THE ANSCO *Memo* CAMERA

50 pictures at one loading

ANSCO EST. 1842

Exact Size.

See page 8.

A Different Kind of Camera

NOT all stores handling cameras have the Memo camera in stock. Practically any store carrying photo supplies can, however, obtain the Memo camera for you promptly.

Those living at points remote from a dealer or who have difficulty in getting local attention to their wants, can be assured of service direct.

The retail price of the regular nationally-advertised Memo camera is $20. This is a fixed-focus model with F 6.3 anastigmat, the use of which this booklet explains. In addition, the following are supplied, at prices indicated:

Memo camera with Bausch & Lomb special anastigmat F 6.3, focusing type (near point 3 ft.), $30.

Memo camera with Bausch & Lomb special anastigmat, speed F 3.5, focusing type (near point 3 ft.), $40.

Memo camera with Wollensak Velostigmat, speed F 3.5, focusing type (near point 3 ft.), $35.00.

Soft grey suede carrying case included in all above prices. An extra black sole-leather case with handle, back being slotted for use on belt, holster-fashion — especially desirable on hunting and fishing trips, etc.— is supplied at $3.00.

The Ansco Memo Camera

The All-Purpose Still-Cine Camera

A Book of Explanation and Instructions

Agfa Ansco Corporation
Binghamton, N. Y.

PRINTED IN U. S. A.

THE ANSCO MEMO CAMERA

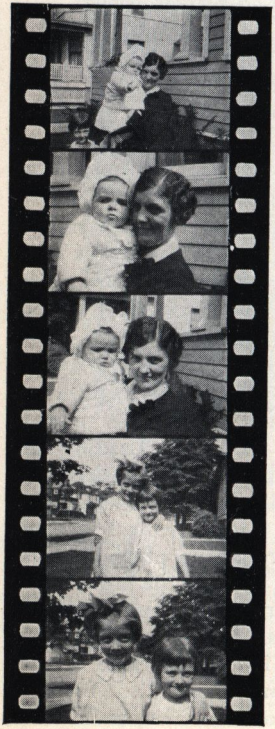
Regular Fixed-Focus Model

Has a capacity of 50 pictures at one loading, but weighs only 12 ounces including film, and body measures only a shade over 2 by 2½ by 4 inches. F 6.3 lens, equivalent focus 1 5/16 in., fixed focus, with full range of shutter speeds and stops; automatic dial which counts exposures as made; direct-vision spyglass finder; easy daylight loading; rapid winding by means of lever on back. Film is 35 Mm. Agfa negative Cine, extra-fast, specially cartridged for this camera.

Fifty Pictures with One Fifty-cent Roll of Film

THE Ansco Memo Camera is more than a different camera; it is a New Idea in picture-taking. This remarkable little outfit which loads conveniently in daylight and takes fifty pictures with a fifty-cent roll of film, not only supplements the scope of other cameras with astonishing efficiency, but opens up new photographic possibilities which are of absorbing interest.

In the actual use of the camera there is nothing new to learn, except a remarkable simplification of the practice with other hand cameras. Loading and unloading are simpler and easier than with regular roll film and winding is done by pressing a lever instead of turning a key. There are no peephole numbers to watch, a dial on the front automatically registering the number of the exposure as the shutter is released. Setting the shutter is just the same as with other hand cameras and no focusing whatever is required. Nor could anything be quicker for arranging the view than the direct-vision spyglass finder,



The Memo Camera is well suited to making pictures of children. This strip print shows exact size as taken by camera.

See page 8 for second picture from bottom in larger size.

which enables one to see the subject right-side up from eye level up to the instant of exposure.

Every amateur photographer wishing to make his hobby serve him to the fullest extent should have a Memo Camera.

The Ansco Memo Camera is the simplest, surest and most quickly operated miniature camera ever offered, and in addition to this the film and the individual negatives it makes are of standard size. For the cartridges are loaded with Agfa motion-picture negative film of the finest quality, and each individual negative is the size of a standard 35 mm. motion-picture "frame."

Developing the negative presents no problem, as the strip is about the same length as a six-exposure film for a post-card camera and may be handled in any finisher's tanks or may be developed at home in a tray like any other roll of film. The negative may then be printed in any of three ways:

(1) The negative strip may be printed in sections on Noko paper, the prints thus obtained, in strip form or cut apart if pre-

The Three Musketeers—original size on page 2.

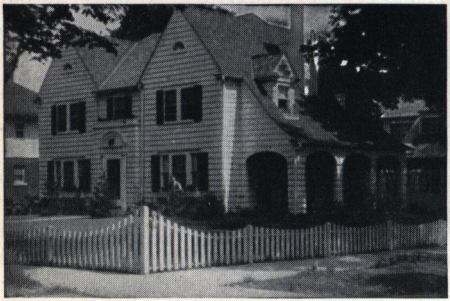
Reproduced from $2\frac{1}{4}$ x $3\frac{1}{4}$ enlargement made with Memo Enlarging Printer shown on page 44. Original size on page 6.

ferred, being mounted in a small album or notebook,—making a delightful little book of pictorial memoranda.

(2) The negatives may be printed by enlargement to 2¼ x 3¼ or 3¼ x 4¼ size, using the Memo Film Enlarger, as explained on page 44. This method is both rapid and convenient. Memo Enlarger prints require on Noko paper an exposure of only from 5 to 20 seconds, and as the paper is the same as used for contact printing with larger negatives, manipulation is standard and the quality is the same as with contact prints.

(3) Most popular of all, the negative strips may be printed on positive motion-picture film, for projection on the screen by means of any standard still-film projector. This gives one the equivalent of a regular stereopticon, with a roll of film in place of a box of slides. See pages 36-42.

Memo Film comes in the familiar Agfa Carton—50 exposures for 50 cents.



Records of houses are easily and quickly made with the Memo Camera.

Take several and enlarge the best. The Memo Camera saves a lot in pictorial work. This is one of three or four river views snapped at the same time with the Memo Camera.

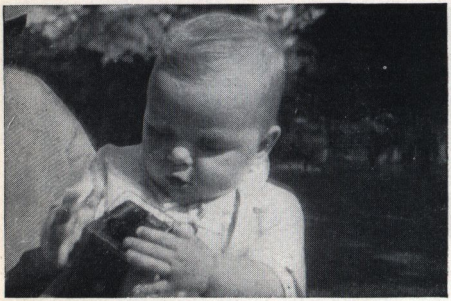
How to Load and Operate the Ansco Memo Camera

BEFORE loading the Memo Camera and starting to take pictures, familiarize yourself thoroughly with the camera and how it works. The easiest way to do this is to read the following explanations with the camera in front of you, so that you can check each point as mentioned.

