Academy Awards

Five awards in the Scientific or Technical category were presented at the 43rd Annual Academy Awards presentation held during April 1971. Only one Class II award was presented. That award went to *Consolidated Film Industries* for the development and invention of an innovation in film processing called Proof-Print, a method of color correcting first trial answer prints. With the new process, which bridges the gap between the video analyzer and the first print, the producer receives a first trial color answer print with each scene completely color corrected. The process was originally conceived by CFI Engineer, Leonard Sokolow. The first Proof Printing machine was constructed under the direction of Edward H. Reichard, Vice-President and Chief Engineer of CFI. This is the ninth Academy Award presented to Consolidated Film Industries.

Class III Awards were presented to:

Sylvania Electric Products Inc. for the development and introduction of a series of compact tungsten-halogen lamps for motion-picture production. The series consists of high-wattage lamps for set lighting which maintain stable color temperature and high lumen output throughout their lives. The lamps are designed to fit existing studio fixtures and their compactness permits improved luminaire design. The series includes a 10,000-W version and a battery-operated portable Sun Gun equipped with tungsten-halogen lamps.

B. J. Losmandy of Opamp Labs for the concept, design and application of microminiature solid-state amplifier modules used in motion-picture recording equipment. The use of the electronic modules has improved and simplified the design of audio circuits while affording increased reliability and compactness of recording equipment.

Eastman Kodak Co. and *Photo Electronics Corp.* for the design and engineering of an improved video color analyzer for motion-picture laboratories. The instrument utilizes a single black-and-white cathode-ray display tube, black-and-white circuitry and a revolving cylinder with appropriate red, green and blue filters. It is a stable and reliable laboratory tool for determining the optimal color and light intensity required to print negatives, interpositive or reversal originals.

Electro Sound Inc. for the design and introduction of the Series 8000 Sound System for motion-picture theaters. This is a modern theater sound system, engineered to supply high-quailty sound reproduction for a multiplicity of soundtrack modes. Advanced control circuitry for input switching, volume adjustment and changeover are provided at each projector to facilitate skillful motion-picture presentation.

Biographical Note

Carroll H. Dunning, a Life Fellow of the Society, was born August 19, 1881, in Denton, Md. He was graduated from Denton High School in 1898.

In 1916 he joined with William Van Doren Kelley and Wilson Saulsbury to form Kesdacolor (Kelley-Saulsbury-Dunning) to promote the invention of a two-color additive line-screen process. The initial showing of this process was a 100-foot scene of the American flag exhibited simultaneously at the Rialto, Rivoli and Criterion theaters in New York on September 12, 1918. It is interesting to note that the price of $1.50 per foot was for a product considerably inferior to the present-day three-color subtractive prints costing less than 6 cents per foot.

Kesdacolor evolved into a new company, Prizma Color. Mr. Dunning became Vice President, and Mr. Kelley became Technical Director. In 1922 the first feature-length picture was released in Prizma Color. This picture, *The Glorious Adventure,* starring Lady Diana Manners, was produced in England by J. Stuart Blackton. The cinematographer, William Crespinel, later became the President of Cinecolor Corp.

In 1925, Dunning moved to California and a year later opened a laboratory which he operated with his son, Dodge,

7-to-70mm Power Zooming A 10:1 ratio with Rokkor f/1.8, seventeen-element lens.

Variable Shutter Lets you obtain effective shutter speeds between 1/18th and 1/450th of a second.

Variable Zoom Speeds Cover entire range in from 2 to 12 seconds.

