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DECEMBER
JANUARY
1935-36
●

PHOTO SPOTLIGHT

PUBLISHED BY
EASTMAN KODAK STORES, INC.
MADISON AVE. AT 45TH ST., 235 W. 23RD ST., NEW YORK, N. Y.



AIDS TO ACCURATE TIMING

WITH constant improvement of photographic materials the need for accurate timing of exposure and development becomes increasingly important. The two Timers illustrated should be in every photographer's workroom. The Eastman Timer, at left, with minute and split-second hands, is for accurate timing of print exposures. The hands may be instantly reset. The Eastman Interval Timer, Model B, at right, is for timing development and similar operations. The indicator is set for desired intervals from 1 to 30 minutes, at the end of which time an alarm rings. A stop provides for standardized development time. Winding is automatic.

Eastman Timer, \$5

Eastman Interval Timer, Model B, \$5

EASTMAN KODAK COMPANY, Rochester, N. Y.

A Friendly Greeting

It is with a feeling of genuine pleasure that we express to friends old and new in the profession our appreciation of the pleasant relations existing between us during the year, and that we extend the old yet none the less sincere wish for a Merry Christmas and a New Year of happiness and prosperity.

Eastman Kodak Stores



NEGATIVE ON EASTMAN PORTRAIT PANCHROMATIC FILM



DEVOTED TO THE INTERESTS OF
PROFESSIONAL PHOTOGRAPHERS
VOLUME XIV • NUMBER 3
DECEMBER 1935 • JANUARY 1936

FACTS NEEDED TO FILL ORDERS

ONE of the most trying things, especially at this season of the year, is to order materials and receive a letter stating that the order cannot be filled until additional information has been received. In writing the order you probably neglected to specify size, or amount, or contrast, or color, or weight, or some other description, without which your order could not be filled.

When you are very busy, and it is your order that is delayed because of such an omission, you may think our shipping clerk should know what you have been accustomed to order—the size, or quantity, or grade, or contrast you have omitted.

We have found it is not safe to judge your wants by previous orders. If our guess is wrong, time and transportation two ways are lost. If you are rushed with work, you may open a gross of paper, and start printing before you read our letter telling you we have guessed at your order rather

than delay your work. The gross of paper you opened is a loss to us if you can't use it.

What can we do? There is only one thing to do—ask you to use every possible precaution in ordering. State the amount, size of package, size of paper or film, and if paper, the brand, surface, contrast, and whether single or double weight.

If you use a special size paper which you have asked us to carry in stock for your special convenience, we shall appreciate having you keep us advised as to your probable consumption. We shall also appreciate advance notice when you are likely to discontinue using a special size. It is paper we are carrying for you, and which we can't sell to anyone else without a loss.

Make your orders complete and specific, and we shall do our best to carry the goods in stock, and ship every item of your orders promptly and correctly.

SCHOOL BUSINESS THE YEAR 'ROUND

It is true that straight school work, in which there is competitive bidding, is not always profitable, but there are many photographers who do a great amount of school work and make money.

How do they do it?

First of all, they get acquainted with school officials; principals, teachers who are also athletic directors, coaches, and class officials. It must be remembered that the students responsible for the school annual are inexperienced. Teachers, or advisors, do not have much time to help them get their material together. As a result, when they are ready to go to work on their annual, there is a rush for pictures, and frequently results so secured are not satisfactory.

One photographer, on being asked how he made a success of school work, put it this way: "I just play along with the school during the entire year, and when it comes time for individual pictures of the senior class, and groups for the annual, I have already made most of the pictures, am so well known, and my work has been so satisfactory, that I have no trouble getting the balance."

THE INFORMAL PICTURE

One of the problems every new senior class encounters is a sufficient number of informal pictures to put a bit of pep in the year book. Begin with the baseball team. When work begins on the annual, baseball has been forgotten, and often there isn't even a good group picture of the team. Make it your business to

attend a game, get a good group, and a few pictures of outstanding players, action shots made with your Graflex, an informal picture of the boys on the bench, and the team mascot.

Get in touch with the director of girls' activities, and learn what sports you can picture—outdoor basketball, softball, hockey, swimming, or other sports. Then be sure to get groups of the German, French, and Dramatic Clubs, Students' Council, and other group activities.

When the football season rolls around, get out some bright day and get a picture of the entire squad. If the team has been selected, get the first team and a number of individual pictures of players in action. It would please the coach if you made an individual picture of each player in an action pose, and made such pictures available to your local newspaper. Photograph the coach, also.

Keep in touch with the Annual Board, and pick up informal pictures now and then of teachers and students. By this time you will have sold many of the pictures you have made, and will be known, informally, as the School Photographer. Incidentally, you will get good advertising to parents of these students.

NIGHT PICTURES, TOO

When indoor activities begin in earnest with the basketball season, load your holders with Wratten Hypersensitive Panchromatics and, with a few Photoflash bulbs, get action shots of some of the games, a good

flash of one of the school plays, and a dance in the gymnasium. This ground work will put you in a position to get the senior class work, in the studio, at a price that will give you a profit. And we do not infer that you have not made a profit on all of the work you have done through the year.

Finally, when graduation night arrives, have your flash bulbs placed, and make a picture of the entire class on the auditorium stage. Almost every parent will buy one or two.

DISPLAYS THAT ATTRACT

When graduation is over, make a school display in your window. There are any number of attractive arrangements that will get attention, and make sales, too. One photographer, who did the work for several schools, placed a cut-out of an attractive girl in cap and gown in the center front of his window. Groups of Senior Classes of the several schools were arranged back of this figure, and ribbons of each school's colors draped from the figure to the class group.

Another photographer made individual pictures of each member of the school band, with their instruments in playing position; also a shot of the drum major. These pictures were enlarged, mounted on boards, cut out, and, with pedestals attached, were arranged in a window where they attracted favorable attention. Incidentally, practically all of the cut-outs were sold at more than their cost.

The same sort of display can be made of a football team. The floor of the window is laid out as half of a football field with goal posts in the center background. The players are photographed individually in playing poses, enlarged, made into cut-outs, and placed on the field in playing position. Be sure the figures are

not out of all proportion. The lines of the field can diminish to give perspective, otherwise the figures would have to be too small. A close-up shot of the team lined up on the field, with goal posts in background, will give an idea of correct perspective.

