

ARTHUR MILLER, A.S.C.: "Electronicam's parallax-free finder is a major improvement."

Arthur Miller Looks At Electronicam

By ARTHUR MILLER, A.S.C.,
President, American Society of Cinematographers

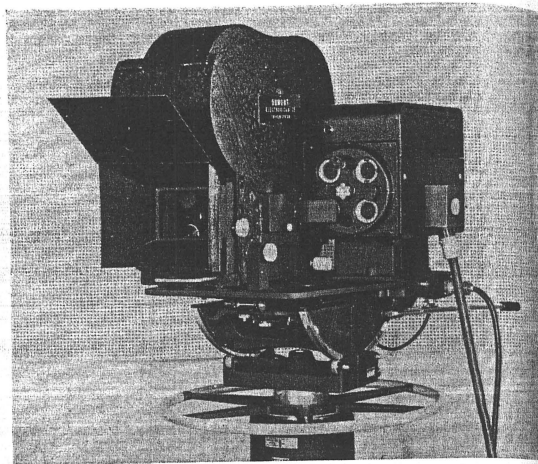
FOLLOWING THE announcement by the Allen B. Du Mont Laboratories, Inc., that the company planned to introduce its Electronicam system of T.V. film production on the West Coast early this year, I accepted an invitation from the company to visit New York to observe the system in actual use in the filming of "The Honeymooners," weekly television show produced by Jackie Gleason under the photographic direction of Jack Etra.

The Electronicam system was explained to readers in the May and October 1955 issues of the American Cinematographer. Therefore, it is not the purpose of this article to discuss the methods of motion picture production except to say that this show is filmed using the multiple camera method as is "I Love Lucy," "Our Miss Brooks," "The Phil Silvers Show," and others.

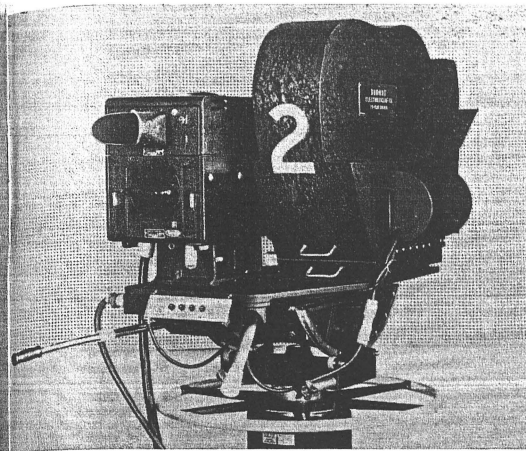
Usually three Electronicam cameras are operating simultaneously photo-

graphing the action in long, medium and closeup shots. It is my aim to describe the camera technically and what can be achieved by its use.

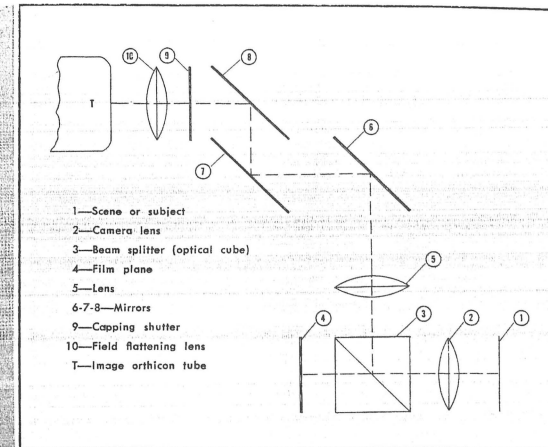
The Du Mont "Electronicam" camera is basically a standard Mitchell camera with a turret of four lenses: a 35mm, 50mm, 75mm, and 100mm. The operator can switch lenses by simply turning a lever at the back of the camera. He can also stop or start the camera during a take. By use of a beam splitter,



