

This manual is for reference and historical purposes, all rights reserved.

This page is copyright© by M. Butkus, NJ.

This page may not be sold or distributed without the expressed permission of the producer

I have no connection with any camera company

On-line camera manual library

This is the full text and images from the manual. This may take 3 full minutes for the PDF file to download.

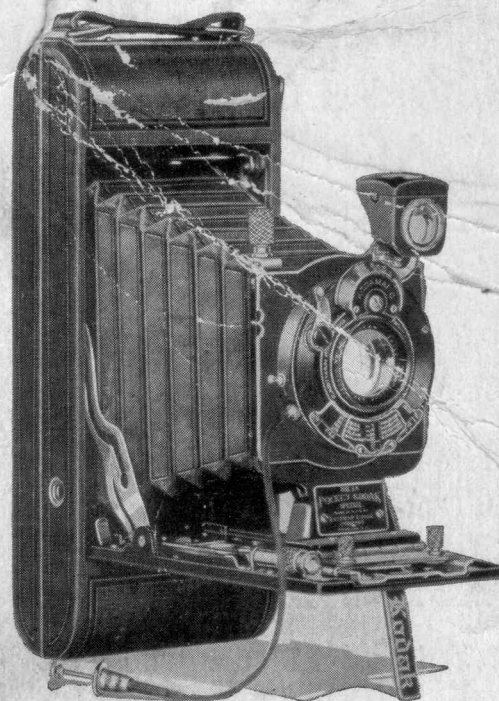
If you find this manual useful, how about a donation of \$3 to: M. Butkus, 29 Lake Ave., High Bridge, NJ 08829-1701 and send your e-mail address so I can thank you. Most other places would charge you \$7.50 for a electronic copy or \$18.00 for a hard to read Xerox copy.

This will allow me to continue to buy new manuals and pay their shipping costs.

It'll make you feel better, won't it?

**If you use Pay Pal or wish to use your credit card,
click on the secure site on my main page.**

*“If it isn’t an Eastman,
it isn’t a Kodak.”*



*Picture taking with the
Nos. 1 and 1A Pocket
Kodaks Special*

Kodak Anastigmat Lens $f.4.5$ or $f.5.6$

“Kodak”

TRADE MARK
1888

EASTMAN KODAK COMPANY
ROCHESTER, N. Y.

Manufacturers of

KODAK BROWNIE AND
HAWK-EYE CAMERAS
CINÉ-KODAK KODASCOPIES
KODAK FILM VELOX SOLIO
EASTMAN BROMIDE PAPERS

KODAK FILM TANKS
EASTMAN TESTED CHEMICALS
KODAK DRY MOUNTING TISSUE
TRIPODS AND OTHER PHOTO-
GRAPHIC MATERIALS

Trade Marks Reg. U. S. Pat. Off.

August, 1926.

“KODAKERY”

A monthly magazine that teaches how to make better pictures will be sent FREE OF CHARGE to anyone who buys one of our amateur cameras from a dealer in photographic goods, if this blank is filled out and sent to us within 30 days from the date the camera was purchased.

EASTMAN KODAK COMPANY.

TO THE EASTMAN KODAK CO.,
ROCHESTER, NEW YORK:

Accepting your offer, please put my name on the mailing list for “KODAKERY” (with the understanding that there is to be no cost to me), I having bought a

TEAR OFF HERE

.....
(Kind of Camera)

from.....
(Name of Dealer)

on.....
(Date Here)

Print your name and address plainly:

.....
.....
.....
.....
NOTE—KODAKERY will be sent for one year only on this offer. After that the subscription price will be sixty cents for one year or one dollar for two years, but you are under no obligation to renew.—E. K. Co.

Picture taking with the

Nos. 1 and 1A Pocket
Kodaks *Special*

Kodak Anastigmat Lens *f.4.5 or f.5.6*

Published by

EASTMAN KODAK COMPANY,
ROCHESTER, N. Y., U. S. A.

Order Film by Number

All Kodak Films are distinguished by numbers on the ends of the cartons. This number is also on the cartridge, and on the Kodak.

A **120** is the number of the film for the No. 1 Pocket Kodak *Special*.

A **116** is the number of the film for the No. 1A Pocket Kodak *Special*.

Autographic Film can be used in the earlier models of Kodaks, and "N. C." film can be used in Autographic Kodaks.

Autographic results can only be obtained by using Autographic Film in an Autographic Kodak.

IMPORTANT

When autographing film, bear down with the stylus as heavily as the paper will stand without tearing.

Before Loading

THE Nos. 1 and 1A Pocket Kodaks *Special* are alike except that the No. 1A makes a larger picture and it has a rising front. Throughout this book whatever is written applies to either camera except in the matter of film, picture sizes, rising front and some accessories. These instructions are for the Kodaks whether they are fitted with the *f.4.5* or the *f.5.6* Kodak Anastigmat Lens.

Before taking any pictures with your Kodak, read the following instructions carefully. Make yourself familiar with the camera, taking especial care to learn how to operate the shutter (see page 10). Work it for instantaneous, time and "bulb" exposures several times before loading the Kodak with film.