PICTURES FOR THE ANNUAL

Before we close this article, it might be well to add a suggestion as to how individual pictures should be made in the studio for a school annual. Go over previous annuals with the photographic committee, and see what objections have been made to previous work. Then talk with the printer and learn from him what you can do to insure a better quality of halftones and printing.

In all probability you will find that attractive results will require that you use fairly dark backgrounds and light your subjects brilliantly. A soft lighting will result in a halftone that prints grey and mushy. You must remember that schools, as a rule, cannot pay for the very finest quality of halftones. If your prints don't have snap and brilliance, the engraver cannot afford to do a lot of re-etching to make them print right.

There must also be a certain amount of uniformity to the contrast of these pictures, and to the depth of the prints. Several of them will appear on one page, and there must be sufficient uniformity to make the page look well.

All of this may seem to you to be a lot of trouble to get school work, but you shouldn't look at it in that way. School work, done right, leads to other work for parents, for business men, for lodges, and similar groups. The more you get out among people—even school students—the more business will come your way and add to your profits.

NOT JUST ANOTHER YEAR

JANUARY firsts seem to roll around in relentless fashion, and here we are nearing the threshold of another year. Most of us pause a while at this time for a review of the past year, and to speculate about the one to come. New Year's resolutions are in order and, even if not always observed for long, they are good for us.

Let's make up our minds though that during 1936 (we won't bother with the formality of a resolution) we will overlook no chance to gain extra business. Right after Christmas, for example, is a time when most of us rest up for a while.

But there is considerable business to be had. Try sending out a circular letter to a number of your Christmas patrons. (Admit frankly that it is just a circular letter.)

In this letter express the hope that your work has afforded full satisfaction, and that the pictures have made a number of people happy. Then make the suggestion that possibly one or two friends had been overlooked, and that you are in a good position, now that the Christmas rush is over, to make quality duplicate prints on short notice. You will be surprised the way orders for duplicate prints will come in in response to this suggestion.

During the holidays you undoubtedly stressed enlargements, but it is certain that during the rush many prospects just naturally got away from you. Make a good display of enlargements in your show-case, and run an advertisement in a local paper

calling attention to the display and mentioning the attractive prices.

It is safe to figure that there are a great many people who receive money for Christmas presents, and that you can get your share of this money if you go after it.

Don't let down on the advertisements you have been conducting after Christmas, either in the newspaper or in your displays. Why not decide right here to change your displays weekly, fifty-two weeks in the year.

Put these thoughts into action, as your profits for 1936 will not be increased by mere wishful thinking.

CUTTING CELLULOID MASKS

It is a rather tedious job cutting celluloid masks with a knife, because the blade has a tendency to slip out of line and often over-runs the corners. Here is a very simple way to carry out what is otherwise a rather difficult task.

First of all, prepare a simple cutting tool, which consists of a wood handle with a needle driven in the end with the point outwards. Then, having decided upon the size of the cut-out, run the point along a rule with an even pressure, as when using a glass-cutting diamond.

After scoring the four edges of the mask, bend the scoring with the finger and thumb, and you will find that the celluloid breaks, leaving a clear-cut mask.

Deardorff Commercial Studio
Camera, 11 x 14, and Stand



THE RESULT of years of study in practical use, this sturdy, all-purpose camera has all adjustments necessary for exacting commercial photography. Its versatility is apparent in the following specifications.

CAMERA FRONT—Double swing; universal shifting, with 7" square lensboard.

CAMERA BACK—Double swing; completely reversible, taking Eastman 11 x 14 film or plate holders.

BELLOWS—Of 75-inch draw, in large and roomy sections permitting the use of all swings even at full extension. Two sections are instantly removable for wide angle work.

CAMERA BED—Front and back extensions attached to bronze shoes slide smoothly on steel tracks in the camera bed and are clamped rigidly after focusing.

WOODWORK—Solid genuine mahogany, finished in water-proof wood lacquer.

OPERATION—Both front and back swings and focusing controlled from back of camera.

Deardorff Commercial Studio Camera \$385.00

| | |
|-------------------------------------|-------|
| 11 x 14 to 8 x 10 Reducing Back — — | 27.50 |
|-------------------------------------|-------|

| | | | | | | |
|---------------------|---|---|---|---|---|-------|
| 5 x 7 Reducing Back | - | - | - | - | - | 27.50 |
|---------------------|---|---|---|---|---|-------|

The Deardorff Commercial Studio Stand is ideal for angle shots, the camera table swinging all the way around at any height. Adjustments are easily accomplished at any position and firm locks provided.

Rigidly constructed and, with the exception of the camera table, entirely of metal, yet easily movable on its four ball bearing casters. Adjustable screws raise stand off casters and permit levelling on uneven floors.

Floor space occupied is 3 x 3½ feet. Available in three heights, including table and tripod screws.

[illegible]

Extended Payments if Desired or 10% Cash Discount

EASTMAN KODAK STORES

Valuable in Commercial Photography



COOKE ANASTIGMAT F.6.3, SERIES XIV

THE VALUE OF panchromatic materials to the commercial photographer is enhanced by this objective which has been designed especially for use with such materials.

Assisted by the fact that Super-sensitive Panchromatic emulsions do not require the large apertures generally associated with portrait lenses, it was possible to create the Series XIV, which is of the three-glass type and an intermediate between Portrait and Process Lenses.

It focuses all colors with critical sharpness and uniform size from infinity to an image one-fourth the size of the object—at this range the color corrections are maintained so as to give splendid results in color separation work. For close-up color separations, and copying, Cooke Process Lenses should, of course, be chosen.

The Series XIV is excellent for studio use, especially in group work and can be employed with all types of sensitive photographic material.

Price in barrel with Iris Diaphragm

| | | | | | | | | | | |
|------|---------|---|---|---|---|---|---|---|---|----------|
| 13" | 8 x 10 | — | — | — | — | — | — | — | — | \$126.00 |
| 16½" | 11 x 14 | — | — | — | — | — | — | — | — | 155.50 |
| 21" | 14 x 18 | — | — | — | — | — | — | — | — | 222.00 |

Let us send you one of these lenses on ten days' trial

EASTMAN KODAK STORES

DETAIL IN BLACK AND BLUE

Are you a "one-film man" or will you take advantage of the special emulsions available to the photographic profession for specific purposes?

