viewfinder.

Fig. 20

www.butkus.org

Fig. 21

www.bikes.org

Fig. 25

Fig. 22

Fig. 23

www.butkus.org

www.bulkley.org

Fig. 26

www.burkus.org

Fig. 27


www.butkus.org

Fig. 30

www.butkus.org

Fig. 28

Fig. 29

Fig. 31

Fig. 32

Fig. 33

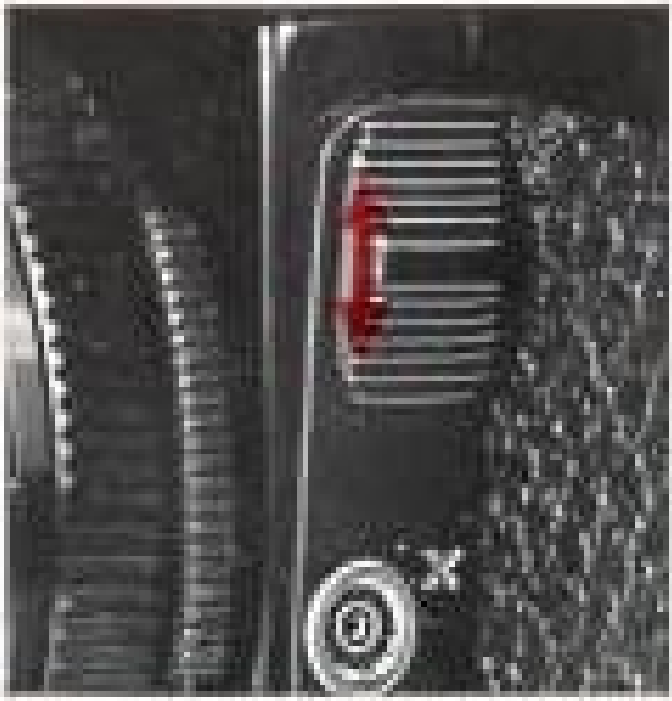


Fig. 34

www.bookus.org

Fig. 35

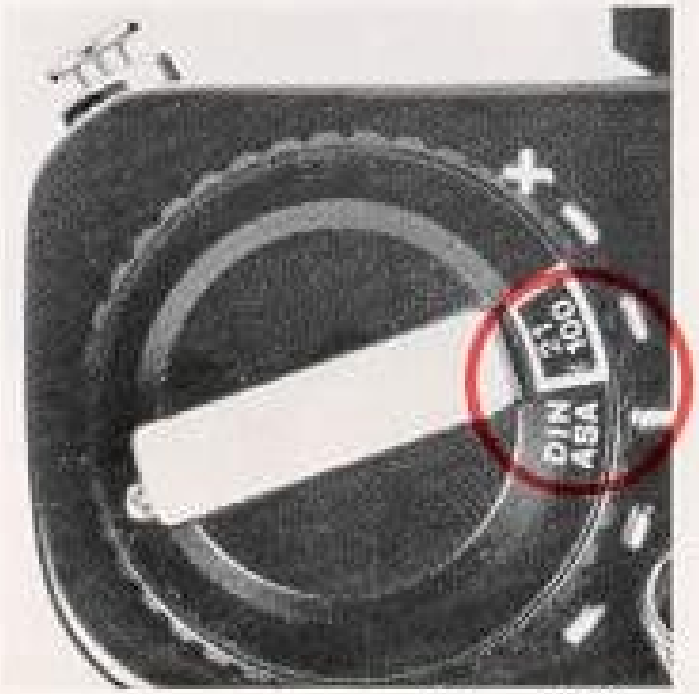
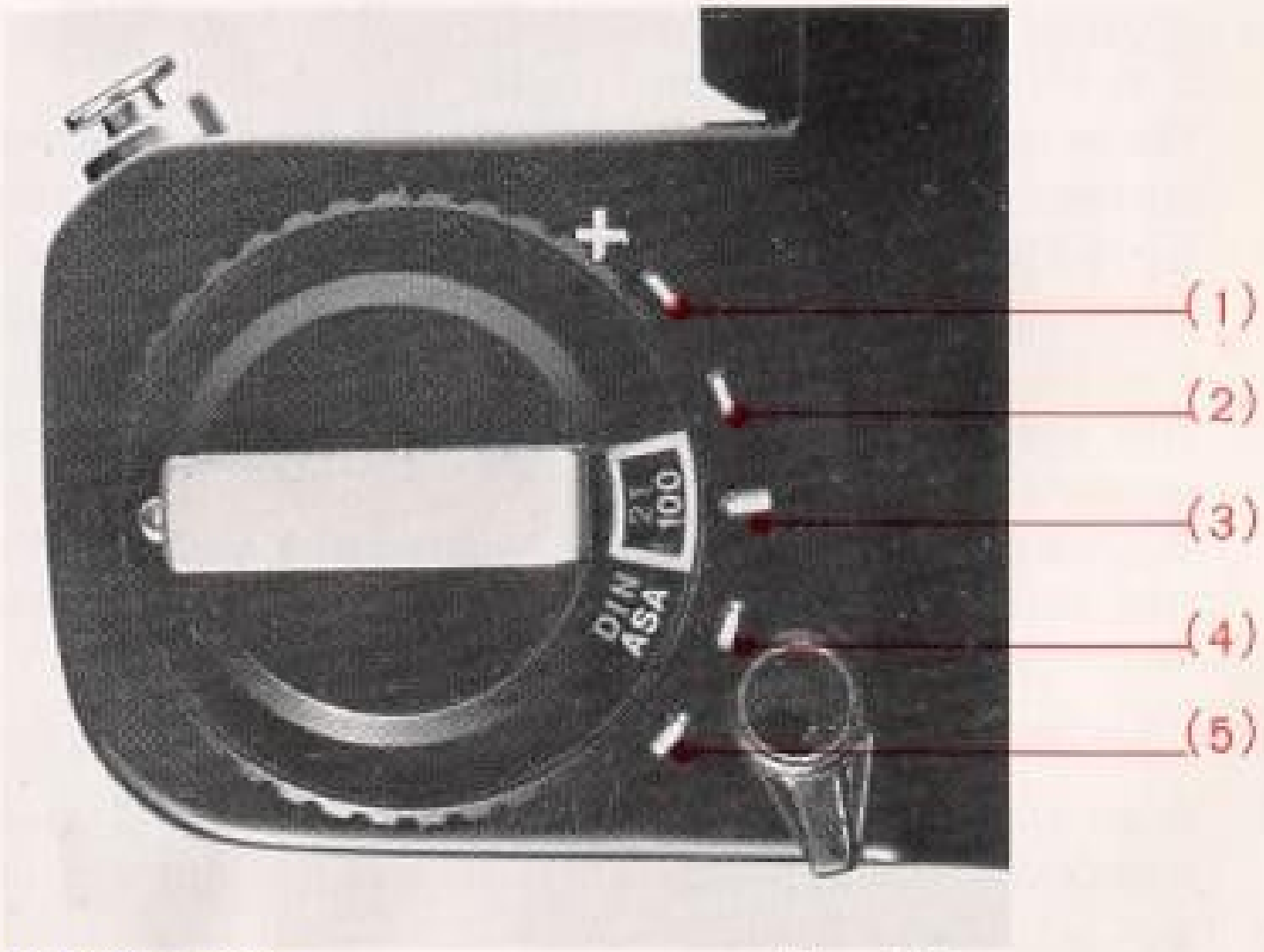