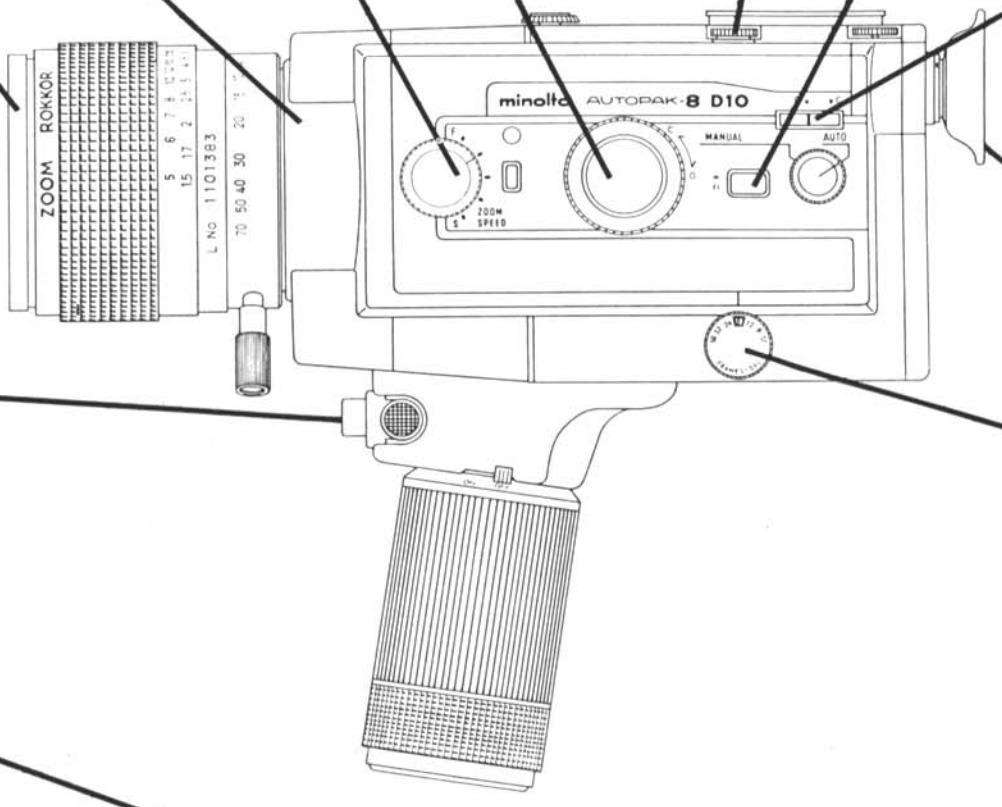
Manual Fading For slower, faster, partial or variable speed fades, just turn the wheel at your own pace.

Viewfinder Curtain Blacks out the finder to eliminate light leak during remote operation.

Footage Counter Re-sets to "start" when the film chamber door is opened.

Automatic Fading A complete fade-in or out at the push of a button, uniformly paced over approximately 54 frames.

Time Lapse, Motion Analysis, Remote Control, Sound Synch and Multiple Camera Operation Just unplug Minolta's exclusive electromagnetic shutter release and plug in one of the optional Autopak-8 system accessories, including your choice of two intervalometers, remote control cords, wireless remote receiver and tape synch cord.



