

CINEMATOGRAPHER Burnett Guffey casts appraising eye toward sun before giving the "okay" signal to his camera crew waiting to shoot scene for Allied Artists' "Hell To Eternity" on location in Okinawa. Here, constantly varying light was a problem.

## Multiple Cameras Cut Shooting Time Of "Hell To Eternity"

Burnett Guffey, ASC, used two or more cameras to record principal action scenes for story of Saipan invasion, filmed in Okinawa.

#### By GEORGE J. MITCHELL Major, USARYIS/IX Corps, Okinawa.

WHEN I LEARNED THAT Allied Artists intended to shoot most of "Hell to Eternity" on Okinawa, I decided to photograph a personal documentary film of the company and the Marines at work, using my 16mm equipment. It struck me that "behind-the-camera" activity would provide interesting material for an amateur film. Producer Irving H. Levin was kind enough to allow me to photograph the unit at work during the 30 days spent on Okinawa. The result of my labors is an 800-foot Kodachrome film with magnetic sound showing the picturization of some of the most impressive battle scenes ever put on film.

"Hell to Eternity," produced by Irving H. Levin, is the true story of Marine Sergeant Guy Gabaldon who persuaded over 1,000 Japanese soldiers to surrender during the battle for Saipan in 1944. Producer Levin assembled an outstanding cast to tell Gabaldon's story. Jeffrey Hunter, rising young star, was selected to play Gabaldon. Old time silent star Sessue Hayakawa portrays Lt. Gen. Matsui, commander of the Japanese forces on Saipan. His wife, Tsuru Aoki, making her first American film in 35 years, plays Gabaldon's Japanese foster mother. Mrs. Hayakawa was also an important Hollywood star of the silent era whose popularity rivaled her famous husband's. Also prominent in the cast are Vic Damone,

AMERICAN CINEMATOGRAPHEP

David Janssen, Joan O'Brien, Miiko Taka, Richard Eyer, John Larch, B'll Williams, Richard Gardner and Nicky Blair.

To direct the photography, Levin chose Burnett Guffey, ASC, who won an Academy Award in 1954 for the photography of the similarly-titled "From Here To Eternity."

The first scenes photographed on the Okinawa location were made at the Army's Ishikawa Recreation Beach, redressed to serve as a camp in Hawaii. But after two days of near perfect weather, the company moved to Kinwaki beach to film the massive amphibious invasions scenes.

One afternoon at Kin-waki I watched Director of Photography Guffey preparing to photograph Marines storming ashore from landing craft and engaging the Japanese defenders in fierce fighting. It was a difficult and complicated scene to make. Great care had to be taken to make certain that the explosive charges, flame throwers and mechanical devices used to produce the simulated artillery fire were set off on proper cue. Guffey had carefully lined up three Mitchell NC cameras at strategic points to catch the action from several different angles. One camera was placed on the beach and two others were located inside a huge amphibious tractor. The front ramp of the amphib was lowered so these cameras could effectively cover the set.

The cameras were ready. Guffey and his crew waited patiently for the Marine explosive experts, working in conjunction with the film company's special effects team, to complete their work. Suddenly and with unpredictable swiftness, heavy tides came in from the Philippine Sea and almost washed away one of the cameras. Waves dashed against the sides of the amphibious tractor, wallowing partially in the surf, and drenched the two cameras and their crews inside. All of the camera positions had to be moved.

"That's the story of my life," Guffey said to me when I remarked on his bad luck. "We had a good set up but in this business you have to be ready for the unexpected."

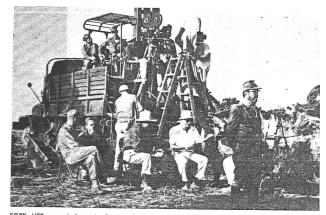
It was late afternoon and the sunlight was fading fast. Time was of the essence. It would have been expensive and time consuming to postpone the scene until the following day.

