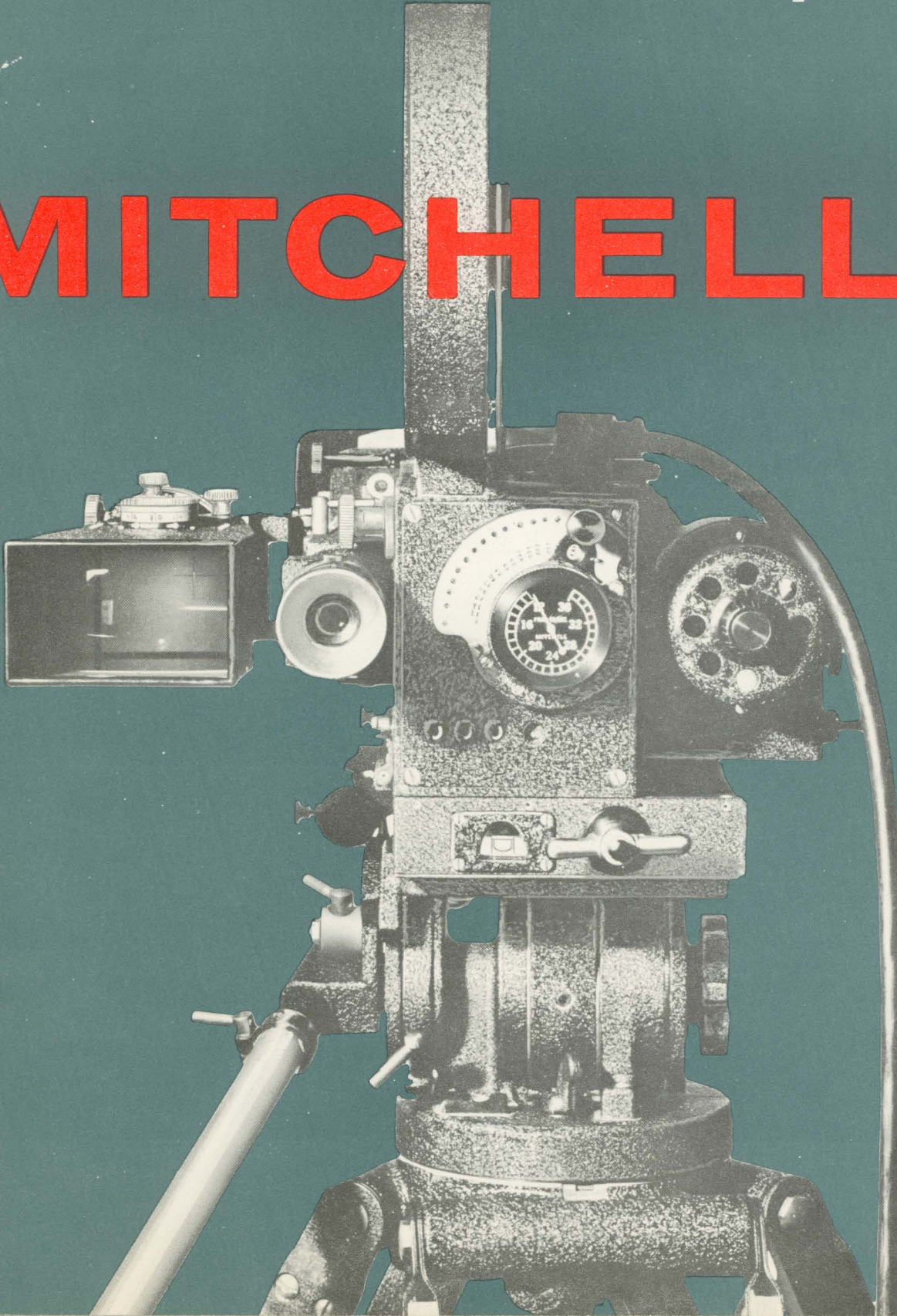


World's most advanced 16mm motion picture camera

MITCHELL 16



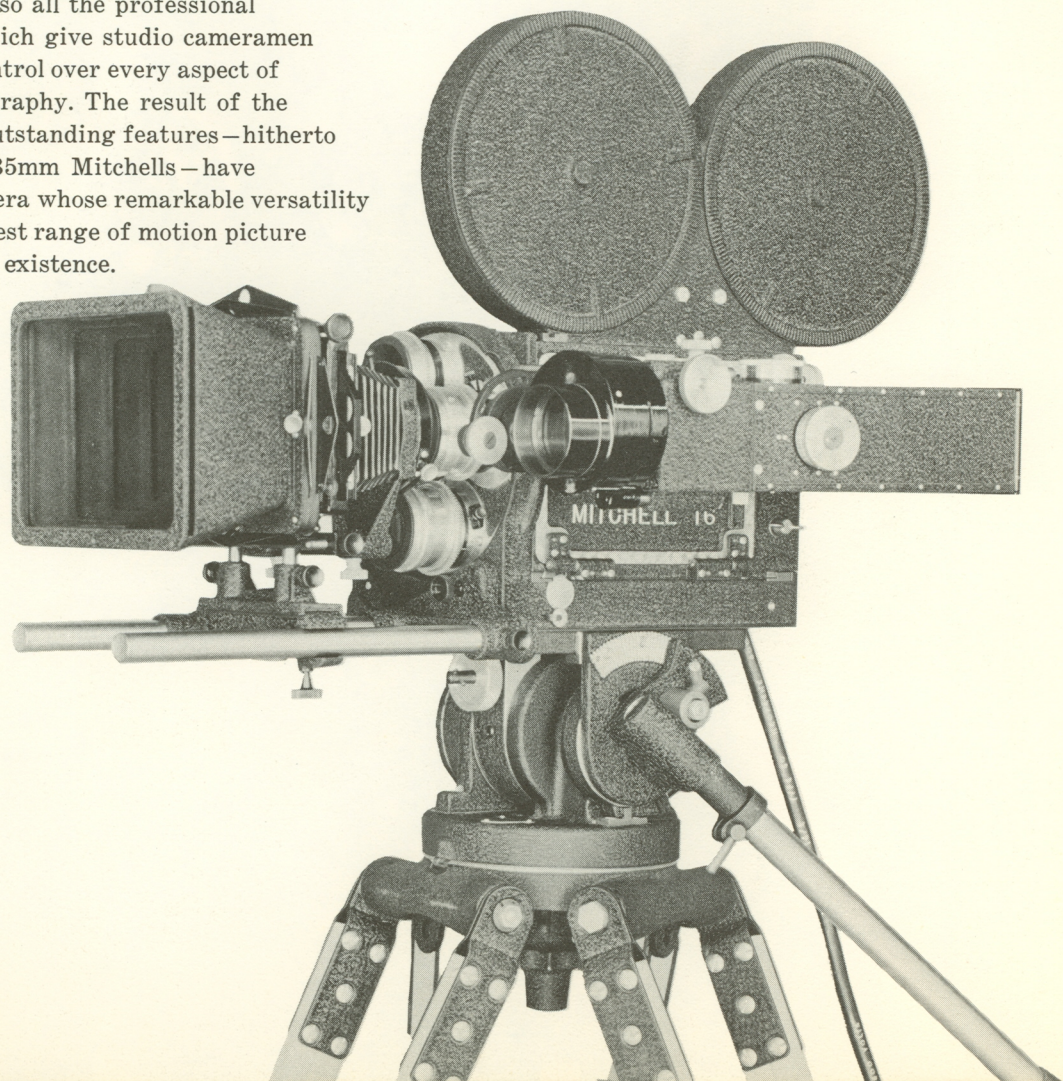
*85% of all
professional
motion pictures
shown
throughout the
world are filmed
with Mitchell
Cameras*

MITCHELL 16

first truly professional 16mm motion picture camera...