Fig. 36

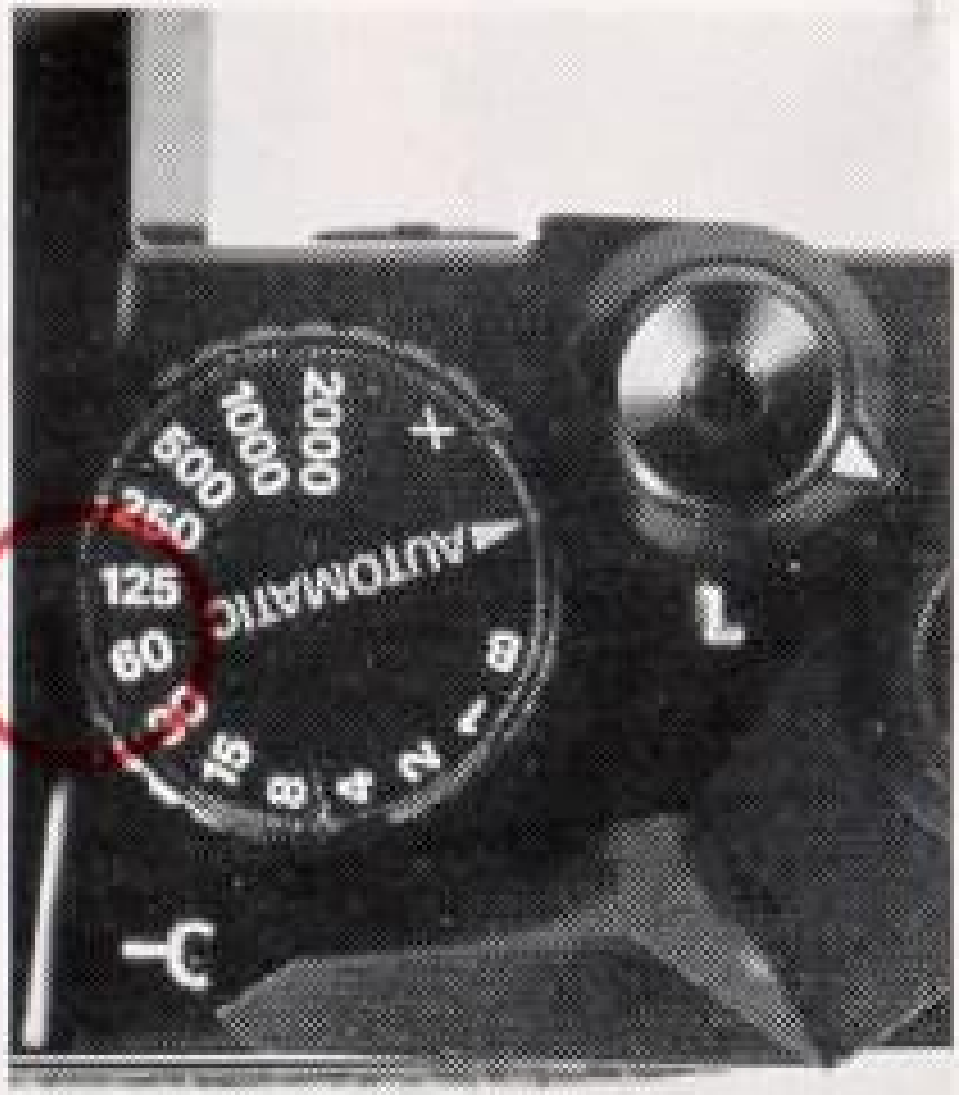
Fig. 37

www.butkus.org



www.butkus.org

Fig. 38



www.butkus.org

Fig. 39

Fig. 40

www.butkus.org

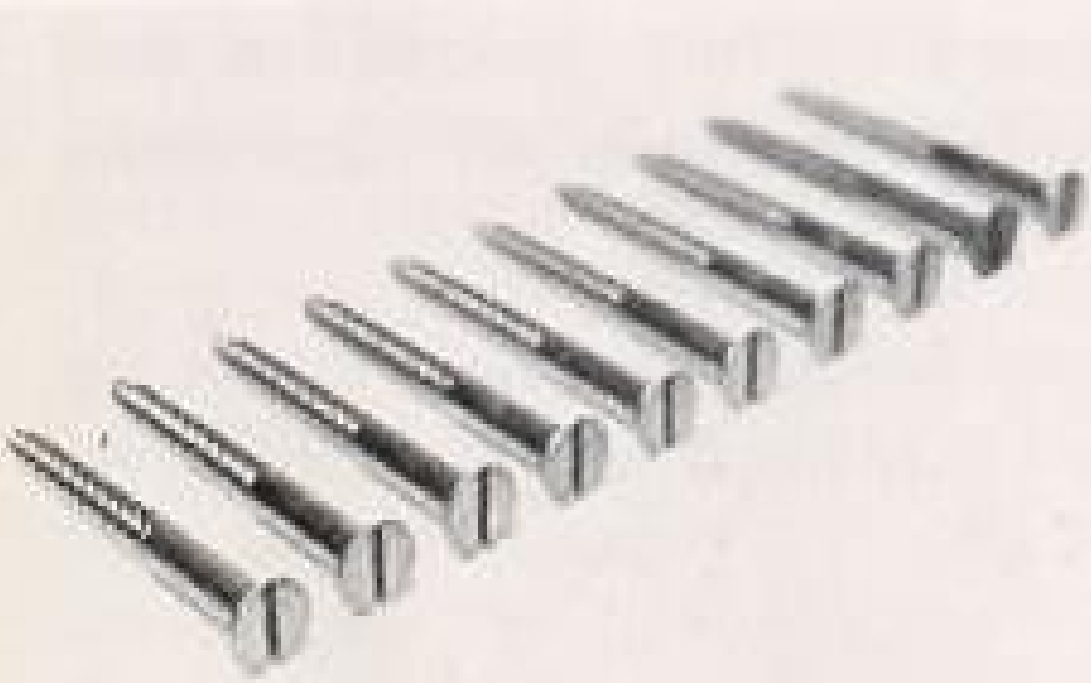
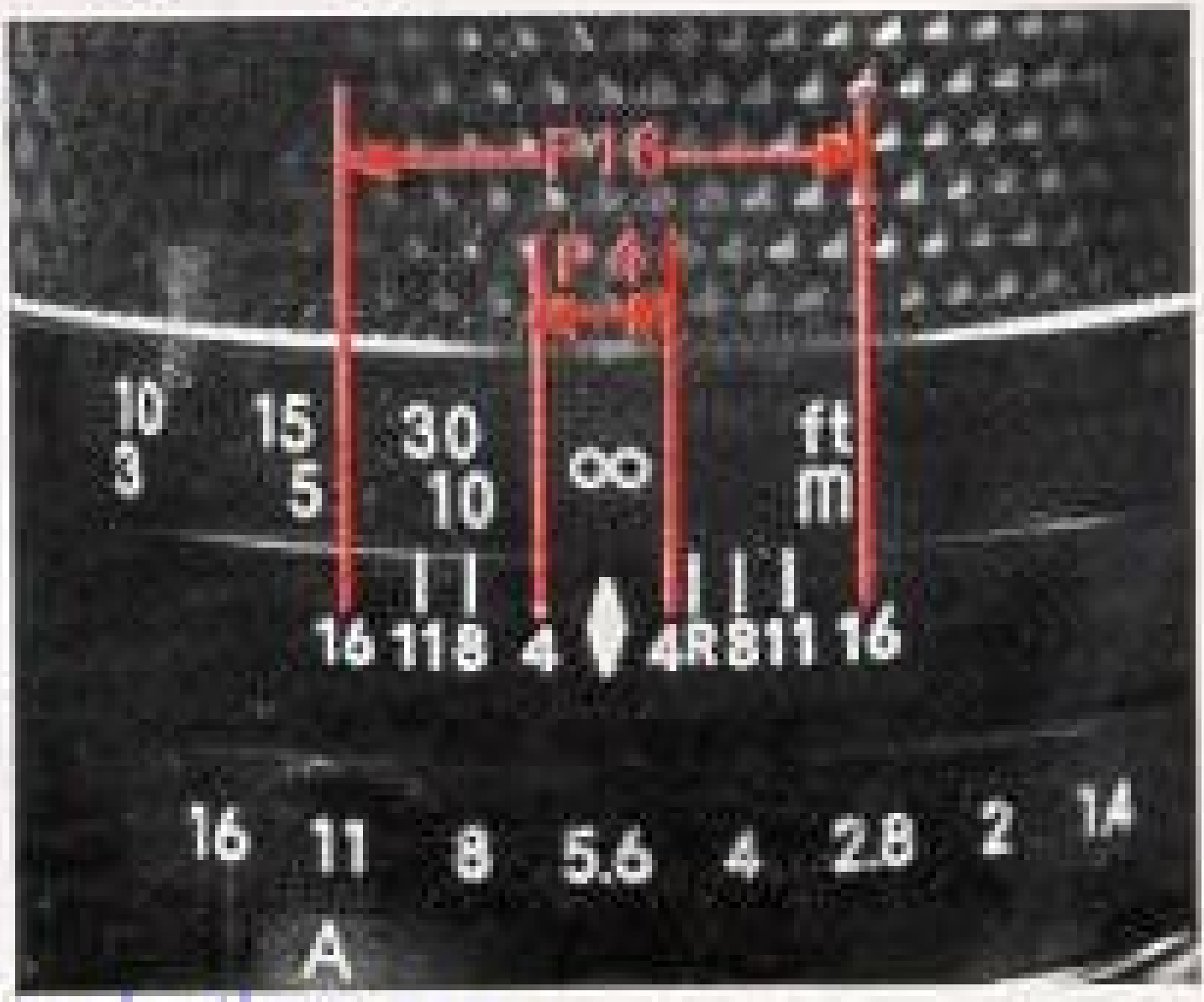


Fig. 42

www.butkus.org

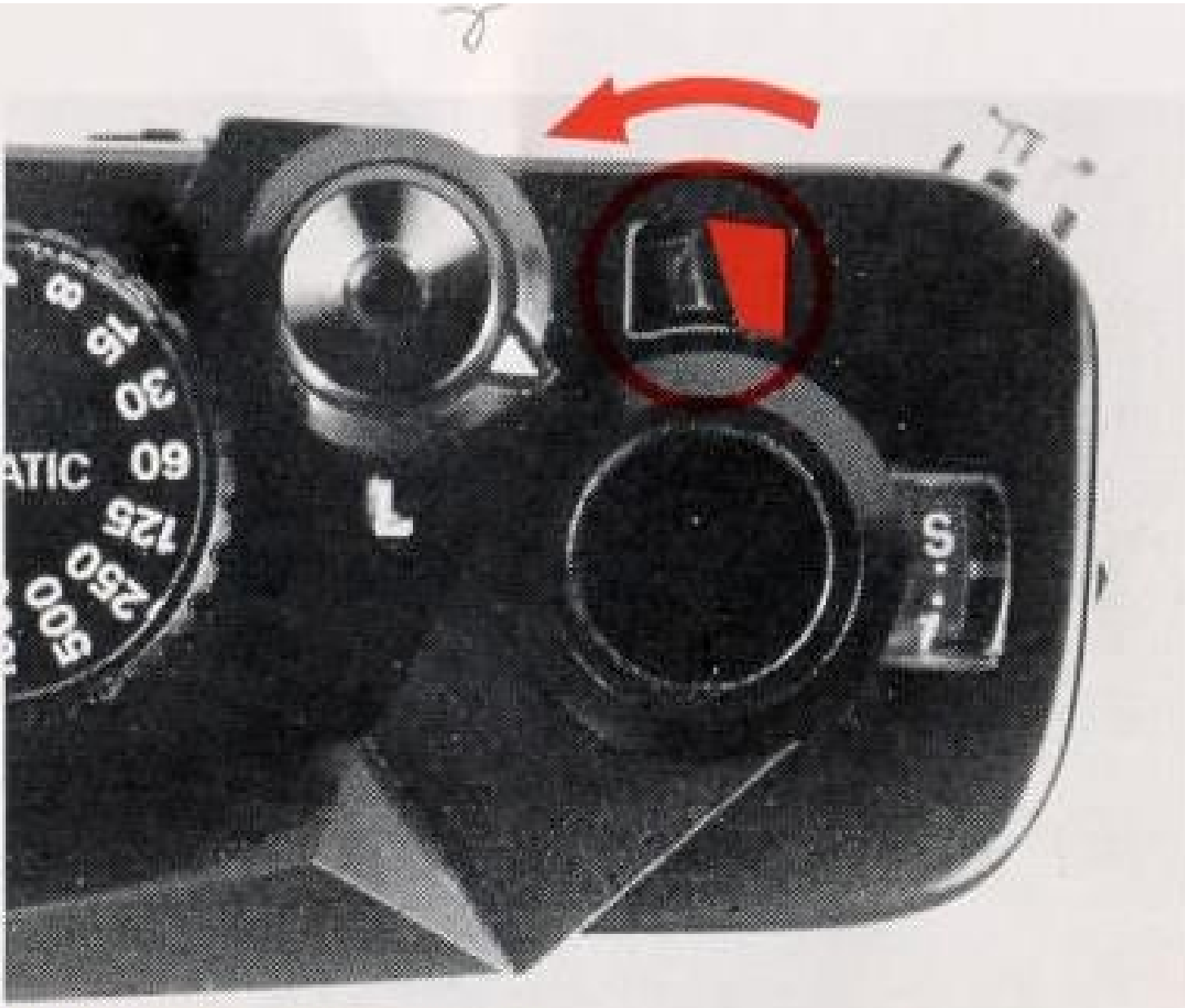
Fig. 43

(Fig. 44)