After having read the instructions you can then go back and begin with the operation of actually loading the camera.

Memo Camera Film

THE Memo Camera uses a special film cartridge made only by Agfa Ansco. This cartridge contains a strip of Agfa negative motion-picture film of the finest quality and of sufficient length for 50 exposures. It comes sealed and foil-wrapped in the well-known Agfa carton, and is clearly marked as Memo Film for use with Memo cameras. See illustration on page 9.

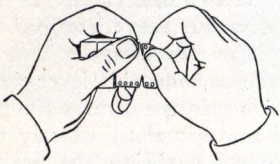


Contrasts in subject which illustrate the range of the Memo Camera. Above, a close-up of the baby obtained by using a small stop in bright sunshine. Below, a bit of road on a Sunday drive.

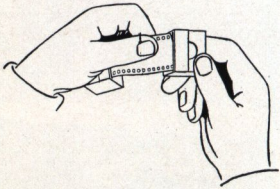
This film is used in much the same way as regular roll film, but instead of being spooled around a core, with protective paper serving as a leader in loading, it comes coiled inside a wooden cartridge and feeds across the back of the camera into a similar cartridge in the lower film chamber, as described below. Winding is by means of the lever on the back of the camera, this lever actuating claws which grip the film at the perforations and move it along exactly the distance required to bring the next unexposed section into place. The small dial on the front of the camera keeps track of the number of exposures made, this dial counter being hooked up with the shutter.

How to Load the Camera with Memo Film

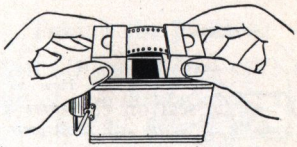
1. Break the seal on the sticker at the dotted line and tear away the paper.



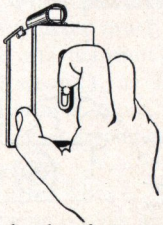
2. Pull out the end of the film and tear off the tongue as shown in the illustration above.



3. Push the end of film into the empty cartridge which will be found in the chamber farthest from the handle.

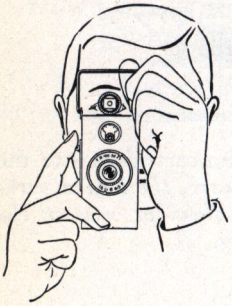


4. Put the two film cartridges into the camera, as shown above, *the loaded cartridge being in the chamber nearest the handle and the finder.*



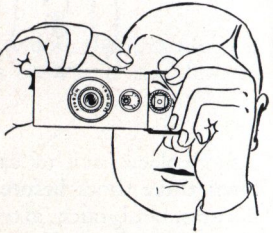
5. Replace back of camera, push lever down three times before starting to take pictures, and once after each exposure. The reason for pushing the lever down three times before starting is to move along the end of the film which has been exposed in loading, and to bring fresh unexposed film into the focal plane.

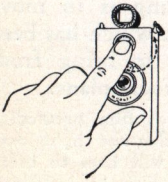
NOTE—Always leave end of film protruding from exposed cartridge. Otherwise light may streak into slot and finisher will have to break open cartridge to remove the film.



How to hold the camera for taking pictures the regular way. Be careful that the finger does not come in front of lens.

How to hold the camera for vertical views — tall buildings, etc. See page 21.





To re-set counter, press milled edge with finger and turn in direction of arrow back to 50, which is also 0.

Taking the Pictures

DETAILED instructions as to the setting of the shutter, etc., are given farther on, but in general the operation is as follows: Hold the camera as shown in the illustration on Page 16, with finder as close to the eye as is practical, and take the picture when ready by pressing down on the shutter release with the right forefinger. When pictures are taken in this way the shutter must, of course, be set for one of the snapshot speeds (1/25, 1/50, 1/100 second), as Time exposures and Bulb exposures must be made with the camera on a tripod or other rigid support.

As the shutter clicks, the number on the dial in front moves along one point, and if the dial has been set at 50 to start, it will also read 50 when the roll is completely exposed. This of course assumes that after each exposure the lever on the back of the camera has been pushed down all the way to move the next section of film into place.

To re-set the dial or counter at any time is very simple. Simply place forefinger on the milled edge as shown in the illustration at bottom of page 16 and

turn by rotary motion of the finger until the counter registers where you want it to, which at the beginning of a roll will be 50, as 50 also indicates zero.

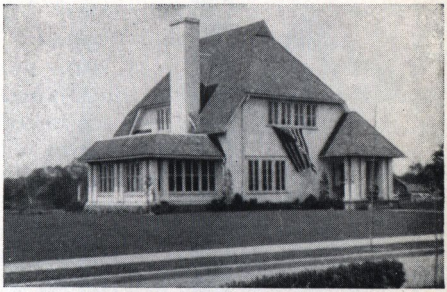
Removing the Exposed Cartridge

WHEN all 50 exposures have been made, push the lever on the back two or three times, so as to move all exposed film along into the receiving cartridge. Then remove the back and lift out the exposed cartridge from the lower chamber.

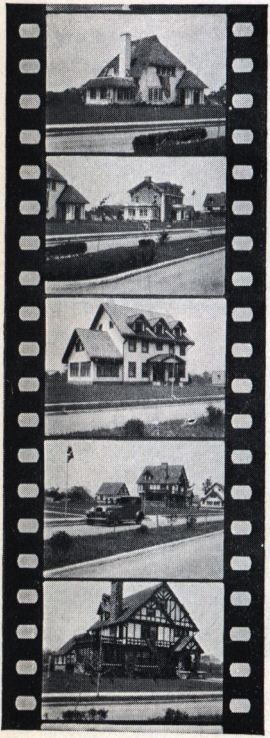
Wrap the cartridge in tinfoil, put it back in the original carton for further protection, and deliver it in this way to the finisher for developing. *Always be careful in handling Memo film cartridges not to expose them unnecessarily to light, and in loading and unloading select subdued light if possible.*

The empty cartridge may now be transferred to the lower chamber, and the camera reloaded as above explained.

NOTE.—Used Memo cartridges are designed for reloading once only, as above. This is because of the delicacy of the spring tension, which gradually changes with use. Used spools may, however, be utilized for completing exposure on short lengths after a cut-off as explained on page 21.



These are enlargements of the two upper pictures on the next page. In clear summer sunshine, open subjects like this, with no heavy dark masses in the foreground, call for a shutter setting of 1/25 second and stop F 16, or 1/50 second and stop F 16.



Real estate men find the Memo Camera a big asset in keeping a record of properties.