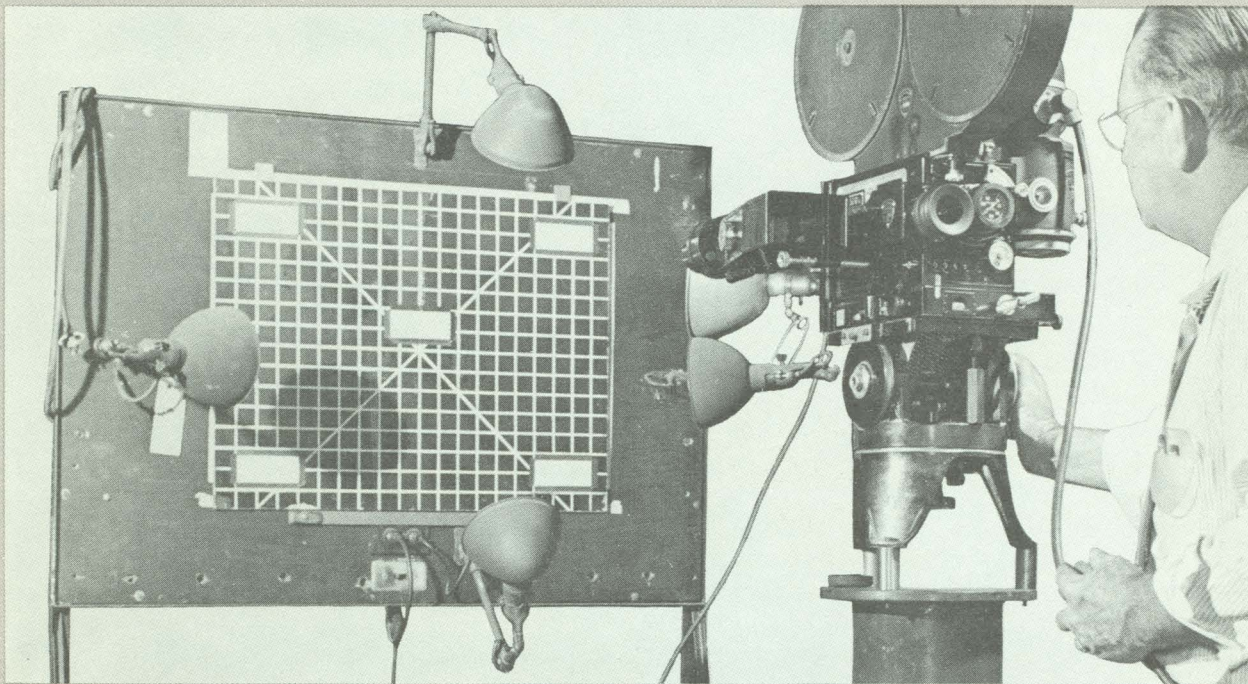
Here is a special kind of camera—so unique that it is the only 16mm camera which cannot be compared with any other 16mm camera. It is the only camera designed specifically to meet today's broad requirements for 16mm flexibility and maneuverability—with the plus qualities of the professional abilities of brilliance... and fidelity of the world famous Mitchell 35mm camera. Now all the brilliance, fidelity and clarity of the 35mm camera have been married to the ease, convenience and versatility of the 16mm in the Mitchell 16mm Professional. This camera features the special Mitchell movement, machined to tolerances of .0001 inch, which gives knife-sharp clarity and steadiness to the picture.

And it incorporates also all the professional operating features which give studio cameramen complete and quick control over every aspect of motion picture photography. The result of the incorporation of the outstanding features—hitherto found exclusively on 35mm Mitchells—have produced a 16mm camera whose remarkable versatility equips it for the greatest range of motion picture work of any camera in existence.



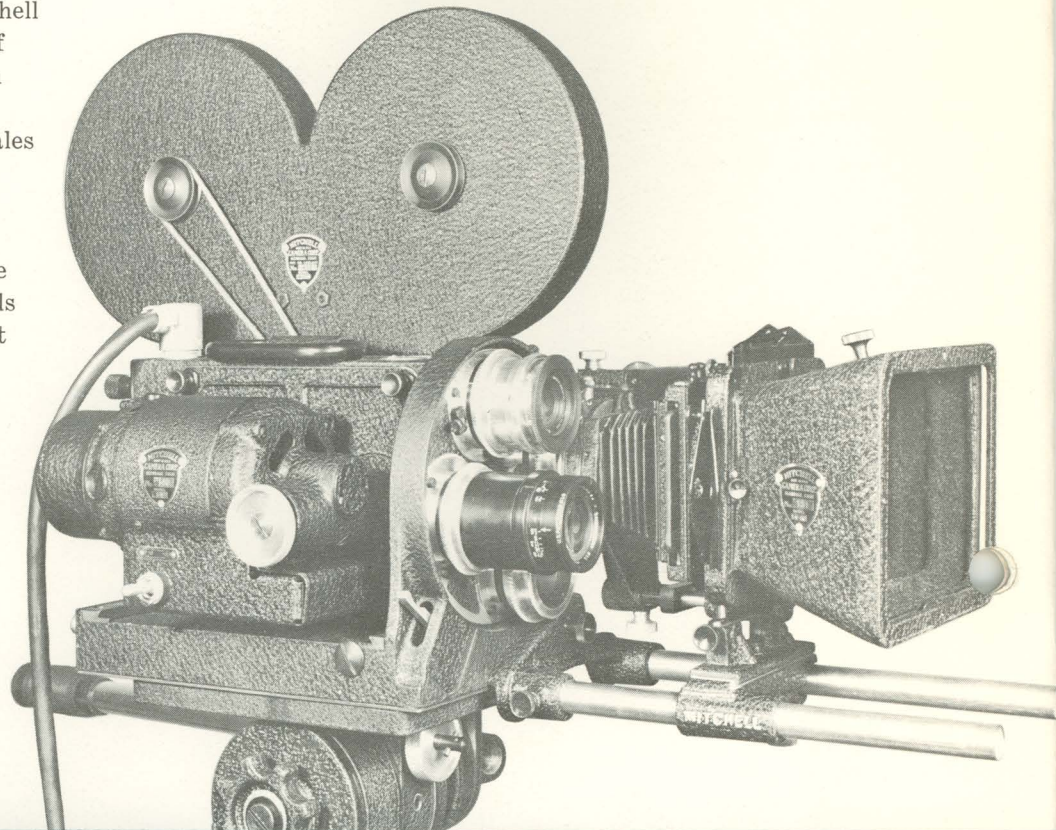
only camera which cannot be compared with any other 16mm camera

For years, Mitchell cameras have dominated the motion picture field. Today, more than 85% of all commercial motion pictures shown in the world's theaters are filmed with Mitchell cameras. As testimony to the dependability of Mitchell equipment, the first Mitchell camera ever built, over 40 years ago, is still in active studio service. The professional design, the exclusive features, of the Mitchell 16mm Professional are only a part of the reasons why this camera cannot be compared with any other 16mm camera. Hand-crafted workmanship is the rest of the story. And in this, also, the Mitchell 16mm is unique. It is not a mass-production item, an assembly-line camera—it can't be. Each Mitchell 16mm Professional is an individually-crafted and fitted camera, machined to tolerances of the finest instruments. It is automatic that every Mitchell 16mm Professional is tested after assembly, tested and retested, to assure continuously perfect operation for years to come.



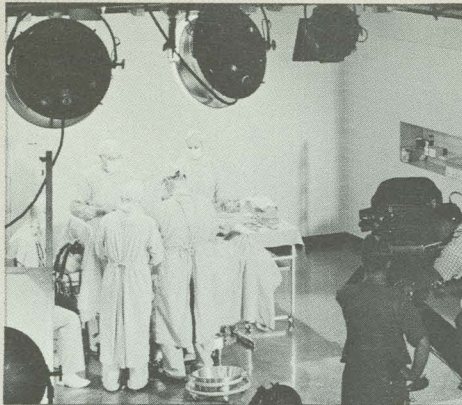
MITCHELL 16

No other motion picture camera is today used for such a broad range of exacting film making as is the Mitchell 16. The versatile speed of the camera, ranging from 1 to 128 frames per second, plus its exclusive operating features, equip the Mitchell for a virtually unlimited variety of assignments. A single Mitchell can meet the highest requirements of film producers and studios, of sales and training films, research and development, public relations, progress and report films, and data and record photography. Here are but a few of the numerous fields using Mitchell cameras throughout the world.