www.butkus.org

Fig. 44



www.butkus.org

Fig. 41

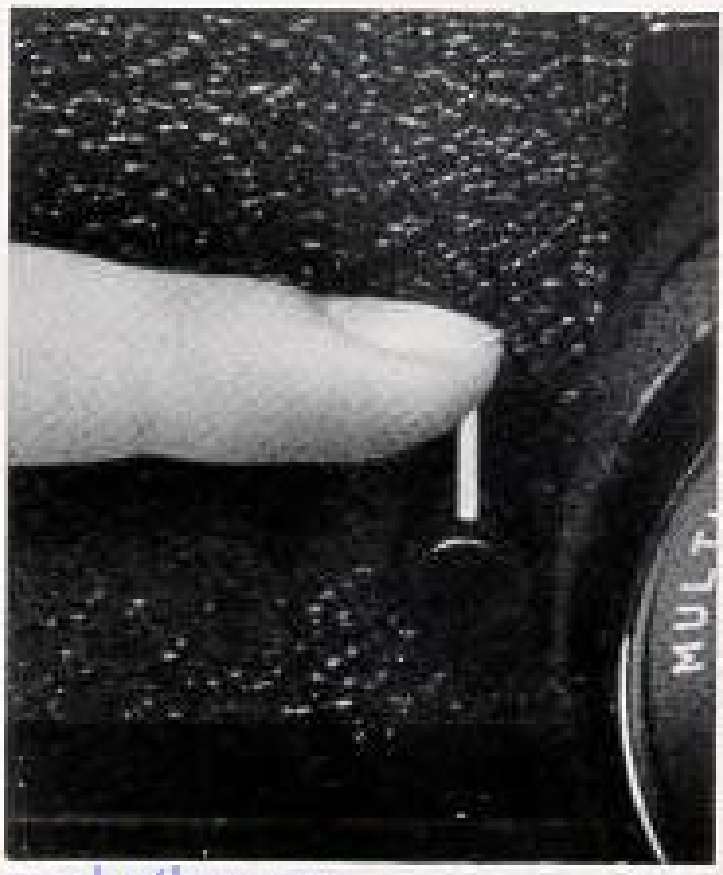
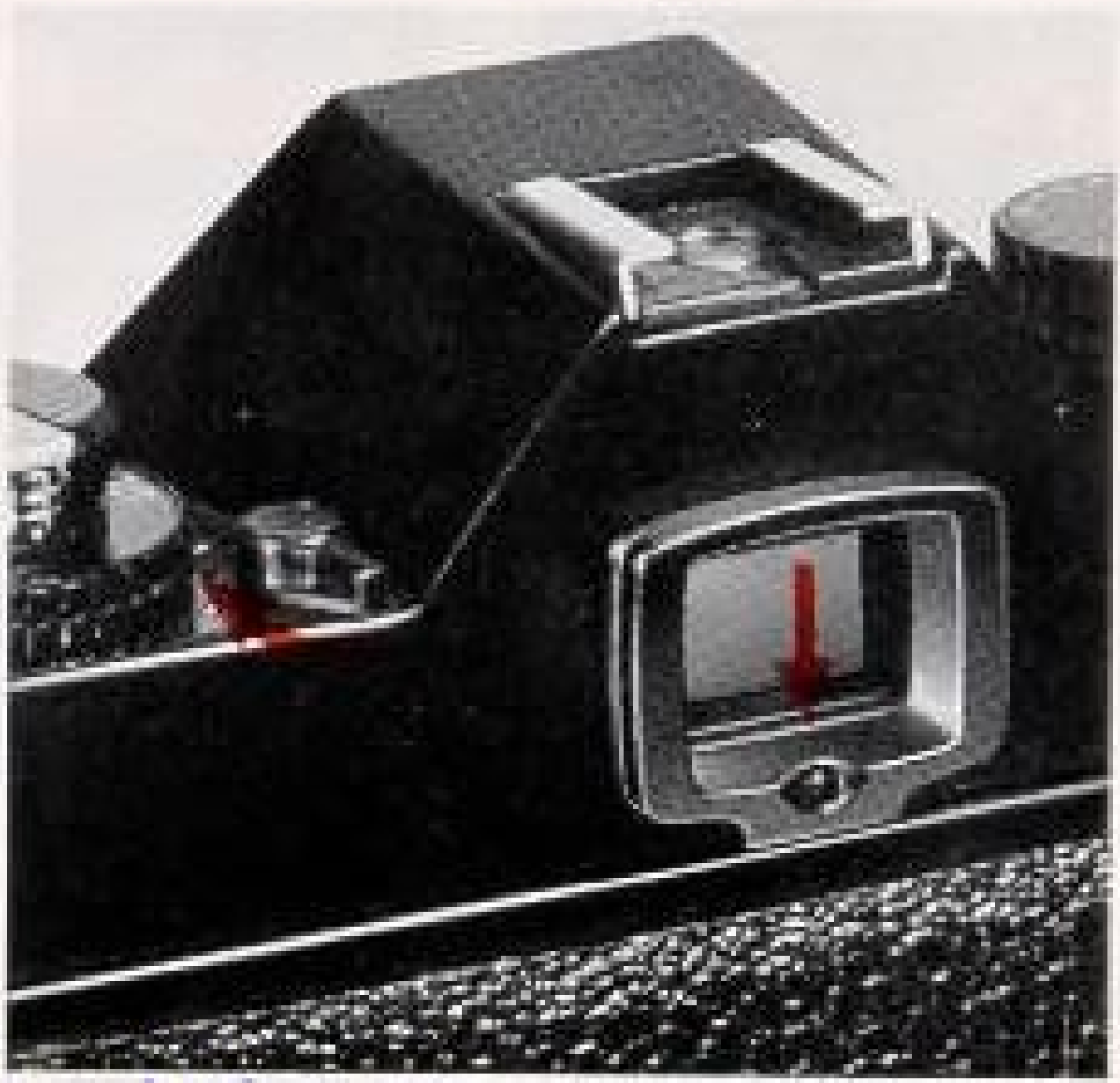