But Burnett Guffey has been dealing with similar crises during the many Continued On Next Page

JULY • 1960



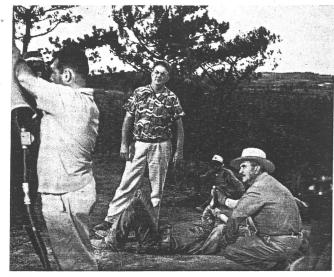
ON RUGGED ISLAND location, a single camera is used to film Japanese surrender scene. Behind Mitchell camera is operator Andy McIntyre and assistant Jack Deerson.



FORK LIFT, mounted on truck served as improvised camera crane. Note Pan-Cinor zoom lens mounted on camera at right. Crew is standing by while cinematographer Goffey and directory Karison review script.

TWO MITCHELL cameras are used to simultaneously film closeup and medium shots of dramatic battle scene for "Hell to Eternity."





BECAUSE SUN played hide-and-seek almost constantly on the Okinawa locations, cinematographer Burnett Guffey maintained a vigilant check on light intensities, using a Norwood incident light meter.

years he has been behind motion picture cameras. Within minutes he guickly, skillfully and with authority born of years of experience, selected new setups, lined up each camera for composition, checked lighting and exposure and was ready to roll when Director Karlson called for "Action!"

In front of Guffey's cameras, the Marines slowly waded ashore amidst tremendous artillery explosions and the chatter of machine guns and crack of rifles. For many of us on the sidelines who were combat veterans of World War II and the Korean War, it was a bit too realistic for comfort. Karlson was calmly directing the make-believe carnage from the turret of an armored amphibious tractor in much the same manner as a combat commander. When he finally said "Print that one!", the sun had almost disappeared behind the nearby Ishikawa mountains. At Assistant Director Clark Palow's command, "dead" Marines and Japanese soldiers slowly rose from the beach in the eerie light of the gathering dusk. Guffey tilted back his ten-gallon cowboy hat and smiled, satisfied. Another important scene was "in the can."

When I visited the set the next day. the beach looked as if a real invasion had taken place. Shell holes, shattered

palm logs, bits of barbed wire and pieces of military equipment were littered about. Hundreds of Marines together with their heavy trucks, tanks and equipment milled around. In the middle of this apparent confusion Guffey was calmiv making ready for the next series of scenes. These were to show the Marines slowly advancing over the beach against bitter Japanese resistance capturing a series of pill boxes located on the bluff. It was to take Director Karlson's film unit nearly three days to achieve this objectivepossibly longer than it had taken the Marines in the real-life battle of Saipan. But, of course, although the results looked as realistic as the actuality, it was much safer for everyone concerned.

To photograph these scenes with more dramatic effectiveness, Guffey employed multiple cameras. As many as three Mitchells were sometimes used to photograph different fields of action simultaneously in the same scene. For example two cameras, each employing different focal length lenses, would cover the advancing Marines as they crawled across the fire-swept beach, using shell holes and debris for cover. A third camera, mounting either a telephoto or a Som Berthiot "zoom" lens, would be trained on the objective

the Marines were attacking. This technique enabled Director Karlson to secure a number of various angles of the same scene in one continuous take. Moreover, it created a greater sense of realism

In addition to the three Mitchell NC cameras, a 35mm Arriflex was frequently employed as a hand camera to capture close-in "vignettes" and subjectively photograph bits of action. Sun reflectors plus 10K and 20K incandescent lamps augmented the sometimes illusive Okinawa sun, which often frustrated the camera crew by alternating from extremely bright to very dull. But as a general rule, the weather was excellent-almost made to order for the daily call sheets.

