CINÉ-KODAK NEWS

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Here's Your Exposure Guide

FOR THE NEW YORK FAIR

A TESTED FORMULA FOR DAYTIME AND NIGHT-TIME FILMING AT "THE WORLD OF TOMORROW"

THE Fair is so heroic in conception and execution, so utterly different from everyday film fare, that almost every reader of "Ciné-Kodak News" will want a movie story of "The World of Tomorrow" in his film library of today. Yet, for the very reason that the picture opportunities at the Fair are so unlike usual movie material, a considerable element of guesswork would ordinarily enter into the exposure aspects of the situation. This article, however, will attempt to dispel this element. It is based upon scores of test shots made at the Fair, particularly of the indoor and nighttime picture opportunities. The information it contains is believed to be correct—but any changes in illumination at the Fair will obviously affect the accuracy of the suggestions which follow. Certain it is, however, that these changes will probably be slight.

Basic exposure for Ciné-Kodak Eight "Pan" Film is *f*.8; for Kodachrome it is between *f*.8 and *f*.11; for regular 16 mm. "Pan" it is *f*.11; for 16 mm. Ciné-Kodak Super-X "Pan" it is *f*.16; and for Ciné-Kodak Super-XX it is *f*.22—or *f*.16 with a yellow filter. By "basic" we mean an average scene in bright sunlight.

There are, however, few "average" scenes at the Fair. Its gardens, and shots of crowds before buildings of normal coloring—yes. But not the many shots you will make of white or light pastel-colored buildings—particularly when you sight upwards at them against the sky. For light-colored buildings, alone, use a stop less exposure with black-and-white film—*f*.11 instead of *f*.8, for example. For shots of building tops against the sky you can close down an additional half stop when using black-and-white film.

This same allowance, however, is not necessary for Kodachrome. Between *f*.8 and *f*.11 for average scenes . . . *f*.11 for bright buildings, and upward shots of buildings and sky. For shots of glaringly bright buildings you might close down a half stop more to between *f*.11 and *f*.16. This dissimilarity in exposure allowance between black-and-white and Kodachrome is

● All of the illustrations on this and the following page are enlargements from 16 mm. movie film.

● Things are rather bright at the Fair. Brilliant white buildings and statues benefit from strong sidelighting for contrast.

● Russia's impressive building at night as enlarged from 16 mm. Kodachrome exposed at *f*.1.9 and half speed—best filming recipe for most nighttime shots.

● The Eastman Exhibit is the mecca of the photographic-minded at the Fair. One of its many attractions is a photographic garden, staffed by Eastman experts, and offering colorful backgrounds for your picture making.

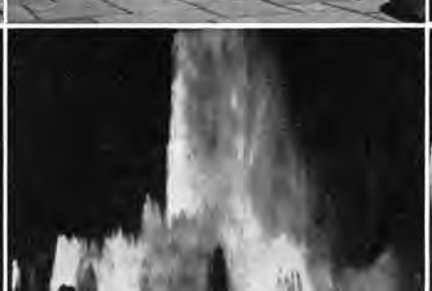
● The Lagoon of Nations, enlarged from "Type A" at *f*.1.9 and regular speed—entirely satisfactory for the brighter phases.

● Much of the time out-of-doors your camera will be pointed upward. "Stop down"—such shots of bright buildings and sky do not call for average exposures.

● But when the colors are toned down to darker blues, half speed helps the picture. Incidentally, film these fountains from the windward side.

● The Fair is a paradise for those appreciating the virtues of camera angles. Don't rush your shots. Look about. Find the best vantage point for every vista.

● Not many of the Fair buildings are as bright as the Industrial Science Building, filmed with "Type A" at *f*.1.9, regular speed.



● *Right*—The thundering waterfalls of the Electric Utilities Building at night are best at half speed with "Type A" at *f*.1.9.

● *Far Right*—You can barely see the towering and dimly lighted Trylon and Perisphere at night—but "Super-XX" will get them at *f*.1.9.

● *Right*—These impressive statues are in the Metropolitan Life Exhibit within the Insurance Building. "Type A," regular speed at *f*.1.9, got them.

● *Far Right*—The inside of the Perisphere is vast and dimly lighted . . . . just one more of those "impossible" shots easy for Ciné-Kodak Super-XX at *f*.1.9.

● *Right*—The huge revolving spiral within the Distilled Spirits Institute is a shade too dim for "Type A" . . . just right for "Super-X" at *f*.1.9.

● *Far Right*—Westinghouse's brilliant display faces daylight through a glass front wall . . . is bright enough at night for "Type A," regular speed, *f*.1.9.

● *Right*—The colorful three-phase arc in General Electric's Steinmetz Hall is razor-sharp in "Type A" at *f*.8. You can "pick up" the interior at *f*.3.5 or *f*.1.9.

● *Far Right*—The interior of the Goodrich Exhibit is brightly lighted day and night. "Type A," regular speed, *f*.1.9, is quite satisfactory.

● *Right*—The lively Mimeograph puppet show within the Business Systems Building is just right in "Type A," at *f*.1.9, and regular speed.

● *Far Right*—The interior of the U. S. Government Building is chockfull of colorful dioramas. "Type A," at *f*.1.9 and half speed, will get them.

● *Right*—General Motors is brightly lighted. This scene greets you as you enter—correctly exposed with "Type A" at *f*.1.9, regular speed.

● *Far Right*—Beech Nut's famous toy circus is a field day for a movie camera loaded with "Type A" and operated at *f*.1.9, regular speed.

● *Right*—The justly renowned Futurama of General Motors is "right" at *f*.1.9, regular speed, with "Type A." Hold your camera high to avoid lens flare.

● *Far Right*—The Fair bulges with animated displays. This dimly lighted Beech Nut plantation scene was filmed with "Super-XX" at *f*.1.9, regular speed.

caused by the fact that the latter mirrors scenes in color and not in blacks and whites. On "Pan" film blue sky registers very rapidly. But on Kodachrome it reproduces in blue—the film is no more sensitive to it than it is to other colors of comparable values.

No filters are necessary with Kodachrome. But, with black-and-white film, an inexpensive yellow or red filter just about comes under the heading of a necessity for sunny day filming. Better contrast between buildings, sky, and clouds, increased overall "snap"—filters will add considerably to the attractiveness of all outdoor Fair scenes. Allow one stop—*f*.8 instead of *f*.11, for example—for a yellow filter . . . two stops for a red filter.