THE man who boasts of using one kind of material for all of his photography is either working in a rather narrow or highly specialized line, or is straining the capabilities of one material in an attempt to make it do things for which it was not intended.

Obviously, the manufacturer would not make a great variety of materials having distinct characteristics were it not for the fact that each one has a special use, and for that particular use produces the best possible results.

There are no finer negative-making materials than Eastman Super Sensitive and Portrait Panchromatic Films, yet there are some things they should not be expected to do. One sometimes hears the complaint that these materials do not give sufficient detail in blacks—that the bride photographs splendidly, but when the groom is included in the picture, detail is lacking in his black clothing.

The fact of the matter is that, in proportion to the warmer tones of flesh and light draperies, his black suit is underexposed. These panchromatic materials are extremely fast because they are extremely sensitive to red, orange, green, and yellow, and not so highly sensitive to blue as other films and plates.

Being so sensitive to these warmer colors they show their speed to best

advantage when artificial light is used, because such lights are usually warm in color. On the other hand, practically all of the light reflected from the man's black suit is blue. The big advantage of color sensitivity, therefore, combined with the proportionately reduced blue sensitivity, becomes a disadvantage if detail is desired in black clothing. For the same reason, if blue eyes should photograph light, the panchromatic films should not be used.

There is a means of overcoming the lack of detail in black clothing if a blue light can be used on the groom's figure. In a group this isn't so easy, but as we have mentioned, one material cannot solve every problem.

When you have mixed groups, or subjects with blue eyes, use a material which is highly blue sensitive, such as Eastman Portrait Film Super Speed. If daylight is used for wedding groups, you will find the Super Speed as fast as the Super Sensitive or Portrait Panchromatics. If artificial light is used, the Super Speed will require more exposure, but you will get the result you want.

While we are on this subject, we might as well cover a few more materials. If you do a considerable amount of commercial work, do you use the same materials as for portraiture? For some subjects, such materials

(Continued over the page)

DETAIL IN BLACK AND BLUE

(Continued from preceding page)

are quite satisfactory, but for others they are not.

Most commercial subjects require materials of greater contrast and some of much shorter scale. Commercial and Commercial Matte Films are excellent materials for commercial work, or Commercial Ortho when orthochromatic results are desired, and for maximum contrast, Process or Panchromatic Process. Another material that is excellent for many commercial subjects is Panatomic Film. It gives excellent brilliance, and may be developed to good contrast when contrast is desired, is completely color sensitive, and its fine grain permits one to make enlargements of almost any size.

Many subjects involving color

still require filters for color separation. Panchromatic films have been so increased in color sensitiveness that for correct color rendering filters are scarcely needed. When several colors are of approximately the same brightness, however, it is often necessary to show contrast between them rather than have them register in your negative in practically the same tones of gray. The filter you should use depends upon the colors you wish to register in lighter and darker tones.

Familiarize yourself with the good qualities of all materials, and the special classes of subjects for which they are best fitted. By so doing, you will improve the quality of all of your work.

A Spotlight for the Illustrative Photographer



THE PERKINS SEMI-AUTOMATIC ARC SPOTLIGHT ably supports the important role played by light in illustrative photography. It has the power needed for sharp shadow effects and for image projection on backgrounds, yet also permits more subdued lightings.

It is of the focusing type and arcing is accomplished by the same handle that focuses the spot. When carbons are inserted with the points meeting, the arc always maintains the center of the condensing lens.

Draws 15 amperes on 110-volt current, has clutch-type adjustable stand, and spot may be tilted on stand or from the base.

Price, with 20-foot Cord, 12 Carbons, 2 Diffusers and Diaphragm, \$60.00

Extended Payments if Desired or 10% Cash Discount

EASTMAN KODAK STORES

Tripods

CROWN TRIPOD

MADE IN 4 sections, of selected cherry; expansion brackets prevent sideplay. Extra tripod socket in top.



| Crown Tripods | Length Closed | Length Extended | Price |
|---------------|---------------|-----------------|---------|
| No. 1 | 16 1/4 in. | 4 1/2 ft. | \$10.00 |
| No. 2 | 17 1/4 in. | 4 3/4 ft. | 11.00 |
| No. 4 | 20 in. | 5 1/2 ft. | 13.50 |

PROFESSIONAL TRIPOD

SIMILAR to the Crown but in 3 sections. For 14 x 17 or smaller cameras. Closed, 24 1/2 in., extended, 5 ft. — \$22.00

FOLMER COMPACT STAND



A STRONG but light tripod; center post of brass tubing, legs are wood. Has tilting head and may be raised to 53" or lowered to 26 1/2" from floor.

Price, \$20.00

EASTKO TRIPOD

STRONG and rigid, yet moderately priced. Made of selected cherry, dark mahogany finish, legs in three sections. Tripod screw adjustable for deep or shallow sockets. Length closed, 21 1/2"; extended, 53"; head, 4 1/2".

Price, \$7.00



CROWN TILTING TRIPOD TOP

THE CAMERA attached by a tripod screw to the upper block may be tilted at any angle and locked. An especially useful device for photographing vertically.



Fits Crown Tripods of corresponding number.

| NO. 2 | NO. 4 | PROFESSIONAL |
|--------|--------|--------------|
| \$4.00 | \$4.50 | \$15.00 |

EASTMAN TRIPOD BRACE

CONSISTS OF three adjustable brass arms joined at the center. Clamps at the outer ends grasp the tripod legs and prevent collapse of the tripod when lifted for moving.

Price — — — — — \$1.50



EASTMAN KODAK STORES

Monthly Advertising Suggestion

While They Are Together . . .

Having the folks all home for the holidays offers an opportunity for a group photograph that you ought not miss.

Let us show you what a happy picture we can make for you.

THE HYLAND STUDIO

Century Imperial Studio Unit



THIS attractive and thoroughly modern studio outfit distinguishes the studio in which it is installed as a source of fine workmanship.

Ease of operation is assured by the fine mechanical appointments which include a greatly improved sliding ground glass carriage, through the use of which the making of portraits is accelerated and better expression assured.

