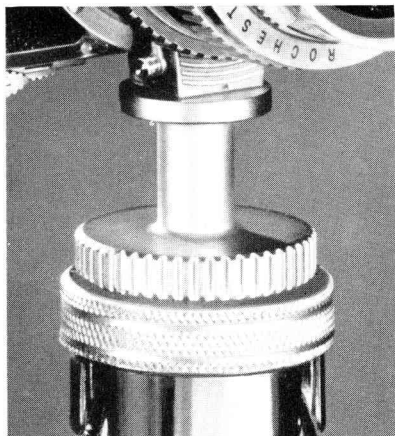
RIGHT-ANGLE FINDER also fits into the Ektra's universal accessory bracket and makes it possible for the user to take pictures at a right angle to his line of sight. This finder is usable also as a reflecting view finder for vertical pictures of subjects situated below eye level.



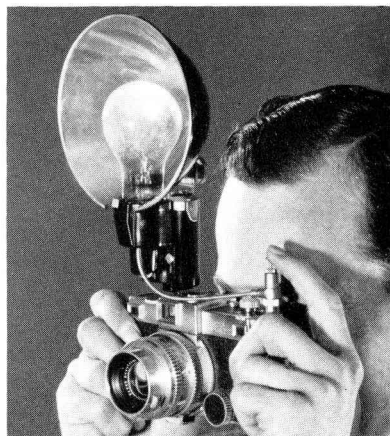
CLOSE RANGE AND VIEW FINDER fits into the accessory bracket and provides focusing and parallax-corrected viewing for distances from $3\frac{1}{2}$ to $1\frac{1}{2}$ feet with the 50-mm. $f/1.9$ lens, and from $1\frac{1}{2}$ feet down to $10\frac{1}{2}$ inches with the 50-mm. $f/1.9$ lens and the Portra 3+ supplementary lens.



GROUND-GLASS BACK takes the place of the magazine film back, and provides a hooded ground-glass focusing and composing panel in the exact focal plane, with a viewing magnifier for critical focusing. Useful in still life, copying, macrophotography, and photomicrography.



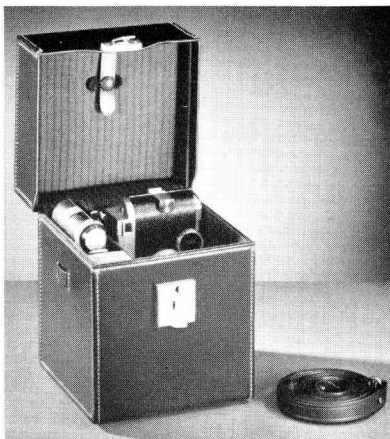
TRIPOD CLEARANCE HEAD is highly convenient when Ektra is to be used on a tripod. Raises the camera high enough above any standard tripod head to permit opening hinged cover of the interchangeable back for loading or unloading. Also facilitates substitution of ground-glass back, or interchangeable back containing film of a type different from that just used. In addition, clearance provided by the head makes for generally convenient operation of the camera.



FLASH SYNCHRONIZER Can be quickly attached to the Ektra's accessory bracket. Single cable connection to shutter release. Synchronized for all shutter speeds from $1/50$ to $1/1000$. Height of ellipsoidal reflector adjustable for No. 30 or 31 Photoflash lamps, which are ejected by new-type rapid ejector. Separate lever-controlled lamp to illuminate camera controls when desired. Molded battery case takes three pen-size pocket flashlight batteries (not supplied).



COMBINATION LENS ATTACHMENTS Wide range available: Kodak Pola-Screen, lens hood, supplementary lenses, and great variety of unmounted Wratten filters. With aid of necessary rings, one set of attachments can be used interchangeably with any of lenses available for Kodak Ektra.



COMBINATION CARRYING CASE, of fine quality brown cowhide, is designed to accept Kodak Ektra with 35- or 50-mm. lens and lens attachments in position (or 90-mm. lens without attachments). Has compartments for an extra magazine back, two extra film cartons, and separate lens attachment units.



— 50-mm. $f/1.9$ Kodak Ektar lens, Kodak Super-XX Film, $1/100$ at $f/3.5$.