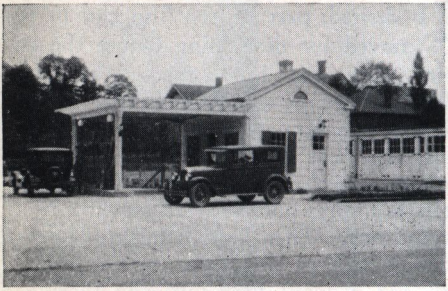
Above pictures were all taken from the driving seat of a closed car with window down (engine shut off). Exposure 1/25 second, stop F 11, in hazy spring sunshine.

Removing Part of the Film Only

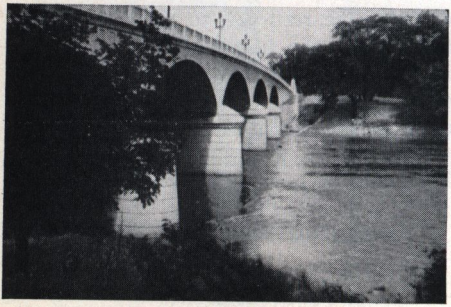
IF desired, part of the film can be removed for developing before the entire strip has been exposed. A few frames must be sacrificed if this is done, but as the film is very inexpensive, this loss may not be an objection. For instance, suppose you have made the first ten exposures and wish to see how they come out. Then simply push the lever on the back of the camera twice to move all the exposed film into the receiving cartridge, remove the back, cut off the film close to the receiving cartridge, and proceed with this for development as if it were full. The cartridge when empty can then be returned to the camera and the rest of the film loaded into it as if from a new cartridge. If the operation of cutting off the film and changing is done in the darkroom, the two or three frames lost in opening the camera in daylight can, of course, be saved.

Vertical or Horizontal Pictures

PICTURES may be made with the Memo camera showing the long dimensions either vertically or horizontally. For portraits, standing figures, tall build-



The business uses of the Memo Camera are many; for example, in keeping a picture record of industrial and commercial installations.



Everywhere are bits like this waiting for your Memo Camera.

ings, and certain other subjects, it may be preferred to take the pictures so as to show the longest dimension vertically, but if this is done, it should be kept in mind that the strips thus obtained are not well adapted to making positive film rolls for projection on the screen, as the pictures will naturally be shown lying on their side instead of up and down. Where the individual frame is to be shown as an enlarged print or as a contact print, it of course makes no difference which way the camera is held.

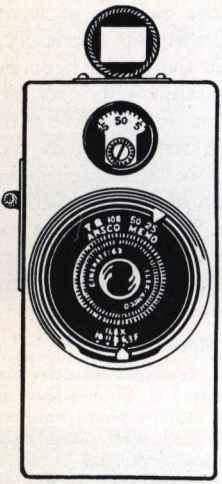
Developing Memo Film

MEMO film may be developed exactly the same as any regular roll film—either in tray or deep tanks used by photo finishers—but to make it lie flat and work flexibly in subsequent printing operations, it should be given a special final treatment, as follows: After the final wash which follows development and fixation, immerse the film for three minutes in a bath consisting of 1 part glycerine to 18 parts water. (Temperature about 70 degrees Fahrenheit.

To remove the film from the cartridge for development, simply draw it out slowly in the darkroom.

Greater flexibility in development may be obtained by first passing the roll a few times through a bowl of clear cold water.

Complete instructions for developing may be had by writing to Agfa Ansco Corporation, Binghamton, N. Y. See also pages 43 and 50.

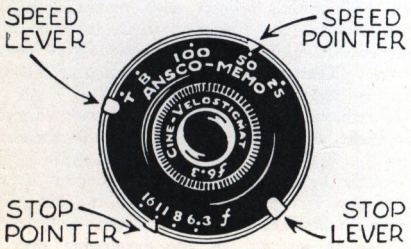


Direct vision spyglass finder.

Dial which automatically counts the exposures.

Shutter speeds, with pointer set at 1/25 second.

Shutter stops, with pointer set at stop F 6.3.



Some of the Memo Cameras have levers for actuating the pointers.

The Shutter and How It Works

THE shutter of the Ansco Memo Camera is similar in the way it operates to shutters used on regular hand cameras, and those who are familiar with these will require no special instructions.

On the upper arc of the shutter will be found a row of letters and figures, which are T, B, 100, 50 and 25. These stand for Time exposure, Bulb exposure, 1/100 second, 1/50 second, and 1/25 second. To obtain any of these different settings, simply set the pointer over it.

In the case of 1/25, 1/50, and 1/100, the duration of the exposure is controlled by the shutter itself, one complete downward pressure on the trigger opening and closing the shutter for the length of time desired.

In the case of Bulb, which is a term surviving from the time when shutters were controlled by the use of a rubber bulb, one downward pressure on the trigger opens the shutter, and releasing this pressure closes it.

In the case of Time, one downward pressure opens the shutter, and a second downward pressure closes it.

B or Bulb is used for short time exposures, and T or Time for longer time exposures. Try all these actions before you load the camera so as to familiarize yourself thoroughly with them, and be particularly careful to see that the shutter is closed before you load. In other words, do not leave the camera on Time unless you have given the trigger a second push downward to close.

On the lower arc of the shutter will be seen another row of figures, which are 16, 11, 8, 6.3. Below these are dots and below the dots is a pointer. This pointer actuates the diaphragm of

the shutter, giving a larger opening as it is moved towards F 6.3 and a smaller opening as it is moved towards F 16. If you wish to set the shutter for stop 11, simply place the pointer at the dot under this figure, etc.

For average pictures in clear summer sunlight use 1/50 speed and stop 16. For poorer light, 1/50 and stop 11. For still poorer light, use 1/25 and stop 11. For very poor light, use 1/25 and stop 8 or 6.3.

At the beach or over the sea in clear summer sunlight during the middle hours of the day the best average is 1/100 at F 16.

No Focusing with Regular Model

EACH Memo Camera of the regular model leaves the factory with focus permanently set or "fixed" for best results. This is possible, despite the largest maximum lens aperture of F 6.3, because of the great depth of field of the lens. The brass screw on the side of the camera controls the focus adjustment, but *we particularly urge that this be not tampered with,* as the adjustment is too fine for an ordinary ground glass reading, and monkeying with the focus will only result in throwing the lens completely out. Use the camera as focused at the factory and you will be well pleased with the results. For focusing models (F 6.3 and F 3.5) see special instruction folder. See also page 51.

Experienced photographers interested in good-sized enlargements and screen projection need no suggestions on how to obtain the highest degree of sharpness in the negative for this purpose. They will naturally follow the well-known principle of reserving the largest aperture, F 6.3, for those poor light conditions demanding a large

opening even with the slowest snapshot speed, 1/25 second, and using a smaller opening with the same shutter speed, 1/25, whenever the light permits. *The best all-around shutter setting in strong sunlight is 1/50 at stop F 16,* and this stop will give a degree of sharpness permitting enlargements of surprising size. The smaller the stop the sharper the picture—always.