The finish is ebony and cadmium plate.

Price, complete, including both 8x10
and 5 x 7 backs - - - - - \$485.00

MANUFACTURED BY FOLMER GRAFLEX CORPORATION, ROCHESTER, N. Y.

A New Century Studio Outfit for the New Year



THE No. 8A, for 11 x 14 negatives and smaller, is ideal for commercial studios. It has a large lens-board, 10 x 10 inches, and a 43-inch bellows draw. With the two extra backs, pictured, and dividers, it also takes pictures 8 x 10, 7 x 11, 5 x 8, 5 x 7, and 3½ x 5 inches.

Price complete — — — — — \$285.50

THE No. 10A Century Studio Outfit takes plates or films in sizes 8 x 10 and 5 x 7. With the use of diaphragm kits, negatives 5 x 8 and 3½ x 5 inches are also available.

It offers an all adaptable outfit, permitting use of the shortest focal length lens that will cover an 8 x 10 negative as well as long focus lenses; it has a 36-inch bellows and 9 x 9-inch lensboard.

With No. 2 Sliding Ground Glass Carriage — \$229.50

With No. 1 Carriage — — — — — 187.00



NOW SUPPLIED with 28-inch bellows draw, the 4A Century Studio Outfit is generally adaptable for studio work.

Has 8 x 10 and 5 x 7 backs and, with dividers, also takes pictures 5 x 8 and 3½ x 5 inches.

Price — — — — — \$156.00

EACH CENTURY STUDIO OUTFIT INCLUDES
A SLIDING GROUND GLASS CARRIAGE AND STAND

*Extended Payments if Desired or 10%
Cash Discount*



EASTMAN KODAK STORES

Lights for

THE CINÉ VENTLITE OUTFIT

ALTHOUGH intended originally for motion picture work, its power, compactness and lightness have made the Ciné Ventlite even more desirable for commercial photography.

The aluminum reflector is etched to a silvery whiteness, insuring maximum light reflection in diffused form. The wings shown in the illustration are adjustable and make for ready control of light.

Single Ciné Ventlite Outfit, including reflector, stand, cord and carrying case, but without lamp - - \$38.00

Double Ciné Outfit, including two reflectors, cords, stands and one carrying case but without lamps - 72.00



KOMPAKT VENTLITE

THE KOMPAKT VENTLITE contains a 45° reflector regularly taking all pear-shaped photographic Mazda Lamps from 500-watt to 2000-watt Movie-flood and is furnished with a 2½" Mogul-to Mogul socket extension which permits placing No. 4 Photoflood Lamps in the focal light center of the reflector.

The reflector, made of heavy gauge, pure aluminum, etched to a silvery whiteness for maximum diffused reflection, has a light opening 14" x 14" and a 20" x 20" diffusing screen can be attached to openings in the socket housing. A high capacity snap switch and attachment plug are set in the back of the reflector body and a ratchet-faced clamp for attaching the stand is fastened to the bottom.

THE SINGLE OUTFIT consists of: Kompakt Ventlite Reflector; Diffuser; 6½-foot, 4-section collapsible Tripod Stand; 20 feet of Cord; and black fibre Carrying Case. Price - - - - - \$46.50

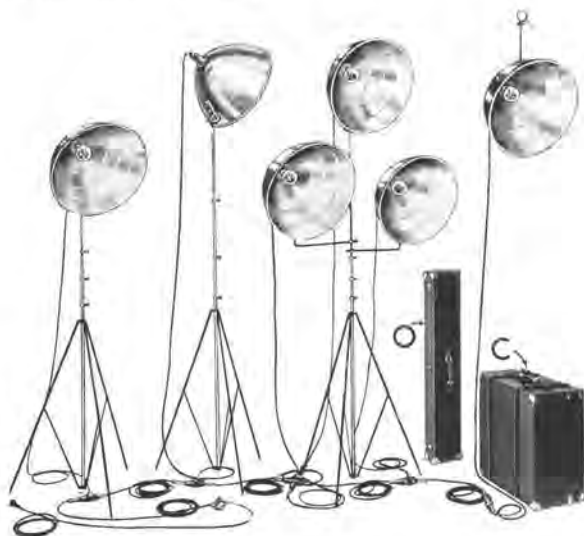
THE DOUBLE OUTFIT has two each Kompakt Ventlite Reflectors; Diffusers; 8-foot, 4-section collapsible Tripod Stands; Cords; one series Current Tap for 220-volt circuits and one fibre Carrying Case. Price - - - - - 88.00



Extended Payments if Desired or 10% Cash Discount

Commercial Work

VENTLITE
PRECISION
ANGLE
PHOTOFLASH
AND
PHOTOFLOOD
REFLECTORS



THESE REFLECTORS increase the light output of Photoflash and Photoflood Lamps many times, producing the intensity of light required for large groups and for banquet work.

They are available in two types—with Medium Sockets for No. 10 and No. 20 Photoflash and No. 1 Photoflood Lamps; with Mogul Sockets which are provided with Medium Socket Extensions so that they will take both No. 4 and No. 1 Photoflood Lamps and No. 75, 20 and 10 Photoflash Lamps.

Supplied in two diameters with four spreads of light as follows:

60° for wide angle, close-up work.

45° for general groups and banquets.

Parabola, Etched, for lighting distant spots.

Parabola, Polished, for extremely long shots and spotlight effects.