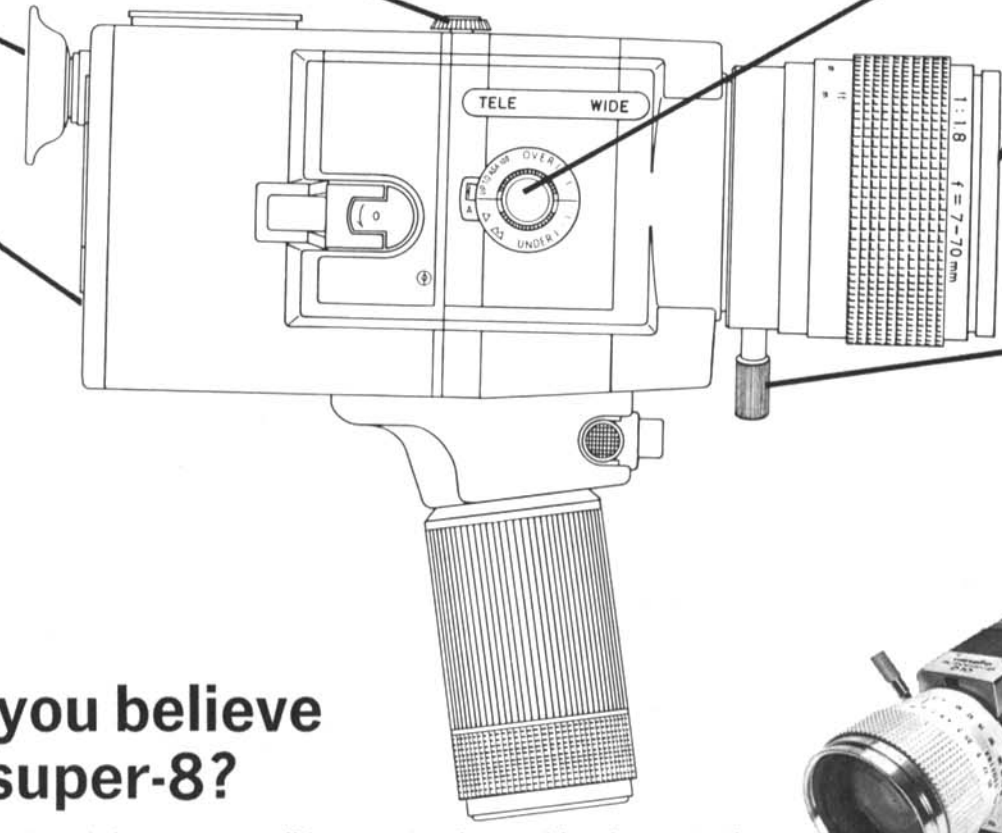
Total Information Viewfinder Besides an extremely bright image, the finder shows aperture, over/under exposure warnings, film transport and the progress and direction of a fade.

Transistorized Micromotor Provides Seven Filming Speeds 8, 12, 18, 24, 32 and 50 frames per second, plus single frame.

Movie Light Outlet Built-in type A filter is positioned automatically.

Focusing Eyepiece Adjusts from +1 to −4 diopter. Can be locked in position.

Strobe Light Outlet Fire an electronic flash in perfect synch with single frame exposures.



Semi-Automatic and Completely Manual Exposure Control Meter override by ±2EV, or meter lock to fix aperture at any opening from f/1.8 to f/45.

Fully Automatic, Through-the-Lens Exposure Measurement Instant and continuous adjustment for perfect exposure between f/1.8 and f/45, based on CdS readings from behind the diaphragm. (With all films ASA 10 to 640.)

Manual Zooming

Would you believe this is super-8?

Now, for the first time, it becomes possible to seriously consider the convenience and economy of super-8. For full information on the Minolta Autopak®-8 D10 System, write to Minolta Corporation, 200 Park Avenue South, New York, New York 10003. In Canada: Anglophoto Ltd., P.Q. **Minolta Autopak-8 D10**

What the handgrips can do will give you some idea of what the camera can do.

The idea behind the Bolex 16 Pro was to give the professional a 16mm sound camera that would satisfy him in every way. We started with a clean sheet of paper and a list of the things we felt a professional camera should be able to do. By the time we finished, we had a 16mm camera like no other. Everything about it was different—starting with the handgrips.

EVERYTHING AT YOUR FINGERTIPS.

The handgrips of the Bolex 16 Pro aren't for holding the camera. They're for operating the camera. When you wrap your hands around the grips, your fingers rest on sensitive rocker switches that control the power zoom and power focus (which can also be operated manually). You control the rate of zoom and focus through a built-in rheostat.

The handgrips also house the running speed selector and the fade-in fade-out control.

Extension sockets in the ends of the handgrips let you operate the camera remotely, from as far as twenty feet.

And if you should drop the camera on its handgrips, while on location in Timbuktoo, the grip can be replaced. Because the camera and its power source are modular.

BODY HELD. NOT HAND HELD.

We wanted a camera that would work equally well on or off the tripod. In the studio or on location. So we designed ours to rest comfortably on the shoulder. By using a monopod attachment, the camera becomes entirely body held, leaving your hands free to guide and operate it.

WE BUILT A BETTER MAGAZINE.

We placed our 400′ co-axial magazine to the rear, making the camera easy to work with in tight spots, like inside a car. We've minimized loading and handling. The film threads itself automatically, from core to core, in three seconds. Then a signal light tells you the camera is ready for shooting. (This same light also indicates when the film is exhausted.) A built-in cutter makes it easy to remove partially exposed film.