Fig. 45

Fig. 46

www.butkus.org



www.butkus.org

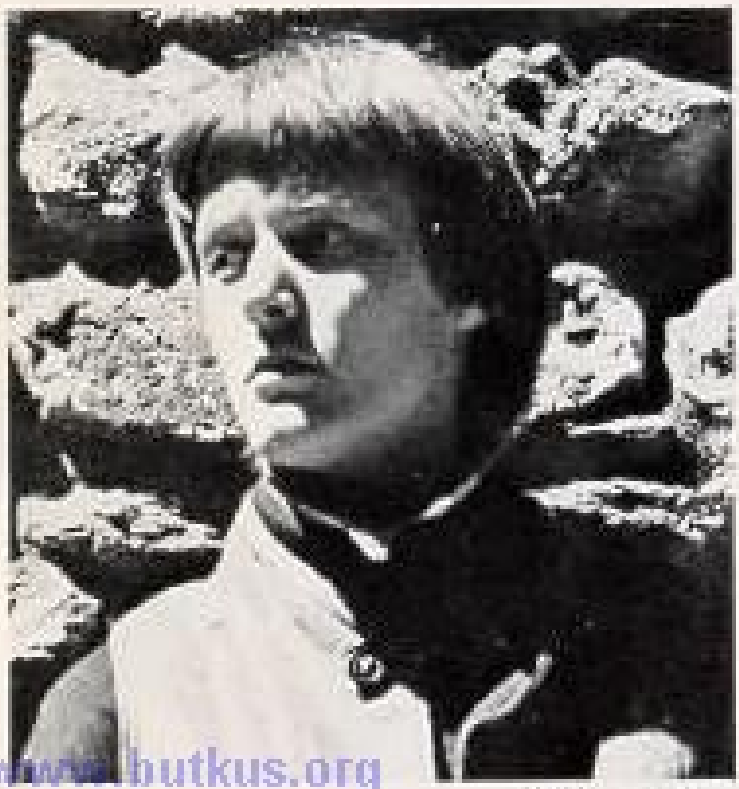
Fig. 47

Fig. 50

Fig. 51

www.butkus.org

Fig. 52

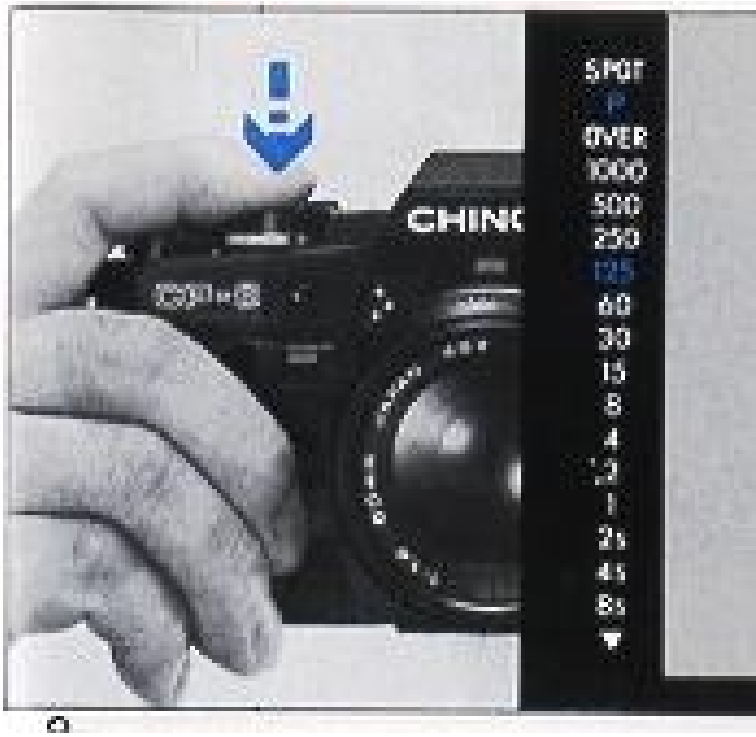


www.butkus.org

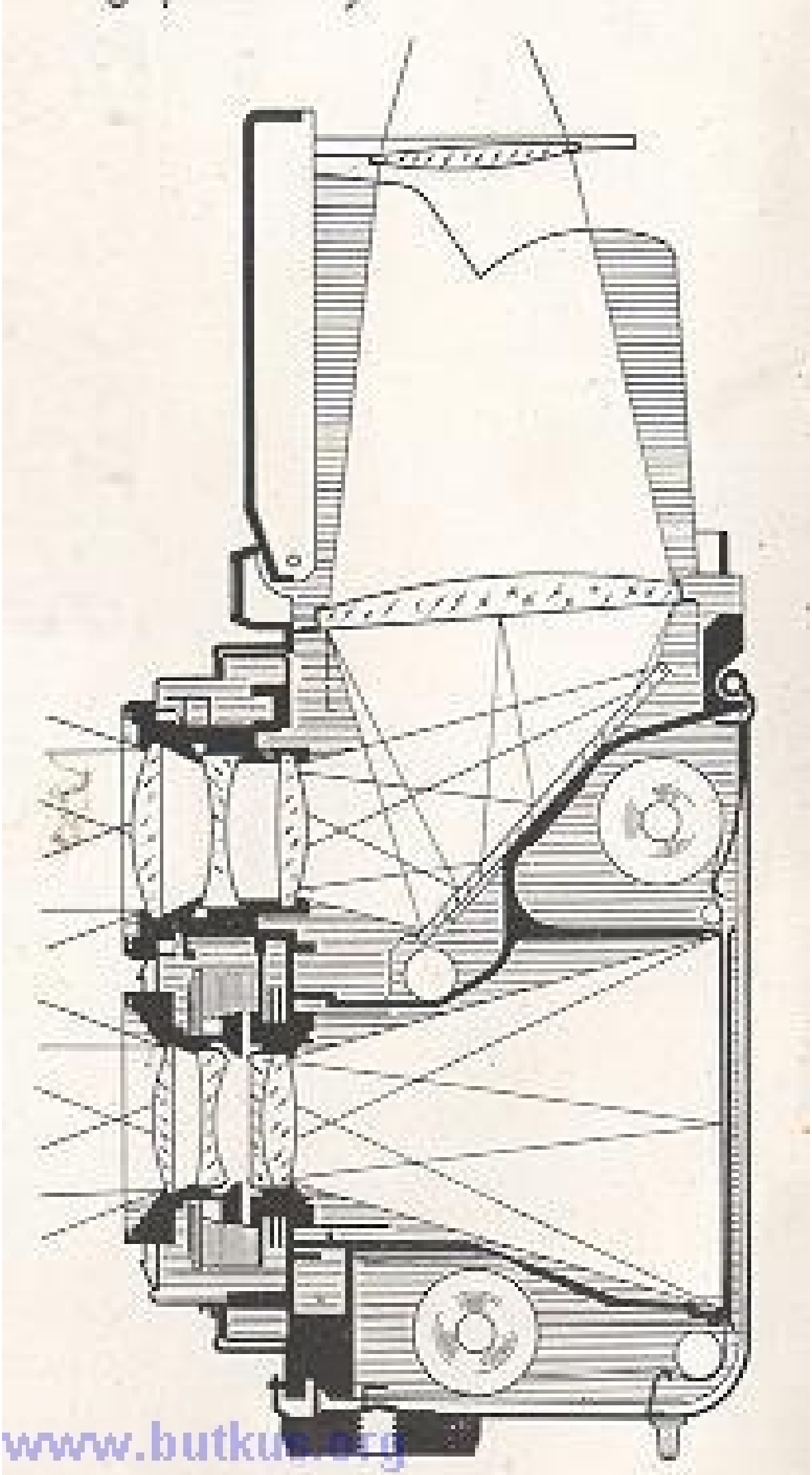
Fig. 48

Fig. 49

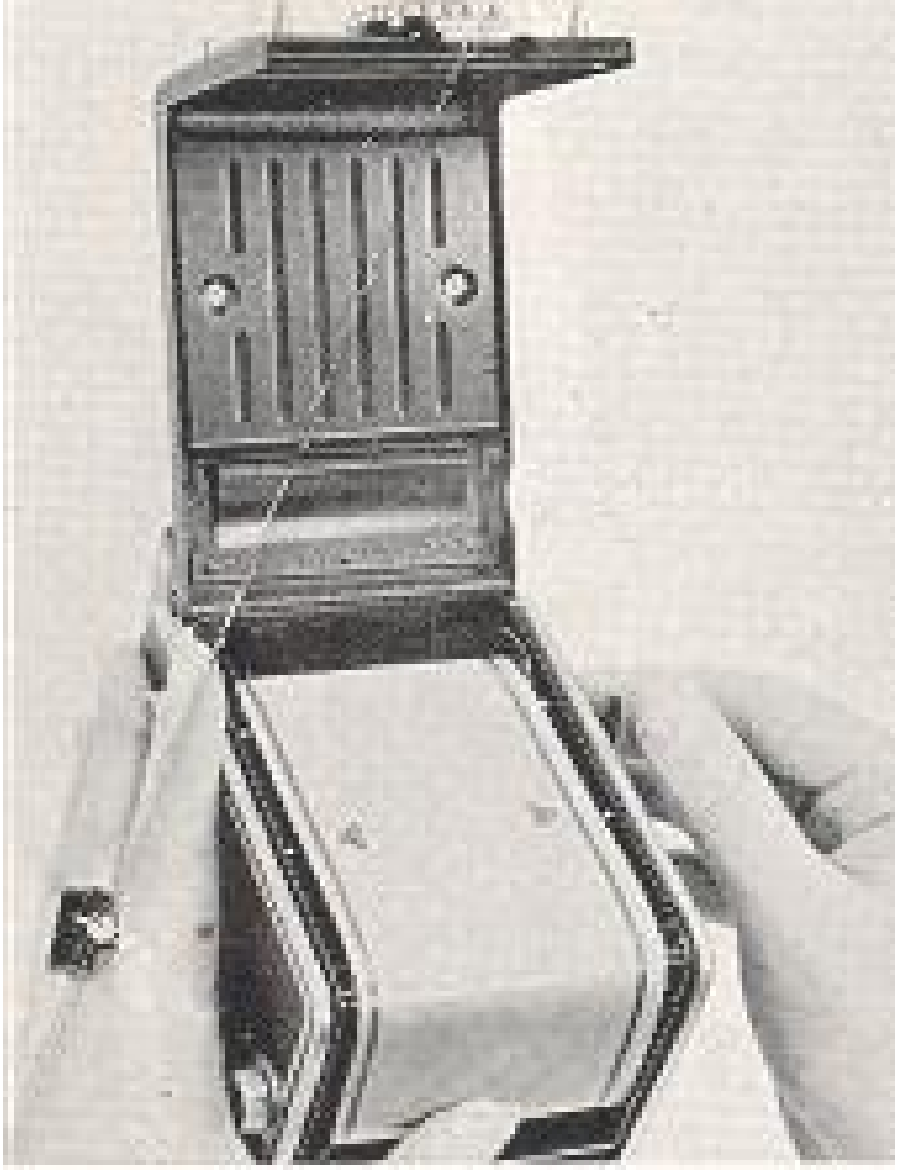