Prices, including friction adjustable bracket, for attaching to suspension hanger or collapsible stands, and 15 feet of rubber-covered cord:

| SIZE INCHES | ANGLE COVERED | | MEDIUM SOCKET | MOGUL SOCKET |
|--------------------------------|------------------|----------|------------------|-----------------|
| 9 x 20 | 60° | Etched | \$15.00 | \$19.50 |
| 10 x 20 | 45° | Etched | 15.00 | 19.50 |
| 8¾ x 20 | Parabola | Etched | 15.00 | 19.50 |
| 8¾ x 20 | Parabola | Polished | 16.50 | 21.00 |
| 6½ x 17 | 60° | Etched | 12.50 | 17.00 |
| 7 x 17 | 45° | Etched | 12.50 | 17.00 |
| 6½ x 17 | Parabola | Etched | 12.50 | 17.00 |
| 6½ x 17 | Parabola | Polished | 13.75 | 18.25 |
| Suspension Hanger | | | | 1.75 |
| 12-foot Kompakt Ventlite Stand | | | | 11.50 |

Extended Payments if Desired or 10% Cash Discount

EASTMAN KODAK STORES



NEGATIVE ON
EASTMAN PORTRAIT FILM

WHAT OCCURS DURING DEVELOPMENT

AFTER exposure of the film in the camera, the invisible, or "latent" image so produced must be treated with a solution known as a developer in order to make the image visible. Development consists, therefore, in converting the silver salts, which have been affected by light to metallic silver, which forms the visible image. The remaining silver salts which have not been affected by light are removed following the development process by treatment with a solution which dissolves them but does not affect the silver image. This process is called fixation. These are the two fundamental processes in all photographic work.

If we look at the silver bromide film through a very high power microscope, we shall find that the silver bromide is distributed throughout it in the form of tiny crystals. These crystals are in the form of flat triangular, or hexagonal, plates, and careful investigation has shown that they belong to the regular system of crystals. When these crystals are exposed to light, no visible change takes place, but there must be some change because when a crystal of silver bromide, which has been exposed to light, is put into a developer, the developer takes the bromine away from the silver and leaves, instead of the crystal, what looks under a microscope like a tiny mass of coke, which is, really, the metallic silver freed from the presence of bromine.

It may seem strange that silver, which we always think of as a bright, shiny metal, should look black, but when it is divided up in this irregular way, it looks black, although it is the same thing as the shiny metal we are familiar with, just as a black lump of coke is the same thing as the bright gleaming diamond.

If the silver bromide has not been exposed to light, then the developer has no power to take away the bromine from the silver and leave the black silver behind, so that we see a developer is a chemical that has the power to take away the bromine from the silver in a grain of silver bromide which has been exposed to light, but will not affect one which has not been exposed to light.

Wherever, then, the light in the camera has acted upon the silver bromide crystals in the emulsion, the developer turns them into black grains of silver, and we get an image, and where the light has not acted, the developer has no action and no image is produced. The chemical part played by a developer, therefore, is the freeing of the metallic silver from the bromine associated with it.

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Velox Paper, improved in quality and with added contrasts, now sells at the same prices as single weight Azo. It is supplied in six degrees of contrast from No.'s 0 to 5, and in two grades, glossy and velvet.

RETOUCHING SOME OLD ONES

A kind-hearted English vicar one day observed an old woman laboriously pushing a perambulator up a steep hill. He volunteered his assistance, and when they reached the top of the hill said, in answer to her thanks:

"Oh, it's nothing at all. I'm delighted to do it. But as a little reward, may I kiss the baby?"

"Baby, Lor' bless you, sir," she returned, "it ain't no baby, it's the old man's beer."

Junior (doing his home-work)—"Daddy, what is dew?"

Dad—"The rent, the note at the bank, and the installment on the car."

Lady—"So you are on a submarine. What do you do?"

Sailor—"I run forward and hold her nose when we want to take a dive."

Abe was at a dance and lost a wallet containing \$700. He got up on a chair and announced—"Gentlemen, I lost my pocketbook with 700 dollars in it. To the man who finds it, I will give 50 dollars."

Voice from the rear—"I'll give 75."

"Some of you pedestrians walk as if you owned the streets."

"Yes, and some of you motorists drive around just as if you owned your cars."

The squad of recruits had been out to rifle range for their first try at marksmanship. They knelt at 250 yards and fired. Not a hit. They moved up to 200 yards. Not a hit. They tried at 100 yards. Not a hit.

"Tenshun!" the sergeant bawled. "Fix bayonets! Charge! It's your only chance."

Luzerne Hard Rubber Developing and Fixing Tank



Price, Complete with Cover,
\$11.00

THIS TANK, with its light-tight cover and offset ledge for holding developing hangers, is a worthwhile investment for every studio.

Note the strongly reinforced construction. It is made of acid-resistant, brown, hard rubber, the inside of both tank and cover having a smooth finish making it easy to keep clean.

The tank holds twenty 5 x 7 or twelve 8 x 10 film hangers or core plate racks.

EASTMAN KODAK STORES

Useful "Gadgets"



MAJESTIC TRIPOD TOP

AN ALUMINUM DEVICE taking 8 x 10 and smaller cameras which can be affixed temporarily or permanently to your tripod. Tilttable to any angle within 180°, it simplifies angle shots in illustrative photography. Both disks can be panoramed which, combined with accurate machining of parts, permits matching negatives exactly for panoramic views.

Each disk is fitted with a level and a scale for measuring angles.

| | |
|---|---------|
| 5-inch Majestic Tripod Top - - - - - | \$20.00 |
| 3-inch Model for Hand Cameras (has one level only) - - - - - | 15.00 |
| 7 7/8-inch Aluminum Auxiliary Bed for use with 8 x 10 View Cameras fully extended - - - - - | 4.00 |

WESTON EXPOSURE METER, Model 650

A TIME AND MATERIAL SAVER because it eliminates guesswork in exposures, this meter of the photoelectric cell type which requires no battery, is so sensitive that it can be operated equally as well by artificial light as by daylight, with any film or plate.



It is always ready and is simple to use. A sight reading, and one dial to manipulate and you have your exposure. Conveniently shaped, black, molded case slips easily into the pocket.

| | |
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| Price - - - - - | \$22.50 |
|-----------------|---------|

KODAK POCKET RANGE FINDER



GIVES ACCURATE FOCUS without referring to the ground glass. An exclusive feature of this Finder is a translucent scale, visible through the eyepiece, on which the correct distance is read directly while viewing the subject. Is of the split image type. Furnished with pocket clip, it is carried as easily as a pen or pencil.

| | |
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| Price - - - - - | \$7.00 |
|-----------------|--------|

ANGELUS LENSBOARD COUPLER

WITH THIS DEVICE, lens and front board can be changed without disturbing the shutter or tubing.