Remarkable Motion-Stopping Power of the Memo Camera Lens

THE faster shutter speeds of the Memo Camera will seldom be required. In fact, most users of the camera will be able to get 99 out of 100 pictures that they desire by sticking entirely to 1/50 second and regulating exposure by varying the size of the stop. The reason for this is that because of the short focal length of the lens, 1/50 second with the Memo Camera is approximately equivalent, in motion-stopping power, to 1/200 second with a No. 1A camera taking pictures 2½ x 4¼. In other words, if an object is moving so rapidly that 1/200 second is required with the larger camera to catch it in the picture without blur, you can catch it without blur with the Memo Camera by an exposure of 1/50 second.

The Memo Camera in Speed Work

THOSE who have *a penchant* for fast action pictures—pictures of diving, racing, games, etc.—will appreciate how much the above point means, for 1/50 and 1/100 second are correspondingly more efficient in stopping motion with the Memo Camera than with a larger outfit.

The fastest shutter speeds provided on regular hand cameras of the advanced type are 1/250 and 1/300 second, the latter being the maximum on the Ansco Speedex and Super Speedex series. These speeds require extra large apertures in compensation (F 6.3, F 4.5) with consequent loss in depth of field, but with the Memo Camera the equivalent is obtained with a slower speed and a smaller stop, 1/50 being about equal to 1/200 with a No. 1A, and 1/100 being almost equal to 1/400. Of course this equivalence is in motion-stopping power only. Exposure values are the same for all shutter combinations regardless of lens. That is, 1/50 at F 8 gives the same strength of image on the film in all cases. The point is that with the Memo Camera you obtain a high motion-stopping power with a much slower actual speed and a smaller stop than is possible with a larger camera.

Exposing Your First Memo Film

GIVE the Memo Camera the same chance you would give any other and you will be delighted with the results. For your first roll select a bright sunshiny day. Set the shutter for 1/50 and F 11 or F 16, according to the light, hold the camera steady, and keep the sun behind you or falling over your shoulder from one side —not shining into the lens. Don't be in too much of a hurry to "finish up the roll," but get something interesting in each picture. Take the camera with you on your favorite walk or drive, and catch the interesting bits along the way—houses, landscapes, street scenes, road views, etc. On this first roll also include portraits of your friends, members of your family, groups, etc.

Excellent pictures can be taken from the driver's seat of your car (with engine shut off

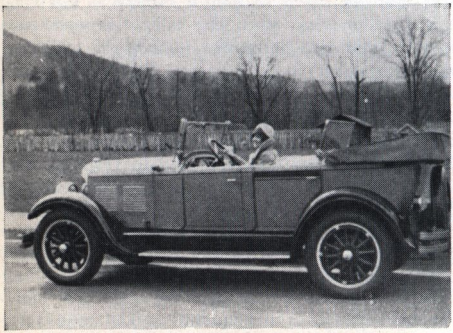
to prevent vibration). This is one advantage of the telescope finder. There never has been so convenient a camera for the motorist before.

So far as is practical, give all the "frames" in the roll about the same amount of exposure, so that they will have approximately the same density when developed and may thus be printed more readily in the strip together.

Time Exposures with the Memo Camera

A TRIPOD SOCKET is provided on the Memo Camera for Time and Bulb exposures, but of course any rigid support, such as a table or box, may also be used.

Unless a tripod is available, however, special care must be taken to keep a camera as small as this from moving when the trigger is operated. A very easy and successful method of avoiding such movement is as follows: Provide a small opaque card—preferably of dark stock, though a postcard from one's pocket will serve—and when the camera has been placed and shutter set for the time exposure, hold the card in front of the lens (close to it but not touching), push down the trigger to open the lens, remove your hand entirely from the camera, draw the card aside quickly to start the exposure, replace it from the opposite side of the camera to stop the exposure, and push down the trigger to close the lens. Since the camera is not touched at any time during exposure, this method assures freedom from accidental jar or other motion, and incidentally permits the use of a support for the camera not sufficiently stable to withstand pressure on the trigger.



These two pictures illustrate the difference between an average view and a close-up in the same general type of picture. In the upper picture, the camera is so close to the subject that a small stop (F 11 or F 16) should be used for increasing the sharpness, while in the lower picture this is not necessary. With a larger camera, the upper picture would require a focusing arrangement.

Correct Exposure and Correct Development

UNDEREXPOSED film will show scratches or finger-marks much more pronounced than films which have had sufficient exposure to build up good density throughout.

Overdevelopment of the film will greatly increase the length of time required for enlargement. A fully exposed and correctly developed film should enlarge on Noko paper in the Memo Enlarger in from 10 to 20 seconds, and on Professional Cyko in about the same. No harm will result if enlargement takes longer, the only point being that where many prints are to be made in this manner the extra time required may count up considerably.

The Importance of Handling Memo Film with Care after Developing

ANY negatives which are to be used for enlarging should be handled with special care, for even slight finger-marks, scratches, etc., will show in the projection. Hold the negative strip by the edges, where the perforations are, and keep thumb and forefinger off the middle of the film. When not in use, the negative strip may be rolled up, circled with a rubber band, and filed away in the original cardboard carton. Or extra cartons without printing will be furnished by Agfa Ansco for the purpose at one cent each. They are referred to as Memo Filing Cartons.

Caution—Holding the Camera

IN TAKING pictures be careful not to hold the camera in such a way that a finger or part of the hand is in front of the lens. While the camera may be held in any way which

is convenient and which at the same time leaves the lens unobstructed, it will be found by most that the positions shown in the illustrations on page 16 are easiest and safest.

Keep the Camera in Its Case

KEEP the Memo Camera in its case when not in use. This will protect it against scratches and other damage, and will shield the shutter from prolonged exposure to strong light, which might work through the leaves and affect the section of film in position for the next picture.

Cardinal Points of Picture-Taking

HOLD the camera level. In taking pictures of buildings and other subjects having vertical lines, watch the sides of the finder image and line these up with the verticals of the picture.

Hold the camera steady. Movement of the camera at the instant of exposure will cause the picture to be unsharp.

Take the picture with the sunshine falling upon the subject, not upon the camera. Experts take very beautiful pictures sometimes by having the sun shine towards the camera, but they are always very careful to stand where the lens is effectively shaded. Sun on the lens will fog the picture.

Never use Time or Bulb except with the camera on a motionless support.

Close-ups

CLOSE-UPS can be made with this camera without a portrait attachment. The only point here is to use as small a stop as light and subject permit. See also page 30.

Memo Film is extra-fast. While 1/50 at F 11 is recommended for average good-light conditions, 1/50 at F 16 will be sufficient in clear summer sunshine. Avoid overexposure.