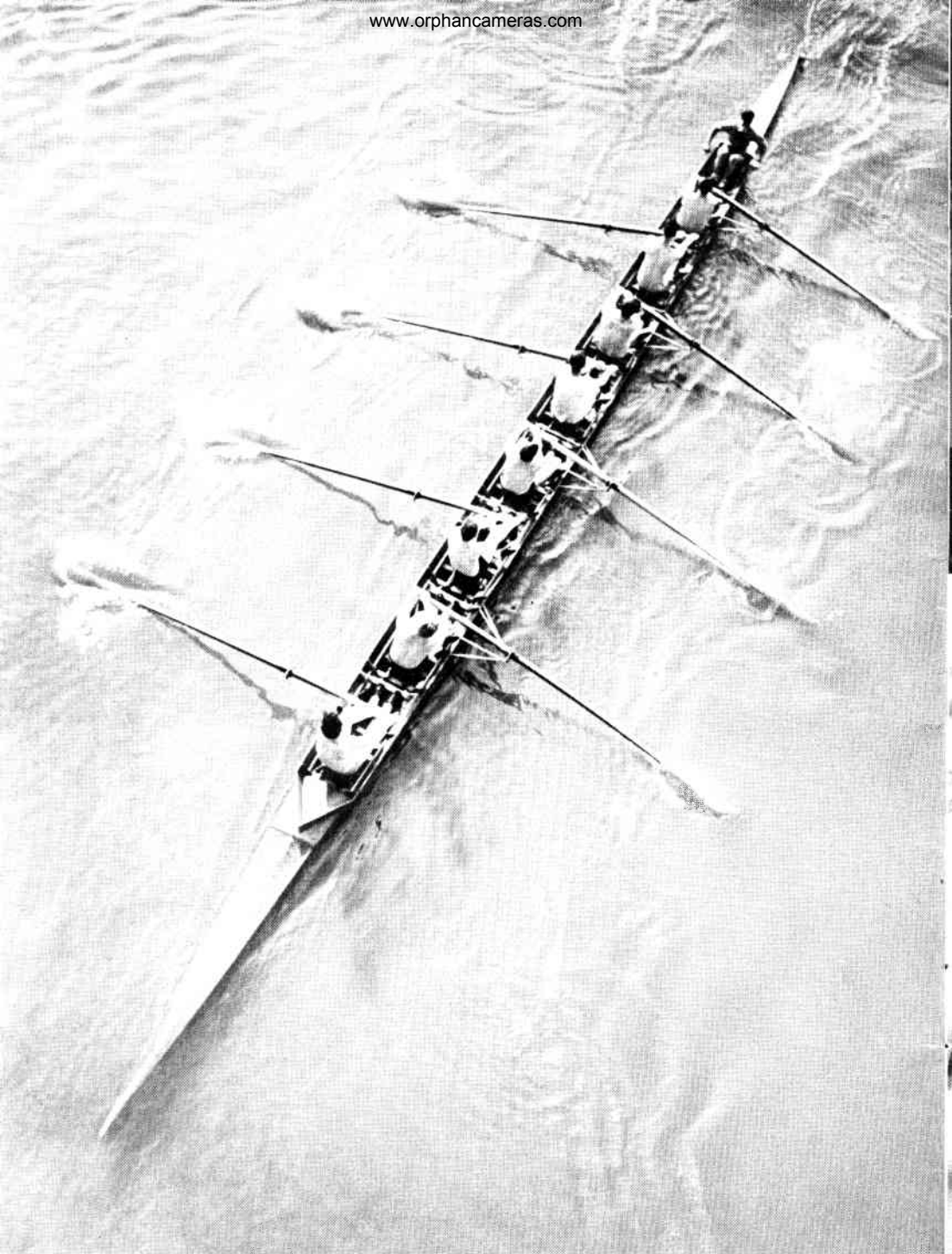
Ektra Photography



Above: — 135-mm. $f/3.8$ Kodak Ektar lens,
Kodak Plus-X Film, $1/1000$ at $f/4.5$.

Below: — 50-mm. $f/1.9$ Kodak Ektar lens, K2
filter, Kodak Panatomic-X Film, $1/500$ at $f/2.8$.





—90-mm. $f/3.5$ Kodak Ektar lens,
Kodak Plus-X Film, $1/500$ at $f/5.6$.



Above:— 35-mm. $f/3.3$ Kodak Ektar lens, K2 filter, Kodak Panatomic-X Film, $1/100$ at $f/5.6$.

Below:— 90-mm. $f/3.5$ Kodak Ektar lens, Kodak Panatomic-X Film, $1/100$ at $f/8$.



The quality of the Ektra's results is particularly evident in Kodachrome where its highly corrected, treated lenses produce transparencies unequalled in color brilliance and purity.

Exposure data: Sailboat, 50-mm. lens, 1/250 at f/4; Girl with blossoms, 90-mm. lens, 1/50 at f/5.6; The Rockettes, Radio City Music Hall, 50-mm. lens, 1/25 at f/1.9, stage lighting (on Type A Kodachrome); Indian, 50-mm. lens, 1/50 at f/8; Child, 90-mm. lens, 1/100 at f/5.6.