M
P
AVG.
SPOT

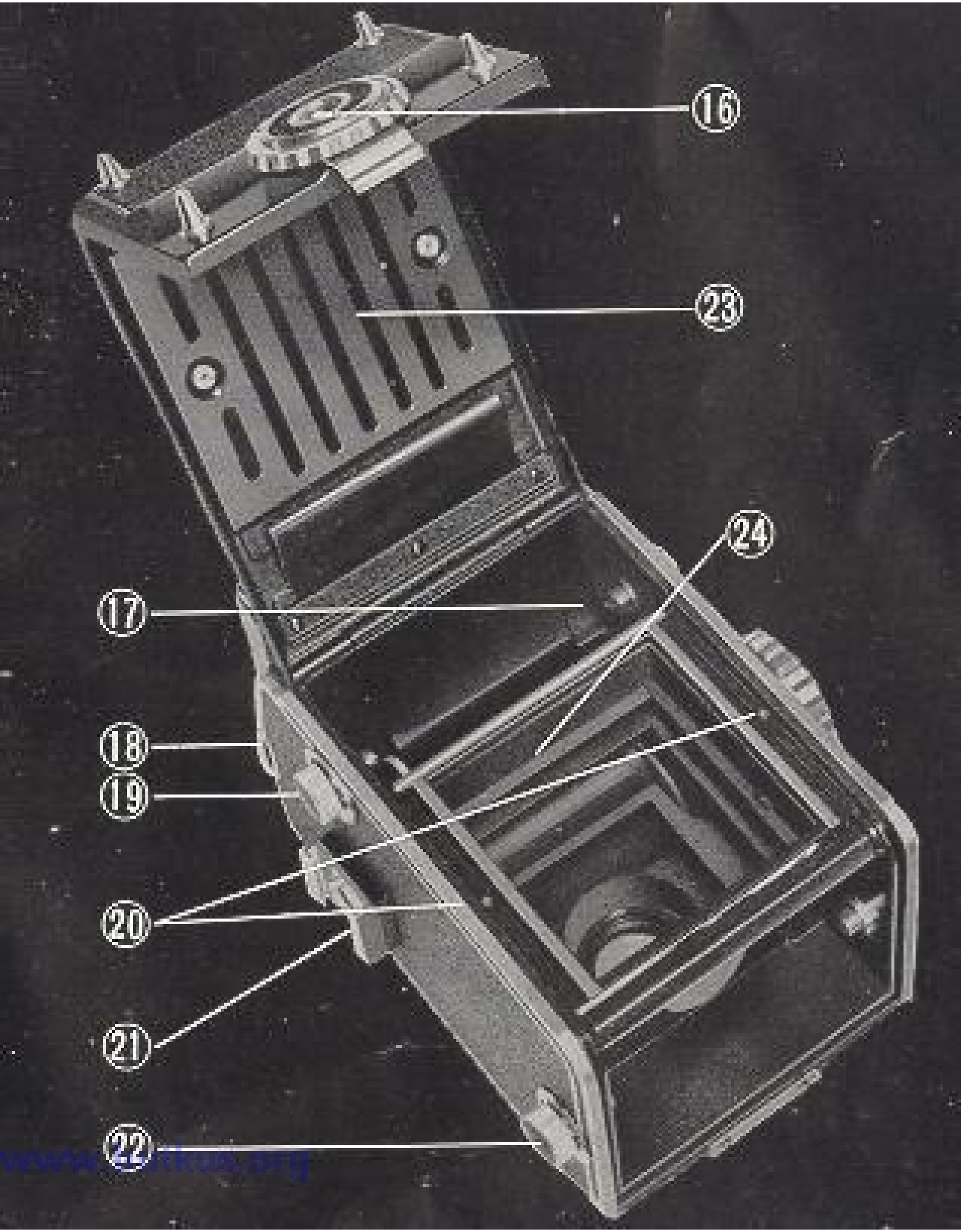

SPOT
OVER
1000
500
250
125
60
30
15
8
4
2
1
2s
4s
8s

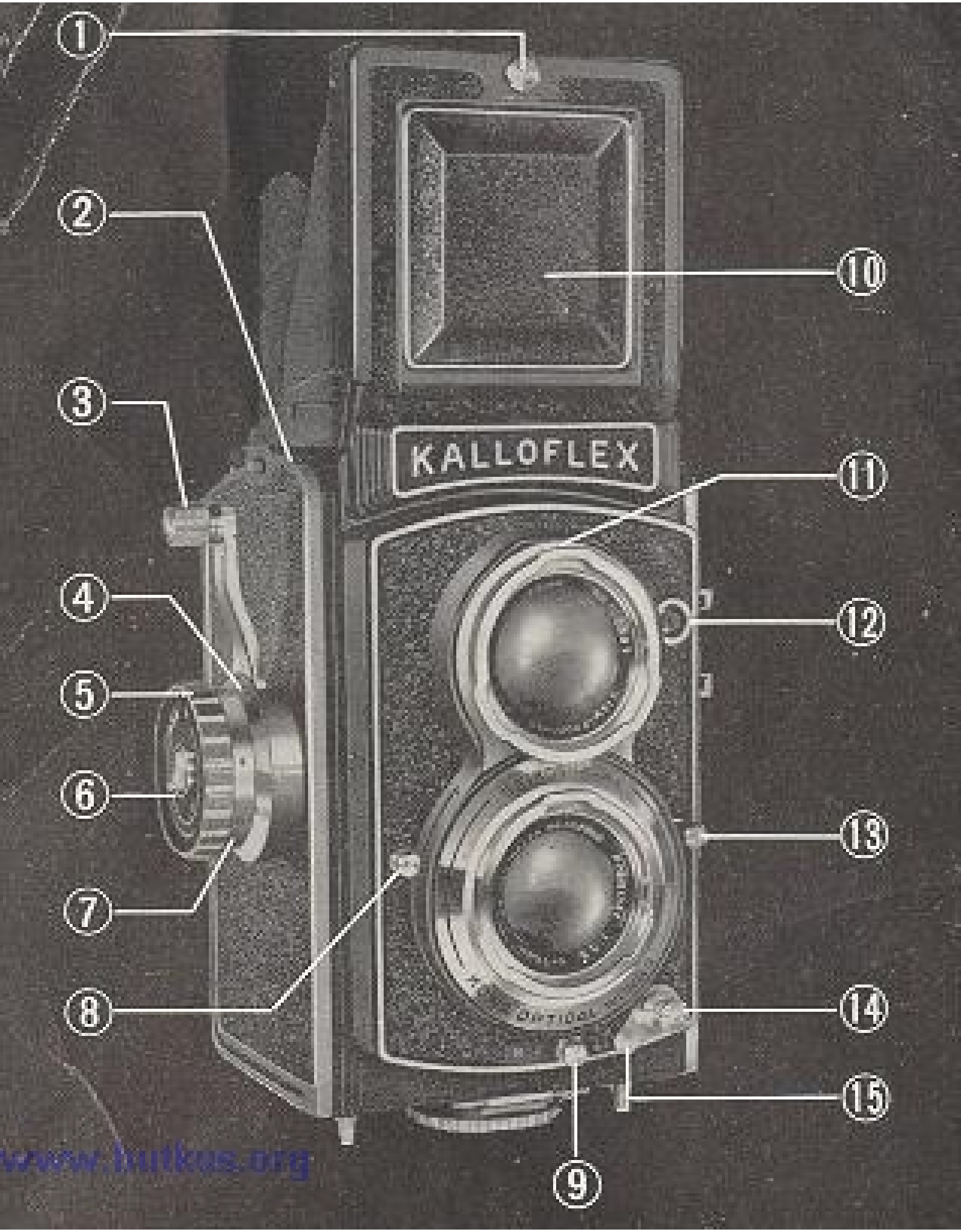

www.butkus.org



www.butkus.org

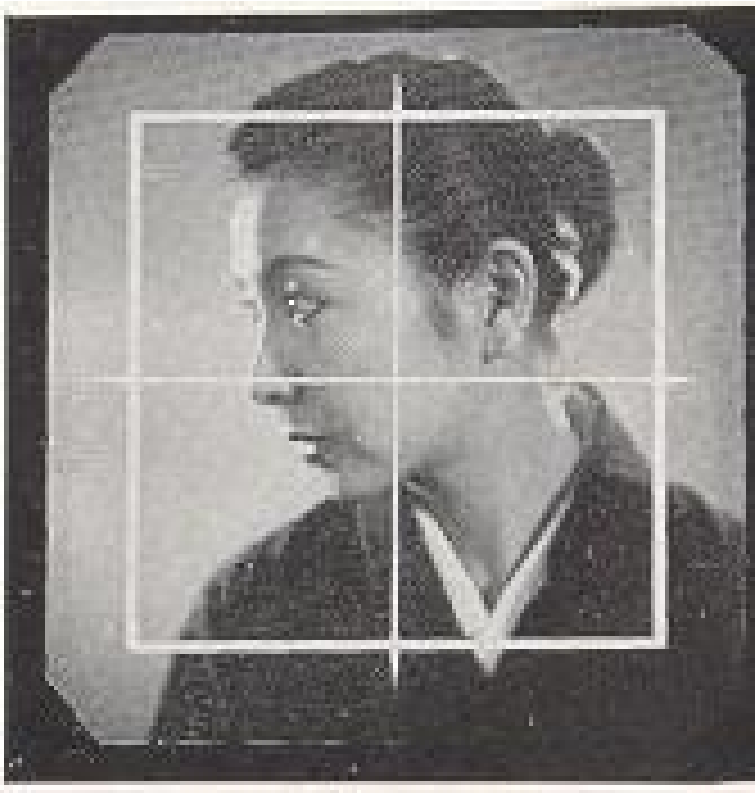


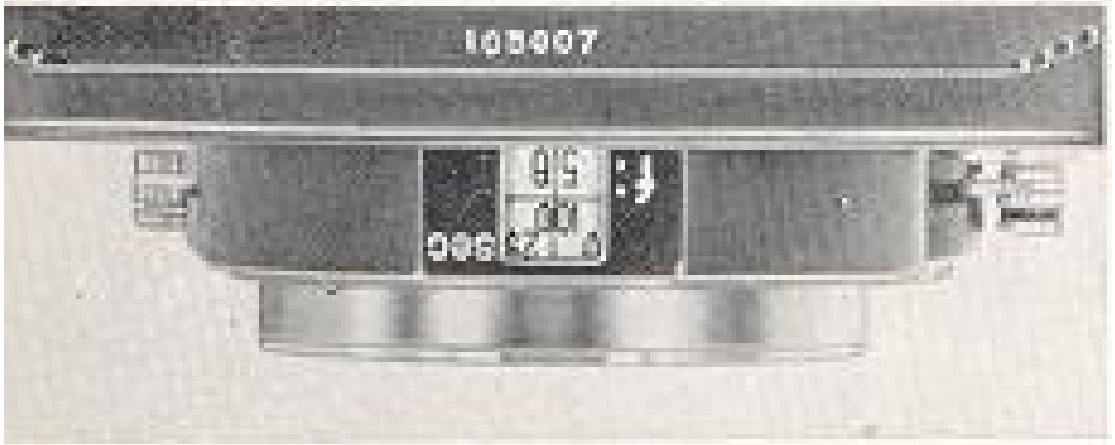