Which film is best?

Kodachrome, of course. Even on dull days. But don't expect brilliant colors under such conditions. Even black-and-white films would be dull. Yet Kodachrome, by bringing some color to the scenes, will be that much better than black-and-white.

There is no need to discuss what to film at the Fair out-of-doors. Movie shots confront you at every turn. So take your time, study your camera angles, search out the sites for best composition, keep some object in the foreground to give depth to your distant shots, hold your camera steady and film in a sequence of shots what you are tempted to cover in one long panoram, and title your scenes with brief glimpses of building names.

The fair at night

The ideal film for nighttime filming at the Fair is unquestionably Type A Kodachrome. It's a full stop faster than 8 mm. "Pan," only a stop slower than Ciné-Kodak Super-X—the fast, fine-grain film which has supplanted Ciné-Kodak Super Sensitive "Pan"—and there is a wealth of movie material within its range when exposed at *f*.1.9. Frankly, however, there is little which can be filmed in Kodachrome at night by cameras with *f*.2.7 or *f*.3.5 lenses. Users of 16 mm. cameras with such lenses should fall back upon the faster Ciné-Kodak Super-X and Super-XX.

On this, and the previous page, are some of the more unusual subjects. Regard them as exposure examples for the many other subjects for which space limitations deny mention. Subjects calling for Type A Kodachrome at *f*.1.9 can also be filmed by *f*.2.7 cameras loaded with Super-X, and *f*.3.5 cameras loaded with Super-XX. Subjects requiring Super-X and Super-XX at *f*.1.9 and standard speed are beyond the reach of cameras with slower lenses.

For more detailed last-minute information, and the enjoyment of "The Greatest Photographic Show on Earth"—the Cavalcade of Color—visit the Eastman Exhibit on the Fair's Lincoln Square. See page 10.

Beauty AND THE BEAST

MR. HERMON HOLT III OF NEWTON CENTER, MASS., THREADS HIS MOVIE MATERIAL ON A WORTHY THEME

IT needs no survey to substantiate the statement that most readers of "Ciné-Kodak News" bought and operate their cameras for the building of family film libraries. And no more important use of movie equipment will be discovered any day in the immediate future.

A great many of these "family" cameras, however, are being put to other uses.

Some, for the dissemination of information of a business, a profession, a hobby.

And others are proving an unexpectedly satisfying medium for creative self-expression. If you believe this to be far fetched in your particular case, think back to the last time someone in your audience said "A-h-h" or "Gorgeous" or just plain "Wow!" when you screened a sunset in Kodachrome. And think how nice it felt to have them say it.

You didn't create the sunset.

You didn't invent and perfect the photographic process that made possible the color screen image.

You simply pressed an exposure button and *recreated* the scene, not as an incident in a family film diary, but because you saw and enjoyed something and wanted to duplicate it for the enjoyment of yourself and friends.

Whether you confess to an artistic bent or not, the same urge prompts pictures of this type that inspired your activities back in the halcyon days of mud-pie making. And once nurtured with a little better than casual attention to composition and continuity, it is truly amazing how proficient your gruff banker, reserved professional man, frayed executive, active clubwoman, or harried housewife can become in the reproduction of nature's loveliest aspects.

Continuity essential to good movies

The problem, in most instances, appears merely to be the finding of a theme for such extra-curricular filming. One of the cinamateurs most successful in this respect is Mr. Hermon Holt III of Newton Center, Mass.

There is little, indeed, which does not suggest a movie to Mr. Holt.

The advent of full-color Kodachrome prompted him to assemble a season-by-season film of all outdoors. Yet he felt, and rightly so, that his succession of lovely scenics must be strung on some thread of continuity . . .that his movie scenes must have some excuse for succeeding each other on the screen. So he wisely fell back upon the aid of a pretty girl. And to give her an excuse for sauntering across flowered fields, trudging ankle-deep through carpets of fallen leaves, or herring-boning on skis up snow-covered slopes, he provided her with an amiable and photogenic setter. Their obvious and logical enjoyment of nature's kaleidoscopic palette as they approached or receded from the camera, or paused for a close-up or silhouette in nicely balanced sequences, saved his scenics from the danger of satiation and brought his onlookers to the concluding sunset actively clamoring for more.

There was no plot. There was no one on the screen known to most of his audiences. There were merely color and beauty.

You see some of the scenes from his

(Continued on page 7)

● You undoubtedly like the black-and-white images below—but you should have seen those scenes in Mr. Holt's original 16 mm. Kodachrome! Notice two items, please. Besides continuity, this alert cinamateur uses camera angles and close-ups.

It isn't the heat...

...IT'S THE HUMIDITY AGAINST WHICH YOU SHOULD GUARD YOUR FILMS WHEN IN THE TROPICS

by Dr. Jesse Squibb Robinson of Carleton College, Northfield, Minn.

"THERE is no new thing under the sun," said the Great Preacher.

I wonder how he would then explain a secret I learned in far-off New Zealand for keeping films while traveling in the tropics.

It was a matter of constant concern to me to find a way to get my color films home in good condition. Some of the films would not be processed for a period of nearly two months after they had been exposed. There was little risk in keeping them in the climatic conditions of New Zealand. The difficult season would be met on the three weeks' trip from Auckland through the hot and humid tropical region of the South Sea Islands until we reached the more temperate zone near Vancouver.

I had been advised to keep my films in the ship's refrigerator. The trouble here lay in the fact that several of the ships carrying me and my film did not have refrigerators. They had iceboxes. The storage compartment of an electric refrigerator, as any housewife knows, is dry. But the old-fashioned icebox is damp. I learned from sad experience that humidity is more harmful to films than high temperature.

I recalled a formula that I had read in one of the issues of "Ciné-Kodak News," written by a movie-making artist who had journeyed to the Society Group of Islands, the largest of which is Tahiti. He had kept his films forty-two days before they were returned and processed in the States by placing them in cracker tins, the bottoms of which were filled with calcium chloride and covered with paper to keep the granules from sifting into the films. But I could see certain objections to the use of calcium chloride. One obvious objection is that calcium chloride is quite likely to get sticky when exposed to the air. I therefore was racking my brain to discover a better method to preserve my color films.

One day in Auckland I chanced to go to an Eastman store to buy more films since the supply I had taken with me was nearly exhausted. Explaining my difficulty to the proprietor, I asked him if he had had any experience in keeping color films.