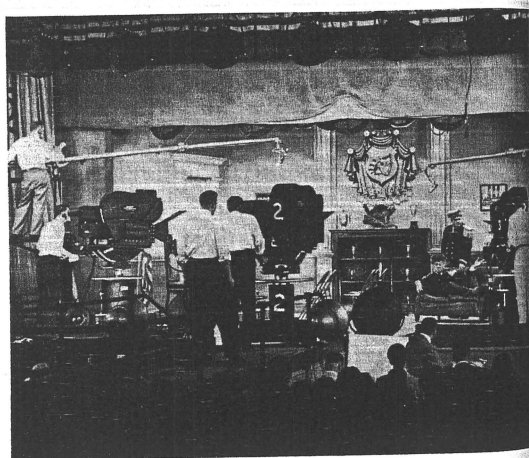
INSIDE BLIMP of this Electronicam unit is a standard Mitchell 35mm camera with 4-lens turret. Light entering taking lens is divided and sent along separate path to standard electronic pickup unit at right, which provides the parallax-free viewfinder image and also images on preview monitors in the control room.



REAR VIEW of Electronicam camera. The Mitchell camera in blimp is at right. Here may be seen the hooded electronic finder, also the lens selector lever at rear of electronic unit. Three such cameras are currently in use in filming "The Honeymooners," half-hour TV film series produced in New York by Jackie Gleason.



SIMPLIFIED optical diagram of the Electronicam-35 camera, showing how the image picked up by taking lens is split by optical cube or "beam splitter" and diverted to the electronic unit, which reproduces it on the electronic viewfinder and the preview monitors. Optical cubes are interchangeable to accommodate different films.



SHOOTING the Jackie Gleason show. Here three Electronicam 35mm cameras are recording the action simultaneously. The image picked up by each camera is relayed to preview monitors in control room.



CONTROL ROOM, showing the three preview monitors plus "line" monitor at far left. Here director of photography can talk to operators and position each camera for scene to be photographed.



PICTURE on "line" monitor is the take selected for kinescoping, will be included in finally edited version of the show. Effects are added to kinescope electronically, duplicated in edited film.

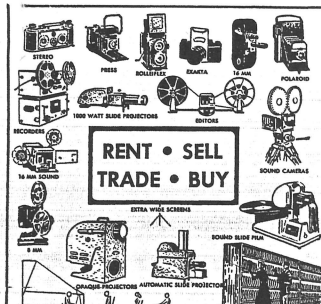
the image that is being exposed on the film is electronically shown in the finder, and as many monitors as desired can be placed at convenient spots. The finder picture is bright, clear and about $3\frac{1}{4} \times 4\frac{1}{4}$ inches in size. There is no parallax because the finder image is taken from the photographic lens. If an anamorphic lens is used in photographing, as in CinemaScope, the squeezed image that is exposed on the film can be unsqueezed electronically

in the viewfinder, as well as in all viewing monitors. It will appear in the same proportions or ratio as would be seen in the theatre. Whether a fast film like Tri-X or a color film requiring five times the light is used, the amount of light required for the electronic image in the finder remains the same, about 80 ft. candles. Therefore, there is a choice of beam splitters of different degrees of light transmission from 50-50 to 90-10. Any type of film can be ac-

commodated simply by changing the beam splitter, which is accomplished in a few minutes. All of the optics, including the beam splitters, are coated.

The photographing lens can be focused visually through the finder from the back of the camera, or on a monitor by remote control or at the side of the camera by use of a knob turned manually to register on a footage scale.

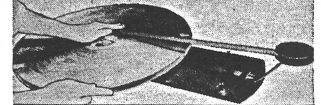
The camera is provided with cut-off
(Continued on Page 176)



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time to accomplish this—between 25 and 30 setups a day at the studio. We started right out at top speed, for there was much pressure applied at the beginning to get shots in the can so that much of the large cast could be relieved and the company moved to the first location site in Virginia. The urgency continued even here, and by the time we moved on to Marfa, Texas, the cast was pared down to the bare essentials and we went along on a more orderly day-to-day program of production.

"Because the Texas location involved the greater part of the exterior shooting, a tremendous amount of equipment had to be shipped there for our use. Included were two 'Blue Gooses' (unique camera cars equipped with hydraulic platforms), one Chapman crane—an item rented to the studios by an independent supplier—two 2,000-watt mobile gas generators, and eight Mitchell cameras.