For Use with Kodak Ektra

THERE are definite relations—optical, physical, chemical, and structural—between the various elements of photography, from the camera, lenses, filters, films, developers, through to the finished prints and projected color transparencies. Kodak Ektra was designed and built with relation to a complete line of associated Kodak products which complement each other for the finest possible results.

Here are the films for the Ektra, and a brief review of a few of its companion products.

KODAK PLUS-X FILM is the all-round film for the Ektra. It combines extra speed with fineness of grain... is panchromatic, has antihalation base, and is recommended for general use.

KODAK PANATOMIC-X FILM has microscopically fine grain... ample speed; is panchromatic, has antihalation base, and is particularly recommended for the Ektra when great enlargement is intended or when extreme detail or texture is desired.

KODAK SUPER-XX FILM is the fastest Kodak roll film... is panchromatic, has antihalation base, and is recommended for use with poor

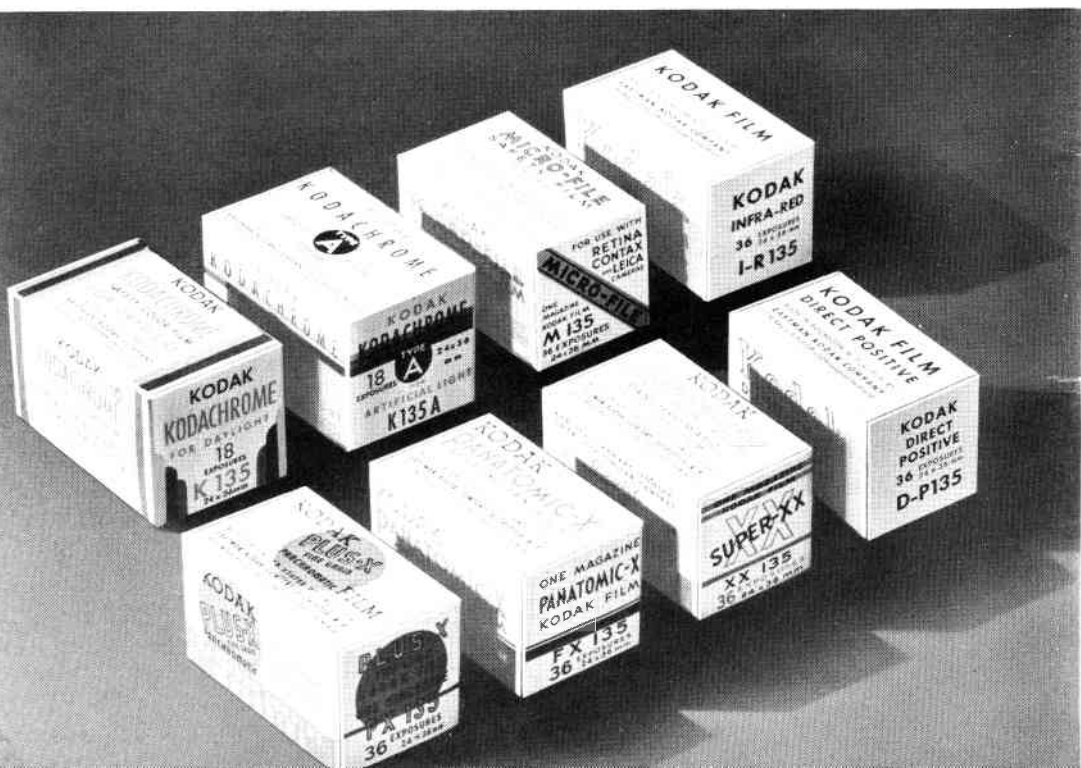
light conditions indoors or outdoors, with the Ektra's high shutter speeds, and with its Flash Synchronizer.

KODAK DIRECT POSITIVE FILM is a reversal film, designed for making black-and-white positive projection transparencies. Extremely fine-grained, panchromatic, and with good contrast, for use outdoors, or indoors with artificial light.

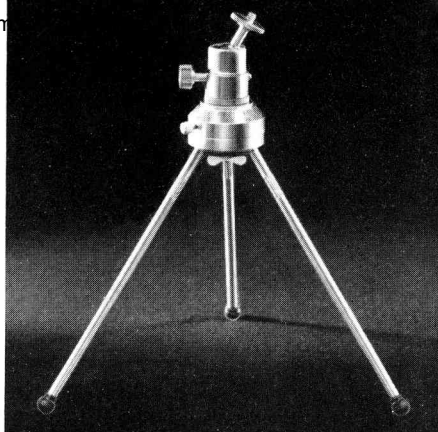
KODAK INFRA-RED FILM records infrared radiations and is useful for distant landscapes, medical, documentary, and scientific photography and photomicrography.

