Picture-making with the Nos.2A, 2C & 3 Brownies

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The Kodak Catalogue gives particulars of many useful accessories, mounts, albums, and supplies, all of which can be obtained through your photographic dealer. A copy will be sent post free on application to

KODAK Ltd.,
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Picture-making with the Nos. 2A, 2C & 3 Brownies

KODAK Ltd.,
Kingsway, London, W.C.2
When Buying Film

When buying film for your 'Brownie' ask for and see that you get Kodak N.C. Film—the only genuine film for 'Brownies.'

Before taking a Picture

Read the following instructions carefully. Practise working the shutter, following carefully the directions on pages 14 and 18. Keep on practising, before putting a spool of film in your camera, until you can go through, in proper order, all the movements of taking a picture without referring to this booklet.

The light, which records the picture upon the sensitive film in a fraction of a second when it passes through the lens, can destroy the picture just as quickly. When loading and unloading, therefore, be extremely careful to keep the paper wound tightly around the film.
Picture Making with the Nos. 2A, 2C and 3 Brownies

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Nos. 2A, 2C and 3 Brownies

Kodak N.C. film for Brownie cameras is furnished in light-proof spools (Fig. 1). The Brownie cameras can, therefore, be loaded in daylight. This operation should, however, be performed in a subdued light, not in the glare of bright sunlight.

Opening the Brownie

Place the Brownie on a table in front of you and pull up the winding key as in Fig. 2.

Now push inward on the spring catches,
just in front of the winding key, Fig. 3, and
to the left of the handle, Fig. 4.

Fig. 3. Unfastening the catch at the side.

You can now withdraw the roll holder, Fig. 5.

Fig. 5. Taking out the Roll Holder.

**Loading**

In both top and bottom of the roll holder
there is a recess.
In the recess, which has only one spool pin,
at the bottom, you will see an empty reel, upon
which the exposed film is to be wound.

Fig. 4. Unfastening the catch at the top.

Fig. 6. The pins on which the Spool revolves
The winding end may always be distinguished by the small hole in the side of the roll holder, and the slotted end of the receiving reel should always be next this hole.

Spring out the spool pins, Fig. 6, and place an unused spool in the recess at the top, Fig. 7. You will see the word TOP near one end of the spool in black letters on the red paper.

Be sure to get this end of the spool at the right-hand end of the spool holder; otherwise your film will come on the wrong side of the paper when reeled off, and total failure will result.

Fig. 7. Inserting the Spool of Film.

Now push the spool pins back into place so that the spool will revolve upon them.

Fig. 8. Starting the Spool Paper across the back of the Roll Holder.

Now remove the gummed slip that seals the paper on the spool; pass the paper across
the opening in the back of the roll holder, Fig. 8. The receiving reel has a slit in it longer on one side than the other. Thread the paper through the longer side, Fig. 9, being extremely careful that it draws straight and true, and turn the reel counterclockwise two or three times. You can readily do this by inserting your finger tip in the end of the reel through the opening in the winding side.

Caution. If you turn off too much of the paper before the camera is closed, the film will be uncovered and ruined.

To close the camera reverse the actions shown in Figs. 2 to 5. Re-insert the roll holder in the outside box, taking care that the slotted end of the receiving reel comes under the winding key in the outside box.

Fasten the catches on the top and at the side.

Press down on the winding key, and, at the same time, turn it until it fits into position, the web at the lower end of the key engaging with the slot in the end of the reel (Fig. 10).

This is a reversal of the operation shown in Fig. 2.

Turn the key slowly as indicated by the arrow on its base and watch the little red window at the back of the camera. When 15 to 18 half-turns have been given, a hand will appear pointing toward the No. 1 section of film; then turn slowly until the figure 1 (black on red) is visible through the window (Fig. 11).

Fig. 11. The Warning Hand before the first section of Film.

The film is now in position for the first picture.
Making the Exposure

INSTANTANEOUS PICTURES

The shutter, Fig. 16, page 18, of the Brownie Camera is always set, and is worked by pushing the lever C alternately up or down.