The first thing to bear in mind is that the light which impresses the photographic image upon the sensitive film in a fraction of a second, when it comes through the lens, can destroy the film as quickly as it makes the picture. While loading and unloading the Kodak, be very careful to keep the red paper wound tightly around the film to prevent the light striking it.

CONTENTS

Loading the Kodak	5
Making the Exposures	10
Operating the Shutter	10
Instantaneous Exposures	20
Focusing	21
The Lens	23
Diaphragms	32
Autographic Feature	43
Time Exposures—Interiors	48
To Make a Portrait	53
Time Exposures—Outdoors	58
Flash-light Exposures	59
Rising Front	66
Closing the Kodak	68
Removing the Film	70
Finishing the Pictures	76

Loading the Kodak

THE Nos. 1 and 1A Pocket Kodaks *Special* can be loaded or unloaded in daylight. This should be done in a subdued light, not in direct sunlight. Use film No. A 120 for the No. 1 Pocket

Kodak *Special*, and film No. A 116 for the No. 1A Pocket Kodak *Special*.



FIG. I.
Removing the Back.

1. Press the button above the winding key and lift off the back of the camera as shown in Fig. I.

2. In the winding end of the camera is an empty spool, this is the reel; place the roll of film in the opposite end. Fig. II.

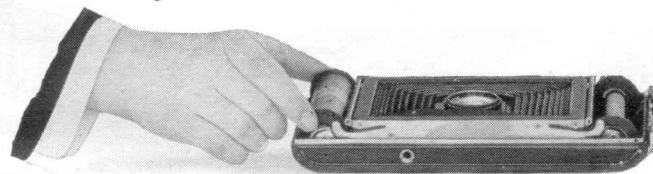


FIG. II.
Inserting the Film.

The word "TOP," which is printed on the cartridge, must be be on the same side of the camera as the winding key. If the cartridge is inserted the wrong way around, the red paper will come between the lens and the film and no pictures could be made.

3. See that the spring pivots are in the holes in the ends of the spool.



FIG. III.
Threading Red Paper into Reel.

4. Remove the band that holds the red paper, pass the paper over the two rollers, unfold the end and thread it into the *longer* opening in the slit in the reel, *as far as it will go*, Fig. III. Be careful that the paper draws straight and true.



FIG. IV.
Binding the Red Paper on Reel.

5. Turn the key once or twice—just enough to bind the paper on the reel, Fig. IV.

The paper should now be in the position indicated in Fig. V.

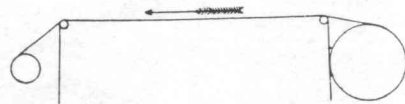


FIG. V.
Showing Position of Paper.

6. Replace the back by fitting the flange nearest the red window, over the metal edge below the *full spool* and closing it into place. Press the back near the carrying handle so that the spring button snaps into place, securely locking the back.

Handle the back of the Kodak carefully as even a slight bend would make

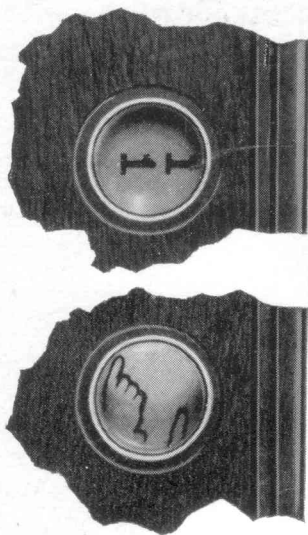
Picture taking with the

it fit badly, allowing light to get in and ruin the film.

From the time the band on the roll of film is broken until the back is again in place, keep the red paper wound tightly on the roll. If it should loosen, light will get in and the film will be fogged and ruined.

7. Turn the key and watch the red window. After 10 to 15 turns, a warning hand will appear; then turn slowly until the figure 1 is in the center of the window.

The film is now in position for the first picture.



Load your Kodak with Kodak Film.

Look for this Trade Mark on the box:

EASTMAN
Autographic

*“If it isn’t Eastman,
it isn’t Kodak Film.”*

Making the Exposures

BEFORE making an exposure with your Kodak, five things must be done:

First—The shutter must be adjusted for an instantaneous, time or “bulb” exposure.

Second—The diaphragm lever placed at the proper stop opening.

Third—The shutter “set.”

Fourth—The Kodak focused.

Fifth—An unexposed section of the film turned into position.

The shutter is “set” by pressing lever E and exposures are made by pressing the push-pin of the cable release D or pressing the exposure lever C. (See illustration on page 13.)

Do not make too sharp a bend in the cable release, or it may kink.

Operating the Shutter

Familiarity with the shutter is necessary for successful picture-taking with any camera. The following directions should be carefully read, and the shutter operated several times before loading the Kodak with film.

Over the lower scale on the shutter is a slide, with divisions indicating four degrees of light intensity: “Brilliant,” “Clear,” “Gray” and “Dull.”

