

The Mikut One-Shot 3-Color Separation Camera

GENIUS to a remarkable degree in the realm of science is exhibited in the Mikut Color System which we picture and describe on these two pages. Neither space nor policy of this Department permits indulgence in laudation; suffice it that we urge every photographer to study this development in color photography, now available to all in the U. S.

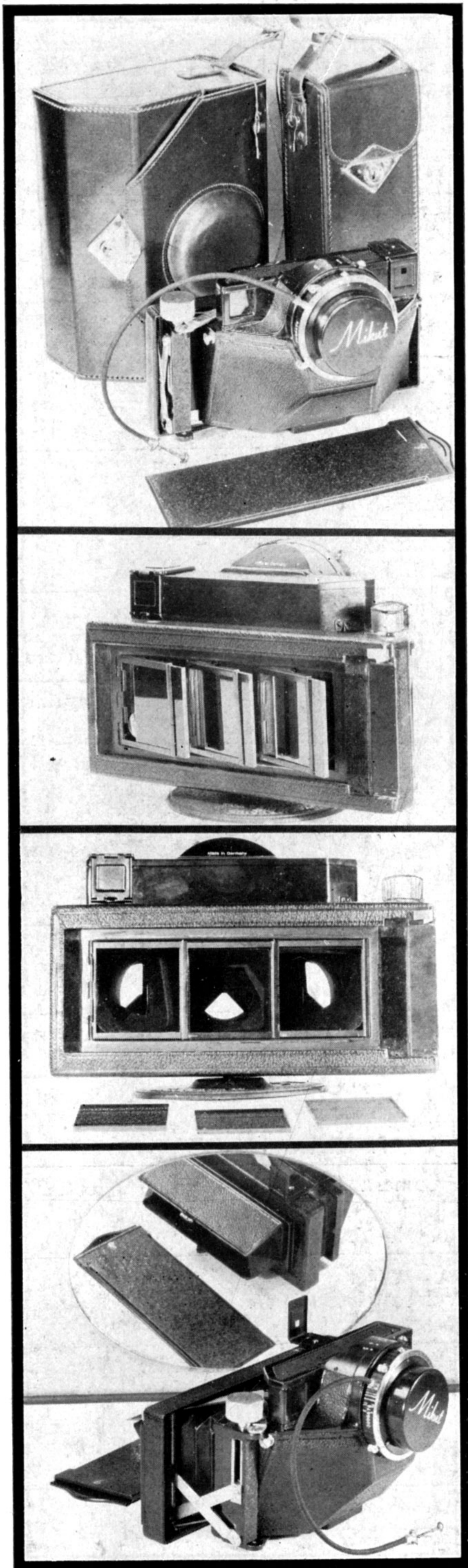
In its entirety, the Mikut System includes: (1) the Mikut Color Camera, (2) the Mikut Positive Printer, (3) the Mikut Color Projector, (4) the Mikut Enlarging Unit. Available also is the Mikut Sliding Back, fitting any $6\frac{1}{2} \times 9$ cm. plate camera, usable in lieu of the Color Camera. Basic steps are: (1) making a 5×15 cm. glass negative carrying 3 filtered images, each $4\frac{1}{2} \times 4\frac{1}{2}$ cm.; using the One-Shot Mikut Camera or the three-successive-exposure Sliding Back, (2) making a 5×15 cm. contact slide positive with the Mikut Printer, balancing densities thereby, (3) use of such slide in the Mikut Color Projector to project a single image in full color on a large screen for audience viewing.

Color prints on paper, etc., by any known process requiring color separation negatives to start with, are achieved with the Mikut Enlarging Unit as accessory to the Mikut Projector; the Enlarging Unit providing for perfect registration of successive positives resulting from projection of original negative images by the Mikut Projector.

The Mikut Camera is small, is for hand or tripod use. It weighs 2 lbs. 14 oz.; overall measurements are: $7\frac{3}{4}$ in. long, 5 in. high, $4\frac{1}{4}$ in. through. The special Mikutar color-corrected 13 cm. $f4$ (approx.) lens in Compur shutter provides for speeds, 1 sec. to $1/200$ th sec., Time and Bulb, and delayed-action releasing by finger or cable. Diaphragm is behind the objective; is lever operated from the top.