16
23
24
17
18
19
20
21
22

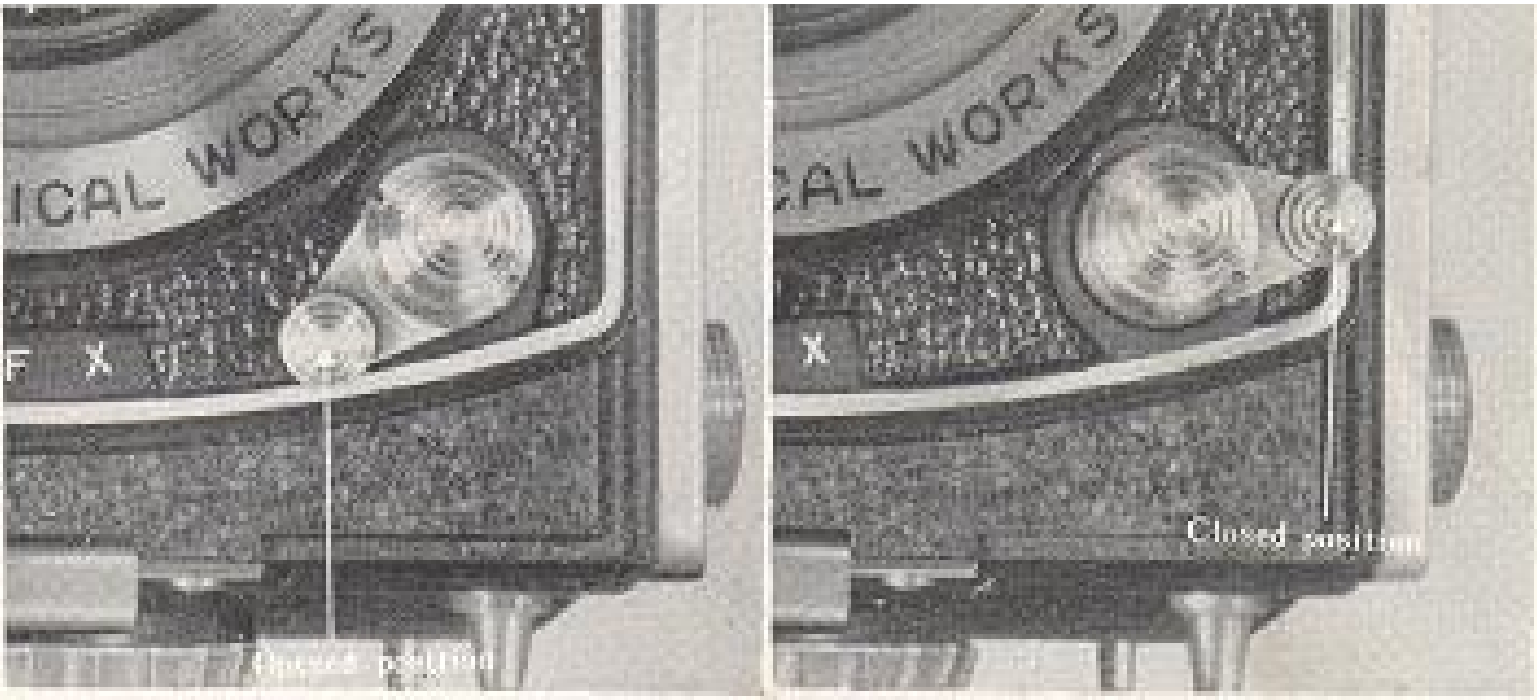


www.hutkus.org

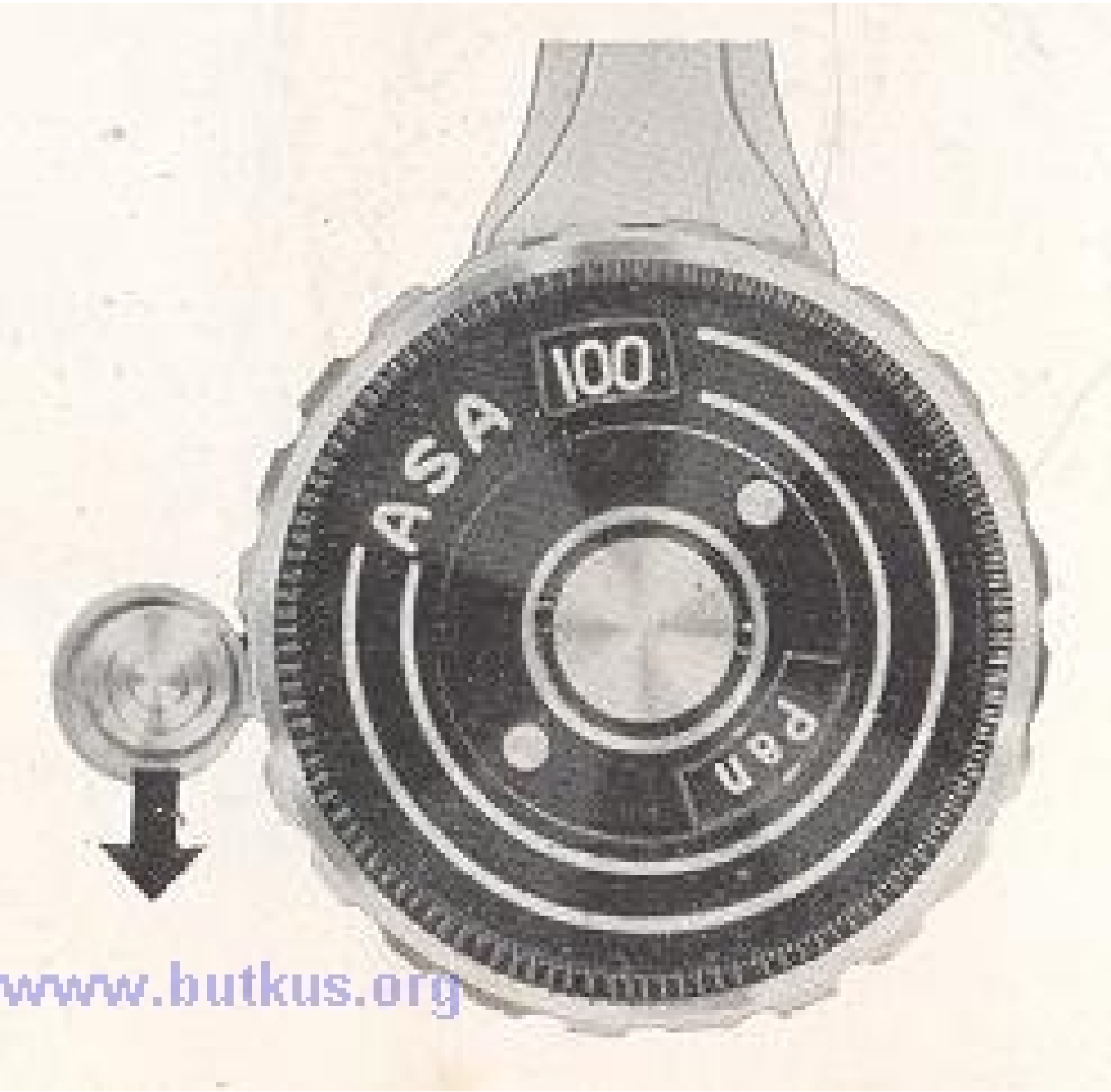
www.butkus.org



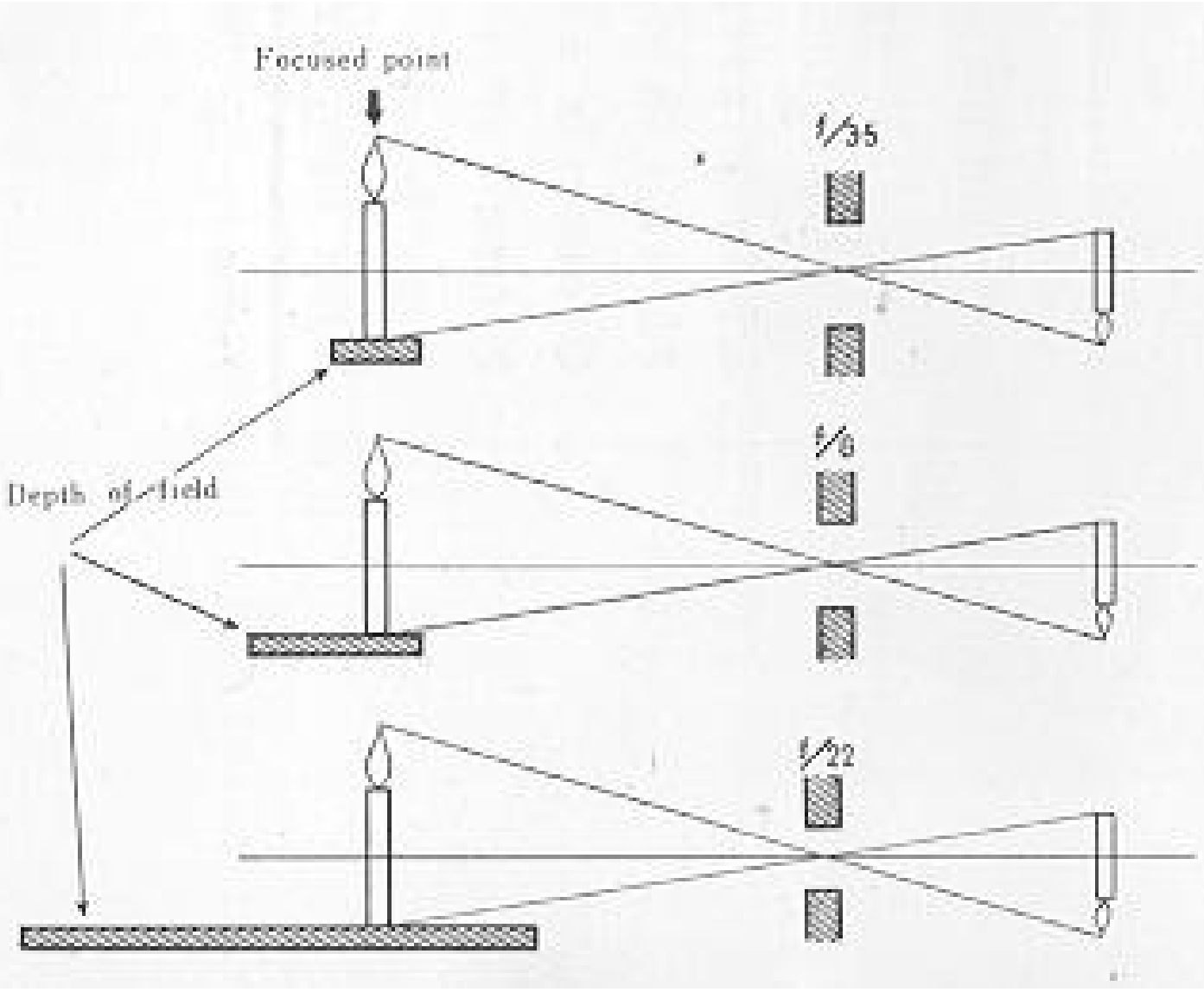

105907


ICAL WORKS
F X
Closed position
CAL WORKS
X
Closed position

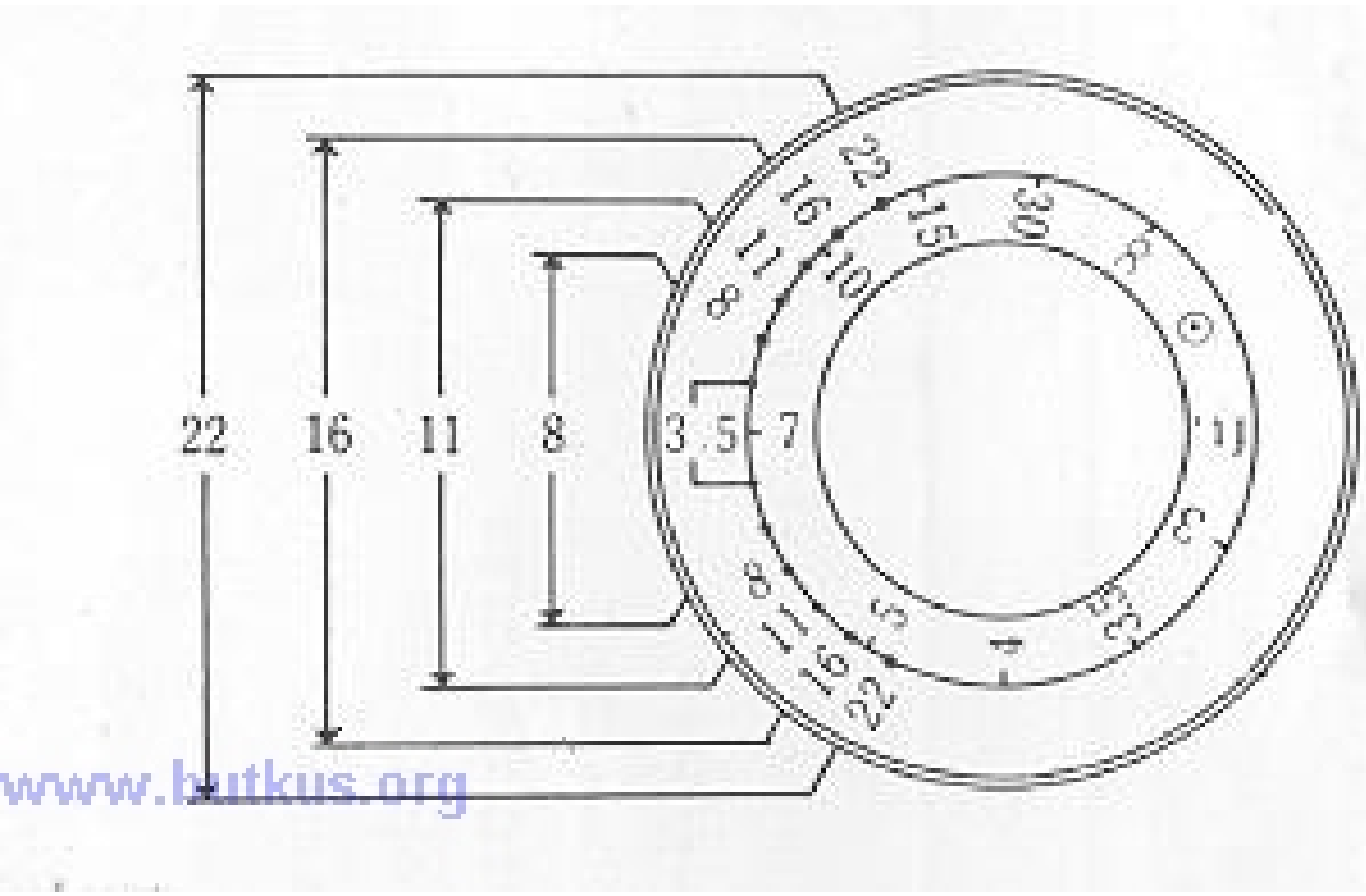