This slide has an opening, which, when its pointer is at any of the diaphragm or *f.* numbers, uncovers figures which indicate the correct exposures for each diaphragm or stop opening, under the four light conditions defined as follows:

Brilliant—intense sunlight. When the sunlight is very clear and intense, and is shining directly on the principal part of the subject.

Clear—ordinary sunlight; also intense sunlight when it is not shining *directly* on the principal part of the subject.

Gray—hazy or dull sunlight. Best judged by the shadow cast by the sun which would be called “half-shadow;” or when only a faint shadow is visible.

Dull—sun *not* visible; sky completely overcast with light clouds or slightly smoky atmosphere.

With heavy clouds it will be necessary to make a longer exposure than

Picture taking with the

any of the instantaneous or automatic exposures given on the exposure dial. Move the indicator A at the top of the shutter until it is over the letter "T" or "B," depending upon your judgment, then make a time or "bulb" exposure.

Instantaneous Exposures

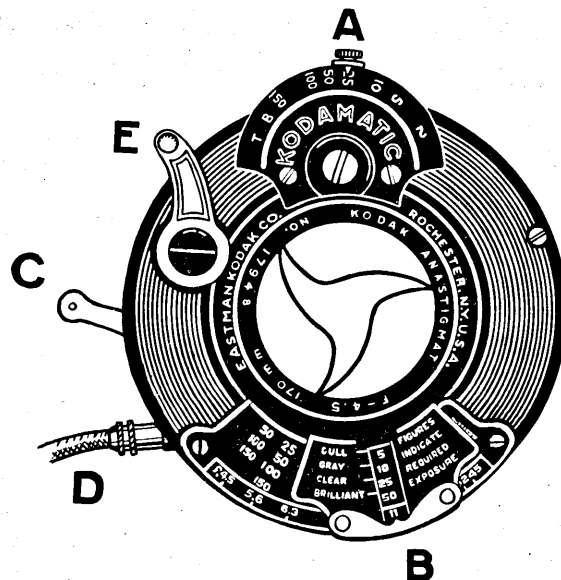
First—Move indicator A, until it is exactly over the figure indicating the exposure required.

The shutter on the No. 1 Pocket Kodak *Special* fitted with the *f.4.5* or the *f.5.6* lens is marked: 2, 5, 10, 25, 50, 100 and 200; the shutter on the No. 1A Pocket Kodak *Special* fitted with the *f.4.5* or the *f.5.6* lens is marked 150 instead of 200. These figures indicate fractional parts of a second, thus: 1/2, 1/5, 1/10, 1/25, 1/50, 1/100, 1/150 and 1/200.

Automatic exposures of 1/2, 1/5 or 1/10 must not be made with the Kodak held in the hands, a tripod or other firm support must be used for these slow speeds.

For ordinary outdoor work such as street scenes, nearby views, etc.,

Nos. 1 and 1A Pocket Kodaks *Special*



with the subject in the sunlight, use stop *f.11* and 1/25 second.

For open views, when the sunlight on the subject is *unusually strong* and there are no heavy shadows, such as views at the seashore and on the water, use stop *f.16* and 1/50 second.

For ordinary *landscapes*, in bright sunlight with clear sky overhead, use stop *f.16* and 1/25 second.

When the sky is overcast with light clouds or slightly smoky atmosphere,

use *f.5.6* or *f.6.3* and 1/25 second. If greater depth of focus is required, place the Kodak on a tripod or some other firm support, use a small stop and make a longer exposure, according to the table on page 58.

As a general rule 1/100 and 1/200 second (1/150 second if your camera is the No. 1A Pocket Kodak *Special* with *f.4.5* or *f.5.6* Kodak Anastigmat Lens) should be used only when making snapshots of rapidly moving objects with stops *f.4.5*, *f.5.6*, *f.6.3* or *f.8*. The slide over the diaphragm plate will tell which one of these stops to use, according to the light intensity at the time of the exposure.

Instantaneous Exposures should not be made when there are heavy clouds.

Second—Move the slide B controlling the diaphragm or stop openings to the proper *f.* number (the lowest row of numbers on the scale at the bottom of the shutter), depending on the intensity of light, kind of subject and time of exposure. See instructions for using the diaphragms or stops, on pages 32, 33, 34 and 35.

Third—Press lever E to “set” the shutter, ready for an exposure.

Fourth—Press the push-pin of the cable release D, or press the exposure lever C. *This makes the exposure.*

Hold the Kodak steady, as a slight jar will cause a blurred negative. Exposures slower than 1/25 second must not be made with the Kodak held in the hands.

Exposure Guide

The following method of using the Kodamatic Shutter as a guide to correct exposure will be found a great help:

The slide below the lens uncovers various figures which indicate the correct exposure for a *normal* subject under four light conditions, and for each diaphragm or stop opening. Stops *f.6.3* and *f.5.6* require practically the same exposure. The lowest figure indicates the diaphragm.