Start Right

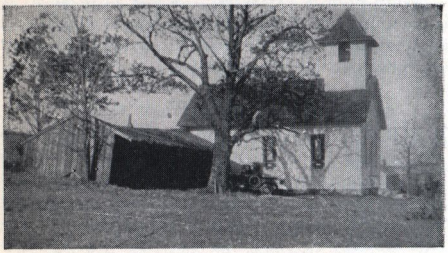
YOUR very first roll of Memo Film will give you a lot of pictures. Start right. Make some provision for keeping them in an orderly way—a note-book or miniature album for the contact prints, a larger album for the enlargements.

How Large Can Enlargements Be?

WE RECOMMEND the 2¼ x 3¼ size. Remember that the Memo Camera is not designed to displace larger cameras but rather to supplement them. Therefore, do not expect to make Memo enlargements which will compare both in size and sharpness with contact prints from professional camera negatives or even with small enlargements from regular amateur camera negatives. The 3¼ x 4¼ enlarged prints obtained with the Memo Enlarger represent a considerably higher degree of enlargement than is ordinarily sought from amateur negatives, being roughly equivalent to a standard 10 x 14 enlargement from a 2¼ x 3¼ negative, and in anything of higher degree than this the grain of the film will be fairly pronounced.

Memo Film is Agfa negative motion-picture film, which is of very fine grain, and therefore the best possible where enlarged prints are to be made.

The above points are relatively less important as concerns positive film strips for use in the Memoscope (page 37), since the image on the



A rural meeting house—from a Memo Film enlargement.

screen, though larger, is viewed from a greater distance. If the original Memo negatives are sharp to begin with—that is, if they are made according to the instructions here given—the positive rolls for screen projection can be depended upon for satisfactory sharpness regardless of size of image on the screen.

Pictorial Memoranda with the Memo Camera

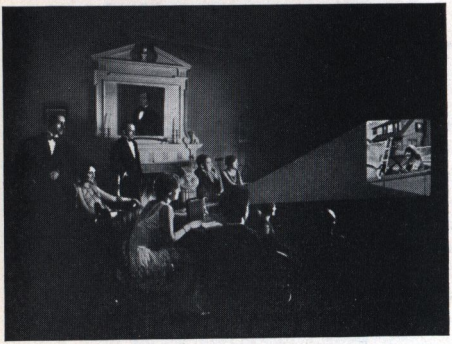
THIS is a busy age. It is also an age of progress, of larger achievement by means of better methods. The Memo Camera belongs to this new age. At an expense so small as to be negligible and with a rapidity and convenience that are amazing, it enables the architect, the civil engineer, and many others who can save time and uncertainty thereby, to make innumerable memoranda in picture form. While not a substitute for a full-size camera, it does—and does surpassingly well—those things that a full-size camera cannot conveniently or economically be used for.

Adapted to Many Needs

WHILE the largest percentage of Memo Camera owners are, naturally, amateur photographers who take pictures primarily for their own personal satisfaction, the extent to which the Memo has been adopted for professional and semi-professional use in connection with technical and scientific work is impressive. Biologists, geologists, agricultural extension workers, physicians with lecture requirements, engineers, and instructors in architecture, are but a few examples. Many college professors use the Memo extensively during their summer travels to collect pictorial records for lecture use in their courses.

The Memo is obviously adapted to all manner of useful applications of a business and professional nature, as well as to personal requirements of the individual user. This applies no less to the finishing of the pictures than to the camera itself and to the projector. Convenient equipment and materials for developing the film, for printing projection rolls and paper prints for the album are provided, so that anyone who wishes to make the Memo a hobby can, at a small expenditure for accessories, do the whole job himself—and have pleasure in the doing. This equipment is also well adapted to doing finishing work for others.

The following pages give information about Memo accessory equipment. Those who desire further details about any item are invited to take the matter up with Agfa Ansco Corporation, Binghamton, N. Y.



Still-Film Projection with the Memoscope

The Most Practical Method of Showing Memo Results

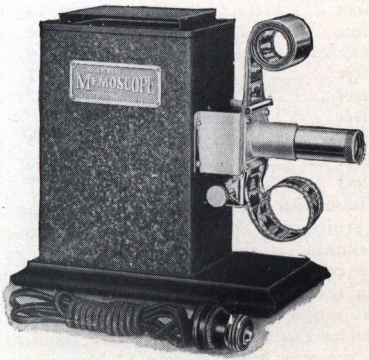
EVERYONE who has attended an illustrated lecture is familiar with the old-style stereopticon using lantern slides (transparencies) 3¼ x 4 inches in size, and those with any photographic experience know that a lantern slide is a print on glass instead of on paper, made thus so that it may be projected on a screen by the transmitted light of the lantern.

The Memoscope works on exactly the same principle, except that instead of using lantern slides it uses a roll of film. This film is not the negative film exposed in the Memo camera, but a transparency printed from it on Memo Positive Film.

The Memoscope is a wonderfully convenient projector. Complete in case, it weighs only 4½

pounds, and no elaborate accessories are required. Any white wall, or large sheet of paper or white cardboard, will serve as screen, and the cord can be plugged in on any 110-120 volt lighting circuit, such as is standard in homes and in most office buildings. (For 220-volt current a special resistance unit, obtainable from the factory, should be added).

Special attention has been given to the optics and the light. The former includes not only an excellent projection lens but also a pair of finely ground condensers, while the lamp is the advanced General Electric projection lamp (100 watts) in prefocused base. This combination assures a wonderful clarity and brilliance on the screen.



Ansco Memoscope, $19.50.

The projection rolls are easily printed from your Memo negatives without interfering with their use for making prints on paper. Details as to equipment for the purpose will be found on the following pages. With a Memo camera and a Memoscope one can thus, at small cost and with unusual convenience, put on a show at home with pictures he takes himself, deliver an illustrated lecture, or, if an engineer or technical expert, give an accurate presentation of progress or conditions by a Memoscope showing.

The following table indicates the "throw" with the Memoscope for screen images one to five feet wide.

Width of picture on screen	*Distance from Memoscope lens to screen*
1 foot	2 feet 10½ inches
1½ feet	4 feet 4 inches
2 feet	5 feet 9 inches
2½ feet	7 feet 2 inches
3 feet	8 feet 7 inches
3½ feet	10 feet
4 feet	11 feet 5 inches
4½ feet	12 feet 10 inches
5 feet	14 feet 1 inch

The smaller the image on the screen the greater the brilliance. The favored size for evening entertainment is about 3 feet. A small image is more comfortable to the eyes than a large one when the spectators are close to the screen.