"Oh yes," he replied, "we folks in New Zealand have no place to go for a holiday except the tropics. We often take a steamer for Java and Bali or for Singapore, or one of the South Sea Islands—Fiji or Samoa or Tahiti."

"How do you manage to keep your films after they have been exposed?"

"That's quite simple," he replied. "We put the exposed films in a fric-

(Continued on page 7)

● All of the illustrations at the left were enlarged from Dr. Robinson's 16 mm. Kodachrome movies.

GOOD SHOTS

IN each issue of the "News" twelve shots are reproduced from the many film clippings (not less than four inches in length, please), full-length scenes, and complete reels sent in by movie makers. For each shot selected, two Etchcraft Junior enlargements will be prepared and mailed to the winners. The original movie film is not in any way harmed or cut. All film is returned. Unsuccessful contestants receive friendly, constructive criticism.

From now on, too, we expect to reproduce "Good Shots" as enlarged by you with the Kodak 16 mm. Enlarger. Two such shots appear on this page.

Why not send in your good shots? Pack them carefully and address them to Editor, Ciné-Kodak News, Eastman Kodak Company, Rochester, N. Y. To avoid possible customs delays or complications, Canadian contestants will please direct their entries to Canadian Kodak Company, Ltd., Toronto—together with a note stating that the film is submitted for the Ciné-Kodak News "Good Shots" contest.

Left column, top to bottom

● This is not the first time that Mr. Parker Smilie of Montgomery, Alabama, has placed a "Good Shots" winner. And, as before, it's of a golfer. But so many people play the game, and so few cinamateurs think to camera-angle up at them and use a filter with black-and-white film when filming them, that Mr. Smilie heads the list with his beautifully composed 8 mm. "Pan" shot.

● Some readers of the "News" appear to feel that 16 mm. movies have the "edge" on 8 mm. shots in this "Good Shots" department. Here's another enlargement from 8 mm. "Pan" to dispel the belief. Mr. Wyatt S. Peck of Klamath Falls, Oregon, didn't worry a whit about poor light when he saw his chance for a grand outdoor silhouette.

● Dr. Raymond K. Clark of Summit, N. J., took his 16 mm. camera along on a West Indies cruise. Splendid, indeed, were his results in Kodachrome—but we believe he will welcome the two Etchcraft Junior enlargements rightfully his for the nice composition of the three-master.

● Mr. Leslie Thatcher of Toronto, Ontario, has also appeared in the "News" before —pages one and two of our March-April, 1938, issue being devoted to his movie making accomplishments. Enlargements from the films of the versatile Mr. Thatcher continue to turn up in every "Good Shots" consideration, and this time space simply had to be found for his Kodachrome shot of the ferryboat.

● A great many cinamateurs have submitted enlargements made from 16 mm. film with the Kodak 16 mm. Enlarger. Most miss the "Good Shots "bull's-eye because they attempted enlargements from scenes good in movies, but not permitting successful enlargement. As an example of scenes which will enlarge, see the illustrations in this issue and on this page—and note particularly the enlargement of the pansy made by Dr. H. F. Sydow of Waukesha, Wisconsin.

● Via the Canadian Kodak Company, came the well camera-angled plowing scene from the 16 mm. Kodachrome reels of Mr. Godfrey S. Pettit of Toronto—leading "Good Shots" city of Canada.

Right column, top to bottom

● Mr. J. H. DuBois of Chicago sent his 8 mm. "best shot" to "Good Shots" and was promptly put at the head of this column. Watch for silhouette possibilities when the light is too poor for good normal exposure.

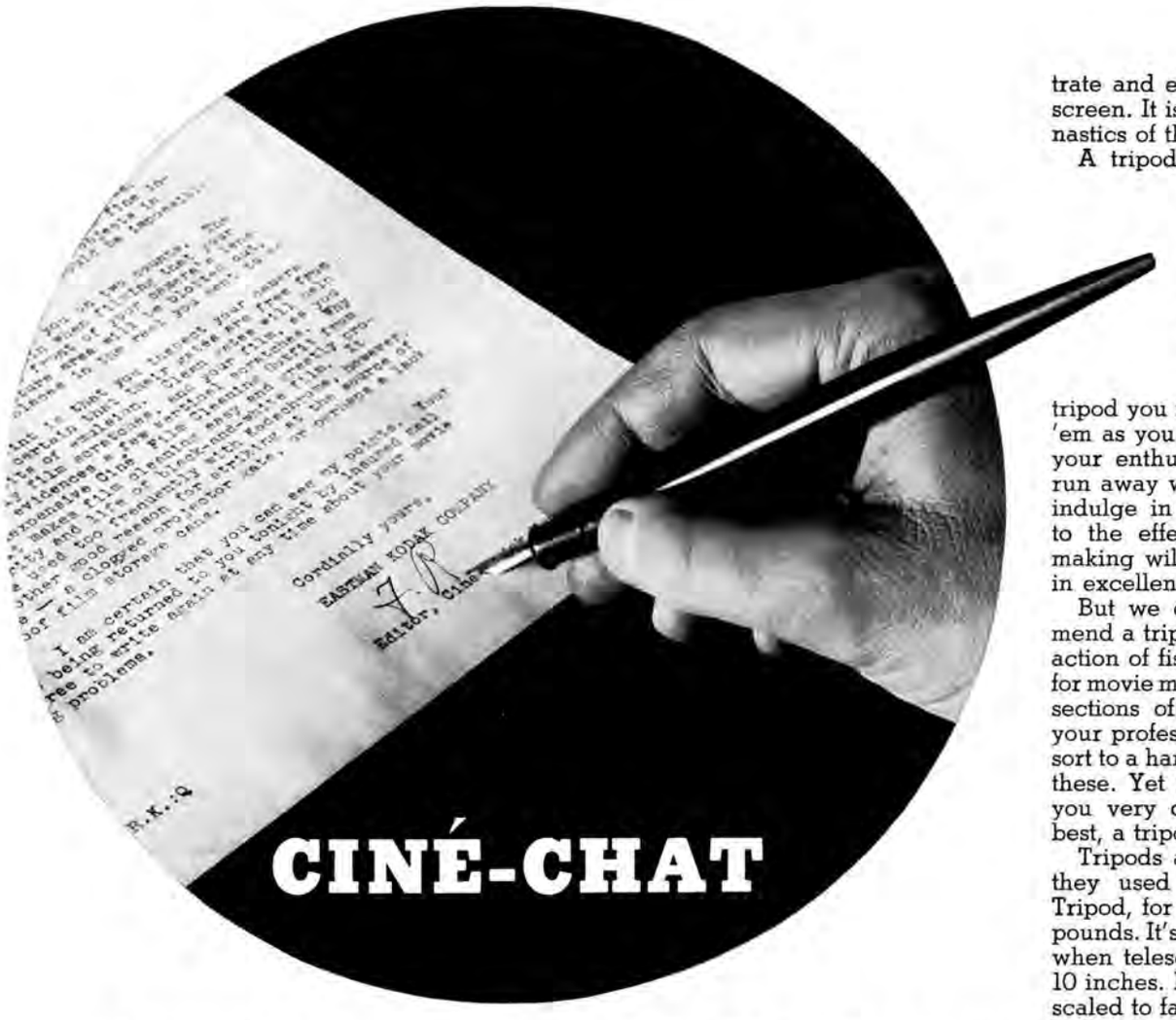
● Mr. Martin Harrison of Watertown, Mass., uses Type A Kodachrome and Kodaflectors with telling effect. Notice that not all the light was played from in front, thus saving the amiable Miss Noreen Joan Harrison from any danger of flat reproduction on this page.

