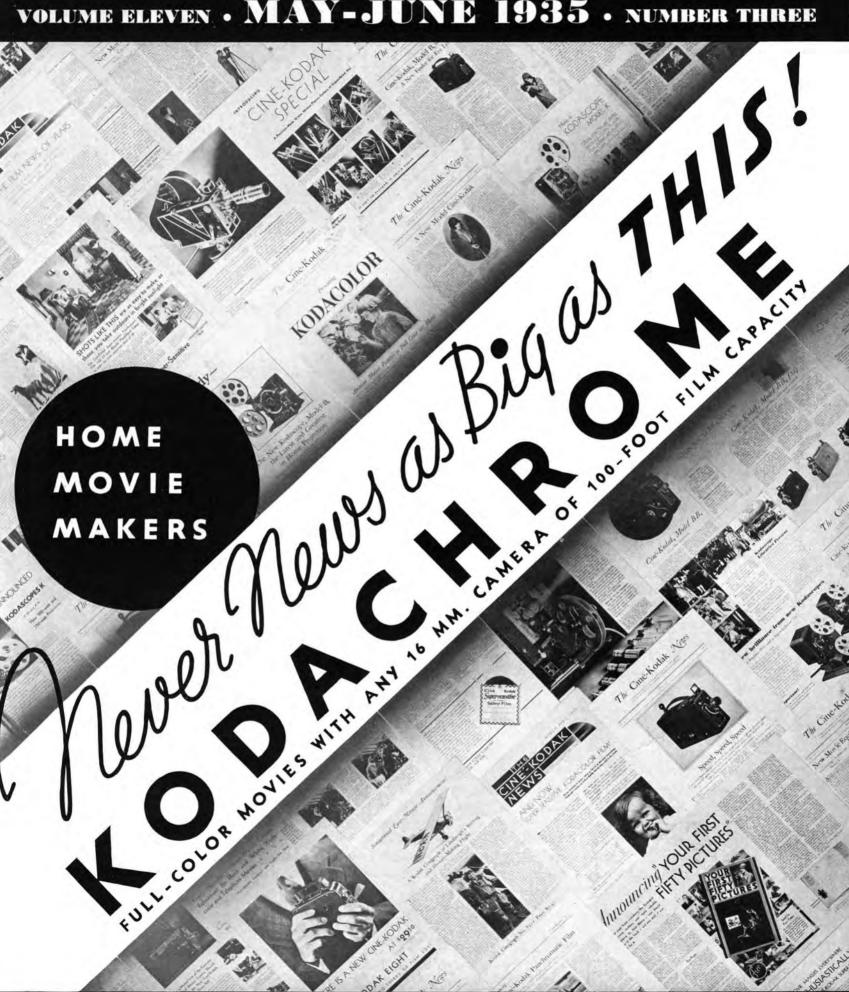
### Ciné-Kodak News

UME ELEVEN - MAY-JUNE 1935 -



# "... The pictures made by this new process ... KODACHROME ... are a revelation ... "

"ROM the very beginning of photography, experimenters have tried to make photographs in color instead of in monochrome, and numberless processes have been put forward for that purpose. The ideal process would be one in which the color picture would be as easy to take and as certain in result as the monochrome picture is, but until now no color process has approached that ideal.

"The new Kodachrome process, so far as the photographer is concerned, not merely approaches but realizes that ideal. It is as easy to take 16 mm. color pictures by the Kodachrome process as it is to take 16 mm black-and-white pictures, and the percentage of good results obtained is as high.

"All practical processes of color photography depend upon the division of the light into three components, red, green, and blue-violet. Pictures are taken by these three components and are then combined by some method in order to give the finished color picture.

"In the Kodacolor process, the color separation is obtained optically. In the lens of the camera is placed a multiple color filter composed of the red, green, and blue units and the tiny lenses embossed on the film make multiple images of these three units on the film emulsion. In projection, the same three filters are placed on the lens and on the screen a multi-color image in the form of microscopic colored strips is projected and reproduces the colors of the original.

"In the new Kodachrome process, the separation of the light into the three components is not accomplished by placing the separate components in juxtaposition; they are separated in depth. The film for this process is coated



... by Dr. C. E. Kenneth Mees, Vice-President in charge of research and development

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no less than five times! Nearest the base, an emulsion is coated which is strongly red-sensitive. This is then over-coated with a separating layer of gelatin containing some dye to act as a filter. Above this is coated a green-sensitive emulsion. This is over-coated again with another separating layer. Finally, there is applied a top coat which is blue-sensitive. When a picture is taken upon such a film, the three components are automatically separated in the depth of the coating. The red component is formed in the redsensitive emulsion nearest to the base, the green component is formed in the middle layer, and the blue component forms the image of the top layer.