Projection rolls printed from Memo camera negatives can be shown with any standard still-film projector which is on a 35 Mm. single-frame basis—Bausch & Lomb, Spencer, S. V. E., etc.—but the Memoscope is offered to provide professional results in brilliance and clarity of image at

a price which is attractive to all Memo camera owners. This price is only $19.50, carrying case included.

Arrow Projection Screens

PORTABLE, collapsing on a spring roller into a neat wooden case with handle, very comfortable to carry. Easy to set up, being supported by case when extended. Screen has an exceptionally high reflecting surface, composed of millions of tiny round glass beads, firmly imbedded on a strong fabric in pure white composition.

No. 0 Arrow Screen, size 16 x 3 x 2½ inches, with picture surface 9¼ x 11¾ inches. Weight 3 lbs. Price $10.

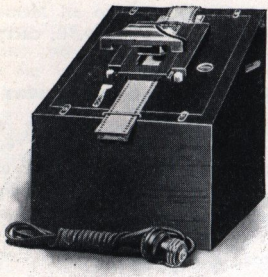
No. 1 Arrow Screen, size 33½ x 3¼ x 4 inches, with picture surface 22 x 30 inches. Weight 6 lbs. Price $15.

Prepared Projection Rolls for Entertainment and Educational Use

MANY gain additional satisfaction from the use of the Memoscope by supplementing their own Memo projection rolls with ready-prepared lecture rolls on a variety of subjects. This appeals particularly where there are children in the family. Such rolls cover science, travel, history, religious instruction, etc.

Among the companies supplying such picture rolls standard in size with Memo rolls are:

The Society for Visual Education, 327 South LaSalle Street, Chicago; Spencer Lens Co., Buffalo, N. Y.; Bray Screen Products Film Library, 130 W. 46th Street, New York City; and National Pictures Service, Inc., Provident Bank Building, Cincinnati, Ohio. Write any of these for further information if interested.



Memo Positive Film Printer
Model B

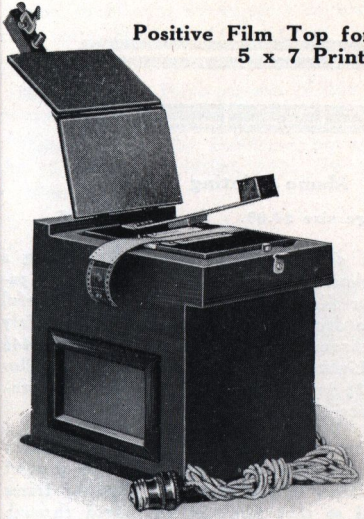
For Making Projection Rolls from Memo Camera Negatives

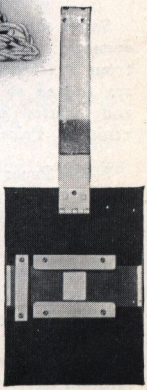
THIS machine puts the making of projection rolls on a rapid and convenient basis, one frame at a time, so that more or less exposure may be given, according to the density of the frame as judged by transmitted red light. The printer is so constructed that frames may be skipped where this is desired.

The printing is done on Memo Positive Film, which is coated on non-flam base. The film is supplied in sealed cans containing 100 feet each at $4.95 per 100 feet. Nitrate positive film should not be used for projection rolls, as it is inflammable.

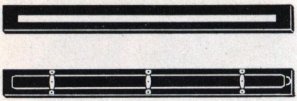
Price of Memo Positive Film Printer, Model A, complete with lamps, as illustrated (full instructions with each printer) $15.00.

Positive Film Top for Ansco 5 x 7 Printer





A special top for the regular $15.00 Ansco 5 x 7 Printing Machine, converting this to use for printing projection rolls from Memo negatives. Special lamp included. Will not fit 5 x 7 printers of other than Ansco manufacture. Price $3.00.



Memo Printing Frames

Large size $4.00. Small Size $1.25.

LARGE size, shown above, is for printing a complete roll of 50 frames in one strip (paper or film) in one exposure, chiefly useful where the density of the negative roll is fairly uniform throughout. Size over all, 1 x 3¼ x 44¼ inches. Light opening 40 inches long. Film opening 42¼ inches long. Masks out the perforations. Price $4.00.

Small size is about 7½ inches long, with light opening just under 6 inches, permitting a print from 8 frames in one exposure. Ends of frame are slotted so that film can be moved through and printed sectionally as desired. Very convenient. Price $1.25.

Noko Paper for above in rolls the full width of the film (1⅜ in.) but unperforated, is supplied in B (glossy) surface in Medium and Soft grades, single weight, at $.75 per 50-foot roll.

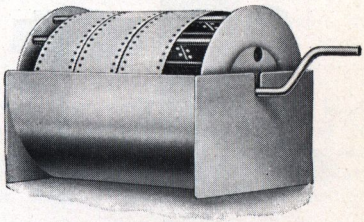
Ansco M-Q tubes (for 8 ounces of solution) are excellent for Noko paper as well as for regular Memo film. Price per carton of 6 tubes, $.25.

Agfa Rodinal Developer, a concentrated single-solution developer for film and paper, used 1 part

Rodinal to 20 parts water, per 3 oz. bottle, $.60; 8 oz. bottle, at $1.10; 16 oz., $2.00. Soft-working. Can also be used in combination with M-Q.

Memo Positive Film, per can of 100 feet, for printing projection rolls, $4.95.

Memo Positive Film Developer, per tube making 16 ounces of solution, $.15. Per carton of 7 tubes, $1.00.

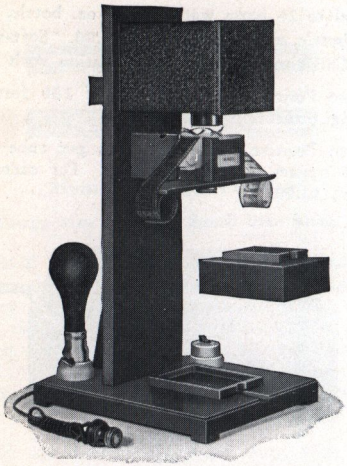


Memo Developing Machine

VERY convenient, for developing either negative or positive Memo film. Prevents scratches, etc. Accommodates one 50-exposure roll. Price $5.50. For developers see page 42.

Do Not Cut Your Films

MEMO films should be kept in strip form—not cut up into individual frames. The latter are too small to be handled in printing, and all printing equipment is designed for use of the negative in the roll. An extra charge for service may be expected where films have been cut into short lengths.



Memo Film Enlarging Printer

For Making 2¼ x 3¼ and 3¼ x 4¼ Prints from Memo Camera Negatives

THIS machine is designed for making enlarged prints from Memo Camera negatives on Noko Paper. Because of its high-speed optical system and illumination, bromide or other enlarging paper is not required. Printing may be done in the same room used for regular contact work, and average negatives will give prints on Noko Paper in from 10 to 20 seconds.