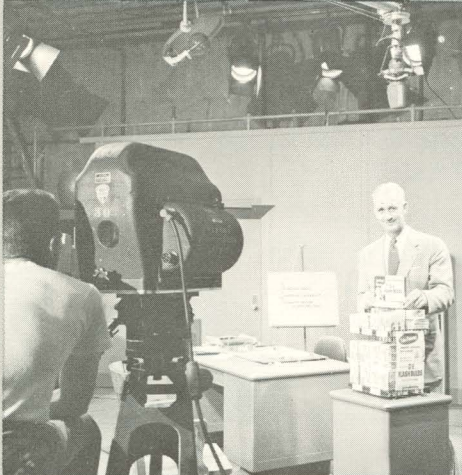
...only 16mm camera

designed for complete range cinematography

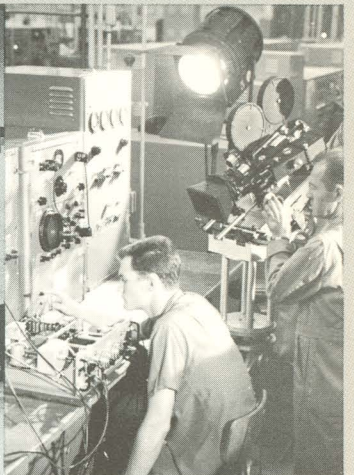
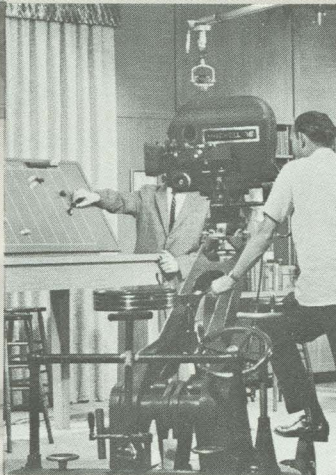


ABBOTT LABORATORIES
films medical documentary films
with Mitchell 16.

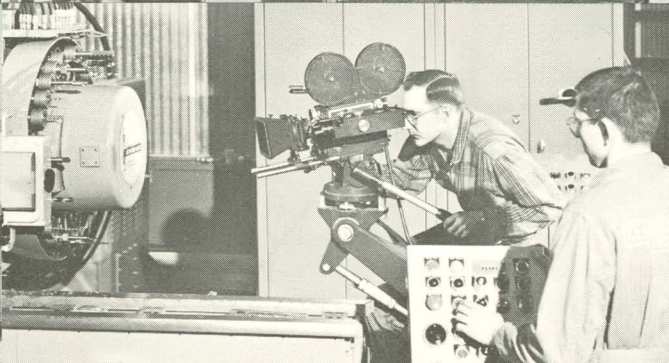
GENERAL ELECTRIC COMPANY
uses Mitchell 16s
for broad range of films.



UNIVERSITY OF OKLAHOMA
and Bud Wilkinson Productions
film TV Series with Mitchell 16s.



NORTHROP CORPORATION films
research, test, report, training,
public relations films.

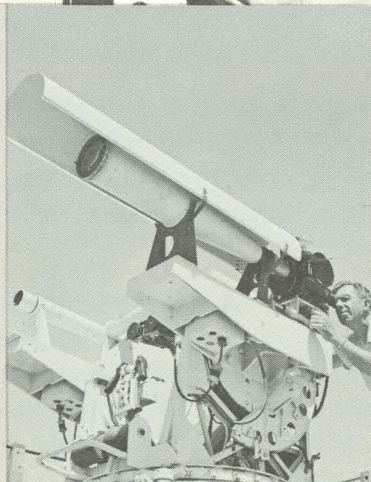


KEARNEY & TRECKER
uses Mitchell for sales and
technical films.

NORTH AMERICAN AVIATION
Autonetics division
films tests in color.

UNUSUAL FILMS of
Bob Jones University shoots
religious films with Mitchell 16.

NAVAL ORDNANCE TEST STATION
at Inyokern, California, uses over 50 Mitchell
cameras including 16mm Hi-Speeds.



MITCHELL 16

FEATURES

*These are the features which make
the Mitchell 16 a truly professional camera*

Your Mitchell 16 will be different from all other 16mm cameras because it incorporates features previously found only in MITCHELL 35mm professional cameras.

THE UNMATCHED 235° MITCHELL MOVEMENT, with its incomparable dual pilot-pin movement. In either high-speed or normal cinematography, it assures rock-steady images and precision perfect registration at all speeds from stop-motion to 128 frames per second.

WIDE SPEED RANGE from single frame exposure to 128 frames per second gives the Mitchell 16 unusual flexibility.

EXCLUSIVE "RACK-OVER" DESIGN permits you to focus through the lens without disturbing either lens or finder position, unless desired. You shift virtually instantaneously – with one hand. You can always see exactly what you will photograph, eliminating parallax and assuring perfect alignment.

THE ERECT IMAGE FOCUSING TELESCOPE, built into the camera door, gives you both five and ten power magnification and provides contrast viewing filters for checking your lighting on both black-and-white and color emulsions.

BUILT-IN-MANUAL DISSOLVE incorporates a graduated segment which can be locked for any desired shutter opening from 0° to 235°.

CALIBRATED TACHOMETER shows at a glance the speed at which the camera is running and the frames per second.

FOUR LENS TURRET accommodates any type of Mitchell-mounted lens from 10mm up. A positive and precise turret lock assures perfect alignment in all lenses.

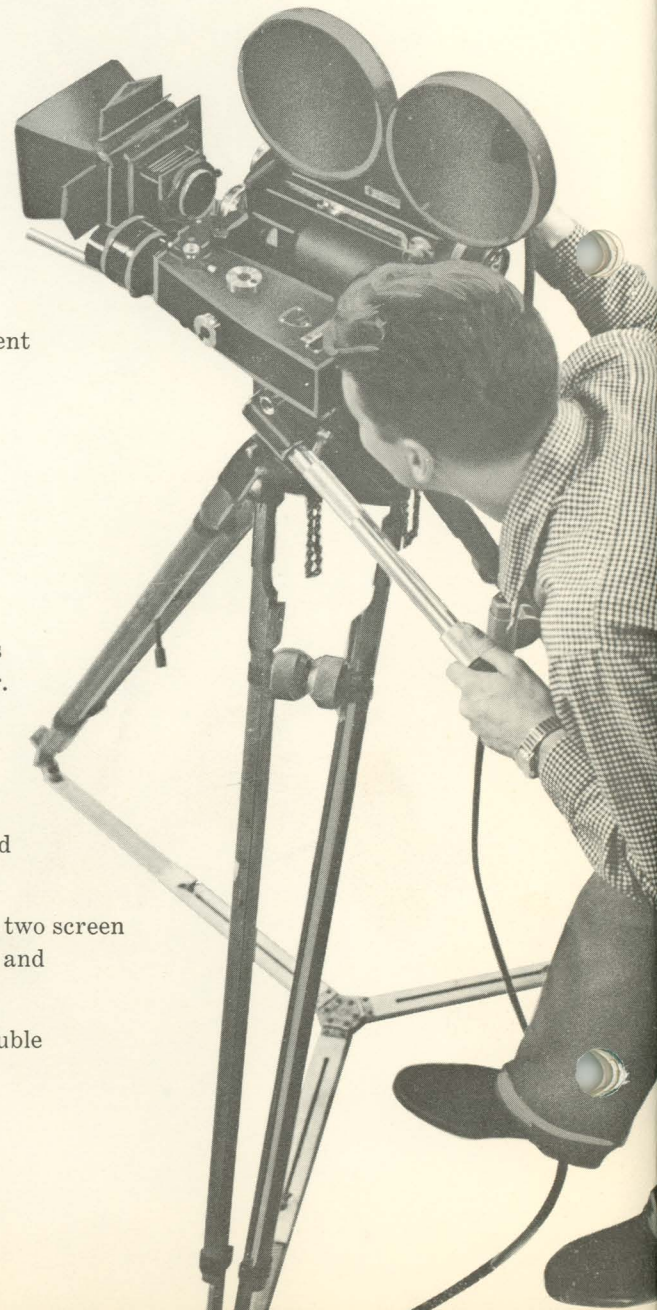
BUILT-IN VEEDER COUNTER, showing both single frames and footage run, is always in plain view of the operator.