"In order to obtain a color picture with this film, all that is necessary is to transform each component image of the negative into a positive image consisting of a suitably colored dye. This is accomplished by an extremely complex processing system. The images in the three layers are first developed, as with ordinary black-and-white film, and then by a series of treatments the images in the three layers are transformed into positives formed in the dye. The whole of the silver salts are removed finally, and the image consists of three superimposed dye pictures.

"The process is the invention of Mr. Leopold Mannes and Mr. Leo Godowsky, Jr. These gentlemen are musicians whose names were well known in the musical world when some years ago they commenced the study of color photography as a hobby. As a result of collaboration between them and the Kodak research laboratories for a number of years, it was evident that the work could only be brought to a successful conclusion by a full utilization of the research and manufacturing facilities available at Kodak Park. Here. there were available experts of many kindsorganic chemists, emulsion makers, dye specialists, photographic chemists, and experts in photographic operations-and in 1931, therefore, Mr. Godowsky and Mr. Mannes joined the staff of the research laboratory. By the complete cooperation of the staff of the laboratories and of the Kodak Park Works, a task which at first. appeared impossible was achieved and the Kodachrome process is the result.

"The pictures made by this new process—Kodachrome—are a revelation. Previously, color in photography has involved sacrifice; more light was needed for taking the photographs, it was difficult to get sufficient depth of focus, some definition was lost, it was only possible to project pictures on a small screen because of the loss of light in projection. In spite of these disadvantages, motion pictures in color have been very much appreciated, but their use has always been limited. The ordinary amateur motion picture has been in black-and-white, and only when taking conditions were favorable and when projecting conditions were not too exacting could color pictures be used.

"When you see Kodachrome pictures on the screen, you realize how wonderfully colored the world is. An artist, of course, knows this, but most of us are not artists and we don't realize the subtle colors that occur in everyday scenes—flowers and foliage, and summer landscapes, where bright colors strike the eye. But the new process has been brought to perfection during the winter, and it has taught me to look for the purple-brown of the winter woodland, and the blue of the ice and of the shadows in the snow, so that I have realized, as every one will soon, that it is only in color that we can make any adequate representation of the world around us.

"With the coming of the new process, amateur motion pictures will be in color. There is no need any longer for us to pretend that the world is in monochrome and to represent the glorious colored world in which we live by a gray ghost on a screen."

## KODACHROME

your Consevered



Will my camera make full-color Kodachrome movies?

YES—If your camera loads with 100foot rolls of 16 mm. film—regardless of its lens speed. All diaphragm "stops" from f.16 to f.1.9 are "go" signs for Kodachrome. Merely slip a roll of Koda-

chrome into your camera, use the next larger diaphragm stop than that required for Ciné-Kodak Panchromatic black-andwhite film (for example, f.8 instead of f.11) and get movies in full, natural color. And you can make them with telephoto and wide angle lenses as well as with the standard lens of your camera.



Will my projector show-Kodachrome?

YES, with the full brilliance and full size of black-and-white. There are no lines, no fringes, no screen pattern—only smooth, beautiful color. No filter is necessary. The color is in the film.



What extra equipment is necessary?

For your projector—NONE. For outdoor Kodachrome—NONE, except when making distance shots with a telephoto lens, long range shots with the standard lens, snow or high altitude scenes, or shots on gray days. For subjects such as

these the Kodachrome Haze Filter is suggested. No change in exposure is required for this filter. Its price, depending upon the lens and camera used, is from \$1.75 to \$3.75. And for indoor Kodachrome with Photoflood Lamps a similarly priced Kodachrome Filter for Photoflood is recommended to cut down the preponderance of red rays found in artificial light. Kodaflector, Eastman's \$5 twin-reflector lighting unit, is your best source of illumination. Outdoor exposure instructions are packed with each roll of Kodachrome. Indoor instructions may be obtained from your dealer.

Focusing cameras can be set at "25 feet," or universal focus, just as when using black-and-white film. Nor are fixed focus cameras handicapped when using Kodachrome. Merely observe the usual precautions when taking close-ups, and use the portrait attachment if your camera is so equipped.



an I show Kodachrome on the same reel as black-and-white?

YES. Those who do not wish to make all their movies in color can splice blackand-white and Kodachrome sequences together, project them consecutively.

Focus and brilliance are substantially identical.



Where can I buy Kodachrome ?

All active Ciné-Kodak dealers in the United States should have Kodachrome in stock right now.

The price is \$9 for 100 feet, including processing at Rochester, N. Y.