If the lever stands at the top of the slot, simply push it down; if it is at the bottom, push it to the top.

For instantaneous pictures the subject should be in the broad open sunlight, but the camera should not. The sun should be behind your back or over your shoulder.

![Fig. 12. Ready for a Vertical Picture.](image)

Use the Largest Stop

Slide B, Fig. 16, controls the stops, of which there are three. When it is right down the largest stop is in place. This is the one to use for all instantaneous pictures (snap shots), except when the sunlight is unusually strong and there are no heavy shadows, such as views on the water or on the sea shore, when the middle stop (see page 21) may be used.

If a smaller stop is used, the light will be so much reduced that it will not sufficiently impress the image on the film, and failure will result. The smallest stop must never be used for instantaneous pictures.

The position of slide A, Fig. 16, determines whether the exposure is to be time or instantaneous. For instantaneous pictures this slide must be pushed down as far as it will go.

Direct the camera towards the object to be photographed and see that the image is in position in the finder. There are two finders, one on the top of the camera for vertical pictures, and the other at the right-hand side for horizontal pictures.

![Fig. 13 Ready for an Horizontal Picture.](image)

For a vertical picture the camera should be held as shown in Fig. 12; for a horizontal picture as in Fig. 13.
When objects less than about ten feet from the camera are being photographed, it is advisable to use the middle stop and to give a short time exposure.

Any object that does not show in the finder will not show in the picture.

If you point the camera upward, in order to include the top of a high building in your picture, the result will be similar to Fig. 14.

![Image](image_url)

**Fig. 14.** The result of tilting the camera upwards

All being in readiness, **Hold the Camera Steady and Level** as shown in Figs. 12 or 13, and move the shutter lever across the slot with the thumb of the right hand.

**Turn a New Film into Position**

Turn the key slowly until number 2 is seen through the window.

**NOTE.**—The warning index hand appears only before No. 1.

Immediately you have taken a picture, turn the next section of film into place. You will then always be ready for the next picture.

**Time Exposures Indoors**

![Diagram](image_url)

**Fig. 15.** Plan of a room showing windows or doors and three suitable positions for the camera.

Set the Brownie on a firm support, such as a chair or table, so as to take in the desired view. See that it is near the edge so that no portion of the support is included in the picture. Or fix the camera on a tripod.

Fig. 15 shows three correct positions for the camera. It should not be pointed directly at a window, as the glare of light will blur the picture. If all the windows cannot be avoided, pull down the blinds of those that come within range of the camera.
The Shutter

Pull out the time slide, A, on the top of the camera at the left, as shown in Fig. 16. When this slide is pulled out the shutter opens but does not close, stopping half way across with the opening opposite the lens.

All being in readiness, steady the camera with one hand and push the lever, C, to open the shutter; give the proper time (using a watch if more than two seconds) and press the lever in the opposite direction to close the shutter.

Turn a new film into position as before described, Page 17.

Time Needed for Pictures Indoors

This table is for the largest stop, Pages 14 and 21. When the second stop is used double the time; when the smallest stop is used multiply the time by four.

White walls and more than one window:
- bright sun outside, 2 seconds;
- hazy sun, 5 seconds;
- cloudy bright, 10 seconds;
- cloudy dull, 20 seconds.

White walls and only one window:
- bright sun outside, 3 seconds;
- hazy sun, 8 seconds;
- cloudy bright 15 seconds;
- cloudy dull, 30 seconds.

Medium coloured walls and hangings and more than one window:
- bright sun outside, 4 seconds;
- hazy sun, 10 seconds;
- cloudy bright, 20 seconds;
- cloudy dull, 40 seconds.

Medium coloured walls and hangings and only one window:
- bright sun outside, 6 seconds;
- hazy sun, 15 seconds;
- cloudy bright, 30 seconds;
- cloudy dull, 60 seconds.