A coupled range finder ($4\frac{1}{2}$ -inch optical base) provides automatic focusing at eye level, a $\frac{7}{8}$ -inch knurled knob operating extension struts to focus from infinity to 2 feet. A folding leather bellows is used. Other focusing means includes engraved scale on strut with fixed pointer, also folding hood ground-glass back, slidably interchanged with plate holder. Stitched leather carrying cases for camera and for 12 single metal plate holders are included, each with carrying straps, lock and key.

Built into the Mikut is an optical dividing system for the image-bearing light beam produced by the lens; a fixed percentage of the beam being deflected to each of three surface-silvered mirrors angularly fixed in the paths. The three image-beams then pass through three filters removably fitted before the focal plane in which, of course, is the sensitive plate. Light intensities are balanced in the dividing system; thus, for daylight, the filter order, left to right, is red-blue-green; for artificial light, blue-red-green—the light segment proportion, left to right, being 35%, 25%, 40% in fixed balance. Removal of focusing back or plate holder exposes all three glass filters, each removable from its individually-hinged metal door frame at will. Replacing filters with masks permits use of the camera for single picture monotone work—three shots on one negative.



The Mikut Color Projector, Slide Printer, Enlarger

FOR use in the Mikut Color Projector, positive slides, contact-printed from 5 x 15 cm. Mikut negatives, are bound up as lantern slides. Such 3-image monotone slides, placed in the projector's slide carrier, produce a single screen image in full color. Screen image size is determined by screen-to-projector distance; the focusing by movement of projector *head* on its track with final sharp focusing by rotation of lens. Projected *without color* — easily done by removing filters through provided door — the screen result is that of a fine panchromatic monotone slide.

The Projector uses 110-volt A. C. current. It includes *three separate illuminating systems*, each with a 12-volt tubular pre-focused base projection lamp, silvered reflector, set of three condensers, filter. Amperes consumed: red image, 4; blue image, 8; green image, 6. Each set of condensers includes a single meniscus and a pair of plano-convex; each filter is placed *between* the convex surfaces of a condenser pair. All three light beams pass through their respective slide images to the deflecting mirrors and beam *collection* system of the projection head, converge and meet in the 14 cm. Mikutar lens, reach the screen as a single beam carrying picture in color. *In essence, the Mikut Projector head is a duplicate of the Mikut Color Camera, both in principle and in use.*

The projector weighs 28½ lbs.; in its hinged-cover, trunk-type, carrying case, 36½ lbs. Contributing to its weight is a base-set rectangular transformer of low heat emission; 110-volt primary, 12-volt secondary. The frame is a one-piece casting, finished in black crackle and japan. Lamp house lifts off by loosening two knurled knobs; triple lamp assembly, by loosening two bolts and detaching four insulated prong connectors.

But slight changes are necessary *to make color prints from negatives.* The Mikut Enlarging Unit includes an adjustable easel with guide rails, on which the projector sets to lock in place with the elevating screws. The meniscus elements of the condenser sets are removed with the filters, an opal glass diffuser inserted and lower-amperage lamps of equal intensity displace those in use. Using the original negative in the carrier, an easel image of each negative area is projected after switching off the illumination of the other two. Easel registration pins, plus a paper punch, assure the successful production of prints by any color process in use today.

The Mikut Slide Printer is a simple printing machine with three chambers, in each of which is a metal lamp socket with a vertical sliding range of 7¼ inches. By outer knob, each 15-watt lamp is set for exposure density control as desired. A hinged platen, a 5 x 15 cm. printing aperture fitted with *amber* ground-glass, a main toggle switch, and a 6-foot cord with plug, completes the fittings of the printer which is wood, finished in natural grain. With the three lamps positioned as to height inside, good balance of densities in a finished slide is easily achieved.

The Mikut Color System Equipment is built by Oscar Mikut, Dresden; is imported and distributed by Photo Marketing Corporation, 10 West 33rd Street, New York City; to the professional and newspaper field, by Raygram Corporation, 425 Fourth Ave., New York City.