KODAK MICRO-FILE FILM is an extremely fine-grained (resolving power, 130 lines per millimeter), high-contrast, panchromatic film designed especially for microphotography.

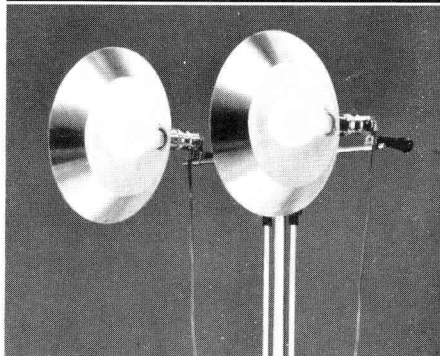
KODACHROME FILM is the film that brought color to miniature photography. Available in two emulsions—regular, for daylight, and Type A, for artificial light. Used like black-and-white film, processed by an Eastman laboratory, returned mounted as Kodaslide; ready for projection. Typical results with Kodak Ektra are shown on the two preceding pages.



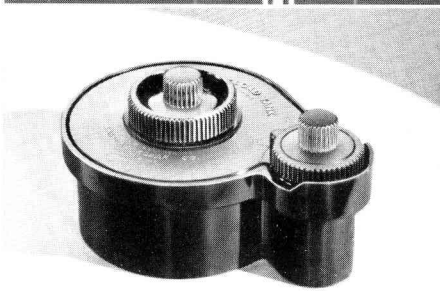
KODAK TABLE TOP TRIPOD COMBINATION consists of three duralumin units—usable separately, or in the combination illustrated. The Kodak Table Top Tripod is a sturdy, rubber-tipped tripod for using the Ektra on a table or for low-level shots from the floor. Kodak Pan-a-Pod can be used with any standard tripod, provides a smooth, steady-swinging panoraming head indexed at 10-degree intervals, with a locking screw which secures it in any position. Kodak Tilt-a-Pod provides a tilting head with which the Ektra can be tilted and locked at any angle; also provides clearance for loading or changing magazine backs. The complete assembly forms an extremely adaptable support for picture making with the Ektra.



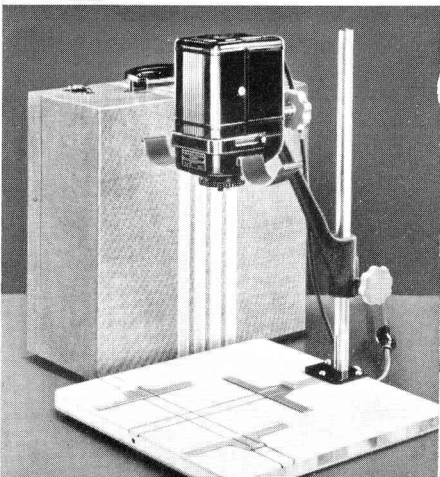
KODAFLECTOR SENIOR is a new flexible lighting unit for indoor work in black and white or Kodachrome. It accommodates two No. 1 or No. 2 Photofloods and has provision for a third. Reflectors are reversible, with one side sandblasted in center for diffuse light; the other polished for specular light. For varying angle of illumination, reflector units can be positioned together or five feet apart—from floor level up to 7½ feet—or each reflector removed from stand. Sturdy nickel-plated support can be taken apart . . . legs are removable from base casting . . . reflectors are flat when detached . . . for packing into suitcase-type case for carrying or storing. Available accessories include extra reflector assembly, all-over diffusers, and control switch.



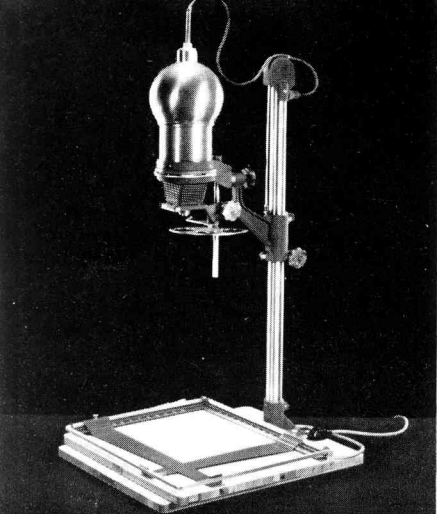
KODAK DAY-LOAD TANK, an ingenious, new, completely light-trapped tank, makes possible the finishing of 35-mm. films in magazines—such as those available for the Ektra—with new convenience. The magazine is inserted . . . film is automatically wound on spiral reel as a knob is turned . . . solutions are quickly poured in and emptied as tank is air-vented . . . reel is agitated and temperature checked—all simply and easily and in daylight, as the tank is absolutely lighttight. Reel is attached to top; there are no loose parts; all metal parts are of stainless steel; case is durable, acid-proof plastic, with built-in knife for cutting film end from magazine.