Dark coloured walls and hangings, and more than one window:
- bright sun outside, 10 seconds;
- hazy sun 20 seconds;
- cloudy bright, 40 seconds;
- cloudy dull, 1 minute, 20 seconds.

Dark coloured walls and hangings, and only one window:
- bright sun outside, 20 seconds;
- hazy sun, 40 seconds;
- cloudy bright, 1 minute, 20 seconds;
- cloudy dull, 2 minutes, 40 seconds.

The foregoing is calculated for rooms where the windows get the direct light from the sky and for hours from three hours after sunrise until three hours before sunset.

If earlier or later, the time required will be longer.

To Make a Portrait

Place the subject in a chair partly facing the light, and turn the face slightly toward the Brownie (which should be at the height of an ordinary table). For a bust picture the camera should be five feet from the figure; for a three-quarter figure seven feet; and for a full figure ten feet. The background should form a contrast with the subject.
In making portraits where the subject is less than eight feet from the camera, use the smallest stop and expose accordingly. (See page 18.) As a general rule use the middle stop for portraits.

Do not use the largest stop at a shorter distance than 15 feet, unless you are working with a

**Kodak Portrait Attachment**

By the use of a Kodak Portrait Attachment large head and shoulder pictures may be obtained. The attachment is an extra lens which is slipped in front of the regular lens. With the attachment in position the subject should be placed 3½ feet from the camera. Otherwise the use of the camera is not changed. When ordering be sure to state for what camera you want the Portrait Attachment.

**Time Exposures in the Open Air**

When the smallest stop is before the lens, the light admitted is so much reduced that time exposures out of doors may be made as indoors, but the exposure must be much shorter.

**With Sunshine**—The shutter can hardly be opened and closed quickly enough to avoid over-exposure.

**With Light Clouds**—From one-half to one second will be sufficient.

**With Heavy Clouds**—From two to five seconds will be required.

The above is calculated for hours from three hours after sunrise until three hours before sunset and for objects in the open air. For other hours, or for objects in the shadow, under porches or under trees, experience will teach the proper exposure.

**Exposures longer than 3½ second cannot be made while the camera is held in the hand. Always place it upon some firm support, such as a chair, table, or tripod. (The Nos. 2 C and 3 Brownies have two tripod sockets.)**

**To Make a Group**

Arrange the chairs in the form of an arc, facing the Brownie, so that each chair will be about the same distance from the camera. Some of those composing the group should be seated and the rest should stand behind the chairs. If the group is large, any number of chairs may be used, but none of the subjects should be seated on the floor with limbs extended towards the camera.

**Backgrounds**

In making single portraits or groups care should be taken to have a suitable background against which the figures will show in relief; a light background is better than a dark one, and often a single figure or two will show up well against a curtain. For larger groups a medium light wall will be suitable.

**Stops** (See also page 14.)

**The Largest**—For all ordinary instantaneous pictures (snapshots).

**The Middle**—For instantaneous exposures when the sunlight is unusually strong.
and there are no heavy shadows, such as views on the seashore, in extremely high, dry climates, or on the water; also for time exposures indoors the time for which is given in the tables on pages 18 and 19.

The Smallest—For time exposures outdoors in cloudy weather. Page 20. Not for instantaneous pictures. The time required for time exposures on cloudy days with the smallest stop will range from one-half second to five seconds, according to the light. The smaller the stop the sharper the picture.

When setting the stops, always see that the one to be used is brought to the centre of the lens, where it catches.

If you use the smallest stop for instantaneous pictures absolute failure will result.

Flashlight Pictures

The Kodak Amateur Flashlight Outfit has wonderfully simplified picture-taking at night, and enables you to obtain souvenirs of evening parties, groups around the dinner or card table, and single portraits which, but for the flashlight, would be beyond the range of the camera.

This Flashlight Outfit makes it possible also to photograph interiors which cannot be taken by daylight, by reason of a lack of illumination or for some other cause.

The Kodak Amateur Flashlight Outfit gives a minimum of smoke.