To find the correct exposure:

It is necessary to classify the subject in order to decide upon the diaphragm to be used. As the greatest number of

Picture taking with the

pictures to be taken will be of normal subjects, the figures given on the Kodamatic Shutter are for these subjects. For nearby landscape views showing little or no sky; groups; ordinary street scenes that include little or no movement, use stop $f.11$. For scenes on streets that are narrow and somewhat shaded, use stop $f.8$. If the subject includes rapid movement, stop $f.4.5$, $f.5.6$, $f.6.3$ or $f.8$ must be used. Where greater depth of focus is required and a very short exposure not needed, then use stop $f.16$, $f.22$, $f.32$ or $f.45$.

When the subject differs from the normal, such as a distant landscape; a beach or marine view; snow scene; clouds only; or a portrait or group that is in the shadow, these will obviously call for different exposures, for which see "Diaphragms" on pages 32, 33, 34 and 35.

Having decided upon the diaphragm:

Move the slide B until the indicator is immediately under the diaphragm called for. The figure in the column above the diaphragm number and

opposite the prevailing light condition is the correct exposure for a normal subject.

For example: You wish to make a picture of a nearby landscape with little or no sky; this is a normal subject and calls for diaphragm or stop $f.11$. Move the slide B until the indicator is exactly under $f.11$, then, having decided that the day—the light condition, is "Clear," look in the column above $f.11$ and immediately opposite "Clear" you will find the figure 25, which indicates the correct exposure, $1/25$ second. Should the sun be unusually bright and the sky brilliant, the exposure would then be $1/50$, or should the sky be gray or dull, exposures of $1/10$ and $1/5$ respectively will be correct.

While the shutter can give slow instantaneous exposures of $1/10$, $1/5$ and $1/2$ second, these should never be used with the Kodak held in the hands. *All exposures slower than $1/25$ second must be made with the camera on a tripod or other firm support.*

When there are blank spaces in the columns over the higher diaphragm

numbers (smaller stop openings), this indicates that no instantaneous exposures can be made, and either a time or a "bulb" exposure must be given.

Kodaks fitted with the *f.4.5* lens have a blank space opposite "Brilliant"—indicating that no exposure should be made with that light and largest opening. Move the slide B to *f.5.6*, and use the speed opposite "Brilliant."

Time Exposures

First—Move the indicator A until it is exactly over the letter "T" (time). This adjusts the shutter for Time Exposures.

Second—Move the slide B to *f.4.5*, 5.6, 6.3, 8, 11, 16, 22, 32 or 45, depending on the time of exposure and nature of the subject. See instructions for using the diaphragms or stops, given on pages 32, 33, 34 and 35, also, the table for Interior Time Exposures on pages 51, 52 and 53 and the table for Time Exposures Outdoors, given on page 58.

Third—Press lever E to "set" the shutter.

Fourth—Press the push-pin of the cable release D. This *opens* the shutter. Time the exposure by a watch. Again press the push-pin. This *closes* the shutter. The shutter may also be opened by pressing the exposure lever C and closed by a second pressure, but great care must be taken not to jar the camera.

"Bulb" Exposures

For short exposures of over $\frac{1}{2}$ second and less than ten seconds, "Bulb" Exposures are recommended.

First—Move the indicator A until it is exactly over the letter "B" (bulb). This adjusts the shutter for "Bulb" Exposures.

Second—Move the slide B to *f.4.5*, 5.6, 6.3, 8, 11, 16, 22, 32 or 45, according to the time of exposure and nature of the subject. See instructions for using the diaphragms or stops, given on pages 32, 33, 34 and 35, also the table for Interior Time Exposures, on pages 51, 52 and 53 and the table for Time Exposures Outdoors, on page 58.

Picture taking with the

Third—Press lever E to “set” the shutter.

Fourth—Press the push-pin of the cable release D or press the exposure lever C to open the shutter and release it to close the shutter. *This makes the exposure.* The shutter will remain open as long as the push-pin or exposure lever is under pressure.

Time and “Bulb” Exposures must never be made with the Kodak held in the hands.

As a general rule, make exposures with the cable release instead of the exposure lever, as it is less likely to jar the camera.

Important: *Never oil the shutter.*

Instantaneous Exposures

When making ordinary instantaneous exposures or snapshots, the subject should be in the broad, open sunlight, but the camera must not. The sun should be behind your back or over your shoulder. If it shines directly into the lens it will blur and fog the picture.

Nos. 1 and 1A Pocket Kodaks *Special*

Special instructions for making portraits are given on pages 42, 53 and 63.

To Focus the Kodak

The Nos. 1 and 1A Pocket Kodaks *Special* have a focusing scale and simple acting knurled screw, for quick and accurate focusing.

Press the button below the winding key, Fig. I, and push down the bed of the camera.

The focusing scale on the camera bed is marked for 6, 8, 10, 15, 25 and 100 feet and is for focusing the camera.

Press the two spring finger grips at the base of the front and draw it out, Fig. II, page 22. Draw the front *all the way out* where it will lock in position. The Kodak will then be in focus for anything 100 feet or more from the lens.



FIG. I.
Opening the Front.