www.butkus.org



www.butkus.org


Focused point
f/35
f/8
f/22
Depth of field


ASA
100
USA



www.hutkus.org

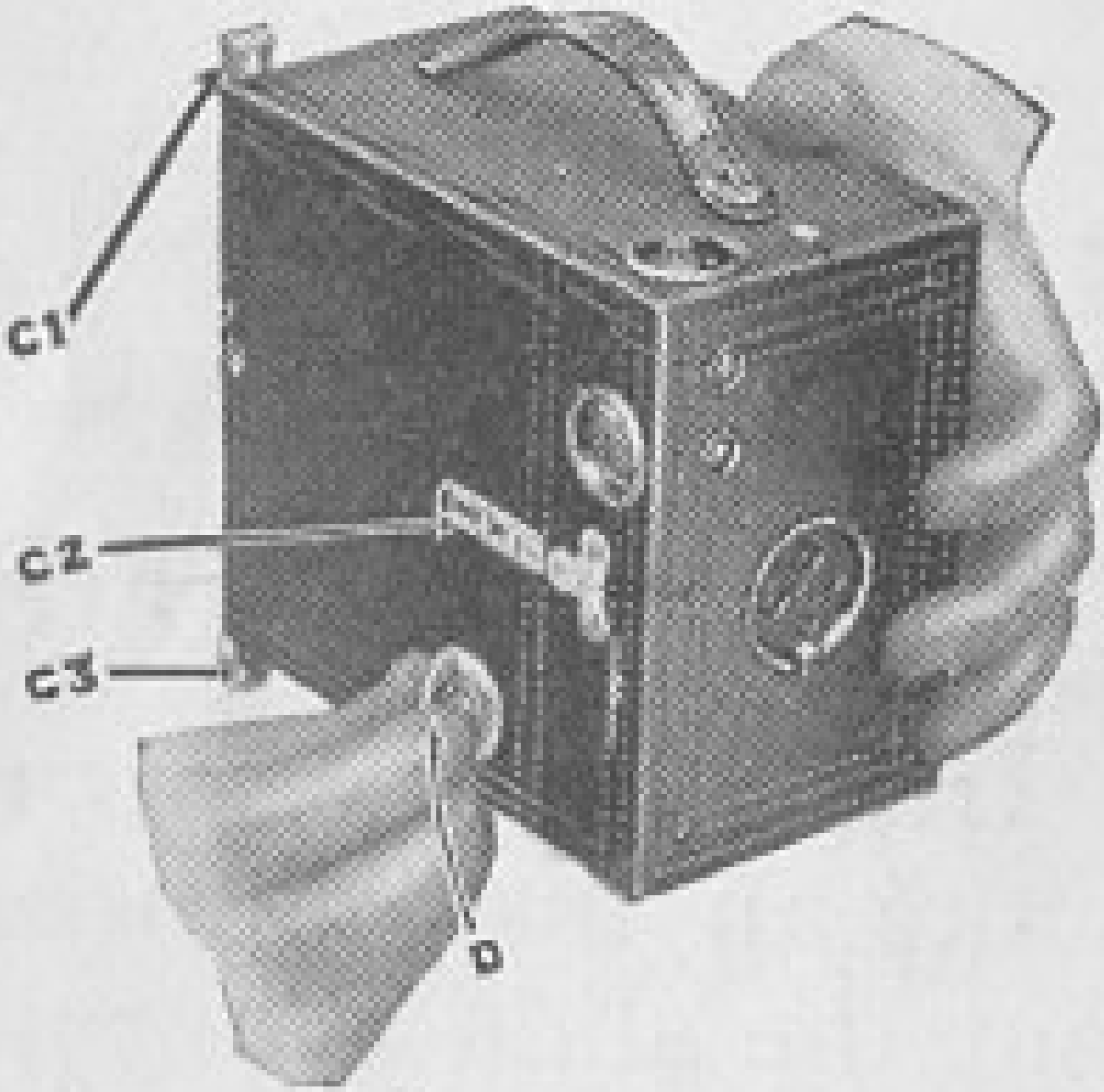


Figure 2.

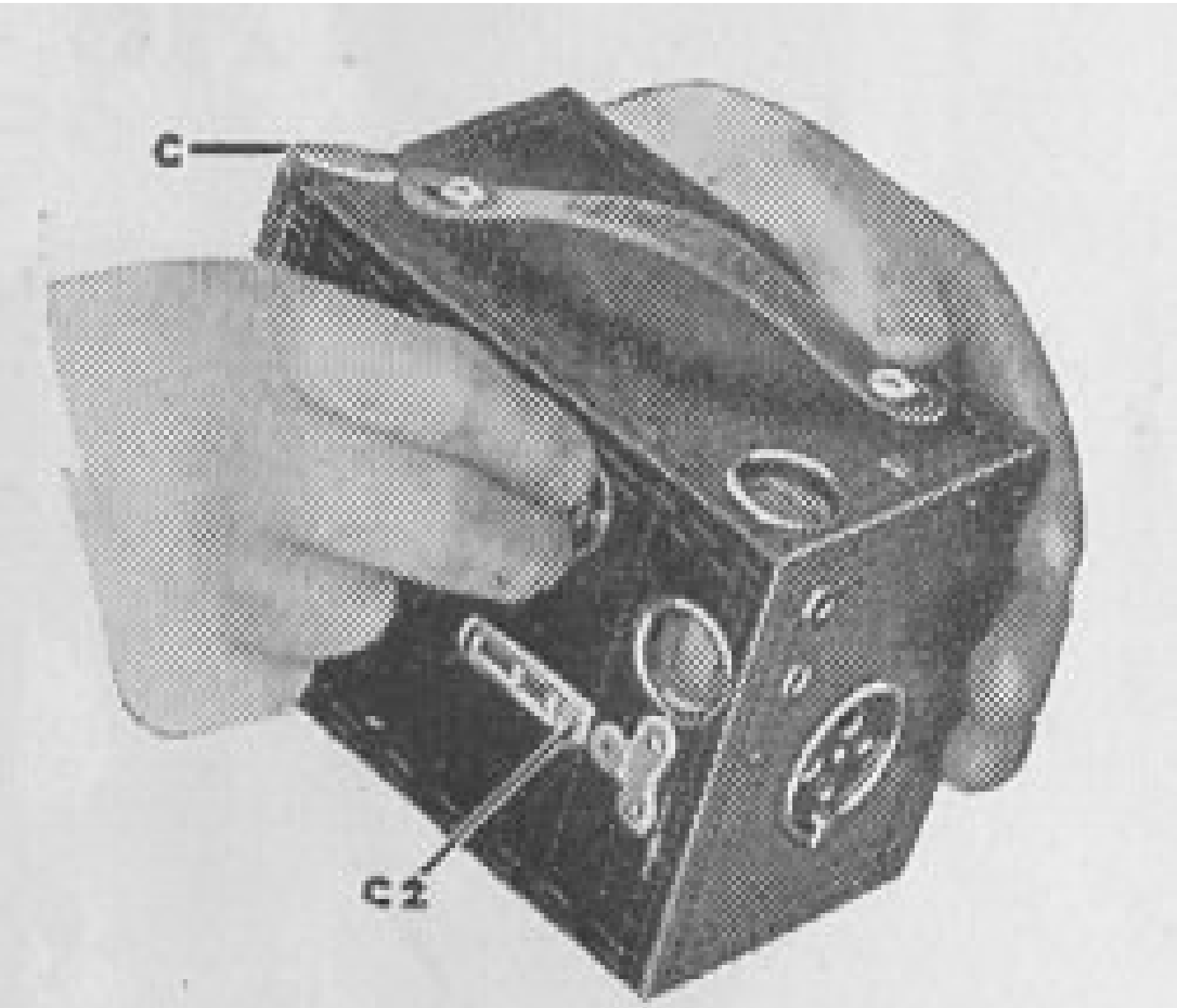


Figure 3.

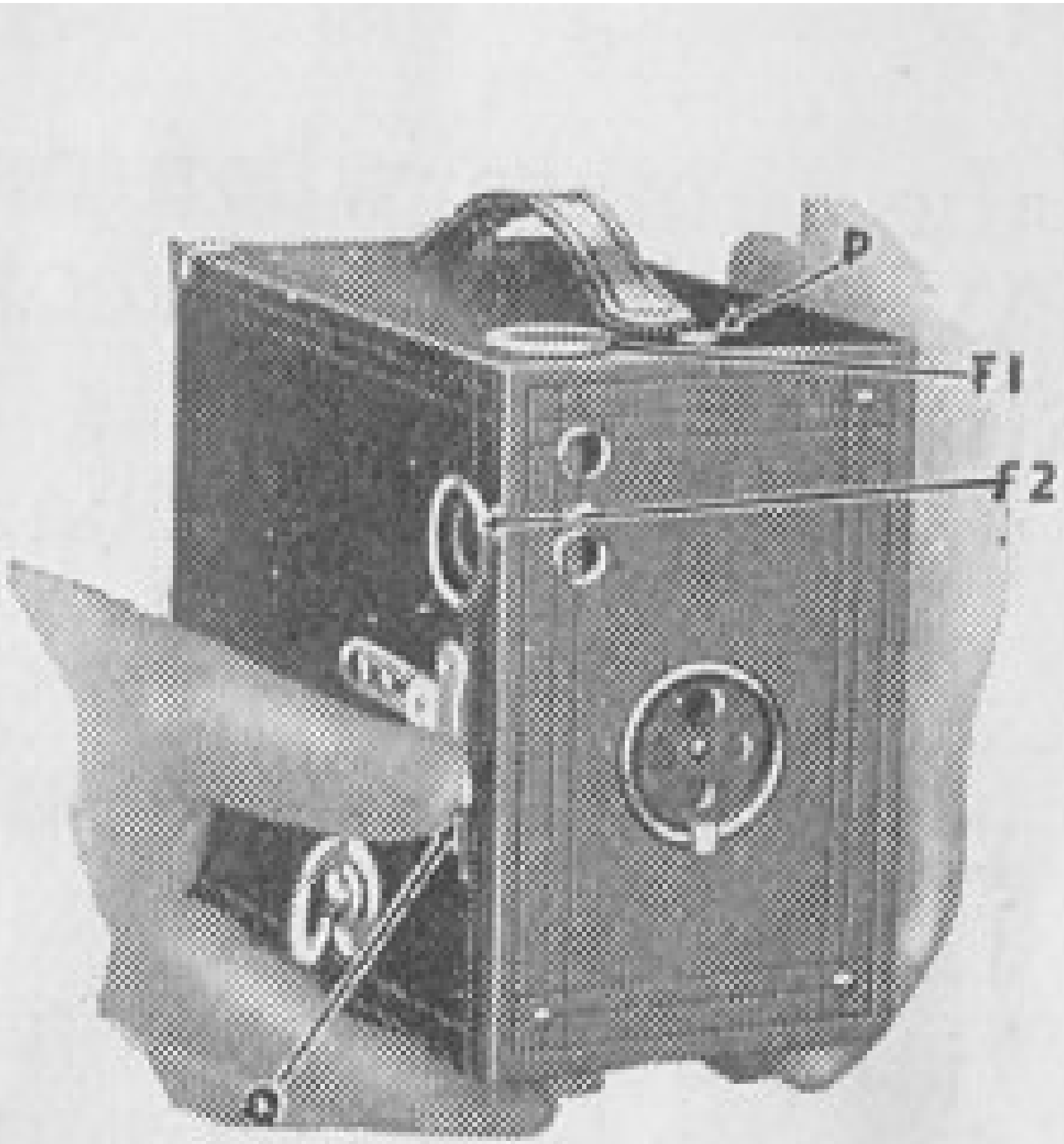


Figure 4.