Preparation for the Flashlight

Prepare the camera for "time" exposures, as directed on page 17 of this Manual (except that you should use the largest stop) and place it on a tripod, or some firm level support, from which it will take in the view desired.

To prepare the powder for use

Empty the contents of both portions of the glass tube on to a sheet of smooth paper (such as writing paper) and mix well with the aid of any bone or wooden implement, for example, a bone paper-knife. Return all the powder when mixed to the large section of the tube.

To use the Lamp

Place the requisite amount of flash-powder in the tray at the opposite end to the as yet unlighted taper (or match). When ready, the taper (or match) is lighted, the shutter of the camera opened and the lamp tipped steadily forward. Keep clear of the flash. The powder slips down the tray and is ignited instantaneously. Care should be exercised not to jerk the lamp forward but to tip it over boldly and steadily. After the flash, blow out the taper or match. Then push the lever to close the shutter and turn a fresh section of the film into place with the key, ready for another picture.

Quantity of powder to use

For portraits or average pictures indoors, use as much powder as can be heaped on to a threepenny piece or as much as easily covers a sixpence without piling up. Small groups or
larger pictures indoors need rather more powder—say as much as can be heaped on to a sixpence, but not more.

Fig. 18. The Kodak Amateur Flashlight Outfit in use

Where to hold the Flashlamp

The lamp should be held just behind the camera either to the left or right, and at least two feet above the lens.

Full instructions are supplied with the outfit. The finder on the camera will aid you in arranging the subject for the best effect. In order to make the image visible in the finder, the room should be well lighted with its ordinary illuminant, which need not be extinguished while the picture is being made, provided the lights are so placed that they do not show in the finder.

To Make a Portrait.—See page 19.

The flash should be on the side of the Brownie away from the face—that is, the subject should not face it. The flash should be at least two feet higher than the head of the subject.

Removing the Film

Films can be changed in the open air, but to avoid all chance of spoiling the edges this should be done in a subdued light. A dark room is not required.

Fig. 19. Taking out the used spool of Film.

When the film has been exposed, give the key about a dozen extra turns. This covers the film with the paper again.

Have ready an extra spool of film to fit the Brownie (No. 3 Brownie uses Kodak Film No. 124), and take a position at a table.

Remove the roll holder as shown on page 9. Immediately stick down the loose end of the paper with the gummed slip, which will
be found on the empty reel. Spring out the spool pins and remove the exposed spool of film from the recess, Fig. 19, wrapping it up in paper to prevent all possibility of injury by light.

Now take the empty reel from the recess on the top of the roll holder and transfer it to the other recess, bringing the slotted end into which the key is to fit opposite the key hole.

Load as described on page 9.

Developing

With the Kodak Film Tank and 'Kodatone' or 'Velox' paper you will find as great pleasure in finishing the pictures as in taking them and you will be able to do work of the highest order.

You will prefer the modern method of developing in Daylight with the Kodak Film Tank to the old-fashioned dark room method. Printed instructions for either method will be sent post free on request. It takes many years experience to enable even an expert to get results in the dark room equal to those which the beginner obtains by the more convenient daylight method.

If you send your spools by post for developing, please enclose your name and address in the packet and send a letter of advice with a remittance to avoid delay.

Printing

For printing in daylight, 'Kodatone' paper is the simplest. The pictures merely need treatment in a solution of Hypo and a good wash; when dry they are finished.

But for printing with artificial light in your living room Velox is the paper to use. If the negatives are lacking in contrast, Vigorous Velox is the proper grade; if the negatives are contrasty, Soft or Special Velox will be preferable.

Enlarging

In nearly all cases, pictures are considerably improved by enlargement, and sometimes more than one delightful picture can be made from different parts of the same negative; the full beauty of interesting details, barely noticed in a contact print, is brought out in an enlargement.

Any negative that gives a good contact print will give a good enlargement on either Kodak Bromide or Soft Velox Paper by means of daylight.