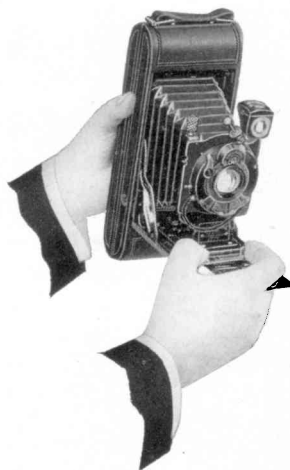


FIG. II.

Drawing out the Front.

To adjust the focus for other distances, turn the knurled screw by pushing it with the thumb, until the indicator over the focusing scale is exactly at the line marked with the figure corresponding to the distance in feet, between the camera and

the *principal object* to be photographed.

It is unnecessary to estimate distances with more than approximate accuracy, when the subject is *beyond fifteen feet*; for instance, if the focus is set at 25 feet (the usual distance for ordinary street work) the sharpest part of the picture will be the objects

at that distance from the camera, but everything from about 18 to about 45 feet will be in good focus.

For general street work the focus may be kept at 25 feet, but where the *principal object* is nearer or farther away, the focus should be changed accordingly.

For distant views set the focus at 100 feet. Everything beyond 100 feet is in the 100-foot focus. Nothing nearer than six feet can be focused without using a Kodak Portrait Attachment, see pages 55 and 56, or a small stop opening, see tables on page 26.

The Lens

The Nos. 1 and 1A Pocket Kodaks *Special*, are equipped with Kodak Anastigmat Lenses the speeds of which are indicated as *f.4.5* or *f.5.6*, meaning that they will give a sharp image from corner to corner of the film with an opening $1/4.5$ or $1/5.6$ of their focal length.

Get Acquainted with Your Lens

The user of any lens should familiarize himself with its limitations as well as with its capabilities. This is partic-

 Picture taking with the

ularly true in the case of the Anastigmats, and we therefore ask that those who are not entirely familiar with photographic optics, read the following brief explanation, that they may get the full benefit of the power of their lens and that, on the other hand, they do not ask of it the impossible. It should be borne in mind, however, that what we have to say here is *applicable only to lenses of from 4 to 8 1/4-inch focus*, such as are supplied on our hand cameras. These remarks make no pretension to covering the entire field of photographic optics.

In comparing the work of one lens with another, it must, first of all, be remembered that such comparisons must be made with a stop opening of the same size (*f. value*).

It should be borne in mind that the shorter the length of focus, the greater the depth of focus. This explains why very small cameras can have a "fixed focus" (immovable), while larger cameras have to be focused.

What Depth of Focus Means

When you are using your Anastigmat Lens with a large opening such as

f.5.6, and have set the focus at six feet, objects six feet distant will be sharp, but objects about five feet and seven feet away will not be sharp. Stop your Anastigmat down to *f.8* or *f.11* and those objects in front of and behind the exact point of focus will increase in sharpness. Go farther and use stop *f.45* and everything from about three and one-quarter feet to infinity will be sharp with the No. 1 Pocket Kodak *Special*. With the No. 1A Pocket Kodak *Special*, everything from about four feet to about fourteen feet will be sharp. It will thus be seen that the smaller the stop, the greater the depth of focus, that is, the greater the power of the lens to define sharply, at the same time, objects nearer the camera and farther from the camera than the principal object in the picture, which, of course, is the object focused upon. It is obvious that with the small stops the exposure must be correspondingly lengthened.

The tables on page 26 give the range of sharp definition or depth of focus when the Nos. 1 and 1A Pocket Kodaks *Special* are focused with different stops.

The Depth of Focus for Different Stops or Diaphragms

By "depth of focus" is meant the distance, in front of and behind the subject focused on, within which details in the picture will be sharp and distinct.

Table for use with the No. 1 Pocket Kodak Special

Distance focused upon	f.4.5		f.5.6		f.6.3		f.8		f.11		f.16		f.22		f.32		f.45	
	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.
100	39 to inf.	34 to inf.	32 to inf.	26 to inf.	21 to inf.	15 to inf.	11½ to inf.	8½ to inf.	7 to inf.	6½ to inf.	5 to inf.	4½ to inf.	4 to inf.	3½ to inf.	3 to inf.	2½ to inf.	2 to inf.	1½ to inf.
25 "	18 to 40	17 to 48	16 to 55	15 to 80	13 to 103	12 to 135	11 to 185	10 to 255	9 to 350	8 to 480	7 to 660	6 to 900	5 to 1200	4 to 1600	3 to 2100	2 to 2800	1 to 3600	¾ to 4800
15 "	12 to 20	11½ to 21	11 to 22	10 to 26	9 to 35	8 to 48	7 to 66	6 to 90	5 to 120	4 to 160	3 to 210	2 to 280	1 to 360	¾ to 480	⅝ to 630	⅜ to 840	⅔ to 1120	⅔ to 1500
10 "	8 to 14	8 to 14	8 to 14	7 to 13	7 to 16	6 to 22	5 to 30	4 to 40	3 to 54	2 to 72	1 to 96	¾ to 128	⅝ to 170	⅜ to 224	⅔ to 296	⅔ to 392	⅔ to 516	⅔ to 684
8 "	7½ to 9½	7 to 9	6½ to 9	6 to 12	5 to 15	4 to 20	3 to 27	2 to 36	1 to 48	¾ to 64	⅝ to 84	⅜ to 112	⅔ to 148	⅔ to 196	⅔ to 256	⅔ to 336	⅔ to 440	⅔ to 580
6 "	5½ to 6½	5 to 6	4½ to 7	4 to 8	3 to 12	2 to 16	1 to 21	¾ to 28	⅝ to 36	⅜ to 48	⅔ to 64	⅔ to 84	⅔ to 112	⅔ to 148	⅔ to 196	⅔ to 256	⅔ to 336	⅔ to 440