Can I get Kodachrome Film. for my still camera?

> At the present time Kodachrome Film is available only in the form of 16 mm. film because we have only been able to work out the processing methods and to

construct the necessary machinery for the 16 mm. film.

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Where can I see Kodachrome?

Most Ciné-Kodak dealers are already equipped to show you Kodachrome. Visit your dealer at once. Learn for yourself how inadequate any printed description of this amazing discovery really is. Visualize your favorite movie

subjects as reproduced with the unmatched beauty and realism that only Kodachrome can bring to your screen.



FULL COLOR MOVIES with any 16 mm. camera of 100-foot film capacity







This department of the News has made a hit. Hundreds of movie makers have found these little skits supply just the ideas they've wanted for the filming of friends and family. This month's suggestion is built around a simple bit of cinematic legerdemain—reverse action. This amusing effect is obtained by merely operating the camera upside down for those scenes in which you desire reversed action—and then, when your films have been processed, cutting those scenes out of the reel, reversing them end for end, and splicing them back into position. Just spin 16 mm. scenes around so that the same side of the film remains facing you. With 8 mm. film, however, you must turn the scenes over as well as reverse them end for end, so that the sprocket holes are on the proper side. This will necessitate a slight adjustment of focus when projecting.

OUR hero is propped up in bed, holding a match to his eigarette with a trembling hand. His wife, in close-up, is shown anxiously

telephoning the family doctor.

The doctor nods wisely and asks for further symptoms. She continues...

"Why-he kicked the cat downstairs because it stamped around too much...

The doctor purses his lips. In the bedroom the nervous wreck tamps out his half consumed cigarette and promptly lights another. The wife continues.

"...and he set a bear trap for the neighbor's dog...

The doctor raises an eyebrow at this news.

ceilingward and she precipitously retreats.

A hand on the doorbell. The wife admits the

doctor. He cheerily enters the bedroom and promptly finds himself on the receiving end of a baleful glare from the patient. The doctor takes the patient's pulse, blood pressure, peers knowingly into his oral cavity, shakes his head.

"You've been going at too fast a pace. I'll give you something to slow you down.

The patient watches the doctor remove some pills from his case, slip them into an envelope,

"When you feel one of these nervous spells coming on, stop yourself...throw yourself into reverse. One of these pills will help.'

The doctor bids him good-bye, leaves the room, and then pops back, just as the patient is lighting another cigarette, to say ...

"And you've got to stop smoking and drinking."

From this point on much depends upon your own inventiveness. Typical shots: The husband lighting a cigarette, blowing out great clouds of smoke, being caught in the act by his wife, vigorously protesting against the ban on cigarettes to her, taking a quieting pill—Invert the CAMERA AND RETAKE THE SAME ACTION FROM A DIFFERENT ANGLE—then inhaling clouds of tobacco smoke, waving the flame out on the match, unscratching it, putting it back in the box, replacing the cigarette in his case; taking a pill, and then, seeing the mistreated cat, trying to call it to him—INVERT AND RETAKE—the cat backs hastily out of the room; pushing the lawn mower, it picks up a twig and jams, he wrestles frantically with it, recollects his doctor's advice and pops a pill into his mouth—Invert and Retake—he proceeds to back about the lawn

and rolls up to his feet; trying to show the youngster how to ride a bicycle, having difficulty steadying the handlebars, taking a pill—Invent AND RETAKE—swooping about the lawn backwards, and finally disappearing into the garage; dealing a bridge hand, flicking several cards off the table because of his nervousness, pausing to take a pill-Invert and Retake-the cards all flutter back into his hands to the astonishment of his wife and guests.

Remember to think of each reverse action scene as it will look when screened. For example, in the scene filmed with the camera inverted of the bridge episode, the guests should register astonishment while and before he deals the cards, because when this scene has been reversed the cards will apparently be flying back into his hands. And use lots of close-ups of the package of pills and of the guests' amazed expressions.

Then, for your finale, have the patient wrath-

fully request his doctor to come and see him. When he does the patient describes in pantomime some of the embarrassing experiences he has had, tells the medico that his services are no longer desired, and then, in a title, demands a bill. The doctor gives it to him, and as the patient is making out a check, the doctor perplexedly takes one of the pills, crunches it thoughtfully. The patient thrusts the check at him, he takes it, an expression of bewilderment crosses his countenance, he gulps, and thrusts the check back toward the patient who joyfully takes it, tears it up, and, rising to his feet, dramatically and force-fully bids the doctor farewell. The preceding scene, of course, calls for right-side-up filming. But this last scene—an especially entertaining effect-should be filmed with the camera inverted. The doctor runs backwards out of the house and into his car—which in turn, backs briskly out of sight.