Two flanges fit snugly on each side of the front board, as shown in illustration, making the coupler absolutely light-proof.



| | |
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| Price - - - - - | \$5.00 |
|-----------------|--------|

EASTMAN KODAK STORES

8x10 • *Eastman Enlargers* • 5x7

EASTMAN PROJECTION PRINTER, No. 2



THE EASTMAN Projection Printer No. 2 accommodates 8x10 or smaller negatives and projects an image that is always in focus. It is only necessary to raise or lower the camera to change the image size. Enlargements up to 40 x 50 inches can be made from 8 x 10 negatives.

With its 1,000-watt lamp, the printer is adapted to all types of modern enlarging papers such as Vitava Opal.

Price, with f.4.5 Kodak Anastigmat lens, 3 diffusion discs, paper holder, and 1,000-watt lamp - - - \$675.00

Reducing Attachment, reduces 8 x 10 negatives down to $2\frac{1}{4} \times 2\frac{3}{4}$ - 67.50

EASTMAN AUTO-FOCUS ENLARGER, MODEL B



PROFESSIONAL prints of contact quality can easily be made in a variety of sizes with this Enlarger at practically contact speed, for a larger reflector and 400-watt Mazda Lamp have given this enlarger great speed.

The Enlarger is always in focus and enlarges negatives 5 x 7 inches and smaller from $1\frac{1}{2}$ to 4 diameters. With the reducing attachment in place, as illustrated, prints as small as $1\frac{3}{4} \times 2\frac{1}{2}$ inches can be made.

Price, with f.4.5 lens and paper holder - \$200.00
Reducing Attachment (extra) - - - 30.00

*Extended Payments if Desired
or 10% Cash Discount*

EASTMAN KODAK STORES

12x15 • Professional Printers • 14x17

THE EASTMAN PROFESSIONAL MODEL 2, 12x15

RUBBER STUDDER platens, transparent for "working up," give faultless contact. Reflected light from a single, concentrated source, a distinctive feature, also adds image sharpness and gives greater printing speed.

For papers of varying speed, 1,000, 500, 250 watts or less of Mazda light are instantly available, and full intensity is secured at once.

Other features include a mercury tube switch, convenient dodging and diffusing facilities and all-metal construction.

Price, \$200.00



McINTIRE NEW IMPROVED SEMI-AUTOMATIC PRINTER, 14x17

PERFECT CONTACT is assured in this printer by its flexible steel, wool-felt lined platen.

A timing device with hydraulic oil chamber permits making duplicate prints without time variation. Timer releases platen which raises automatically after exposure.

Has six lamp sockets, movable to any position, making it easy to vignette or dodge. Sliding carrier for close vignetting is located under the plate glass. Pilot light burns continuously.

Framework is of steel, the top of oak. Requires 24" x 27" floor space, and overall height is 44½".

Price - - - - - \$250.00



Extended Payments if Desired or 10% Cash Discount

EASTMAN KODAK STORES

FIXING AND WASHING RULES

WHEN a photographer seems pleased to have you visit his workrooms, you can be quite sure he is a thorough workman. The writer encountered such a photographer recently, and his first impression of cleanliness and care came with the examination of some prints in the hypo.

A cupboard was opened, and a clean hand towel produced from a stack of several dozen. Afterwards, it wasn't a surprise to see a workman take several prints from a wash tray and let them drain into a graduate of hypo test solution. It was plain to see this man was a thorough workman, and proud of it.

Two things are very important to the permanence of photographs—fixing and washing. You can't see when a print is properly fixed, so you should be all the more careful. Follow this rule. Keep a record of the number of prints fixed in a bath so you will know when it is exhausted. If the rinse bath, SB-1, is used, one gallon of F-1 Fixing Bath will fix approximately 400, 4 x 6, or 120, 8 x 10 prints, or their equivalent in other sizes. If only a water rinse is used, a gallon of fixing bath will safely fix only one-half the above number of prints. Adhere to this rule: keep prints separated while fixing, have the bath as near 70° F. as possible, and fix 15 minutes.

Washing is equally important. Fixing should take everything out of the print but the image. Unfortunately, however, it leaves a gelatine emulsion and the paper stock satu-

rated with the fixing chemicals, and these must be thoroughly removed to insure image permanence.

Washing must be thorough. As fixing chemicals are washed out, there must be a complete change from this chemically laden water to fresh water, again and again. If you think water running into a tray will make such a change in a few minutes, just color a tray of water with Hypo Test Solution and see how long it takes to thoroughly remove all of the color. You will be convinced that washing for an hour in running water is none too much. You will also find it an advantage to completely empty the tray at intervals.

Then, to make sure the prints you are going to send out to your customers contain no trace of fixing chemicals, check the thoroughness of washing by using the Hypo Test Formula, HT-1a. It takes but a few minutes, and assures you prints of permanence.

In certain localities where there is excessive humidity and sulphur and carbon dioxide in the air, prints may discolor, even though in perfect condition when they leave your studio. This can not very well be prevented unless prints are given a sepia tone. When this is done, they are no longer subject to so-called fading, which, in reality, is merely a change in the nature of the silver image which is practically the same as sepia toning.

Use care in all processing, but be especially careful in fixing and washing, and so maintain your reputation as a careful workman.

Trays and Tanks

MAJESTIC ENAMELED TRAYS

THESE POPULAR TRAYS are made of first quality enameled steel, acid- and chemical-proof.

Chipped and otherwise damaged trays impair the efficiency of your developing solutions. Replace your worn-out trays at these low prices.



| | | |
|--------------------|---------------------|----------------------|
| 4 x 6 - - - \$.39 | 8 x 10 - - - \$.69 | 16 x 20 - - - \$3.25 |
| 5 x 7 - - - .48 | 10 x 12 - - - .95 | 20 x 24 - - - 5.95 |
| 7 x 9 - - - .55 | 11 x 14 - - - 1.19 | 23 x 28 - - - 6.95 |

EASTMAN STANDARD HARD RUBBER TRAYS

MADE of first-quality hard rubber. Extra heavy, with reinforced corners and edges, for hard usage.



| | | |
|--------------------|---------------------|-----------------------|
| 4 x 5 - - - \$1.10 | 8 x 10 - - - \$2.50 | 18 x 22 - - - \$11.25 |
| 5 x 7 - - - 1.30 | 10 x 12 - - - 3.50 | 19 x 23 - - - 13.50 |
| 5 x 8 - - - 1.55 | 12 x 16 - - - 5.75 | 21 x 26 - - - 17.00 |
| 6½ x 8½ - - - 2.00 | 15 x 19 - - - 9.50 | |

COLUMBIA COMMERCIAL OUTFIT

A COMPLETE and yet very compact piece of developing equipment made of enameled steel which accommodates 5 x 7 and 8 x 10 hangers.