● Mr. Harry N. Taylor of Parkersburg, West Virginia, sent in some Ciné-Kodak Special-made movies together with the information that he was a "rank amateur—in fact, very rank." We doubted that statement, felt that both Mr. Taylor and his "Special" —his first camera—ranked very high in ability. Apparently others agreed, for Mr. Taylor has since been busy making films for various businesses and enterprises. The tiger was filmed before Mr. Taylor realized how very un-rank he really was.

● Another "Good Shot" from a 16 mm. Enlarger. Mr. H. G. Kinner of Steelton, Pa., filmed and enlarged the nicely framed Kodachrome scene of the Riverside Church tower. Framing with branches really "makes" shots of this type.

● For a combination of relatively minute flowers and towering Texas hills, few Kodachrome filmers would think to stoop to set off the flowers against the sky, thereby heightening the coloring of the translucent petals against the blue sky. Mr. Preston Moore of Houston did, and thereby won our thanks and two Etchcraft Junior enlargements suitable for framing or use on desk or mantel.

● Mr. Roy T. Babb of Hollywood, Cal., studied the "Good Shots" page, selected one 16 mm. black-and-white film clipping, and sent it along because he "noticed things of this type used." We still like to use 'em.



Questionnaire

Dear Mr. Editor:

I'm from Wisconsin. I own, use, and enjoy a movie camera. I have a friend who hasn't a camera. I read and enjoy your "Ciné-Kodak News" because you pack a lot of helpful information inside its covers without getting "heavy" about it. This friend of mine, however, is from Missouri. He suspects that most of your illustrations are snapshots and not movie enlargements. He also doubts that many of your articles are "legit." Or, if the names are real, he claims that the individuals they represent are probably members of your Company. He likewise calls attention to the fact that your contributors appear to be unknown while other magazines specialize in big names we do know of. The name of "Hamilton Jones" over an article in a recent issue, says this friend of mine, is just the type of name someone would invent.

Say it ain't so. R. J., Madison, Wis.

Truthfully, Mr. R. J., it ain't.

Mr. Hamilton Jones, sometimes of Buffalo, spends most of his summers making movies of the Canadian vacation lands and most of his winters showing those movies from coast to coast before clubs and organizations. Bookings available through Mr. Charles V. Howick of Canadian National Railways, 22 North Division Street, Buffalo.

Mr. Jones, too, feels that his name is a bit top-heavy. Most of his friends get around this difficulty by calling him "Ham."

We don't know whether our contributors are famous or not. Probably many of them are—at least locally. The "News" doesn't attempt to impress you with the names of contributors . . . to conduct this publication in the lecture hall manner.

"News" contributors are your fellow readers. If you are interested in what many of them have to say, they, quite likely, will enjoy reading of your experiences in movie making and in seeing your best scenes reproduced.

Incidentally, all illustrations labeled movie enlargements *are* movie enlargements.

Steady Does It

Dear Editor:

If you were I, would you use a tripod? B. M. M., New York City.

Not if we could hold a camera steady without one. Not for all shots, certainly. But we surely would if we found any "jumps" on the screen and wanted our movies to be enjoyable as only rock-steady screen images can be.

Most cinamateurs, however, apparently can't hold their cameras steady—or, at least, still. If they don't "weave" with it, they panoram. The former is never necessary . . . the latter, seldom. A good share of the reason why you enjoy steady screen pictures is that their steadiness eliminates awareness of the mechanics of picture making. Your attention is free to concentrate and enjoy what you see on the screen. It isn't distracted by the gymnastics of the camera wielder.

A tripod not only assures you of steady pictures, but it promises better pictures.

Is this the best site from which to shoot? Is this the best moment to shoot? Is this the best subject to shoot? When you glue your eye to the finder of a camera on a tripod you never forget that "you see 'em as you take 'em"—you never let your enthusiasm for picture making run away with you and cause you to indulge in a bit of wishful thinking to the effect that haphazard movie making will somehow or other result in excellent movie showings.

But we certainly wouldn't recommend a tripod for filming fast moving action of fishing from a small boat or for movie making at the more crowded sections of the two big Fairs. Even your professional cameraman will resort to a hand-held camera for such as these. Yet for the making of a film you very definitely want to look its best, a tripod is a decided asset.

Tripods are not the bulky gadgets they used to be. The Ciné-Kodak Tripod, for example, weighs only 6¾ pounds. It's only 2 feet 9½ inches long when telescoped, opens up to 4 feet 10 inches. Its black alumilite legs are scaled to facilitate uniform extension, lock into position with a twist of the wrist. Fitting all movie cameras (and most still cameras as well) this is the ideal home movie tripod.

Customs

Editor, Ciné-Kodak News:

We are considering a South American cruise. As far as we can learn, no real difficulty should be experienced with customs officers in foreign countries.

Would you please confirm this, for it would be better for us to know now than later. Mrs. Roland Olson, Hampton, Virginia.