BUILT-IN FILTER HOLDERS provide for use of emulsion-correcting and/or special effects filters between the lens and the aperture.

FILM MAGAZINE WITH FRICTIONLESS LIGHT TRAP is designed to use standard film core or daylight loading spools. It is firmly locked in place, yet readily removable.

SPECIAL CAMERA FINDERS, with dual calibrations for any two screen ratios, are available. They provide larger, more brilliant and sharper viewing images.

ADAPTABLE FOR RECORDING, the Mitchell 16 may be used with any double recording system now on the market, provided that the camera and the recording system have the same type motor.



*The Mitchell 16 gives you all the versatility of 16mm
plus the exclusive quality features of 35mm*

Here is the heart of the Mitchell 16

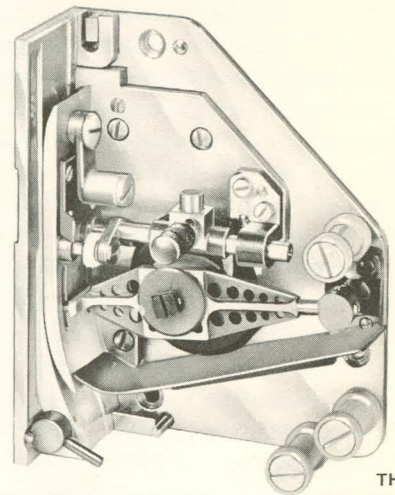
This double-cam movement of the Mitchell 16 is the very heart of the camera. Both cams are mounted on a single shaft—one cam actuates the pull-down mechanism, the other operates the pilot pins to insure perfect registration.

The pull-down arm has a claw for each side of the film. Two pilot pins, are adjacent to the aperture. This is the best known method of registration. To withdraw the pilot pins for threading film, there is a knurled knob on the pilot throwout arm. A partial turn disengages the pilot pins, allowing easy threading of the film without risk of cutting or tearing. This quick and simple method makes it easy to switch from one film stock to another without undue loss of time.

The aperture plate is mounted on two studs at the front of the movement, and can easily be removed for cleaning without disturbing the movement in any way. A filter slot is built into the aperture plate. To insure long years of scratchless film travel, the aperture plate is made of stainless steel, polished and hard-chrome plated.

Directly behind the aperture plate is the register plate, recessed to hold the pressure plate. The removable pressure plate, which bears on the back of the film, maintains the film perfectly flat. Film passes between the pressure plate and aperture plate. The movement is easily removed for cleaning, and correct replacement is assured by timing marks placed on the shutter and on the movement.

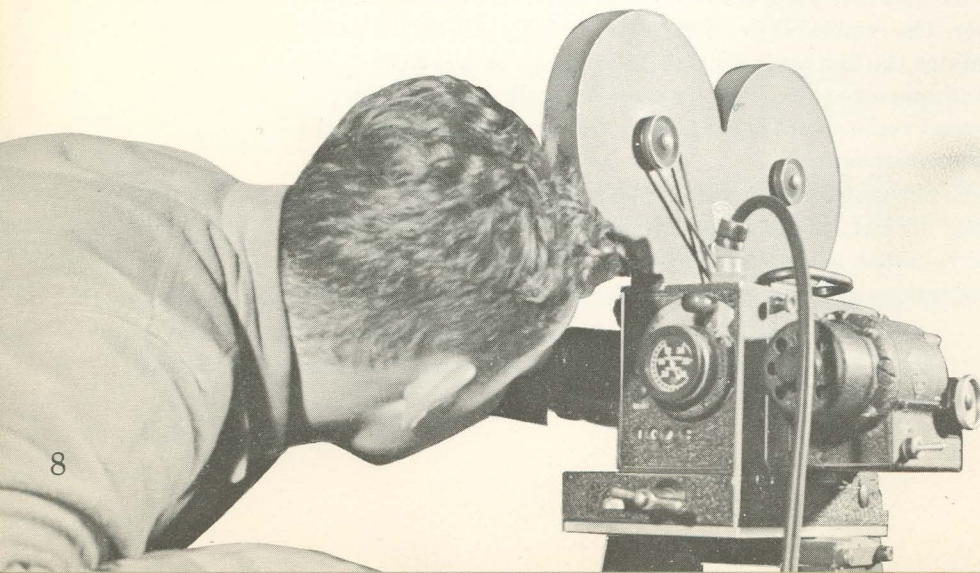
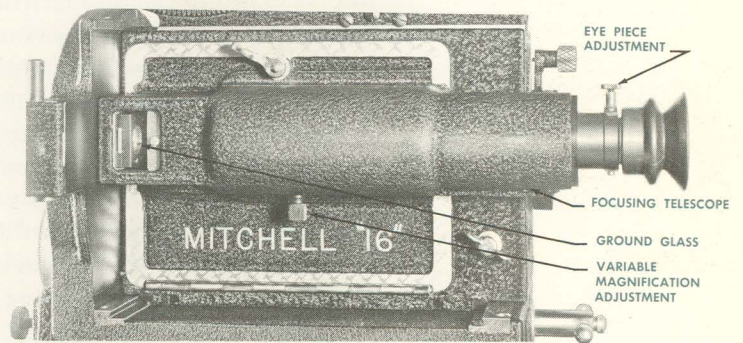
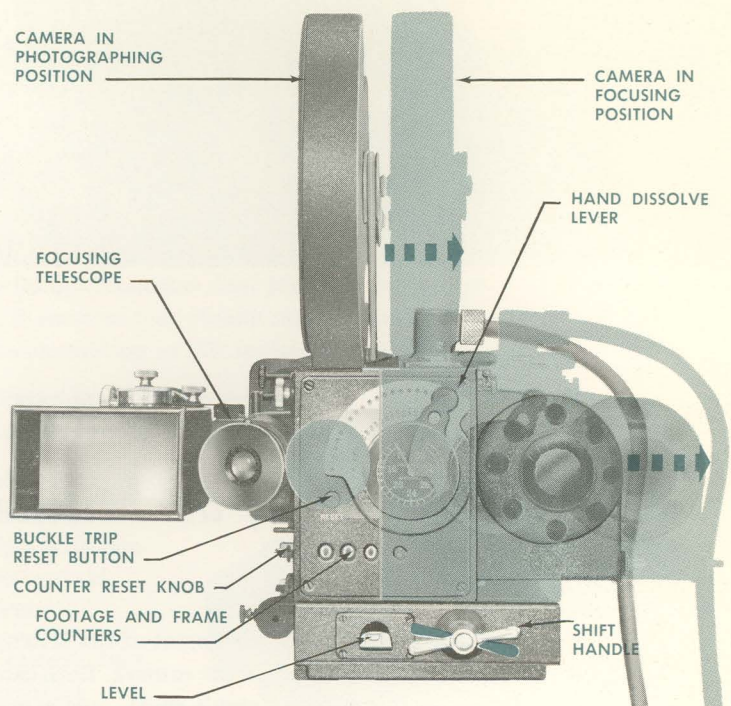
All parts of the Mitchell movement are made of finest materials available for the purpose and held to close specifications. All parts are hand-fitted, and assembly is tested and re-tested, many times, before final camera approval to assure the perfect operation and long service life for which Mitchell cameras are world famous.