It consists of two tanks in a water jacket with middle space for washing, thus combining developing, washing and fixing in one unit.



Intake and overflow nipples in the water jacket permit free circulation of the water, thus assuring even temperature for solutions.

Size of tanks—7½ x 10½ x 10½ inches; water jacket—28½ x 12½ x 11¼ inches.

With two White Lined Tanks in Water Jacket with Cover - - - - \$49.50*

**Extended Payments if Desired or 10% Cash Discount*

EASTMAN KODAK STORES



THE CRESTON

HERE is an interesting easel!

The design in silver and grey on the new Plastic stocks gives this mounter a modern appearance.

Available in all standard sizes—3 x 4 to 8 x 10 upright and in two horizontal sizes, 8½ x 6½ and 10 x 8. Color—Greystone only.

We suggest that you become acquainted with this style. The stockhouse salesman can show you samples in all sizes—or send us 7 cents in stamps and we will send a 4 x 6 size, postpaid.

WRITE FOR
SAMPLE OFFER G-2

The CRESTON gives you an opportunity to add newness to your display... attracts attention.

TAPRELL, LOOMIS & COMPANY
(EASTMAN KODAK COMPANY) CHICAGO, ILLINOIS

CLEAN UP THAT DARKROOM

*An unappealing suggestion yet not such a difficult task
when once started and results are agreeably surprising*

HOW many photographers dare show their customers over their darkrooms? By darkrooms, of course, we mean both those for printing and enlarging, as well as those for film developing.

Though the reception room, workroom, and studio may be irreproachably clean and efficient, the darkrooms will, in nine cases out of ten, present a very dismal picture.

Why is this? Rooms in which such long hours are spent should be the embodiment of cleanliness and comfort. Yet, except in a few establishments, little or no thought is given to these all-important departments.

In days of rush business, one may say the average assistant has little time to spend on making his darkroom look like a model kitchen. The fact remains, nevertheless, that there never was, and never will be, an excuse for uncleanness.

The accumulation of corroded chemicals on benches, and tables, and the presence of dust on shelves, even though not in use, is but the result of laziness. In no other business, where cleanliness is the prime requisite, would such conditions be tolerated; and yet, many photographers accept them without protest.

The writer's first duty as an apprentice was to clean and dust the darkroom; and the association of this task with the mysteries of photography was explained by the fact that,

in order to become a successful photographer, one had first of all to cultivate, firmly and permanently, the habit of cleanliness.

It is surprising what a small amount of effort is required to make the darkroom pleasant to work in. Thoroughly clean all the corners and shelves, and throw out all the rubbish. You will be surprised at the amount of rubbish there is.

Clean all of the walls and ceiling, then get a can of white paint, or enamel, and paint down to the level of the sink and benches. Panchromatic Green may be used for walls, especially if you are using panchromatic materials and green safelights. For the remainder of walls and benches, Kodacoat Paint is the ideal material. If benches, shelves, and sink are painted with Kodacoat, a white edge-stripe is desirable.

Renovate any untidy looking safe-light lamps, and give them a coat of paint or replace them. Make the floor easy to clean by renewing worn linoleum, or, if it is of plain wood, apply some durable floor paint.

The painting of the ceiling with white paint and the walls with white or light green will make the room exceedingly bright and clean looking, and the added amount of light will enable you to see every detail. This may alarm some people who still cling to the idea that a darkroom must be dark in every sense.

(Continued over the page)

CLEAN UP THAT DARKROOM

(Continued from preceding page)

If *safe* safelights, such as those of the Wratten series, are used as recommended in Wratten or Eastman Lamps, with light bulbs of correct wattage, full advantage of the reflecting surfaces of light painted walls can be obtained with perfect safety.

In addition to creating bright and cheerful workrooms, this renovation will have the added advantage of making cleaning easy. A cloth with which to wipe down all working surfaces at the end of each day is practically all that is needed.

There should be a thorough cleaning every week-end, but it is surprising how little time this requires. Do not forget to empty all developing trays and exhausted hypo baths at the same time. By doing this you will eliminate all those disagreeable odors so prevalent in the darkroom, and

which give one such an unpleasant greeting on Monday morning.

Keep all your chemicals in a cupboard in a separate room, and paint the cupboard if it needs it. Mix chemicals where you store them—not in your darkroom—and be sure your scales are cleaned before and after use.

Remember that, roughly, one-third of some workman's time is spent in your darkrooms, and this time can be made much more agreeable with the help of a little "elbow grease," soap, water, and paint. Your work will be lighter, and your output greater and of better quality. Look around for yourself and see how small will be the trouble of keeping things clean. Let that rather gloomy word "darkroom" have a brighter meaning for you and your employees.

Sturgis Posing Chair



Price, \$14.50

AN EFFICIENT, yet very comfortable chair, in which the sitter can assume an easy and relaxed position.

It is constructed of tubular steel, finished in walnut, and both seat and back are upholstered in brown, durable, artificial leather.

Outstanding features are:

1. Quickly adjustable back to fit any size individual.
2. Seat height adjustable 4 inches.
3. Revolving, nickel-plated steel gliders.
4. Oval-shaped, formed seat does not interfere with natural draping of clothing.
5. No part of the back shows, even when a side portrait is taken.

Cash Discount, 10%

EASTMAN KODAK STORES

Color Values Corrected...Controlled

COLOR FILTERS are essential either for reproducing colors in their correct values in the photograph or for raising or lowering these values to create contrast between colors which photograph in the same tone. The following Wratten filters are most essential for commercial work with panchromatic materials.