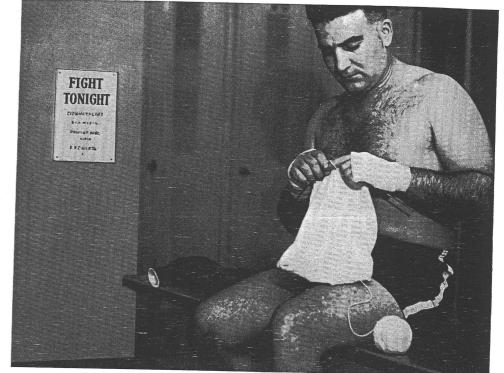
All of the camera equipment was brought from Hollywood. This included three Mitchell NC cameras and one Arriflex. Barneys were mainly used for camera silencing; however, a Raby blimp was on hand and used when camera noise had to be kept at a minimum. Although some grip equipment was shipped out from Hollywood, "Chuck" Hanawalt and his grips made most of their equipment after the company reached Okinawa. Lighting equipment was rented from Japan, but Gaffer Dave Curtis brought along his own diffusers. The Marines furnished and Continued On Page 434



USING A BOLEX H-16 camera with full complement of lenses, the author photographed much of the production action from behind or alongside the big Mitchell cameras for a personal documentary film of a movie company in action on location

AMERICAN CINEMATOGRAPHER

**BEHIND THE SCENES...** 



# You'll find CHARLES ROSS!

There's a lot that goes on behind the scenes that never shows on the screen . . . important things, that require the very best in equipment. That's why producers who "get things done" call Charles Ross . . . They choose from one of the largest inventories of lighting and grip equipment in the east - anything from a sleek, powerful DC Generator Truck to a Baby Spot. There's service too! The kind of service that, within minutes after your order is received, has the equipment on its way to your location. You'll find it's great doing business with Charles Ross.

Charles Koss

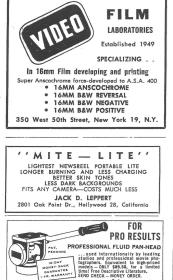
**RENTALS** SALES SERVICE Send for a schedule of rental rates. GENERATOR TRUCKS , 1000, 700, 300, 200 Amp. D.C. 100. 50. 30. 20 Amp. A.C.

Lighting the Motion Picture Industry Since 1921 333 West 52nd Street, New York City, Circle 6-5470

JULY • 1960



AG NA NA BLACK & WHITE Eversal printing & processing COLOR PRINTING Fastax Service, A&B Roll Prints, Dissolves, Fast, expert attention to Dissolves, Fast, expert attention to mation ... Circular p. LAB-TY 723 Seventh Ave., N. Y. 19 - JUdson 6-2293



FORBES-ROBINSON, INC. . Dept. C-1 4607 Alger St.

up to full charge level again. "Most cameramen," says Leppert, "find that re-charging the batteries twice a week is ample for normal use. The charging unit, which is shown in an accompanying photograph, is  $6'' \ge 6'' \ge 6''$  in size, and is easily packed with cameraman's other gear in car trunk or suitcase.

The rate of battery re-charging can be varied, and there's a built-in amp meter that shows the charging rate. The charger is so designed that it cannot be hooked up wrong, and fuses have been provided to further this protection.

Shooting Tri-X or DuPont 936 at ASA 250, exposures at 24 fps with the "Mite-Lite" are as follows:

25	feet	from	subject	f/1.9
12	"	"	"	f/4
6	**	**	"	f/8
3	"	**	"	f/16

Although these exposures are approximately one-stop slower than afforded by other portable light units, the Mite-Lite's picture quality is said to be better and the ratio of background fall-off is not as great as when other units are used. There is a noticeable reduction, too, in the bleaching of faces and dark backgrounds—two notable faults of mono-source lighting in newsreel camera work.

In Hollywood, the Mite-Lite, complete with spare fuses and bulb, sells for approximately \$130.00.

### "HELL TO ETERNITY"

Continued From Page 414

manned the necessary electrical generators, which were mounted in trucks and hauled to the location sites.