Your understanding is correct. Although customs procedure is largely dependent upon the interpretation put upon customs laws by local customs officials, here is a summary based upon statements released by government officers of both western and eastern hemisphere countries. This information, believed to be correct at the present time, is subject to change without notice. It should be remembered that cameras and films are generally dutiable, but most foreign governments waive this charge in connection with amateurs.

Motion picture cameras and a reasonable amount of film for personal use, which you state upon entry will be taken out of the country by you upon your departure, are admitted duty free by the following countries: Canada, Mexico, Honduras, Costa Rica, Guatemala, Panama, Salvador, Bermuda, Bahamas, Cuba, Dominican

Republic, Jamaica, Netherlands West Indies, Barbados, Trinidad, Argentina, Brazil, British Guiana, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay, Belgium, Denmark, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Norway, Portugal, Sweden, Turkey, United Kingdom, Russia, Yugoslavia, Union of South Africa, Palestine, Arabia, Iran, Iraq, Siam, China, Japan.

Cameras, and films in reasonable quantity, will be admitted by the following countries upon the making of a deposit, establishment of a bond, or payment of duty, which expense will be refunded to you upon your departure: Newfoundland, Nicaragua, Haiti, Irish Free State, Roumania, Switzerland, Egypt. Be certain your camera's serial number is properly registered upon your entry, and inquire thoroughly into the steps necessary to obtain your refund.

In the following few countries, duty is generally charged for cameras and film: Venezuela, Netherlands, Trans-Jordan, India, Dutch East Indies.

In France-in-Africa, and in French Indo-China, one cine camera and two rolls of film are admitted duty free. Additional film is dutiable.

Filming restrictions are placed upon certain areas in many countries. It is wise to inquire about this before you start to shoot. In Greece, Italy, Japan, Russia, and Egypt, film must be submitted to the government for inspection before its removal from the country.

These restrictions may have been modified by the time you read this. Greece's objections were to the shipment of exposed film from the country for processing. Italy requires that black-and-white film be processed in Eastman's Milan processing station and there be inspected by government authorities before you take it from the country. To take Kodachrome movies obtain a letter from your local Italian consul or from the Italian Tourist Information Offices at Rockefeller Center, New York City, or 333 N. Michigan Avenue, Chicago. All films exposed in the Soviet Union must be submitted to the government for inspection and censorship. All cine films exposed in Egypt are subject to censorship. Kodachrome exposed in Egypt is shipped to Rochester for processing, from which point it is sent to the Egyptian consul in New York City for censorship, which is reported to be decidedly liberal. Kodachrome is not processed in Japan at present, nor, it is believed, can it be exposed there, and then be shipped or taken abroad for processing.

Before leaving for foreign lands, ask your dealer for a copy of the folder, *Take a Kodak with You.* It contains a complete list of Kodak branches and subsidiaries.

BEAUTY AND THE BEAST (Continued from page 3)

"Beauty and the Beast" on page 3. The many other filming achievements of Mr. Holt are worthy of far more space than this brief mention. But the point we want to put across here is that in your movie camera you've an instrument capable of producing genuinely satisfying pictures of color and action and unsurpassed fidelity which everyone will enjoy seeing—and seeing again. And you need no special training to produce them.

One markedly abrupt doctor of our acquaintance caused his family and intimates considerable concern by spending several summer weekends, camera in hand, prowling along the banks of nearby brooks and creeks. But when he turned up a month or two later with an admirable coat of tan, a restrained air of self-satisfaction, and a really grand cinematic record of—

"I come from haunts of coot and hern,
I make a sudden sally
And sparkle out among the fern,
To bicker down a valley."

and

"Till last by Philip's farm I flow
To join the brimming river,
For men may come and men may go
But I go on forever."

—and other verses (which served as sequence titles) of "The Brook," his friends readily admitted that they had sorely misjudged him.

You'll probably find the most fertile fields for camera cultivation in some other hobby—gardening, sailing, golfing, fishing, swimming, skiing. And you'll also probably find more than a few shots in your present film library which will suggest the many others you can make to go with them.

Incidentally, there's always space in the "News" for reporting the results—if your films permit satisfactory enlargements.

IT ISN'T THE HEAT . . . (Continued from page 4)

tion-top tin box of the size required and surround them with fresh tea leaves."

"Tea leaves!" thought I—and immediately I knew that my problem was solved. I had already discovered that humidity plays a more important role than temperature in damaging films after they have been exposed—particularly Kodachrome films.

The rest of the problem was simple. I bought a pound of fresh tea of an inexpensive grade, and putting my magazines of exposed film into a tin cracker box, I surrounded them completely with fresh tea leaves.

From Vancouver I sent the films to Hollywood and when they were returned to me in Northfield, I projected them with bated breath. The thrilling they-lived-happily-afterward part of the story is: the films were unaffected by the tropical humidity, and the color scenes—to use the campus vernacular—"would knock your eye out!"

Travel films worth extra care

It is a joy to be able to bring one's shots of distant scenes back home in perfect condition. This simple information may be useful to others contemplating a similar trip 'neath tropic skies. Tobacco leaves, I presume, may serve quite as well. At any rate, here's my formula: pack 'em in tea leaves. Have you a better one?

EDITOR'S NOTE:

Yes, Dr. Robinson, we think we have—although certainly your reels speak volumes for the efficacy of the tea leaves.

Travelers to the tropics should, as you did, order their films in tropical packing—a free service for Ciné-Kodak Film in all sizes except magazines. Here, a slight extra charge is made. Unexposed film so sealed may be kept in your stateroom or placed in either a refrigerator or icebox. It doesn't matter which, because the film is sealed against moisture. The refrigerator or icebox is a good idea, however, if you don't have to get at this film supply while en voyage.

After the tropic packing seals are broken, however, travelers should, as you suggest, keep their films out of iceboxes unless precautions are taken to guard them against moisture. Tea leaves may be satisfactory, but tests we have made have disclosed an even more efficient, effective, and economical drying agent.

This is rice. Plain rice—bleached or unbleached, polished or unpolished. You can obtain it in every land, particularly in the tropics, and it is free from all qualities harmful to film—apparently even when in direct contact with it.

Heat the rice in an open dish until it becomes a light brown in color. The temperature at which it is heated is not important, although it should not be above that at which bread is baked. It will then be thoroughly dried and can be poured into any convenient tobacco, cracker, or biscuit tin in the proportions of a half pound of rice for six 100-foot rolls of film. Pop your films into their opened cartons, and the cartons and film into the tin, and seal it with any efficient tape. Ordinary strip court plaster will do the trick. Seal it tightly.