K1, pale yellow, for slight correction or for short exposures

K2, a stronger yellow, for full correction with:

Daylight or White Flame Arcs } and { Eastman Portrait Panchromatic Film
Wratten Panchromatic Plates

X1, pale green, recommended for use with:

Mazda Light and { Eastman Portrait Panchromatic Film
Wratten Panchromatic Plates

Daylight or White Flame Arcs } and { Eastman Super-sensitive Panchromatic Film
Wratten Hyper-sensitive Panchromatic Plates

X2, a deeper green for use with:

Mazda Light and { Eastman Super-sensitive Panchromatic Film
Wratten Hyper-sensitive Panchromatic Plates

G, strong yellow, for photographing dark yellow woods, badly stained prints or eliminating haze in distant landscapes

F, deep red, for photographing dark mahogany, blue-prints

A, light red, for photographing mahogany, rosewood

B, green, for photographing typewriting, figured rugs, carpets

PRICES Any of above in "B" glass, 2 inches square - - - - - \$2.10
Any of above in "B" glass, 3 inches square - - - - - 3.75
2-inch filter holder for lenses $1\frac{1}{8}$ inches to $1\frac{9}{16}$ inches diameter - - - 1.25
3-inch filter holder for lenses $1\frac{1}{16}$ inches to $2\frac{3}{8}$ inches diameter - - - 1.50

*A Complete Price List of Wratten Filters Will Be
Sent on Request*

EASTMAN KODAK STORES

STOCK SOLUTIONS

A STOCK solution is a concentrated solution to which water is added before use.

The limiting strength of solution which it is possible to make in any particular case depends on the solubility of the chemical, and as the solubility diminishes with temperature a solution should not be made stronger than a saturated solution at

40° F., otherwise, in cold weather, the substance would crystallize out.

A stock solution of sodium sulphite should be made as strong as possible (20% of the desiccated salt) because at such a strength the solution oxidizes very slowly and will keep, whereas in weaker solution, it combines with the oxygen in the air very readily and is then useless as a preservative.

HYDROMETERS

MANY photographers are accustomed to making up their stock solutions of hypo, carbonate, sulphite, etc., by means of the hydrometer. This method has the advantage that in case the hypo, say, has become moist and contains an unknown amount of water, a definite reading on the hydrometer will give a solution of the same strength as if perfectly dry chemicals had been used. When a stock solution is made from moist chemicals by weighing, the error caused by the presence of water may be as high as 25% or 50%.

The hydrometer method has the

disadvantages that the adjustment of a solution to the required strength takes considerable time, it does not convey any idea as to the percentage strength of the solution, and varies with the temperature. For instance, if a stock solution is made with hot water and this registers, say, 45 on the hydrometer, on cooling, the liquid may register 48 or 50. It is therefore absolutely necessary either to make all readings when the solutions have cooled to room temperature, or to prepare a table giving the variation of density of each solution with temperature.

ROCHESTER EXHIBIT

THE third annual exhibition of professional photography, sponsored by the Department of Photographic Technology and the School of Applied Art of the Rochester Athenaeum and Mechanics Institute, Rochester, New York, will be held from March 1 to 15, 1936, in

Bevier Exhibition Hall. Entry forms may be obtained from the Secretary, Photographic Exhibit, at the above address. As was the case last year, entries will be accepted only from those professionally engaged in photography, and the latest date for their receipt is February 15, 1936.



NEGATIVE ON
EASTMAN PORTRAIT FILM



This attractive display free with every Assortment

Cash in on

CHRISTMAS GIFT BUYING

**Direct Camera Profits plus
New Finishing Business**

EASTMAN'S new No. 428 Brownie Camera Christmas Assortment ties in with Eastman's big national advertising drive to sell gift cameras to Christmas shoppers—to create new finishing customers—to bring you extra profits. Push this fine Assortment. Order now from your regular source of Eastman supplies.

NO. 428 BROWNIE CAMERA CHRISTMAS ASSORTMENT

| | |
|----------------------------------|---------|
| 6 Baby Brownies @ \$1..... | \$ 6.00 |
| 1 Six-20 Brownie..... | 3.00 |
| 1 Six-16 Brownie..... | 3.75 |
| 1 Six-20 Brownie Junior..... | 2.25 |
| 1 Six-16 Brownie Junior..... | 2.75 |
| Retail Value..... | \$17.75 |
| Suggested price to retailer..... | 12.43 |

Includes Santa display, two window streamers, holiday wrappers for the four large cameras, and folders

EASTMAN KODAK COMPANY, Rochester, N. Y.



CHEMICALS THAT FIT

EASTMAN Tested Chemicals, made specially for photographic use, are refined to uniform standards of strength, permitting formulas devised in the manufacturer's laboratory to be exactly duplicated in the photographer's workroom.



By using Eastman Tested Chemicals you can obtain results identical with Eastman standards of quality for films, plates, and papers. Eastman Kodak Company, Rochester, N. Y.

Specify

EASTMAN TESTED CHEMICALS



USE PANATOMIC **FOR ENLARGING**

ITS grain is so fine that there's scarcely any limit to the enlargements you can make from all or any part of a negative made on Panatomic Film. Press, sports, and commercial photographers were quick to grasp this advantage. Try Panatomic yourself, especially for enlarging.

Panatomic has speed, complete color sensitivity, and the negatives develop rapidly with great brilliance. Eastman Safety Panatomic Film is supplied in all standard cut film sizes. Eastman Kodak Company, Rochester, N. Y.

EASTMAN **SAFETY PANATOMIC FILM**



Inspiration for Extra Sales

SKILLED photographers prefer Vitava Opal because, in addition to its pleasing tone and texture, it correctly reproduces the gradation and depth of the most brilliant lighting—makes prints that tell the whole story of quality—that offer the inspiration for extra sales. There are fourteen beautiful Opal grades to choose from. Eastman Kodak Company, Rochester, N. Y.

VITAVA PAPERS

FOR CONTACT PRINTS AND ENLARGEMENTS



SPEED That Prevents Waste —MAKES SALES

COST of material is governed, not by the number of negatives you make, but by the number you waste. Eliminate the failures caused by subject movement or frozen expression. With the extremely fast Eastman Super Sensitive or Portrait Panchromatic Films, and the short exposures they make possible, waste is practically eliminated and retouching is reduced to a minimum. The resulting pictures have finer quality, are more pleasing, and they sell. Eastman Kodak Company, Rochester, N. Y.

EASTMAN

SUPER SENSITIVE AND PORTRAIT PANCHROMATIC FILMS