Guffey had three separate camera crews working under his direction. The principal crew handling the key camera consisted of his long-time Operator, Andy McIntyre (a veteran of the battle of Okinawa), Jack Deerson and Bob Simpson, assistant cameramen. The Japanese crew assigned to the other two cameras, included Junii Nishimura, Toru Hayashi, Iwao Niki, and Koji Oshima, most of whom had previously worked for American directors of photography locationing in Japan. Indispensible to Guffey was his everpresent interpreter, Yoneo Nonoguchi, better known as "Pepe." The Japanese camera crew praised Guffey highly. "Guffey-san never gets angry," said

one Japanese crewmember, "no matter how bad things go wrong!"

Directing the work of Japanese technicians was not new to Guffey. He had previously directed the photography of "Three Stripes in the Sun" which was made in Japan for Columbia Pictures in 1954.

"Hell to Eternity" was photographed in black-and-white with Eastman Plus-X and Tri-X film, for an approximate 1.85:1 screen ratio. All exposed film was sent by air to Hollywood where it was processed by General Film Laboratories. Dailies were flown back to Okinawa and projected in the evenings in the Camp Hansen post theater.

One of the most important sequences in the film is a furious night battle between the Marines and Japanese which culminates in a fanatical "banzai charge" by the Japanese. Over eight hundred Okinawan extras were recruited to take part in these scenes. About twenty-five of these men had formerly served as officers and NCO's in the Japanese Army, so authenticity was assured. Interspersed among the Okinawans were Marines dressed in Japanese uniforms. It was their job to lead the Okinawans against their comrades in the 3rd Tank Battalion and the 2nd Battalion, 5th Marine Regiment, who were playing the American invaders.

It took the better part of a week to complete filming of the entire "banzai sequence." The location was about three miles from Camp Hansen in an area near Kin-son overlooking the Philippine Sea. On several mornings, the crew call was for 4:00 a.m. so that the cameras and other equipment could be in readiness to shoot early dawn action.

An interesting and useful "field expedient" rigged up by Guffey and his crew was an improvised camera boom. This consisted of a heavy-duty forklift placed in the back of a 4-ton Marine truck. A wooden platform, capable of supporting two Mitchell cameras and their crews, was added to the front of the lift. As the picture progressed, the Marine operators became very adept at hoisting the cameras smoothly for the boom shots. It was capable of lifting the camera to a height of about 30 feet and could be quickly moved from one set-up to another. When not in use as a camera boom, the lift was used to support booster lamps.

Most of the banzai attack was staged at night and at dusk, so it was neces-



434



#### BOLEX ACCESSORIES BY STEVENS

Variable Shutter \* Split-Frame Mask \* Synchronous and Battery Camera Drives \* Time Lapse Timer \* Lens Extension Tubes \* Rackover \* Turret Lever \* Third Turret Stop \* Turret Filter Slides \* Camero Base \* Lens control Handle \* 400-Ft. Magazine \* Sound Sprockets

Write for our Bolex Accessory Catalog.

STEVENS ENGINEERING CO. 340 N. Newport Bivd. Newport Beach, Calif.





sary for Guffey to shoot day-for-night, using filter combinations in conjunction with booster lighting on the faces of the players. Multiple cameras were employed using a wide range of lenses. Telephoto lenses and the "zoom lens" were frequently utilized in photographing some of the long shots.

Radio "walkie-talkies" and sound powered telephones were used extensively by Karlson to communicate with his assistant directors and with the Marine commanders controlling the troops. When the actual banzai charge was made, Assistant Director Paylow and his chief aide, Joe Marakoff, gave the Okinawan extras a "pep talk." The resulting scene was so effective and frighteningly realistic that Director Karlson applauded and thanked them warmly for their efforts. Karlson was very popular with the Okinawans.

#### Three Mitchell Cameras Used

Several days were spent filming closein hand-to-hand fighting and vignettes of Marines and Japanese in action. This included shots of Japanese soldiers weilding samurai swords and bayonets and engaging Marines who also met them with bayonets and clubbed rifles and carbines. Guffey would first photograph these scenes using all three Mitchell cameras. Then the action would be repeated with Operator Andy McIntyre using the hand-held Arriflex 35mm for close-in shots. McIntyre had to be agile to avoid getting upset by struggling actors.