THE 235°
CAMERA MOVEMENT

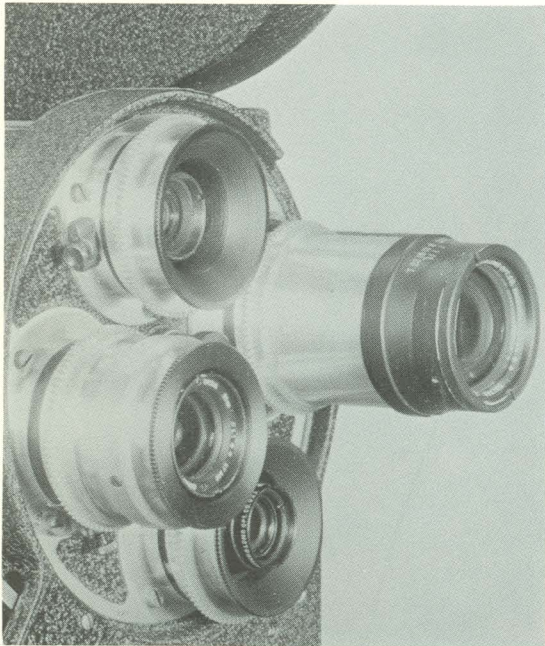
WHEN YOU FOCUS the Mitchell 16, you see exactly what the taking lens sees—and you see it erect, and correct from left to right. The lenses themselves are not removed, except to bring them to proper focus, or to change lenses. Focussing is done through a telescope, with full-vision eyepiece adjustable for individual vision, built into the left-side door. “Racking” the camera over is a motion accomplished with one hand. In this simple operation the camera box moves smoothly to the focussing position, where the telescope is directly behind the camera lens. This instantaneous “rack-over” shift is controlled by a handle on the rear camera base. Positive alignment of the camera in either photographing or position is insured by a locking pin, controlled by a release button in the shift handle. The camera box moves in dovetail tracks or gibs, which are built into the base frame. The focussing telescope is equipped with a variable-power magnification system which gives either 5x or 10x enlargement. The entire field of view is visible at 5x magnification, and is only slightly reduced at 10x enlargement. A knurled knob on the underside of the telescope controls the magnification.

Two contrast viewing filters are also installed inside the telescope—a color filter and a panchromatic filter—to allow the cameraman to check scene lighting to be sure that it is within the latitude of the color or black-and-white film being used. Filter buttons on the telescope swing these filters into or out of position.



SPECIAL SHUTTER AND MANUAL DISSOLVE—A three-blade dissolving shutter is built into the camera box. At the rear of the camera, a shutter adjustment lever permits smooth manual dissolves, or may be locked at different shutter openings in steps of 10°. This lever is set on a calibrated segment, graduated from 0° to 235°, plainly marked to indicate the amount of shutter opening. A positive pin lock prevents any change in shutter setting while the camera is running; this pin lock is released by pulling out the knurled knob on the lever and giving it a half-turn. This frees the lever for smooth manual dissolves. A tachometer, located just below the manual dissolve lever, registers frames per second.

FOUR-LENS TURRET



FOUR-LENS TURRET—The turret, mounted on the camera base, holds four lenses. Lenses from 10mm on up may be used. At the lower left side of the turret, a fast-acting trigger release allows you to shift from one lens to another almost instantly, and a positive locking device holds the lens in exact position after the turret is revolved to the new lens position.

BUCKLE TRIP—If the film should fail to return to the magazine, a buckle trip at the upper rear of the camera box operates automatically. A button is located in the back of the camera above the footage counter to reset the buckle switch. Two micro-switches are incorporated in the buckle trip, and a switch in the camera prevents operation when the camera is not in photographing position.

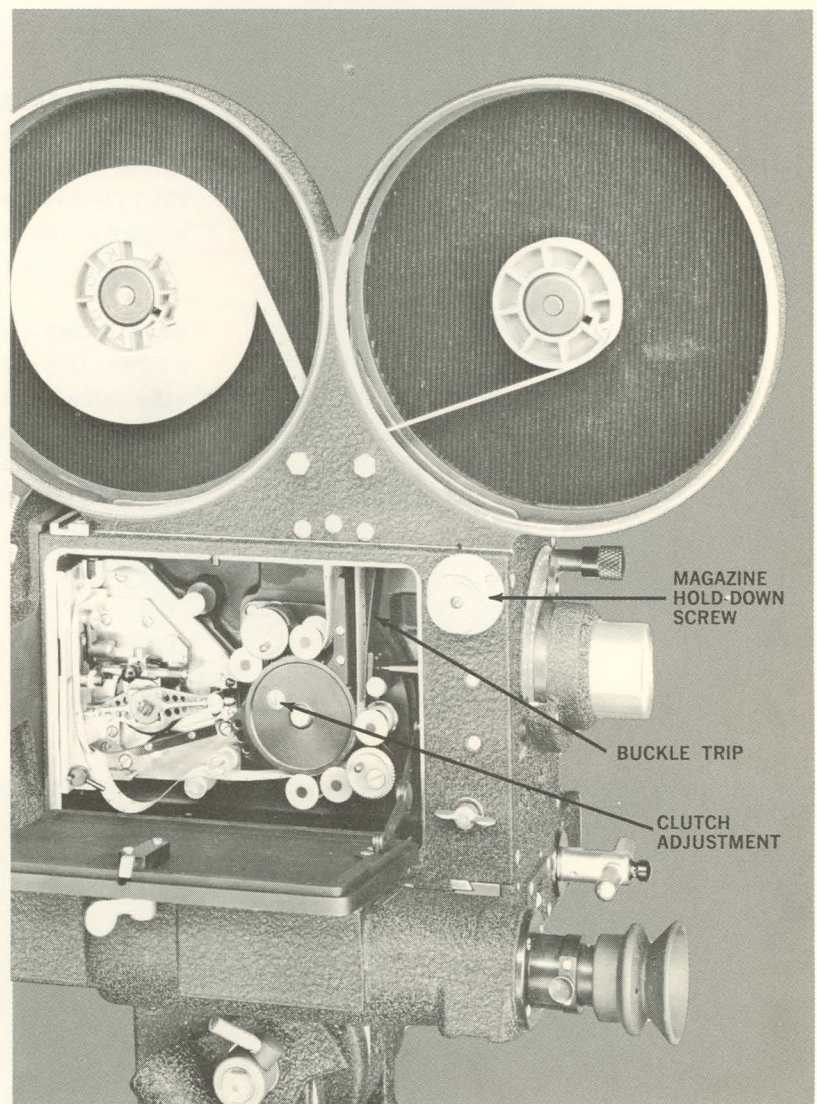
...exclusive focussing features banish guesswork

MAGAZINE AND FILM MOVEMENT—

Threading the Mitchell 16 is both quick and easy. Film is fed into and out of the camera by a sprocket which incorporates a clutch to transfer belt slippage from the magazine to the inside of the camera. Guide rollers hold the film firmly in place, and idler rollers guide it from the sprocket back into the magazine. If after threading, the guide rollers are not returned to operating position, the camera box door will not close. This feature prevents film damage and wastage. Roll tension is adjusted by removing the clutch as desired, with any convenient pointed instrument such as a scriber.

FILM COUNTERS AND SPIRIT LEVEL —

A Veeder (footage) counter is built into the rear of the camera box. In addition, a frame counter is provided, allowing the operator to return to the exact desired frame for trick photography or special effects. These counters are always in view of the operator. The reset knob is at the left of the counters. A spirit level is incorporated in the camera base so as to be in plain view and protected at all times.



*...expand the usefulness of your
Mitchell 16 camera*

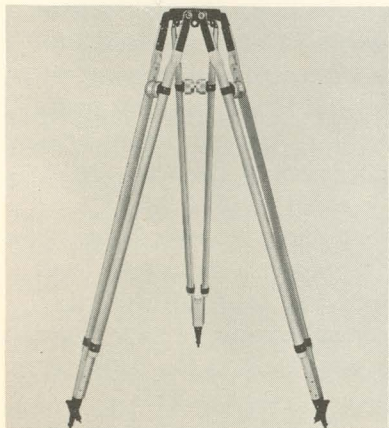
The accessories that follow were designed specifically for the Mitchell 16, and are built with all the care and precision of the camera itself. These matched accessories widen the range of your Mitchell 16 and help to insure truly professional results under all conditions.