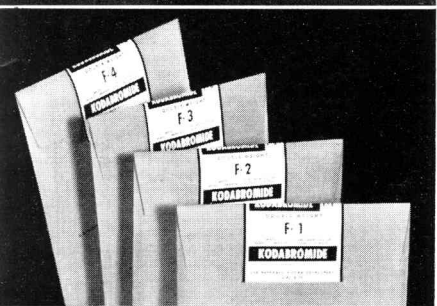
KODAK PORTABLE MINIATURE ENLARGER is a quality instrument designed solely for making fine enlargements from 35-mm. and Bantam negatives. Molded head with triple condenser, No. 113 photo enlarger lamp, is supported by cast aluminum bracket which slides on vertical steel column. Three accurate, sharp-cutting, specially corrected projection lenses are available, providing from 2½ to 9 diameters on baseboard, greater enlargement on wall or floor. The enlarger, complete with baseboard and upright, can be dismantled and packed into Carryall Case which has space also for camera, film, film tank, chemicals, and accessories—for storage in small space or carrying on trips.



KODAK PRECISION ENLARGER "teams up" with the Ektra to make finest possible enlargements from its negatives, and color-separation negatives from its Kodachrome transparencies . . . even to supplement its picture-making scope. Kodak Ektra's 50-mm. lenses can be used on the enlarger, yielding highly satisfactory results. For critical work, the Ektra owner can use the Kodak Projection Ektars supplied as parts of the Precision Enlarger program of interchangeable apparatus. Additional elements equip him completely for copying, microfilming, photomicrography, titling. Others form a double-extension-bellows camera for $2\frac{3}{4} \times 3\frac{3}{4}$ negatives. And if, while extending his equipment, the user has up to this point been enlarging only from 35-mm. Ektra negatives, with an Ektra lens, he can adapt his outfit for enlargements from the $2\frac{3}{4} \times 3\frac{3}{4}$ negatives with an additional condenser and lens. Ask your dealer for special booklet on Kodak Precision Enlarger.



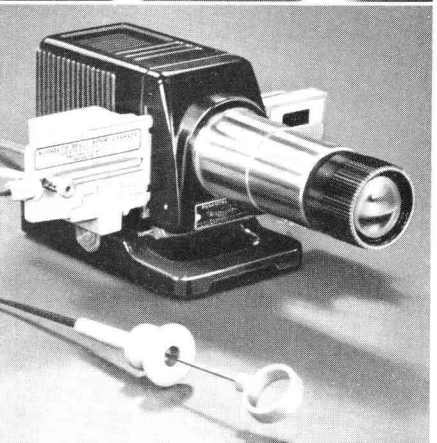
KODABROMIDE PAPER (formerly called Kodabrom) is especially recommended for general enlarging from the Ektra's negatives—and for exhibition prints when brilliant, rich blacks are desired—particularly because of its availability in four degrees of contrast for selective work from negatives differing in contrast, its long scale of tones, wide latitude in exposure and development, and its physically hardened emulsion. For progressively warmer tones, Vitava Projection Paper, available in two contrast grades, Vitava Opal Paper and Kodalure Paper, each available in one contrast, are recommended.



KODAK DEVELOPERS, especially formulated with relation to Kodak's film and paper emulsions, and compounded under rigid laboratory control, are particularly important "companion" products in obtaining finest possible negatives and prints with the Ektra. Kodak Developer D-76 is recommended for the Ektra's negatives because of its long-gradation scale and speed-realizing results. Kodak Fine Grain Developer DK-20 is recommended for producing negatives of extremely fine grain within normal development times, with minimum effect on emulsion speeds.



KODASLIDE PROJECTOR, MODEL 2, projects, brilliantly and conveniently, the Ektra's mounted Kodachrome transparencies and black-and-white positives. Its high-efficiency lamp, reflector, condensers, and good projection lens provide excellent illumination and definition with minimum bulk and weight. Semiautomatic showings of as many as 50 Kodaslides are possible with Kodaslide Changer, illustrated in position on projector. It holds, feeds, and removes the slides, in order, as the plunger is pushed—a shutter blanking out the screen as each slide is changed.





— 35-mm. $f/3.3$ Kodak Ektar lens, K2 filter,
Kodak Panatomic-X Film, $1/250$ at $f/4$.