ELECTRONICALLY CONTROLLED MOTOR.

The Bolex 16 Pro has a built-in four-in-one electronically controlled motor that runs at variable speeds of 16 to 50 fps, forward and reverse. (There's also a model with speeds of 16 to 100 fps.) It can also shoot single frames for animation and time lapse studies. The motor operates so quietly that it produces only 32 dbs five feet from the lens. So no blimp is needed. And because the motor starts and stops instantly, at all speeds, there are no blank frames between scenes.

The motor drive is crystal controlled, providing an accuracy of plus or minus one frame in 1,000' of film. The camera permits synch sound shooting without direct connection to a tape recorder.

OUR LENSES. AND MORE TO COME.

Presently we have four interchangeable lenses for the Bolex 16 Pro. An Angenieux f/2.2 12 to 120mm zoom. A fast Schneider f/2.0 10 to 100mm zoom. A 20 to 1 Angenieux 12 to 240mm zoom. And an extreme wide angle Zeiss Distagon f/2.8 8mm lens. And it's possible to adapt some of your own lenses for use on the Bolex 16 Pro.

EXPOSURE CONTROL. AUTOMATIC AND NOT.

It's there, even if you choose not to use it. The Bolex 16 Pro has a through-the-lens light metering system and automatic exposure control, for film speeds of 12 to 1600 ASA. The meter is coupled to the camera speed control, and adjusts itself automatically to correspond to any changes you make in the running speed. A manual override control is built right into the handgrip, so you can take over any time you please, without so much as moving your hand.

THE VIEW FROM THE FINDER.

The Bolex 16 Pro is a mirror reflex camera with a 20 X magnification at the viewfinder. The mirror is always in viewing position when the camera stops. The viewfinder converts instantly from ground glass to clear glass, to give a brighter image in dim light or with the lens stopped down.

You can rotate the viewfinder 45, 90 and 180 degrees, which makes it possible to film with the camera aiming backwards over your shoulder.

The viewing screen has a TV area marked off, as well as 16mm frame markings. It also tells you what the f-stop is at any given time.

PUT IT ALL TOGETHER.

When you bring the automatic features of the Bolex 16 Pro into play, you can do some very remarkable things. You can follow focus and zoom at the same time, while panning from light to dark areas. (Ordinarily you'd need at least four hands to do that.) You can make automatic time lapse studies in changing light conditions. The Bolex 16 Pro was designed to be the best all-around 16mm sound camera of all time. We invite you to see how successful we were.

BOLEX 16 PRO

If you'd like a demonstration of the Bolex 16 Pro, please write Paillard Incorporated, 1900 Lower Road, Linden, N.J. 07036. We'll notify you when we'll be in your neighborhood.