Table for use with the No. 1A Pocket Kodak Special

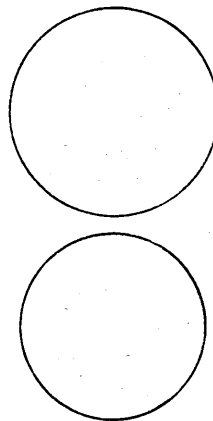
Distance focused upon	f.4.5		f.5.6		f.6.3		f.8		f.11		f.16		f.22		f.32		f.45	
	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.
100	50 to inf.	44 to inf.	42 to inf.	35 to inf.	28 to inf.	21 to inf.	17 to inf.	13 to inf.	11 to inf.	10 to inf.	9 to inf.	8 to inf.	7 to inf.	6 to inf.	5 to inf.	4 to inf.	3 to inf.	2 to inf.
25 "	20 to 34	19 to 37	18 to 40	17 to 46	15 to 51	14 to 68	13 to 90	12 to 120	11 to 160	10 to 210	9 to 280	8 to 360	7 to 480	6 to 630	5 to 840	4 to 1120	3 to 1500	2 to 1980
15 "	13 to 17	12½ to 18	12 to 19	11 to 20	10 to 24	9 to 34	8 to 45	7 to 60	6 to 80	5 to 108	4 to 144	3 to 192	2 to 256	1 to 336	¾ to 448	⅝ to 592	⅜ to 784	⅔ to 1036
10 "	9 to 11	9 to 11	8 to 11	8 to 13	7 to 18	7 to 24	6 to 32	5 to 42	4 to 56	3 to 72	2 to 96	1 to 128	¾ to 168	⅝ to 224	⅜ to 296	⅔ to 392	⅔ to 516	⅔ to 684
8 "	7½ to 8½	7 to 8	6½ to 9	6 to 11	5 to 15	4 to 20	3 to 27	2 to 36	1 to 48	¾ to 64	⅝ to 84	⅜ to 112	⅔ to 148	⅔ to 196	⅔ to 256	⅔ to 336	⅔ to 440	⅔ to 580
6 "	5½ to 6½	5 to 6	4½ to 7	4 to 8	3 to 12	2 to 16	1 to 21	¾ to 28	⅝ to 36	⅜ to 48	⅔ to 64	⅔ to 84	⅔ to 112	⅔ to 148	⅔ to 196	⅔ to 256	⅔ to 336	⅔ to 440

"Inf." is the abbreviation for Infinity—meaning an unlimited distance from the lens.

Nos. 1 and 1A Pocket Kodaks Special

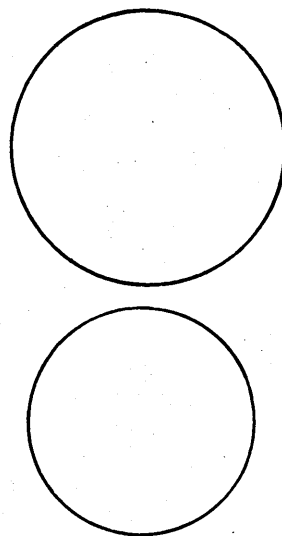
No. 1 Pocket Kodak Special

No. 1A Pocket Kodak Special



f. 4.5

f. 5.6



f.4.5

f.5.6

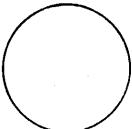
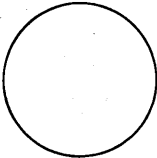
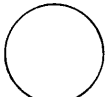
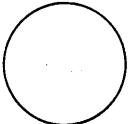










Copyright 1922 by Eastman Kodak Company

The above circles show the actual sizes of the two largest stop openings or diaphragms of the shutters used on the Nos. 1 and 1A Pocket Kodaks Special when they are fitted with the f.4.5 or f.5.6 Kodak Anastigmat Lens. The circles on page 28 show the actual sizes of the smaller diaphragms or stop openings of the same shutters when equipped with the f.4.5 or f.5.6 lens.

The above diagrams and those on page 28, clearly show the relative sizes of the various stop openings and how their areas differ.

Picture taking with the

Nos. 1 and 1A Pocket Kodaks *Special*

No. 1 Pocket Kodak <i>Special</i>		No. 1A Pocket Kodak <i>Special</i>	
	f. 6.3		f. 6.3
	f. 8		f. 8
	f. 11		f. 11
	f. 16		f. 16
	f. 22		f. 22
	f. 32		f. 32
	f. 45		f. 45

Copyright 1922 by Eastman Kodak Company

These circles show the actual sizes of the smaller stop openings or diaphragms of the shutters on the Nos. 1 and 1A Pocket Kodaks *Special*.