The No. 3A Brownie Enlarger will enable enlargements to be made $10\frac{1}{2} \times 6\frac{1}{2}$ in. from No. 2C negatives. The No. 3 Brownie Enlarging Camera will enable enlargements to be made $8\frac{1}{2} \times 5$ in. from No. 2A Brownie negatives, and $8\frac{1}{2} \times 6\frac{1}{2}$ in. from No. 3 Brownie negatives.

With the Kodak Auto-Focus Enlarger you can make pictures in a dark-room from $1\frac{1}{2}$ to $3\frac{1}{2}$ times the dimensions of your Brownie negative or of any part of it you choose, that is from $2\frac{1}{4}$ to $12\frac{1}{4}$ times the area of the portion enlarged.

Mounting

Mounting with paste is the method known to everyone. Kodak Mounting Paste is specially manufactured so that it will have no deleterious effect on the image of any print or Enlargement mounted with it.
Eastman Double Coated Mounting Tape will be found even more convenient. This is an exceedingly thin paper coated on both sides with a specially prepared adhesive. One side is moistened and attached to the print; then the other side is also moistened in its turn, and the print fixed in position on the mount or in the album.

When large numbers of photographs are to be mounted, the use of Ademco Dry Mounting Tissue, and a Dry Mounting Press can be recommended.

Amateurs will usually find the following alternative method with a flat iron equally convenient. The iron should be just the right heat for ironing starched linen; the tissue is laid over the back of the print and touched with a corner of the iron to attach it to the print. Print and tissue are then trimmed to the required size, and placed in position on the mount; a sheet of clean paper is placed on top and the whole surface is pressed (not ironed) with the hot flat iron.

The most convenient way of heating the iron is to stand it in a pan of boiling water, which must be kept on the boil. On removal from the water the iron will dry in a few seconds. The iron will soon cool and it must be put back frequently into the boiling water. If the tissue does not stick to the mount, it means either that the iron has not absorbed sufficient heat, or that longer pressure is required.

Kodak Service

If you have any trouble in getting perfect results with your Kodak, please ask for a free demonstration at any Kodak branch; if that is not convenient, write about your difficulty to Kodak Limited, Kingsway, London, W.C.2.

Kodak Limited employs a staff of demonstrators and experts to see that all photographic problems are explained which Kodak owners find difficulty in solving for themselves.
Useful Helps

When you are Taking Pictures:

Carrying Case with Shoulder Strap.
'Kodak' N.C. Film.
'Kodak' Portrait Attachment.
'Kodak' Sky Filter.
'Kodak' Colour Filter.
'Kodak' Amateur Flashlight Outfit and Refills.
'Brownie' Metal Tripod Adapter for No. 2A Brownie.
No. 1 'Kodak' Metal Tripod.

When you are Developing:

2½ inch 'Kodak' Daylight Developing Tank for No. 2A 'Brownie' Film.
3½ inch 'Kodak' Daylight Developing Tank for No. 2C and No. 3 'Brownie' Film.
'Kodak' Tank Developer Powders.
'Kodak' Acid Fixing Salt.
Eastman Thermometer.
'Kodak' Metal Film Clips.
Film Storage Album for 100 negatives.
'Kodak' Flexible Fixing and Washing Dish.
'Kodak' Push Pins.

When you are Printing:

'Maskit' Printing Frame.
'Velox' Paper and Post Cards.
'Kodak' Magnesium Ribbon Holder.
'Velox' Developing Powders.
'Kodak' Acid Fixing Salt.
'Kodatone' Paper Hypo.
Eastman Print Paddle.

When you want "Something Different":

'Brownie' Enlarger and Bromide Paper.
'Kodak' Special Developer.
'Kodak' Chromium Intensifier.
'Kodak' Sepia Toner.
'Velox' Transparent Water Colour Stamp Outfit.
Eastman Double Coated Mounting Tape.
'Kodak' Print Roller.
'Kodak' Trimming Board.
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