LENSES AND LENS MOUNTS—The extra-sturdy Mitchell lens mounts are precision built and assure perfect optical centering of all lenses and accuracy of calibration for years of service. A variety of lenses are available in Mitchell mounts—these include Bausch & Lomb Baltars, Cooke Lenses, and Eastman Kodak Ektars.

TRIPOD —Tripod legs are seasoned maple, impregnated with a special oil for protection against the weather and to insure smooth leg adjustment. The base shoes are cast brass, with steel points threaded in and locked with nuts. A second point, for low settings, is provided on the inside of each shoe. Three hold-down eyes, for anchoring the camera, are set beneath the tripod casting. Tripod heights are 78" extended, 50" retracted. A baby tripod and a Hi-Hat are also available.

MATTE BOX AND SUNSHADE —The Mitchell combination matte box and sunshade is available in two types. The 35mm Type (as shown on page 2) has provision for both vertical and horizontal adjustment, and may be collapsed to any point. When completely collapsed, it clears the lenses. The matte box contains holders for filters or diffusion discs of either 2 or 3 sq. in., gauze, slides, solid mattes and pola-screen. The 16mm Type, illustrated here, has one holder for 2 sq. in. filters or diffusion discs, and a holder for a pola-screen. Both types mount directly on the camera, and are supported by steel tubes.

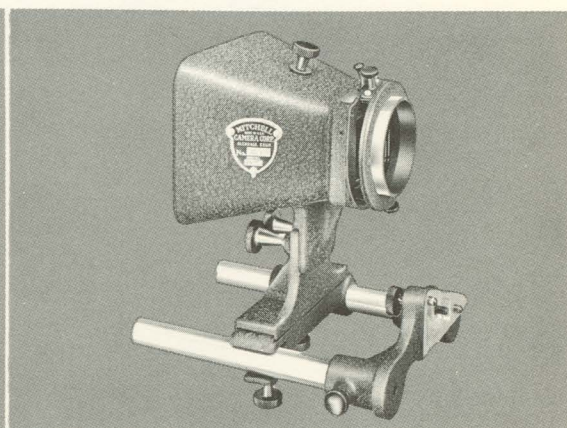
TRIPOD



LENSES AND LENS MOUNTS

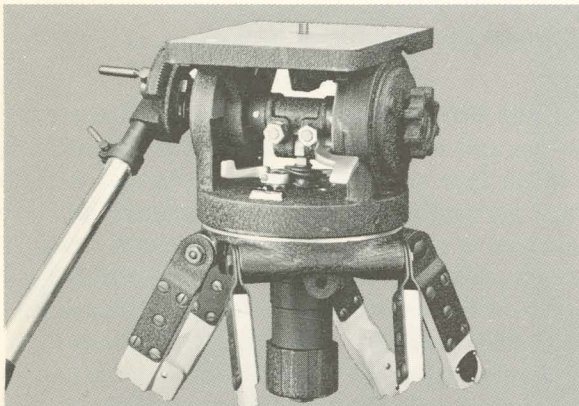


MATTE BOX AND SUNSHADE

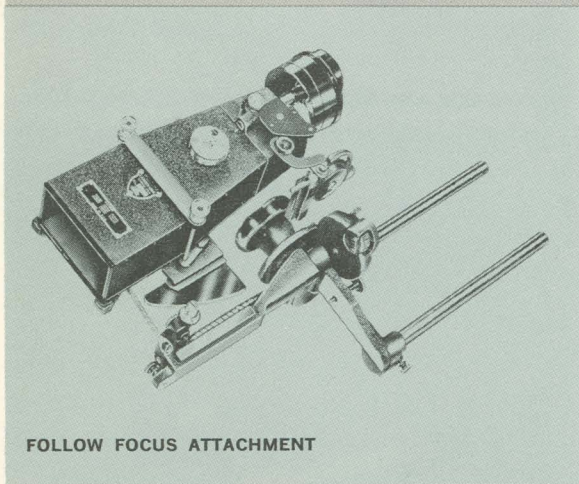


PROFESSIONAL FRICTION TILT HEAD—This rugged tilthead is almost a duplicate of those used with 35mm Mitchell cameras, and will meet all requirements where a blimp is not used. The panoram section gives smooth, effortless operation around the entire circle. The tilt section is equally smooth, and has wide range both up and down. Both tilt and panoram may be made simultaneously, since a single handle controls both. A quick release lever is provided, to drop the handle out of the way for focussing or camera adjustment. Tension adjustments and locks are provided for both tilt and panoram sections. A two-way level, shielded but in full view, is mounted on the tilthead base. (See page 2 for illustrations.)

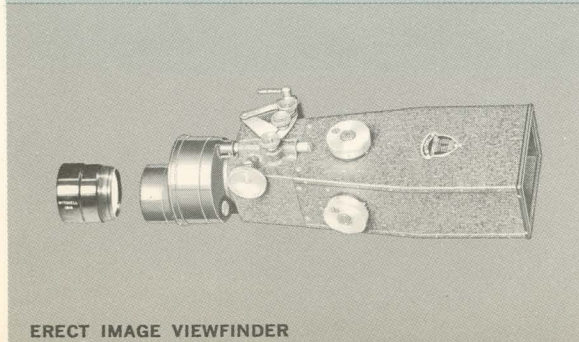
TRIPLEX BALL-BEARING TILT HEAD—This tilthead will handle any Mitchell camera from the 16 to the 35mm BNC sound camera. Three compression springs, each accommodating a different weight, and so ingeniously arranged that they may be quickly interchanged without tools, allow this one tilthead to do the work of three. The Triplex is so perfectly counterbalanced that it will return to neutral position if left unlocked. A variable top plate adjustment permits correction to center of gravity. Sealed ball bearings give smoothest possible panning action. Panoram and tilt adjustments are provided, and pan and tilt sections are locked in any position by large brake levers.



TRIPLEX BALL-BEARING TILT HEAD



FOLLOW FOCUS ATTACHMENT



ERECT IMAGE VIEWFINDER

FOLLOW FOCUS ATTACHMENT—When shooting action moving toward the camera, or away from it, this Follow Focus Attachment insures full control of picture framing and focussing. It is particularly valuable at close ranges, where focussing is critical and composition control is difficult. When the Follow Focus Attachment is fastened to the camera, all follow focus control is handled by a single control knob, obviating the usual wait for solving follow focus parallax control problems. The attachment is light in weight, simple and foolproof in operation, and is easy to install and remove. It does not interfere with the use of other standard accessories. A bracket for attaching the matte box is included.

ERECT-IMAGE VIEW FINDER—This view finder incorporates an erecting prism which causes the image to be seen right side up and correct as to left and right. It also features built-in adjustable mattes, controlled by knurled knobs on top and side of the finder. These knobs are graduated to correspond with the camera lenses. When not in use, the view finder may be detached quickly for studying camera angles, for which it is especially suited by the brilliance of the field. Picture area is about 1-7/8" x 3-5/16". An independent throwout allows the view finder to be swung out of the way for opening the camera door, without disturbing parallax or focus adjustment. Also available is an automatic focusing view finder which is always in the same focus as the taking lens, with automatic correction for parallax. This is recommended when using the Follow Focus Attachment.

VARIFOCAL CLOSE-UP UNIT—This unit saves both time and trouble when extreme close-ups are shot, such as filmed TV commercials or macrophotography in scientific and research work. Its deep-draw bellows does away with inflexible extension tubes, and permits infinite focus, from normal (X1) to larger than normal (X10). The Varifocal Unit comes complete with its own lens, selected for superior image quality under close-up conditions. Vibration is eliminated, since the unit is firmly supported by the camera turret.

INTERCHANGEABLE MOTORS—Motors available for the Mitchell 16 meet every type of photographic work. All are built integrally with the right side camera door, and are quickly interchangeable. Motor drive is direct to the camera movement, which drives the shutter shaft through right angle helical gears. When used for synchronized-sound photography, motors are shock-mounted in an insulated case. Knob at rear of motor allows manual turning of the motor for threading film in the camera. Built-in electrical cut-off switch connects with the buckle trip in the camera to stop the motor in case of take-up failure. Since power supply varies in different parts of the world, we must know the voltage and cycles to supply the proper motor.