Shutter Speed and Lens "Speed"

The difference between a fast lens and a fast shutter is apparently not always understood. Some amateurs think that because they have a fast lens they can "snap" all moving objects sharply, or, because they have a fast shutter that their negatives should be fully timed. A little thought will show that such an opinion is wrong. The fast shutter because it shortens the exposure and cuts down the light, tends towards under-timing. The exposure guide on the Kodamatic Shutter, helps you to use your fast Kodak Anastigmat Lens, correctly, under various light conditions. A fast lens makes it possible to take satisfactory "snapshot" pictures under poor light conditions.

The "f." System

A lens is said to work at a certain "speed;" this means that the lens will give a sharp image from corner to corner of the film with an opening a certain proportion of its focal length. It should be borne clearly in mind

that this "speed" depends *not* upon the size of the opening, but upon the size of the opening *in proportion to the focal length of the lens* (distance from the lens to the film when the Kodak is focused on infinity). The lens that will give sharp images with the largest opening is said to possess the greatest "speed."

The proportional size or "value" of the stop opening is designated by the "f." number and is the quotient obtained by dividing the focal length of the lens by the diameter of the stop.

Taking, for instance, a lens of 8-inch focus with a stop 1 inch in diameter, we find that $8 \div 1 = 8$; hence 8 is the *f.* value of the stop and would be known as *f.8*. Suppose the stop is $\frac{1}{4}$ inch in diameter, we would then have $8 \div \frac{1}{4} = 32$ or $1/32$ of the focal length of the lens, the *f.* value of the stop, and would be known as *f.32*.

The "Speed" of a Lens

The "f." value of a lens denotes the relation of the opening in that lens to its focal length and indicates its "speed." Suppose the Anastigmat

Lens has a focal length of eight inches, how do the various stops or diaphragms compare in size? Simply divide the focal length (eight inches) by the various "f." values:

$$\begin{aligned} 8 \div 4.5 &= 1.77 \\ 8 \div 5.6 &= 1.43 \\ 8 \div 6.3 &= 1.27 \\ 8 \div 8 &= 1 \end{aligned}$$

It will thus be seen that the diameter of *f.4.5* is 1.77 inches; of *f.5.6* is 1.43 inches; of *f.6.3* is 1.27 inches, and the diameter of *f.8* is 1 inch.

The amount of light admitted by a lens in a given time depends upon the area of the opening being used in the lens at that time. The amount of light admitted in a given time with the different stops is in direct proportion to the square of their diameters, as:

$$\begin{aligned} 1.77 \times 1.77 &= 3.13 \text{ at } f. 4.5 \\ 1.43 \times 1.43 &= 2.04 \text{ at } f. 5.6 \\ 1.27 \times 1.27 &= 1.61 \text{ at } f. 6.3 \\ 1 \times 1 &= 1 \text{ at } f. 8 \end{aligned}$$

This means that the "speed" of *f.4.5* is about twice that of *f.6.3*, and that the "speed" of *f.5.6* is about twice

 Picture taking with the

that of *f.8*. From *f.8* to *f.45* each higher number admits approximately *half* the light of the preceding lower number. *The higher the number the smaller the opening.*

Diaphragms

The diaphragms, or stops as they are sometimes called, are the openings that regulate the amount of light passing through the lens. The openings are enlarged or reduced by moving the slide on the lower part of shutter.

f.4.5—For exposures of moving objects on “Clear” days, use 1/200 second if you have the No. 1 Pocket Kodak *Special*, and use 1/150 second if you have the No. 1A Pocket Kodak *Special*; for portraits of children indoors, see page 54, use 1/10 second when the light is very bright. When using *f.4.5*, *f.5.6* or *f.6.3*, and the distance between subject and camera is ten feet or less, the distance must be accurately measured as the depth of focus is limited, see tables on page 26.

f.5.6—For portraiture, see pages 42 and 54. For normal subjects, use the exposures given on the dial below the lens. For exposures of rapidly moving objects in bright sunlight, use 1/200 or 1/150 second; occasionally for slower speeds on hazy and cloudy days; also for portraits and groups in the shade, use 1/25 second, see page 42.

f.6.3—Has almost the same sized opening as *f.5.6* and exposures are practically the same for both stops.

f.8—For instantaneous exposures on “Gray” or hazy days, use 1/25 second, and when the light is “Clear” or “Brilliant,” use 1/50 or 1/100 second, respectively. For scenes on streets that are narrow and somewhat shaded, use 1/25 second.

f.11—For ordinary outdoor work, such as nearby landscapes showing little or no sky, groups and street scenes, when the light on the subject is “Clear,” use 1/25 second.

f.16—For open views, when the sunlight on the subject is *unusually* “Brilliant” and there are no heavy shadows, such as views at the seashore

and on the water, use $1/50$ second; for ordinary *landscapes*, in bright sunlight with clear sky overhead, use $1/25$ second; also for Interior Time Exposures, the time for which is given in the table on pages 51, 52 and 53.