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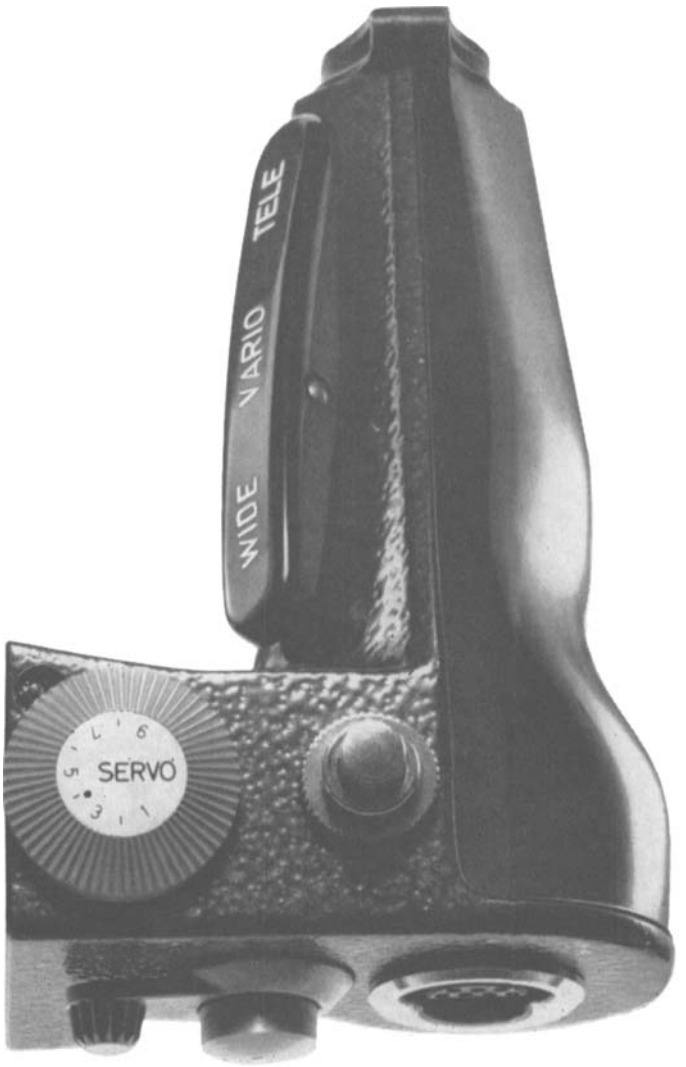
For countries outside the U.S.A., write Bolex International S.A., 1450 Ste. Croix, Switzerland.



who had invented a process for composite photography described in *Transactions of SMPE,* September 1928, No. 36, pp. 975–979. The method, called a Dunning Shot, was used to make the aerial dogfights in Howard Hughes *Hell's Angels,* the tugboat sequences of Garbo in *Anna Christie,* and the shipwreck sequences in the original *Mutiny on the Bounty.*

During 1927, W. Van Doren Kelley organized a Pacific Coast branch of this Society in Hollywood, and Mr. Dunning became its first Manager.

After a four-year monopoly in the field of composite photography, the Dunning Shot was superseded by rear projection which could be done by the studios without outside supervision.

Carroll and his son turned their attention to developing a subtractive two-color process for making prints from standard bipack onto duplitized positive film. In 1937 a method of adding a third color was discovered, and the process became a three-color system. In addition to this system for producing 35mm release prints, the Dunning Color Laboratory also produced three-color subtractive 16mm prints on Kodachrome film. Mr. Dunning started making 16mm reversal prints in 1938 using Kodachrome Type A as a print material. The first subject was a one-reel public relations film on Sun Valley for Averell Harriman. At this time, Carroll was advised that the use of Kodachrome Type A would not be practical for making prints; however, he proceeded in his experiments and was one of the first, if not the first, to offer a 16mm color print

Carroll H. Dunning early in his career.

service in Hollywood. His efforts and success in this area were at least partially responsible for the introduction of a Kodachrome duplicating film by Eastman Kodak Co. in 1944.

During World War II, Dunning Color Laboratory produced reduction 16mm Kodachrome prints of all the color features produced by MGM in the Technicolor process and all the Disney training films for distribution to the United States Armed Forces.

In 1945, Carroll designed the Animatic Projector for use in schools and industry. A 16mm filmstrip was used which was advanced by a solenoid at 1/200th of a second. A 33⅓ r/min record player could be used with the projector to provide sound filmstrips. On completion of the Animatic Projector, Carroll produced one of the first sound-color educational filmstrips, *How to Make a Lemon Pie,* for a home economics course. Several other strips were made for this projector, including industrial, travel and religious titles. All of the titles had sound electronically synchronized to the advance solenoid.

In 1960 Dunning discovered that all American Embassies have film lending libraries containing hundreds of educational and promotional subjects. These are either silent prints or have English-dialogue soundtracks. This led to his invention and construction of a hand-operated device with which embassy office personnel could laminate a 30-, 50- or 100-mil magnetic soundtrack onto all of their existing prints. By recording onto this half-track, it is possible to convert the English-dialogue subjects into multilingual prints.

Dunning is presently working on an assignment to improve film-editing equipment and hopes to complete the job before his 90th birthday this August.—*R. T. Ryan*