The film can now be placed in either icebox or refrigerator—although low temperatures should really not be necessary—and you can have every assurance that it will reach a processing laboratory in first-class condition.

Around the World in 400 Acres

SAN FRANCISCO'S FRANK C. KUGELBERG RETURNS FROM A CRUISE TO DISTANT LANDS TO FIND HIS MOVIE MATERIAL DUPLICATED ON TREASURE ISLAND

SATURDAY, January 29, 1938, was a hectic day for your writer. For on that afternoon, I sailed for the South Seas and the Orient. There were a thousand and one things to be cared for and the usual crowd was down to see the voyagers off—and to be shoved off themselves a split second before the gangplank was drawn overside. At 4 p.m., sharp, we were on our way—just in time to get those last glorious shots of San Francisco, of the Bay, and of the Golden Gate.

We left heavily loaded with photographic equipment, for it was to be a four month's cruise. Cameras, telephotos, a tripod, and a generous stock of 16 mm. Kodachrome composed our kit. Week after week, back and forth through temperate to tropical zones, from winter into summer, from howling gales into days of brilliant sunshine, we enjoyed the usual climatic contrasts of the wide Pacific. Our course took us through the Hawaiian Islands, south to Tutuila, American Samoa, Fiji, New Zealand and Australia. Then due north from Sydney following the Great Barrier Reef up to the Dutch East Indies. Next, Hongkong and Shanghai, to Japan, and back home to California via the "Islands."

It was a magnificent trip, magnificently mirrored in 6,000 feet of lovely Kodachrome.

Unless our friends have suddenly become adept at well-veiled falsification, they were genuinely thrilled by viewing our movies. Almost to a man (and woman) they announced their intention of duplicating our journey—and our travel library. Lately, however, we have discovered that they need not make a similar expenditure of time, effort, and money to get the pictures—which, after all, constitute the most satisfying benefits of such a journey. They will find most of the highlights of a Grand Pacific Tour right at home in the Golden Gate International Exposition.

The world at our doorstep

What do you seek for your travel pictures?

Do you want beautiful landscapes and marine views?

Do you want panoramas of strange cities . . . the strange faces of other peoples?

Do you seek lovely tropical gardens of exotic blooms?

We have been over to Treasure Island time and time again, and I can truthfully say that all you can desire in the fields of genuine human interest and entrancing vistas is there awaiting your camera in one compact area of a square mile.

Our recent 25,000-mile trip took us to ten countries. Several times that number are represented on Treasure Island—with their own people, their own architecture, their own handiwork. And it can hardly be charged that it is merely the enthusiasm of a native son which prompts the assertion that a more beautifully situated spot could not be found elsewhere in this hemisphere. Treasure Island is set as a jewel in one of the most entrancing bays in the world, surrounded in the distance by towering hills and great cities nestled at the base of those hills—the great skyscrapers so close that you feel you can almost reach out and touch them . . . only a few miles distant the Golden Gate with its gorgeous sunsets, luxurious liners, palatial yachts, picturesque ferries, and towering bridges. All under the eyes of the visitor. All within range of his camera.

Yet perhaps the greatest of all delights at Treasure Island is the night illumination. Indescribably lovely, it is yet not pretentious. Truly, it is nothing less than a great dream that one can capture such color imagery with a camera.

Yet it is a dream come true. It takes half speed at *f*.1.9 with Type A Kodachrome to do a good job with the soft, indirect lighting. And we've found that our Ciné-Kodak Special, hand-cranked at about four frames per second, is even more effective at night in capturing the blues, the purples, the golds, and the greens of this glamorous isle.

So, by all means, come to Treasure Island. Come with your camera. And come with Kodachrome—the only film I know of which will do it justice.

● Mr. Kugelberg's 16 mm. Kodachrome movies, of which the enlargements below depict but a fraction, began with his departure for the Fair. Instead of starting, *plop*, in the middle of Treasure Island, onlookers are taken by ferry, by bridge, to the island—then step by step until dusk and colored lights turn it into a fairyland.

The Processing Parade

A generous percentage of all movie films processed —Kodachrome and black-and-white—are projected at processing laboratories as the ultimate test of quality. The Editor of the "News" has taken the liberty of "sitting in" on this projection. In this department are reported the faults, flairs, and filming formulas of cinamateurs as evidenced in their processed reels. Even though you do not recognize your initials in the paragraphs below, you may find many pointers equally applicable to your filming efforts.

Mrs. F. M. D., Jr., Bristol, R. I.
16 mm. Kodachrome

Two rolls of yours were viewed, Mrs. D. The first one I saw was exposed on shipboard, the other in the tropics. The colors—the exposure—were grand throughout. So was your choice of subjects. But I enjoyed one far more than the other—and I wonder if you reacted similarly.

The shipboard reel contained more close-ups than the other because, I imagine, you were of necessity closer to objects. More important, however, you kept your camera on board . . . kept it rather steadily trained on objects relatively near to you. But once you were on land, your camera set out to cover as much territory as it could in the shortest possible time through the medium of the almost irresistible panoram. And, as a result, every charming view seen on the screen was promptly whisked away to be supplemented by another, and another, and another—and none of them lasted long enough to be thoroughly enjoyed.

Action is the factor which distinguishes movies from stills, but it should be on the film and not in the hands of the one using the camera. Try exposing your next roll without moving the camera and see if we're not right.

W. S., Rocky River, Ohio
8 mm. Kodachrome

Your scenes were a full stop overexposed in the beginning of your greenhouse sequence . . . right on the bull's-eye in the middle of the reel.

Those shots of the youngsters on the Easter Egg hunt are the stuff of which good movies are made. Unposed, natural, full of the inimitable action which children can always be counted on to provide when they aren't acting under a director's orders.

Give 'em something to do—before you start shooting—and they'll provide the action. Never start the camera and then tell your subjects, young or old, to "do something—I'm making a movie." What they will do will either be posey or awkward, and cause you to groan when you see the results in your living-room.

What can you give them to do?

If they're children, supply them with paint and brushes, a doll and washtub or doll clothes and an electric iron, toy stove, flour, water and a recipe book, materials to be assembled into a scooter, and all the hundred and one other objects with which they can become readily engrossed and be themselves.

If they're adults, reach for your camera when they're busy in a garden, working on modern elaborate train models, tying handmade trout flies, roughhousing with the dog, touching up some porch furniture, or perhaps merely filling and lighting a pipe.