MOTORS AVAILABLE:

Synchronous —110V single phase; as shown here, starting relay and cable.

Multi-Duty — 96V, DC, or 220V, 3-phase, AC.

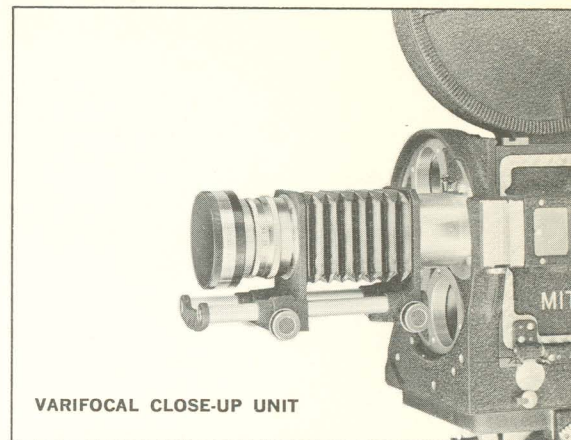
Variable Speed — Wild 110V, AC or DC — for silent films, or when camera speeds must vary between 12 and 36 frames per second. This motor can be operated from line current or by radio "B" batteries. Motors with this speed range can also be supplied for 12 or 24V battery operation.

High Speed — 110V, AC, or DC, speeds of 48 to 128 frames per second.

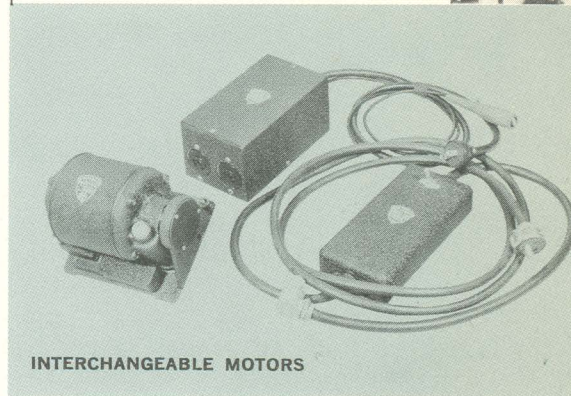
Stop Motion — Animation 110V, AC or DC.

CARRYING CASES—The camera case holds the camera with a 400-foot magazine, motor and lenses mounted. It has a pocket for the view finder. Accessory cases are supplied to fit the equipment desired. All cases are strongly constructed; edges are fiber-reinforced, and corners are metal covered. Linings are high quality and have attractive leatherette coverings, make each case a handsome piece of equipment.

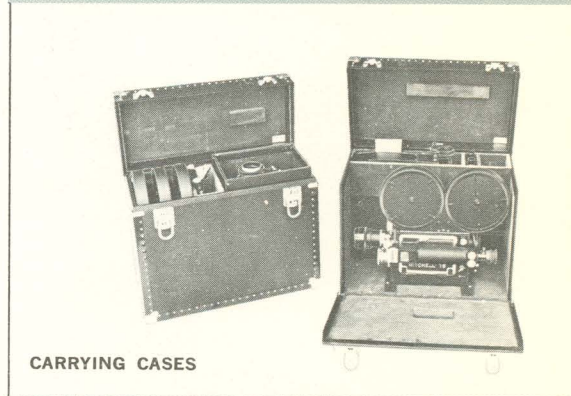
MAGAZINES — Mitchell magazines are one-piece units, with two film compartments—light-tight from each other, and corduroy velvet lined. Covers unscrew easily for film insertion or removal. A spring-loaded ball in each lid center insures a snug fit and prevents rattling. The film take-up compartment spool has a keyway to fit standard film cores, and also accommodates daylight loading spools. Film takes up as uniformly and easily at the end of the roll as the beginning. The magazine throat, or light trap, has three velvet-covered rollers held in contact with even pressure on the outer rollers, preventing film scratching. Magazines are interchangeable without breaking the film. Two magazines are available—for 400 feet or 1200 feet of film.



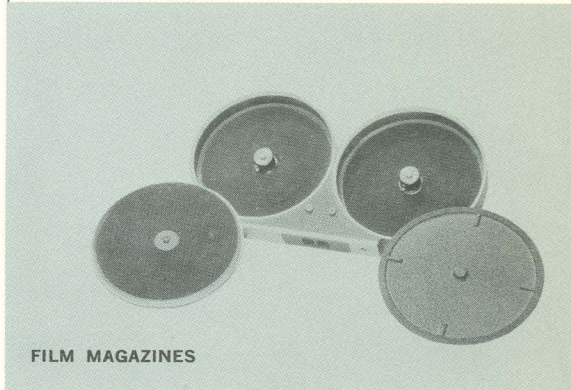
VARIFOCAL CLOSE-UP UNIT



INTERCHANGEABLE MOTORS



CARRYING CASES



FILM MAGAZINES

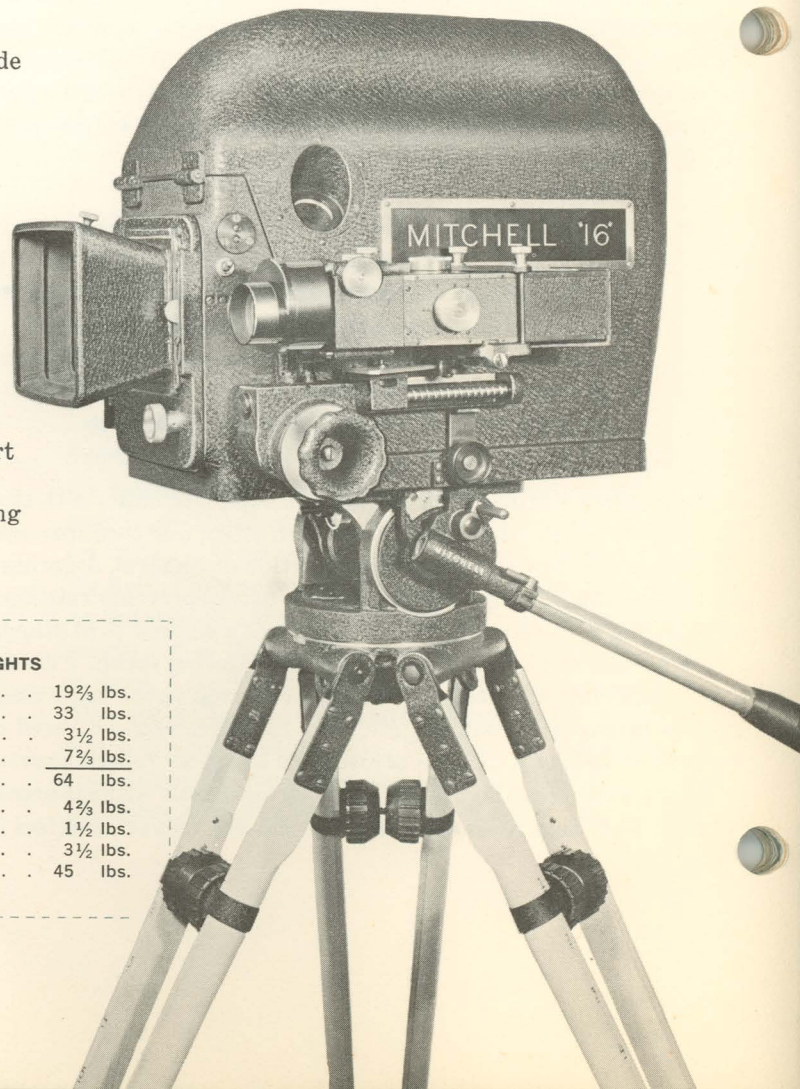
MITCHELL 16

The Blimp...by the addition of this Blimp, simply and easily done, your Mitchell 16 becomes the finest 16mm sound camera in the world. Light in weight, it is so scientifically sound-insulated that even extreme close-ups can be made without fear of recording camera noise.