f.22—For instantaneous exposures of extremely distant landscapes, marines, snow scenes and clouds only, in bright sunlight, use $1/25$ second; for ordinary landscapes, street scenes, or nearby subjects when the light is "Brilliant," use $1/10$ second; also for time exposures.

f.32—For exposures out-of-doors when the light is "Clear" or "Brilliant," using the speeds of $1/2$ second and $1/5$ second, respectively; also for Time Exposures out-of-doors on cloudy days, see table on page 58. For Interior Time Exposures, see pages 51, 52 and 53. *Never for instantaneous exposures.*

f.45—For exposures out-of-doors when the light is "Brilliant," use $1/2$ second. For Interior Time Exposures, see pages 51, 52 and 53, also for Time Exposures out-of-doors on cloudy

days, the length of exposure is given in the table on page 58. *Never for instantaneous exposures.* The smaller the stop the sharper the picture, see pages 24, 25 and 26. Total failure will be the result if stops $f.32$ or $f.45$ are used for instantaneous exposures.

Throughout these instructions, the exposures given for out-of-door subjects are for the hours from two and a half hours after sunrise until two and a half hours before sunset. If earlier or later the exposures must be longer. For subjects in the shade, under porches or under trees, no definite directions can be given; experience only can teach the proper exposure to give.

How to Use the No. 1 or the No. 1A Pocket Kodak *Special* as a Fixed Focus Camera

SET THE FOCUS AT 25 FEET.

USE $1/25$ SECOND.

SET DIAPHRAGM AT $f.11$.

By following the above directions your Kodak can be used as a fixed focus camera, with the additional advantage of being instantly con-

Picture taking with the

vertible to a focusing camera when conditions call for it. It must be remembered, however, that when using the Kodak as a fixed focus type, the subject must be in bright sunlight, to obtain a fully timed exposure.

The range of sharpness when your Kodak is adjusted as a fixed focus camera, will be found in the table on page 26.

EXPLANATION: A lens is often spoken of as having a fixed focus. There is no such thing as a fixed focus lens, but in certain cameras, $3\frac{1}{4} \times 4\frac{1}{4}$ and smaller (equipped with short focus lenses), the lens can be set at a distance that is a compromise, as to its focus, between far and near points. A camera with a lens so focused, used in combination with a relatively small stop, is called a fixed focus camera.

Using the Finder

The finder above the shutter gives the scope of view and shows the picture as it will appear, but on a much reduced scale.

Point the lens at the subject to be photographed, and looking into the

Nos. 1 and 1A Pocket Kodaks *Special*

FIG. III.

Holding Kodak in Vertical Position.

finder from directly over it—not at an angle, include what you want and compose the picture by changing the direction of the lens. See Figs. III and IV.

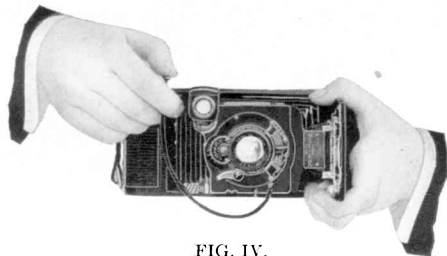
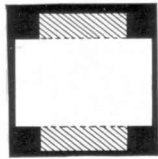
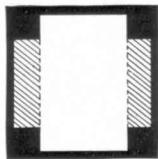


FIG. IV.

Holding Kodak in Horizontal Position Showing Finder Properly Turned.

It will be noticed that the top of the finder is notched, as shown in Fig. V. This enables the one finder to serve when the Kodak is held in either the vertical or the horizontal position.



*View Included when
Making a Vertical
Picture.*

*View Included when
Making a Horizontal
Picture.*

FIG. V.

Only what is seen in that part of the finder represented by the white area of the diagrams will be included in the picture.

Fig. VI, page 39 shows the method of making a vertical exposure without using the cable release. Hold the bed of the Kodak firmly with the left hand, steady it with the right, and press the exposure lever with the thumb of the right hand.



FIG. VI.

Hold the Kodak Level

The Kodak must be held level. If all the subject cannot be included in the finder without tilting the lens upwards, move backwards until it is all included *with the camera held level*.

Tilting the Kodak to bring in the top of a tall building produces the distorted effect shown in Fig. VII, page 41. Sometimes a tall building can be photographed from a building opposite, at a level with the center of the subject.

The No. 1A Pocket Kodak *Special* is equipped with a rising front which can be used to help center tall objects

Picture taking with the



IMPORTANT

When making instantaneous exposures or snapshots with any Kodak, hold it firmly against the body as shown. When pressing the push-pin or the exposure lever, hold the breath for the instant.

Nos. 1 and 1A Pocket Kodaks *Special*



FIG. VII.

Effect produced by tilting the Kodak.

on the film, see page 66. The No. 1 Pocket Kodak *Special* is not fitted with a rising front.

If the subject is below the normal height, like a small child or a dog, the Kodak should be held down level with the center of the subject.