Don't, above all things, call their attention to your camera and remind them that they're on parade.

A. H., New York City
8 mm. Kodachrome

The suggestions already made to Mrs. F. M. D., Jr., in connection with her tropical cruise, very definitely apply to you, Mr. A. H. Our neck still aches from following that one 180° panoram.

C. G., Middletown, Ohio
16 mm. Type A Kodachrome

Splendid indoor color shots. You probably used No. 2 Photofloods in reflectors—just as easy as using insufficient light, by the way—and *knew* that you were going to get pictures with full, rich coloring throughout.

J. K. C., Hoboken, N. J.
16 mm. Type A Kodachrome

I wish you could see the indoor films of Mr. C. G., Mr. J. K. C. He knew he was going to get movies, while you just hoped you would. Frankly, we don't believe there was a Photoflood light in the room—just ordinary table lamp bulbs. And it was a big room—and a most attractively peopled and furnished room, too.

There's no need to gamble with lights. Use Photofloods in Kodaflector.

H. H., Sanford, Maine
8 mm. black-and-white

Just a bit overexposed with your many shots of the airplanes. Did you use a filter? A yellow filter would have been just the ticket. It holds back just enough of the preponderant sky to return airport scenes to average intensity, and snaps out sky and clouds.

Sorry about the second loading of your reel. Loss of loop was the trouble. Always run a threaded camera for a few seconds before replacing the cover. If it runs the first foot or two perfectly, it's dollars to doughnuts it will complete the roll in similarly good style. You aren't wasting film, by the way—there's extra footage in every roll for just this purpose with which you might just as well check operation, because it's going to be removed in the processing laboratory.

R. M., Boston, Mass.
8 mm. black-and-white

Waving the camera! Waving the camera! With your next roll make believe you're using the first camera you ever owned—a snapshot camera. You made certain to hold *that* steady so as to get good pictures.

The idea still holds good. Imagine how those shots aboard ship would have appeared if a rock-steady camera had been trained on your fellow voyagers so that the New York skyline had slowly swept past in the background.

R. L. M., Springfield, Mass.
16 mm. black-and-white

You were taking snapshots. Don't line up your subjects and use the firing-squad technic with a movie camera.

E. F. W., Bristol, Conn.
16 mm. Type A Kodachrome

Congratulations to you and the Bristol High School on the fine film of school activities you are assembling. The close-ups were great.

Incidentally, were you using No. 1 or No. 2 Photofloods? The latter are doubly effective, just as easy to use.

The Amazing Color Show

AT THE NEW YORK FAIR ...AND HOW IT IS PROJECTED

TO every onlooker within the Great Hall of Color of the Eastman Exhibit at the New York Fair, the Cavalcade of Color is a truly thrilling experience—the greatest show of color photography on earth.

But to the initiated . . . to those familiar with "still" and motion picture projection—the breath-taking color display on the enormous screen is more than a photographic spectacle. Interest will be divided between the beauty of the pictures and the mechanical ingenuity which makes them possible.

The story, in brief, is on these pages.

Located near the entrance of the Great Hall of Color is a curious machine. Roughly cubical, nearly as tall as a man, this machine is a twin projector more than a ton in weight and of a type unique in optical history.

Eleven similar twin projectors are concealed in a spacious projection booth just under the roof of the great hall. Through each of their gates stabs a brilliant beam of light. Tiny color-film transparencies, about 1 x 1½ inches, made on standard Kodachrome Film, pass these gates—to become screen pictures approximately 50,000 times as large in area.

As each small full-color transparency comes into position, it is registered in place to an accuracy of plus or minus 1/10,000 inch, through a unique combination of optical and mechanical registration. This is a degree of registration never heretofore attained in projection equipment. Moreover, this same registering system operates so that even while the transparency is in motion in the projector gate its enlarged image is held rock-steady on the screen.

Each of the hidden projectors is synchronized with the others by an elaborate electrical interlock—operating through a fully-automatic control system. To design them, and their operating system, involved hundreds of hours of planning and computation; and thousands of dollars went into their construction.

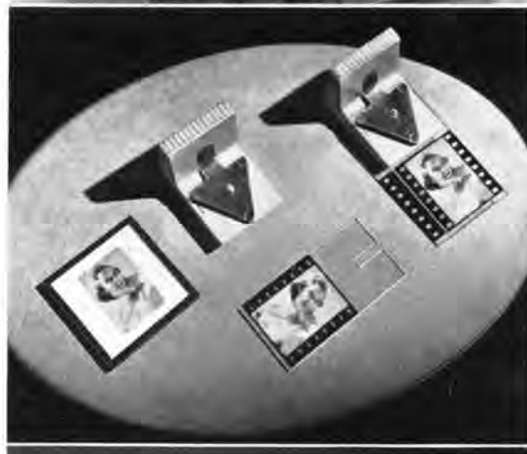
Through its electrical interlock and control mechanism, the Kodak Building's projection system can be operated with infinite flexibility. If desired, pictures can be changed at different speeds—one group of pictures remaining on the screen a half minute while others are changed up to four times a second. Fades, dissolves, motion effects can also be presented.

Appropriately enough, the "heart" of the projection system control is a specially notched sound film, which not only carries the voice of a commentator and special musical accompaniment, but also regulates the movement of the projector shutters and the shifting of slides—keeping pictures and comment in perfect synchronism.

Employed in the Eastman projectors are the largest fine-pitch precision ring spur gears ever machined in the United States. On these "drum" gears are bolted glass-mounted Kodachrome transparencies—96 pictures to a drum. Twenty-two gears are used in the eleven twin projectors, so that the system carries 2,112 color-film pictures ready for automatic projection.

To link the gear-rings with the automatic indexing system, the projectors employ one of the largest single-step spur gear reductions ever attempted—48 to 1.

Each color slide carries a series of gear teeth, integrally mounted along



● The picture at top of page graphically demonstrates the size of the projectors used in the Eastman Kodak show of color photography. Here are shown only the frame and lenses of one projector and, back of lens to the right, one of the lamp houses and heat filter. Workman is shown installing one of the two 2500-watt lamps. Complete, each projector weighs 2700 pounds. Eleven are used to illuminate the screen which is 22 feet high and 187 feet long.