"Perhaps one of the most unusual uses to which the Chapman crane was put was in shooting the big cattle roundup sequence. With the Mitchell camera mounted on the boom, we moved right out into the field, into the midst of the cattle, and made shots from every conceivable angle—all of which proved ideal material for the cutters who made it into one of the most thrilling sequences of the picture."

"Giant" was photographed in the WarnerColor process, with an aspect ratio of 1.74-to-1. The negative was Eastman Color and the cameras used were standard Mitchell 35's.

ELECTRONICAM

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buckle switches above and below the film aperture. The magazine capacity is 2000 ft. The film camera is housed in a blimp in the usual manner. From a portable control room camera lineups can be made by use of monitors. Each camera has its own monitor on which appears the picture which that particular camera is recording. It is also equipped with a "blooming" light to record a cue mark on one edge of the film as an aid to synchronizing the film with the sound track in editing.

From the control room the Director of Photography can talk to the operators and position each camera for the particular scene to be photographed. During the take he can see on the preview monitors what each camera is photographing. The picture from either camera can be placed on a fourth monitor and, by punching buttons on a control panel with the proper selection of camera shots, a 16mm kinescope can be made during the take—which

is used as an editing guide. This kinescope can include all fades, dissolves, and wipes which are made in the kinescope electronically. At different positions about the set can be placed monitors for anyone concerned in the making of the picture to visually see what is being photographed.

Preparation has been made to instantly play back on a loudspeaker in the monitor room the taped recorded soundtrack of any scene.

The dollies for the camera can be any of the variety which are used in motion picture production. In general, this is a motion picture camera which has added all of the advantages electronics can provide.

The advantage of a parallax-free finder by which the taking lens can be focused visually is the first major improvement on a motion picture camera since the Mitchell camera introduced the rack-over.

NEWSREELING

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with 8", 12", 16" and 20" telephoto lenses. He always works with an assistant whose duty it is to make notes of the respective play to guide the narrator in writing his script.

"In shooting football games," Alley says, "the cameraman must know the game thoroughly, be able to anticipate the play and to put the right lens in place to cover it. He must not turn the camera on or off too soon, but allow a few feet of film to run before and after to give additional time for the narrator to start his description of the play."

Because most newsreel men today are shooting for both theatre and TV newsreels, they often use 16mm cameras exclusively. Nowadays, says Alley, more and more 16mm footage is being blown up to 35mm for theatre newsreels.

The number of "contributing" newsreel photographers in the field is greater today, too. These are the men who shoot newsreel stuff on speculation and take their chances on hitting pay dirt. The big newsreel producers pay as high as \$5.00 per foot for usable material, depending on the subject matter and its timeliness.

While he has photographed some of the most dramatic pictures of events of the twentieth century, Alley likes to think of himself as a reporter who uses a camera instead of a pencil. He leaves the artistic and scientific approaches to cinematography to those who have the time, and the inclination, to be arty and scientific.

"I know little about the chemistry of photography, never studied composition,

and never read a manual on lighting," he explains. "My aim is simply to be at the right place at the right time, focus my camera and press the button. I never let the mechanics of my camera bother me, because I don't want anything to interfere with my getting a clear, simple picture."

Alley began his career as a news photographer for the *Chicago Tribune* when he was fifteen years old. Two years later he learned how to crank a movie camera and went to work for Pathe Newsreel. His first major assignment proved a news beat. When the *Eastland*, an excursion boat, overturned in the Chicago River in 1915, Alley arrived ahead of the police and got his story on film. A colleague dressed as an intern hustled his films through police lines.

He made his first combat films in 1916 when he accompanied U.S. Army troops pursuing the Mexican bandit, Pancho Villa. When the U.S. declared war on Germany, Alley joined the Army and became a Signal Corps photographer. After the Armistice, Alley, back in the United States, illustrated the biggest newsreel headlines of the day with his camera. He was regional manager of Hearst Newsreel in Chicago from 1920 to 1937. It was early that year he went to the Orient and when the Japs invaded Shanghai, he was on the spot with his camera shooting newsreel footage. It

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