Prints in either of two standard amateur sizes may be made—2¼ x 3¼ and 3¼ x 4¼. We recommend 2¼ x 3¼. For this, place the 2¼ x 3¼ bed

over the stationary bed or mask, which is for the 3¼ x 4¼ size. Note that above are over-all print sizes, including white margin.

To make prints, proceed as follows:

1. Plug cord into any 110-120 volt socket and turn on red light. This will give enough light to operate by, and to properly locate the image in the paper holder.

2. Slide Memo film negative face down between glasses and film guides, and move back and forth until the image desired centers correctly in paper holder. Now place sheet of plain white paper under mask or holder, switch on white light, and turn focusing jacket on lens until image is critically sharp. Then remove paper.

3. Switch off white light, place left hand on top of paper holder, and slide sheet of Noko Paper face-up into paper holder (under mask). Now switch on white light and expose about ten seconds, more or less, according to density of negative.

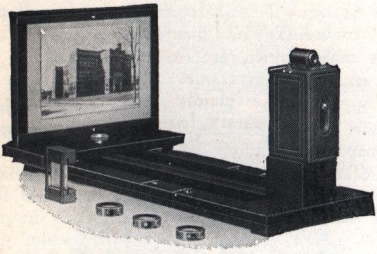
4. Throw off small switch, lift up paper holder, and remove print for development.

This printer permits working rapidly and economically, so that finishers are able to turn out the enlargements at about 8 and 10 cents, whereas with regular enlarging equipment they would be compelled to charge 25 to 50 cents.

Price complete with lamps, condensers, and F:3.5 projection lens, as illustrated.....$50.00

See pages 23 and 49 for information on the developing and printing of Memo film.

Memo projection rolls sent home by son or daughter at college enable parents to follow undergraduate life on the screen. See next page.



The Memo Copier

THIS equipment is designed to facilitate the copying of photographs, maps, sketches, titles, diagrams, etc., with the Memo camera, so as to obtain negative rolls from which to print positive rolls of such material for screen projection.

The outfit consists of a base with pedestal and tripod screw at one end for fastening the Memo camera in position, with a copy board opposite, adjustable for three positions or stations. The copy board is dead black and provided with movable guides for holding "copy" in place. It is also ruled for convenient centering of "copy."

Focusing is entirely dispensed with in this equipment. Simply select the station best adapted to the size of original and place the supplementary lens provided for that station on the Memo lens, stop to F 16, and make the exposure. There are three supplementary lenses, one for each station.

When copy board is at Station A (nearest camera) a print or drawing 3 x 4 inches will completely fill the "frame" or negative space.

When copy board is at Station B (middle station) a print 4 x 5½ inches will completely fill the frame.

When copy board is at Station C (farthest from camera) a print or drawing 7 x 9 will completely fill the frame.

The stations are plainly marked A, B, and C, and the supplementary lenses are marked in the same way to correspond.

Originals of other sizes will come in proportion.

In ordering the Memo Copier, be sure to state whether it is desired for use with the regular fixed-focus Memo camera or with one of the special focusing models, as the latter require supplementary lenses in larger mounts.

The only difference in use with a focusing model is that in the latter case the camera is first focused for 18 feet, which is the correct focus setting for each station when correct supplementary lens for latter is used.

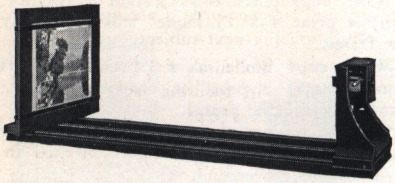
The Memo Copier is substantially built, with great rigidity throughout, and is professional in appearance, with fine mahogany finish.

Exposures may be made by placing the copy board at an angle of about 45 degrees from a north window, giving a trial exposure of 3 seconds at F 16. Or artificial light may be arranged, avoiding an angle giving reflections.

Regular Memo Film may be used with this outfit, but we recommend that 50-exposure cartridges loaded with Memo Positive Film be obtained from the factory on special order at 50 cents each. This is desirable for extra contrast.

The Memo Copier as now supplied includes a ground-glass attachment for checking the placement of the image.

Price of Memo Copier complete with three supplementary lenses, but without camera, $15.



The Universal Still-Film Copying Camera

THIS equipment differs in several important respects from the Memo Copier, described on the two preceding pages.

First, it will accommodate larger originals—anything between $1\frac{5}{8}$ x $2\frac{1}{2}$ and 11 x 14 inches.

Second, it comes complete with lens and camera designed especially for it.

Third, all originals may be so copied as to fill the frame exactly, regardless of their size.

Both copy board and camera standard are adjustable on track for maximum flexibility in focusing. Rough focusing is usually done by moving camera standard forward or back, after which critical sharpness is obtained with the focusing lens mount.

The camera is double, on a shifting carriage. Right-hand camera is for ground-glass focusing, after which carriage is thrown over to bring film camera into position

behind lens for exposure. Carriage is then thrown back for focusing next subject.

The lens is Wollensak F:3.5 Cine Velostigmat, 2 inches focus, in focusing jacket with iris diaphragm having stops from F:3.5 to F 16. Loading and film winding are exactly as with Memo Camera. 50-exposure cartridges of Memo Positive Film are used, as with Memo Copier. The shutter is of the barrel type.

Special folder describing the equipment in full detail will be supplied upon request. This is a complete professional outfit for those interested in copying miscellaneous illustration material for lecture-roll use. Negatives are printed on positive film like any Memo negatives.

Price complete with lens, $50.

Memo-Random

THIS is a little publication issued to give the latest Memo news to Memo camera owners. It reports the experience of Memo users and gives many useful pointers. A return postcard entitling the purchaser to a six-months subscription free is packed with each Memo camera.

Memo Finishing Service

SEE your dealer as to local finishing service. Also note that a complete finishing department for Memo camera owners and for dealers is maintained by Agfa Ansco Corporation at its general offices and factories in Binghamton. N. Y., where rolls may be sent at any time. The charges are as follows:

Developing the roll, $.15.

Projection rolls, per frame printed (A complete roll has 50 frames) $.03.

Contact frame proof prints in strips *of 6 to 8 frames to the strip*, per frame, $.01.

Contact frame prints not in strips: frames printed individually, $.02.

2 x 3 enlargements on regular-weight glossy Noko Paper (This enlargement size recommended as best for album use) $.10.

3 x 4 enlargements on regular-weight glossy Noko Paper, $.12.

In making projection rolls poor exposures will be omitted automatically. Extra charge for change of sequence of exposure, this charge governed by time required. Estimate gladly given.

Never cut Memo negatives into short lengths, as all our service equipment demands the full length of film. If short lengths are sent to us for finishing we will be obliged to put leaders on them, for which a charge of $.10 per foot will be made.