- Right-The Nervous Wreck is apprehended in the act of "sneaking"
- Left-A title suggestion for your movie of "The Nervous Wreck." Just slide it into the easel of Ciné-Kodak Titler-center it-and you've an interesting title for an amusing movie.





#### How Do You Use Your Movie Camera?

Mr. M. P. Gamber, Grand Rapids, Michigan

READERS of the December, 1934, issue of Movie Makers, official publication of the Amateur Cinema League of 105 West 40th Street, New York City, will recall that a 200-foot 8 mm. reel entitled "Hooked" was listed among the ten best amateur films of the year. "Hooked" was produced by the Grand Rapids Movie Makers, an informal group of enthusiasts, and filmed with Mr. Gamber's Ciné-Kodak Eight, Model 20.

It is an interesting film in more ways than one. Planned as a comedy of a trout stream, its producers, Mr. Wendell Patton, Mr. C. Walter Mills, and Mr. Gamber, found themselves completely stymied after 75% of the movie was completed when their leading man moved to another city. What to do? The unfinished film rested upon the shelf for a year. Then its makers had an idea—why not make a movie of an amateur club trying to make a fishing picture and then, because of the waywardness of fish and the overzealousness of game wardens, deciding that they have been "hooked," throwing the whole thing over and doing something else?

Hence, the reel "Hooked"—one of the ten best amateur motion pictures of 1934 in the opinion of the judges of the Amateur Cinema League.

Mr. Gamber now uses a Ciné-Kodak Eight, Model 60, and with it he has made a great many feet of film, much of which is of his young son, Billie, who shares the space above devoted to enlargements made from Mr. Gamber's 8 mm. movie film. Billie never faces the camera, makes grimaces, wiggles his ears. By no means! A typical reel of Billie shows him wandering about the zoological gardens of the John Ball Park of Grand Rapids. Billie pauses before a cage to marvel at some outlandish creature. He scratches his head wonderingly, puzzles out its name on the plate (shown in close-up) attached to the cage. returns his attention to the inmate. He pauses to drink at a fountain, roams over to another animal cage, peers through the bars, backs up and cocks his head, sidles along to the next exhibit, and the next, and the next-a leisurely reel of a boy with time on his hands spending it with deliberation and profit. The camera, and Mr. Gamber's movie audiences, willingly go along to share Billie's pleasure in foreign fauna.

How do you use your movie camera? The Editor of the News, and its many readers, are interested in learning of your movie activities.

### People's Choice

HERE are four Kodascope Library releases which were well up front in the popularity list during recent months. You can obtain them for an evening's showing from any of the Kodascope Library branches located in the leading cities of the United States and Canada. Write Kodascope Libraries headquarters, 33 West 42nd Street, New York City, for a catalog of releases and branch addresses; write or visit your nearest branch for releases.

Captain Kidd's Kids (below, top)—a halfhour of uproarious comedy with Harold Lloyd supplying most of the laughs. No. 4177, on two 400-foot reels, base rental, \$2.50.

Jack and the Beanstalk—an hour show of this nursery epic with an all juvenile cast, plus a real 8½-foot giant who finally succumbs to Jack's strategy. No. 4136, on four 400-foot reels, rental fee, \$5.

Jubilo. Jr. (below, center)—Will Rogers and the Our Gang Kids—a combination certain to make a hit with every audience, young or old. Will, as a tramp, relates his boyhood experiences. The "Gang" re-enacts them. Thirty minutes of fun, No. 4146, it rents for \$2.50.

Boobs in the Woods (below, lower)—featuring that virile man of the world, Harry Langdon, as a dishwasher in a north woods lumber camp—in which situation, to his amazement, he somehow acquires a reputation as a killer. On two 400-foot reels, No. 4150, it rents for only \$2.





THE "Good Shots" department of CINÉ-KODAK NEWS was announced in the preceding issue. Almost immediately the introduction of Kodachrome made necessary the early mailing of the May-June issue of the News—too short a time, by far, for the reproduction of good shots from readers, although dozens have been re-

ceived, are now being enlarged, and will be published starting with our July-August issue.

Hence, here are four more enlargements from Ciné-Kodak Film which are typical of the scenes —unusual, beautiful, thrilling—which the Editor would like to reproduce in forthcoming issues of CINÉ-KODAK NEWS as targets for others to shoot at.

Send in your original films—16 mm. or 8 mm., either full reels or individual scenes. If the former, thread the perforations alongside your good shots. Duplicate enlargements of accepted scenes will be mounted and returned with your film.