All of the key members of the cast took part in these vigorous and sometimes dangerous scenes. Stunt man Gil Perkins was assisted by a group of Marine judo and bayonet experts, but this did not spare Jeffrey Hunter, David Janssen, Vic Damone and John Larch from a few bruises. Phil Karlson likes to keep the cameras "close-in" to the action so this precluded the usual practice of doubling the principals. Jeffrey Hunter, in particular, was involved in several rough and tumble scenes and these were not faked. If the bumps came his way, he cheerfully accepted it all as part of the scene.

On a gruelling and unseasonably warm afternoon, Guffey and his crew worked in the vicinity of Chibana, shooting a sequence showing Sessue Hayakawa walking amongst his men and observing their pitiful state of semi-starvation. Shooting this action was complicated by roaring jet fighter planes taking off and landing from nearby Kadena Air Base.

Almost immediately following the filming of these scenes, the company moved into Koza, the second largest city in Okinawa, where a street had been converted to look like a section of Honolulu, Guffey and his crew worked all night shooting exteriors of the Marines enjoying a "liberty." Tri-X film and batteries of 10K and 20K lamps were used on these scenes. A minor disaster occurred when one of the Mitchell cameras was accidentallly knocked over and badly damaged. Emergency repairs were made and shooting continued without a break but a replacement camera had to be flown in from Hollywood.

In one key sequence, Jeffrey Hunter and Bill Williams, hiding in a camouflaged "spider hole," secretly observe Sessue Hayakawa and his men planning a desperate last ditch banzai attack against the Marines. The script called for a shot showing the two actors carefully lifting the cover of their hiding place and watching the Japanese in action. This scene had to be staged showing the entire operation from the viewpoint of the two hidden Marines.

Here Guffey was able to again emplov his multiple camera technique most effectively. One camera, equipped with a wide-angle lens, was placed at ground level in a trench dug directly to the rear of Hunter and Williams. This camera covered the two actors in one corner of the frame and in the background also included the Japanese. Another camera, placed above the ground, covered a general view of the Japanese in action. The third camera, mounting a "zoom" lens, followed Hayakawa and his men as they moved about the set. Three men manned this camera: an operator, one assistant controlling the "zoom" handle and the other pulling the focus.

The climax of the picture comes when the Japanese commander (Hayakawa), who has been persuaded by Gabaldon (Hunter) to surrender the remains of his army to the Marines, countermand's his original order for a last stand effort and, instead, tells his men to surrender to the Americans. Then, before their horrified eyes, he commits suicide in the traidtional Japanese manner of *hari-kari*. As Hayakawa comes to attention, the *hari-kari* knife tears at his vitals and, grimly trying to hold back the pain, he orders "Forward March!" Then he slowly sinks to the ground and dies. This scene was photographed with Hayakawa and Hunter moving toward the edge of a hill overlooking a small valley where over 800 Japanese soldiers are calmly waiting for orders to attack the Marines. The dollymounted camera travels along in front of them as they move forward to the brink of the hill and, as they reach their objective, the camera trucks backward and, keeping both actors in the frame, pans to reveal the waiting Japanese soldiers. It is then that Hayakawa plays his impressive scene.

#### Fork-Lift Camera Boom

Guffey employed his improvised fork-lift camera boom for the final scene in the picture. As Jeffrey Hunter leads the Japanese prisoners in "pied-piper fashion" from out of the valley and toward the American lines, two cameras (one fitted with a "zoom" lens) are slowly lifted 30 feet into the air by the fork-lift and then down again. It is a dramatic and effective shot.

Most of the interiors as well as the U. S. locations were filmed after the company returned to Hollywood. The interior of Hayakawa's cave headquarters was made on one of the sets constructed in the Camp Hansen gymnasium.