Pack film rolls in small box or other container to protect against creasing in mails, and address package to Memo Finishing Department, Agfa Ansco Corporation, Binghamton, N. Y. Also place your own return address on package.

Include a letter of exact instructions. In instructions, refer to frames by marginal numbers

on negative. If marginal numbers happen to come between frames, indicate in instructions whether to take top number or bottom number.

An optional method is to mark frames with blue (not red) wax pencil. Do not notch film, and never cut up a negative, as all equipment is designed to handle films in rolls.

Local finishing service on the Memo camera is extending rapidly, and our recommendation is that in all cases this matter be taken up with your dealer. If he cannot take care of you, send your work to Binghamton and ask for the name of the nearest photo finisher prepared to give complete Memo service.

Avoid accumulating exposed Memo film to be developed at some later date. All film should be developed promptly for best results. The full brilliance and beauty of the image will thus be retained.

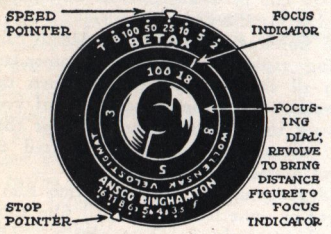
Those who take a camera with them on an extended trip are always well advised to have their films developed at convenient points instead of holding them for development after their return. Any photographer or photo finisher can develop a Memo film. Printing can be attended to later.

Memo camera owners wishing to do their own finishing, will find the equipment for this purpose convenient. We shall also be very glad to give complete information on Memo finishing to any photo finisher.

Focusing Models

THE focusing models of the Memo camera, which are listed on the inside of the front cover, are exactly the same as the regular model except for lens and shutter, the focusing device being entirely in the lens mount, as illustrated

below. A regular model can therefore be converted to a focusing model at the factory by changing the equipments. The conversion makes the net cost but slightly higher than original purchase of the model converted to.



Ask Us About It

THERE is nothing uncertain in the use of the Memo camera. As with any other camera, those who have had experience in picture-taking are quickest to see its wonderful possibilities and to obtain the most perfect results, but one need not be a camera expert to succeed with the Memo. If difficulty arises at any point whatever, just remember that Agfa Ansco Corporation is very much interested in your success and will appreciate hearing from you. Our experience and knowledge of what others are doing with the Memo is also at your disposal should you wish suggestions on some special application of the Memo camera method.

Obtaining Memo Film

MEMO film is carried in stock by an increasing number of dealers, and any dealer handling other film can order it for you. We advise that Memo owners keep a roll or two

on hand at all times. If local supply fails, Memo film may always be obtained by ordering direct from Agfa Ansco Corporation, Binghamton, N. Y., or branches at 205 West Wacker Drive, Chicago, 552 Mission Street, San Francisco, 223 West Third Street, Los Angeles, 48 Auburn Avenue, Atlanta, Ga., 1815-A Grand Ave., Kansas City, Mo., 143 East Elizabeth St., Detroit, Mich., and 1104 Ninth St., N.W., Washington, D. C., inclosing 50 cents each for as many rolls as are desired. Shipment will be made postpaid on receipt of order. Where time is a factor, wire your order for C. O. D. shipment.

ANSCO COLOR FILTERS

Special for the Memo Camera

THESE filters are supplied because the ordinary stained-glass filter cannot safely be recommended for a camera like the Memo. Any piece of glass used in front of a lens has some tendency to alter the focus. With large lenses, the error thus resulting is so small as to be negligible, but with the short-focus Memo lens it is desirable to offset the tendency by providing filters of extra-thin imported optical glass. This is not ordinary stained glass, but so-called "natural" glass. That is, the color is in the glass itself. The filters call for approximately 3 times normal exposure with open subjects, more with close-ups of flowers, etc. They are used chiefly in making white clouds stand out brilliantly against a clear blue sky. Average subjects will usually photograph better without a filter.

Price, regular size for regular fixed-focus Memo Camera, $2.00.

Price, larger size, for focusing models, $3.00.

Condensed Price List of Memo Cameras and Accessories

JN-53. Ansco Memo Camera, F:6.3 Anastigmat, fixed-focus (nationally advertised model), including soft suede case, at retail, $20.

JN-53D. Ansco Memo Camera, with Bausch & Lomb Anastigmat, F:6.3, focusing type, including soft suede case, $30.

JN-53E. Ansco Memo Camera, with Bausch & Lomb Anastigmat, F:3.5, focusing type, including soft suede case, $40.

JN-53G. Ansco Memo Camera, with Wollensak F:3.5 Anastigmat, focusing type, including soft suede case, $35.

JN-115. Black sole leather holster belt case for hunters, fishermen, golfers, etc., $3.

Memo Film, per cartridge of 50 exposures, daylight-loading, $.50.

JN-54. Ansco Memoscope, including case and film box, $19.50.

Brayco Projector, $9.95.

No. 0 Arrow Screen, picture surface 9¼ x 11¾ in., $10.

No. 1 Arrow Screen, picture surface 22 x 30 in., $15.

Memo Developing Machine, $5.50.

Memo Enlarger, $50.

Memo Positive Film Printer, Model A, $30; Model B, $15. Positive Film Attachment for Ansco 5 x 7 Printer, $3.00.

Memo Printing Frame, 50-frame length, $4.00.

Memo Printing Frame, 8-frame length (slotted), $1.25.

Universal Still-Film Copying Camera, $50.

Memo Copier, $15 (specify whether for fixed-focus or focusing model).

Memo Color Filter, for fixed focus model, $2; for focusing models, $3.00.

Memo Positive Film for printing projection rolls from Memo negatives, in sealed cans containing 100 ft. each, per 100 ft., $4.95.

50 exposure cartridges of Memo Positive Film for use with Memo Copier or Universal Still-Film Copying Camera, each $.50.

Ansco M-Q tubes, for developing Memo film and prints, per carton of 6 tubes, each for 8 oz. of solution, $.25.

Memo Positive Film Developer, per tube making 16 oz., $.15. Per carton of 7 tubes, $1.

Rodinal Developer, complete in one solution, 3 oz. bottle $.60, 8 oz. $1.10, 16 oz. $2.00. For use, dilute with 15-20 parts water.

Ansco Acid Hypo, per lb. carton $.25.

Noko Paper in rolls for making Memo prints, exact width of film, per 50-foot roll, $.75. Supplied in Glossy B surface, Medium, and Soft grades.

Noko Paper, Glossy, single weight, per 2 doz. sheet package, 2¼ x 3¼ $.20, 3¼ x 4¼ $.25.

Memo Filing Cabinet, $2.50.

Exact size. Picture at bottom is shown on page 10 in larger size.

3-30-20