The Mitchell Blimp meets every requirement for sync-sound photography, and provides many features to make camera adjustment and operation quick and easy. An outstanding feature is the inclusion of the Follow Focus Attachment as part of the Blimp.

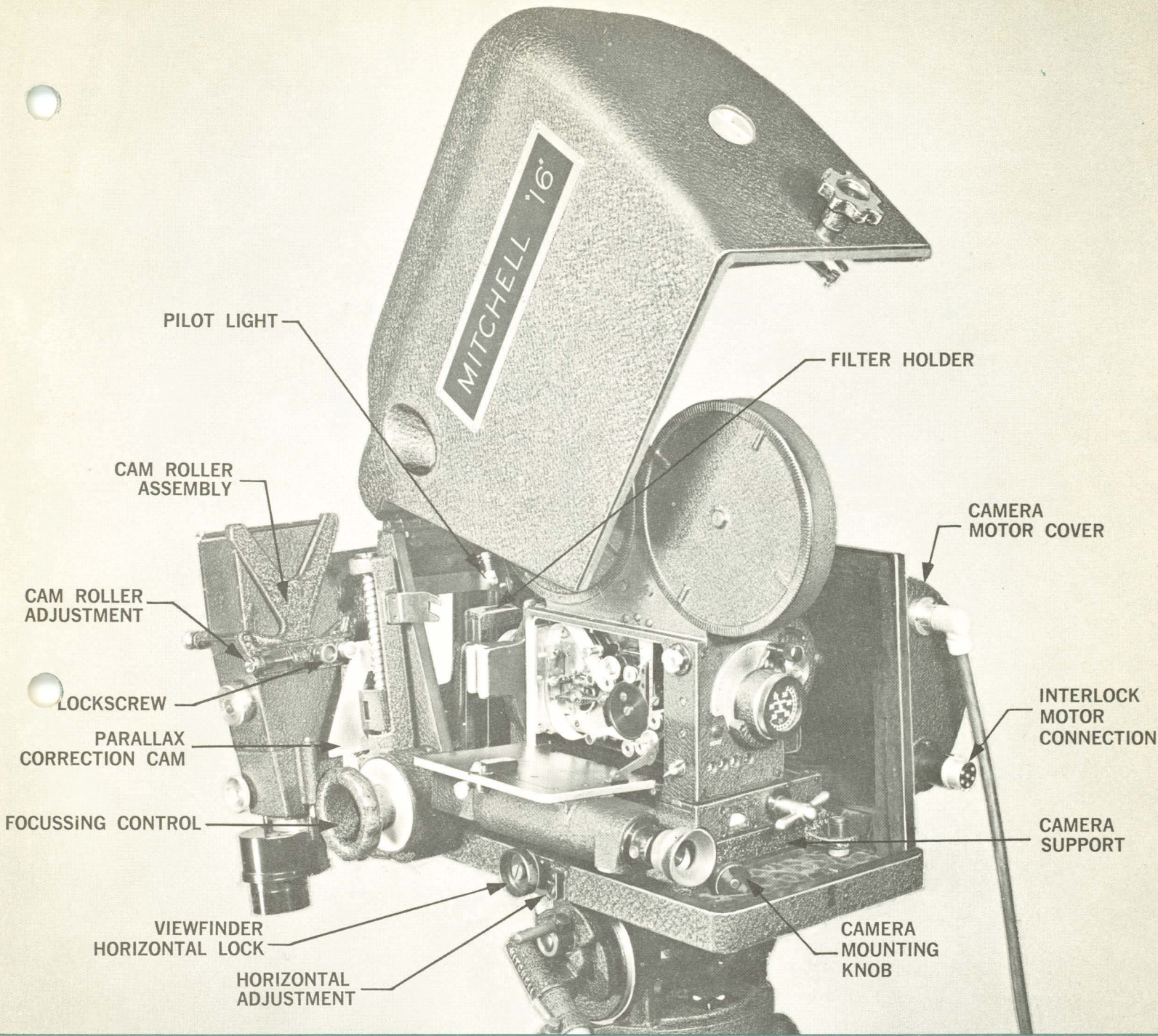
The camera tachometer is always visible through a rear window in the cover. A magnifying port on the left of the cover, plus a pilot light, permits checking lens calibrations. Raising the Blimp cover and swinging the view finder into vertical position clears the entire left side and rear of the camera for reloading or camera adjustment. The base of the Blimp holds the camera support, follow focus mechanism and filter holder. The sunshade mounts on the front access door. The regular camera view finder attaches to the left side on a dovetail bracket identical to the mount on the camera. The Blimp features a quick-acting locking control for instant opening or closing of the cover.

All interior walls are lined with high-efficiency sound-absorbing materials and covered with black velvet. Special rubber mounts for the camera support prevent any possible sound transmission to the casing. The Blimp fits any tripod or dolly-head having a $\frac{3}{8}$ -16 hold-down screw.



16MM PROFESSIONAL CAMERA WEIGHTS

Camera head only with four lenses	19 $\frac{7}{8}$ lbs.
Tripod and friction head	33 lbs.
Magazine, 400 foot	3 $\frac{1}{2}$ lbs.
Motor, 110 volt variable speed	7 $\frac{7}{8}$ lbs.
COMBINED WEIGHT OF ABOUT	64 lbs.
Combination matte box and sunshade	4 $\frac{7}{8}$ lbs.
16mm type matte box	1 $\frac{1}{2}$ lbs.
16mm view finder	3 $\frac{1}{2}$ lbs.
Camera Blimp	45 lbs.



...gives you the finest in 16mm sound cinematography

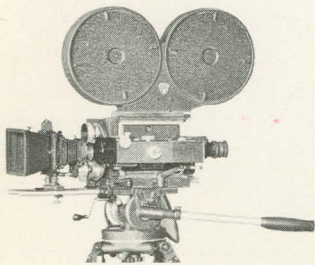
The Mitchell 16 Professional is a product of

MITCHELL CAMERA CORPORATION

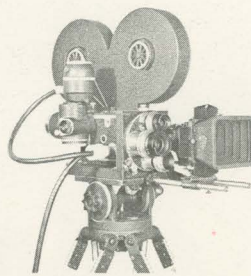
*World's foremost designers and manufacturers of
professional motion picture cameras and equipment*

MITCHELL 16

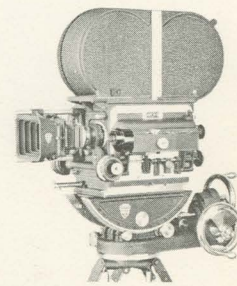
For over 40 years Mitchell has held a unique reputation as the world's leading source for the design and engineering of the finest motion picture equipment. Mitchell produces a complete line of equipment to meet the broad range of professional filming requirements. Special engineering or modifications to your requirements available. Your inquiry invited.



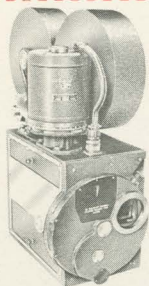
35mm NC Mitchell



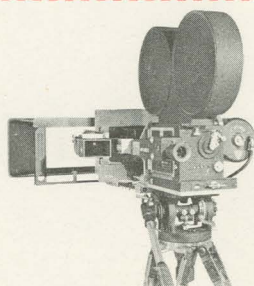
35mm Hi-Speed Mitchell



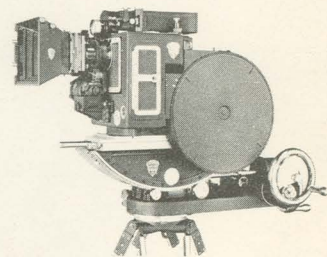
35mm and 65mm Studio Mitchells



70mm 2 1/4 x 2 1/4 High Speed Mitchell



65mm and 70mm Mitchells



35mm Vista-Vision Mitchell

Mitchell Camera CORPORATION / 666 WEST HARVARD STREET, GLENDALE 4, CALIFORNIA — Telephone: CHapman 5-1088

Cable address: "MITCAMCO"—Service Office: Room 710, 521 Fifth Avenue, N.Y., N.Y.