I concentrated my personal movie making mainly around the beachhead invasion and the banzai attack scenes. Most of this footage was devoted to scenes of the production crew at work: Guffey and his crew in action, Karlson rehearsing actors, make-up men at work, and various shots of the principal actors relaxing "betweentakes." Jeffrey Hunter is also an amateur movie maker and works in 16mm with Bolex cameras. John Larch, who plays Gabaldon's company commander, is another amateur filmer.

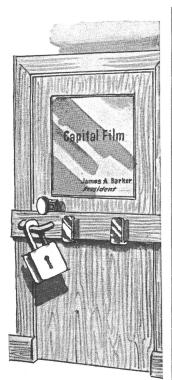
My equipment consisted of two Bolex cameras: one an H-16 model equipped with a Pellegrini variable shutter and the other a new "REX" reflex model with an attached automatic fading device. Exposure readings were taken with General Electric and Norwood meters. It was not possible to use a tripod without getting in the way of the crew, so all shots were made with camera handheld; however, I was able to support the camera frequently on ladders, parallels and several times on an unused 35mm camera tripod. In this



Most of our clients . . .

JULY • 1960

437



... stay with us.

SoundEditorialLaboratory Services



CAPITAL FILM LABORATORIES, INC. 1905 FAIRVIEW AVENUE, N. E. WASHINGTON 2, D. C. PHONE LAWRENCE 6-4634 connection, the Stevens camera bases I use on my cameras were of considerable benefit.

I was able to shoot a number of actual scenes from the picture being photographed. However, I shot only those scenes made without sound and some of the big battle scenes which included only sounds of artillery and gunfire. This precaution was necessary to prevent sound of my unblimped camera ruining the sound track. For some of the dialogue scenes. I was able to shoot rehearsals. This was done well to the rear of Guffey's camera positions and I always included in such scenes both the crew and the players in action. Here I should like to express my appreciation to "Chuck" Hanawalt and his grips who somehow always had an extra stepladder or unused parallel handy when I needed one to shoot from.

#### "STORY OF RUTH" Continued From Page 421

a block long and a half block wide.

Arling gave this sequence a great deal of thought before deciding to cover the exterior set with tarps (tarpaulins) and shoot it under artificial light, "At first I thought I might be better off to let the sunlight in," he explains, "but I was deterred from this for the reason that we were shooting in the winter and couldn't be sure we would get a sunny day. There were about 200 people involved, and that's a pretty big call these days. Regardless of what kind of day I had gotten, I would have had to shoot the sequence-and if I'd gotten a foggy day I would have been in trouble, because the establishing scene shot in Africa was filmed in very hot sunlight, which these scenes had to match. If the day were sunny, I would have had to keep 200 people waiting while the crew pulled the overhead rigging to eliminate shadows of lights and cross-beams. Before making a decision I studied the set for several days to determine if the shooting day would be long enough for filming in sunlight-but because the set was rather like a canyon, the sun passed over it quickly so that by three o'clock in the afternoon it was filled with heavy shadows. All things considered, and especially since I would need the tarps for the night quarry sequence, it seemed like the best judgment to go ahead and shoot the day scenes with the tarps pulled also."

Working under the tarps permitted greater control, but with so many lights involved the flickering of the arcs caused inevitable delays. This was especially so when yellow carbons were used. Yellow carbons burn at the same color temperature as incandescent lamps (about  $3300^{\circ}$  Kelvin) so that the two types of light can be mixed, eliminating the necessity for filters in front of the arcs. However, the yellow carbons tend to flicker, whereas the white carbons, used in matching daylight and also in night photography, burn more steadily.

The night quarry sequence gave Arling opportunity to make full use of a technique which he had employed only sparingly in previous films-the mixing of warm and cold light. The sequence depicts a crowd of prisoners at work in the quarry at night. The set is generally suffused with an overall cold light of a slightly bluish tinge to suggest moonlight. The areas of action are bathed in pools of amber light to simulate the torchlight supposedly illuminating the scene. The contrast of the warm torchlight against the blue moonlight of the shadow areas created a highly pictorial mood. This mixture of light was again used effectively in a sequence shot on the stage depicting the forest glade in which an outdoor festival and wedding take place.