● Kodachrome transparencies used in the Kodak color exhibit are similar in size to those anyone can take with a miniature camera. But in the Kodak show, each slide is shown on the screen enlarged to 17 by 22 feet. Here, you see a standard 2 x 2-inch Kodachrome slide, as used in thousands of home projectors. Center is a Kodachrome transparency, mounted on optical glass, and a die casting to fit it. At right is the complete assembly—transparency and casting—ready for bolting to the picture drum of one of the Kodak World's Fair projectors.

● The huge fine-pitch ring spur gears used in the Kodak projectors are the largest gears of this type ever made. Each has 1440 teeth. Kodachrome color slides, each mounted on a toothed die casting, are bolted to these "drum" gears—96 slides to each drum. Picture shows workman installing slides on drum.

● One of the cleverest mechanisms in the Kodak projectors is the optical registering device, a small plate of selected optical glass which spins as the film drum turns. Refraction through the glass keeps the image centered in the lens—and rock-steady on the screen—even if the slide is slightly out of position.

● Upon close inspection, the refraction effect can be observed in this picture. The slide is somewhat high in the gate—but the gears on its die casting automatically tilt the optical registering-plate forward, so that the image reaching the lens is precisely centered, neither too high nor too low on the screen. Optical devices of this type have heretofore been used only on ultra-speed scientific cameras.

its edge. Together, these teeth form a continuous series around the film ring, and operate the optical registering system built into each film gate.

This registering means consists of a small rectangular plate of selected optical glass, which spins as the film ring rotates. As each picture moves into position, this glass swings upright before it. If the picture halts a trifle too high in the gate, the registering-glass remains tilted slightly forward at the top. If the picture stops too low in the gate, the glass tilts back correspondingly, its movement being controlled by the gear teeth on the film. In either case, refraction through the glass shifts the picture-image so that it travels at proper level through the lens, and is correctly positioned on the screen.

This correct level is maintained even if the color-slide vibrates up and down in stopping, since the registering glass moves in synchronism with it. Such a means of optical registration has heretofore been found only on ultra-speed laboratory cameras, used for taking pictures at 1/100,000 to 1/500,000 second.

The illuminating system of each Eastman projector is centrally housed, with the ring gears and film drums revolving around it. Water cells are used for cooling, and in addition, a blast of air, chilled almost to freezing, is directed on each projector gate. Large-aperture, long-focus projection lenses are used, and specially designed shutters are utilized for many screen effects.

For the World's Fair color show, photographers of the Eastman Kodak Company prepared a special collection of more than 100,000 Kodachrome transparencies. The design of the Kodak projectors makes it possible to change the whole color show overnight, simply by unbolting one group of slides, and replacing it with another.

Pictures will be shown continuously from twelve o'clock noon until ten at night, each individual color show lasting approximately twelve minutes.

The tiny full-color Kodachrome slides used in projection are identical with those any amateur can make today with a miniature camera. They were made on the same types of Kodachrome Film the amateur uses, are the same size, and—if remounted as regular 2 x 2-inch slides—could be shown in any inexpensive home projector for color "stills."

● On the 187-foot screen this Grecian Frieze is first seen in black and white . . . there is a gradual transition into gorgeous color—then, still in color, the classic gowns of the models change to modern dress.

"IF YOU CAN HANG A PICTURE AT THE RIGHT SPOT ON A WALL..."

"IF you can hang a picture . . ." that's the easy approach of *How to Make Good Movies*, Eastman's cinematic best seller, to the subject of composition. Completely debunked are the terrifying composition fundamentals of radiation, cohesion, circular observation. What these phrases mean in pictures is illustrated in the movie enlargements within this chapter—enlargements made from the films of other readers of the "News."

And so it is with the many other chapters of this worth-while book.

Camera angles, animation, close-ups, clouds, color film, continuity, editing, exposure, fades, filters, focusing, travel films, indoor movies, lenses, lighting, projection, scenarios, scenics, silhouettes, splicing, stunts, telephotos, tempo, titling—these are but a few of the many phases of amateur movies discussed and generously illustrated in this fast-selling and universally acclaimed book.

More than 200 pages . . . over 600 illustrations—some of them in color—*How to Make Good Movies,* priced at $2, is a volume you should read. More than 50,000 copies have been purchased since its first printing last fall. A third printing, corrected to incorporate all new developments, has recently been delivered to dealers. Your dealer either has your copy, or can obtain one for you. Get it—today—and put its thousands of clear, concise, and helpful ideas to work in your movie making.

The Films FOR THE FAIRS

MILLIONS will see the Fairs. Millions, most of whom will travel miles to the big shows . . . many of whom will carry movie cameras—all of whom will want to return home knowing that the Fairs are really on film.

That, to wise movie makers, means Ciné-Kodak Film. Year after year, day in and day out, the unfailing uniformity of Ciné-Kodak Film has created and maintained that all-important feeling of assurance that tells you you're getting pictures, whether you are filming in black-and-white or in full color.

Most cinamateurs will take Kodachrome to the Fairs. Those with Magazine Ciné-Kodaks will carry both regular and Type A Kodachrome, switch from one to the other at will for outdoor and indoor shots. Those using roll film movie cameras will be glad to know that if their cameras happen to be loaded with "Type A," a Type A Kodachrome Filter for Daylight will color-balance this indoor film for outdoor use. And many 16 mm. filmers will also take along a few rolls of the new, fast, fine-grain Ciné-Kodak Super-X Film, or ultra-fast Ciné-Kodak Super-XX, which steps up the speed of *f*.3.5 lenses to that of *f*.1.9 lenses used wide open with regular "Pan."

For *Treasure Island,* or the *World of Tomorrow*—*or both*—use the film you know you can depend upon.

● **PRICES** Ciné-Kodak Kodachrome Film, regular or Type A, is priced at $4.75 for 50-foot 16 mm. rolls, $5 for 50-foot 16 mm. magazines, $9 for 100-foot 16 mm. rolls, $3.75 for Ciné-Kodak Eight Kodachrome. Ciné-Kodak Super-X is priced at $3.25 for 50-foot rolls, $3.50 for 50-foot magazines, $6 for 100-foot rolls; Ciné-Kodak Super-XX, $4 for 50-foot rolls, $4.25 for 50-foot magazines, $7.50 for 100-foot rolls. ALL PRICES INCLUDE PROCESSING BY EASTMAN.

EASTMAN KODAK COMPANY, ROCHESTER, N. Y.