One of the attributes of a top-notch cameraman is his ability to keep the company shooting, if possible, no matter how bad the weather. During shooting of "The Story of Ruth" a siege of overcast forced the company to shoot indoors until it finally ran out of interior sequences, and there was nothing left to shoot but exteriors. Arling decided to take advantage of a bad situation and turn it in favor of the story.

There is a sequence in which Naomi, in despair, kneels to pray. She hears a voice calling and goes outside to find an old man, Jehoam—a mystical and prophetic figure—who tells her to trouble her heart no more, for from the widow of her son will issue a great king and a royal house, a prophet who will be worshipped as the Messiah. He asks for bread and she rushes to get it, only to find him gone when she comes out. Immediately thereafter there follows a life

AMERICAN CINEMATOGRAPHER

Machines of Filmline manufacture installed at: Pentagon Bidg., Microfilm division, Washington, D.C.; U.S. Raval Re-search Laboratory, U.S. Public Health Service; U.S. Treasury Department - (15 machines); Atomic Energy Commission; I.B.M., G.E.; Pratt & Whitney Aircraft; McDonnell Aircraft; Universities of: Texas, Notre Dame, Indiana, California, Alabama, Miami, M.I.T.; TV Stations: WHAS, WMUR, WISH, WBRE, WNCT, WAR, WTRI, WHY, WIHP, WSC, WTV3, WAR, KARK, KDUB, WTVB.

ilmline

\$2995

F.O.B.

Milford, Con

develops reversal film at 1200 ft. per hr. negative-positive film at 1200 ft. per hr.

## MODEL R-15 REVERSAL FILM PROCESSOR

- EXCLUSIVE OVERDRIVE eliminates film breakage, automatically compensates for elongation; tank footage stays constant.
- · EASY TO OPERATE, needs no attention.
- VARIABLE SPEED DRIVE, development times from 1½ to 12 minutes.
- COMPLETE DAYLIGHT OPERATION on all emulsions, no darkroom needed.
- FEED-IN ELEVATOR & 1200-FT. MAGAZINE permits uninterrupted processing cycles.
- STAINLESS STEEL tanks, air squeegee, recirculation fittings, air agitation tube, lower roller guards.
- · FORCED WARM AIR DRYBOX, uses no heating lamps.
- Double Capacity Spray Wash
  Filtered Air Supply
- Uniform Tank Sizes
  Self-Contained Plumbing
- Cantilever Construction
  Ball Bearing Gearbox
- Size: 76" x 50" x 24"
  Weight: Approx. 475 lbs.

giving rainstorm to break the deadly drought that has plagued the parched nation.

F

The day on which this sequence was to be shot was extremely overcast. Arling thought of the golden light that sometimes emanates from the sky just before a storm—so he put yellow carbons in the arcs used as booster lights. The result is a golden glow which bathes the scene and gives it a supernatural aura exactly in key with the mystical mood attendant to the appearance of the prophet.

Technically, the photography of "The Story of Ruth" is honest and straightforward. That is to say, there are no exaggerated angles or techniques used strictly for effect. The camera moves only to follow action and not for the sake of movement itself. Colored light is used sparingly and only when well-motivated. The entire film was shot without diffusion of any kind in front of the lens. As Arling explained, Elana Eden possessed such natural beauty there was no justification for trying to enhance it further with diffusion. And as for

# This is the latest IMPROVED CINEKAD JUNIOR DOLLY

COPP. Milford, Conn. Dept. ACJ-60

Used Nationally by Discriminating Cameramen

This 3-Wheel Collapsible Dolly Is especially designed to meet the demand for convenient mobility of cameras on location or in the studio.

The new model instead of the 4" wheels is constructed with 5" heavy duty rubber-tired swivel wheels.

Write tor more details and prices.

CINEKAD ENGINEERING CO. 763 10th Ave., N.Y., N.Y., PLaza 7-3511



JULY • 1960