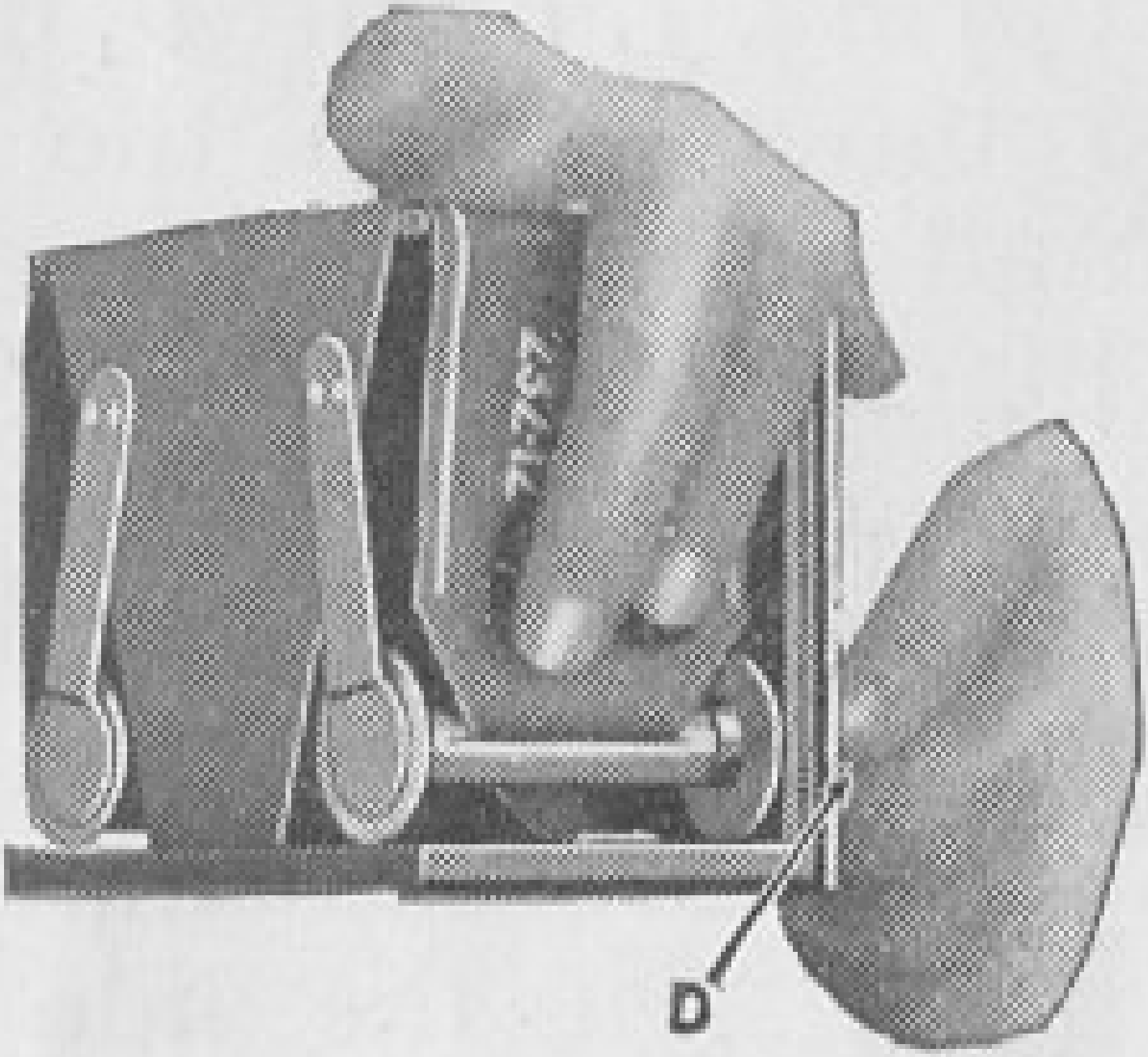


Figure 14.
No. 2A Kewpie.

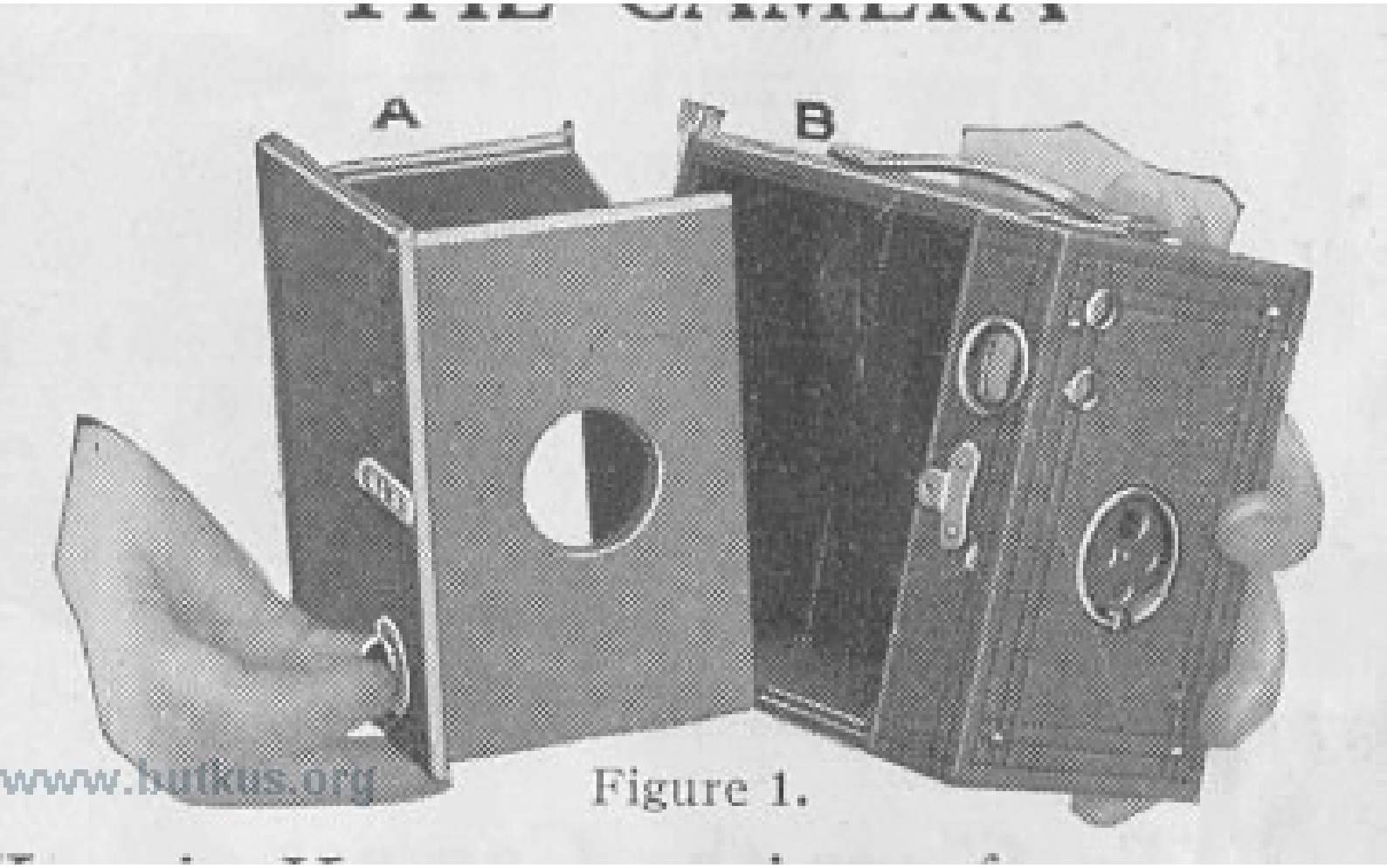
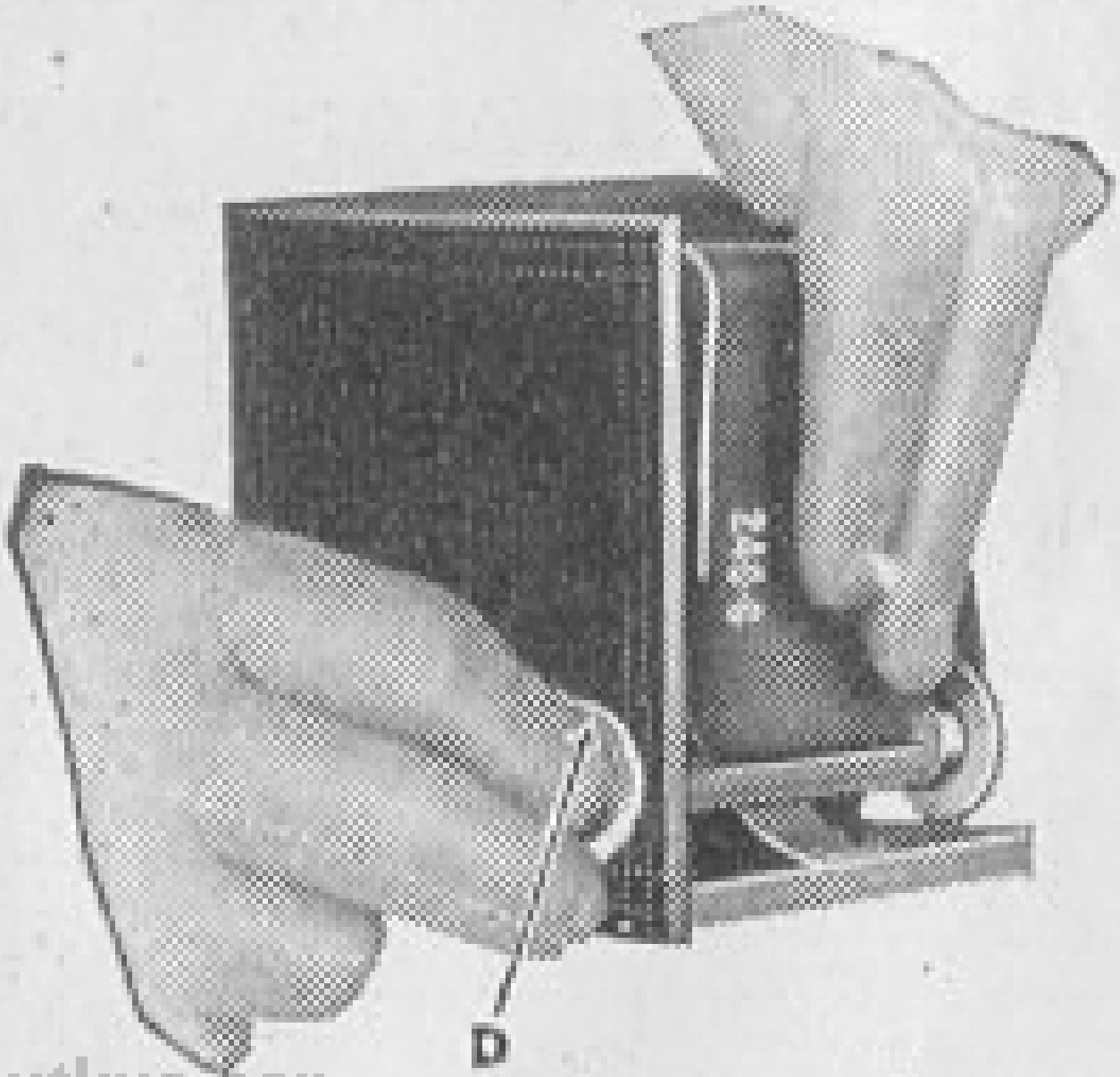


Figure 1.

www.butkus.org



www.butkus.org

Figure 15.

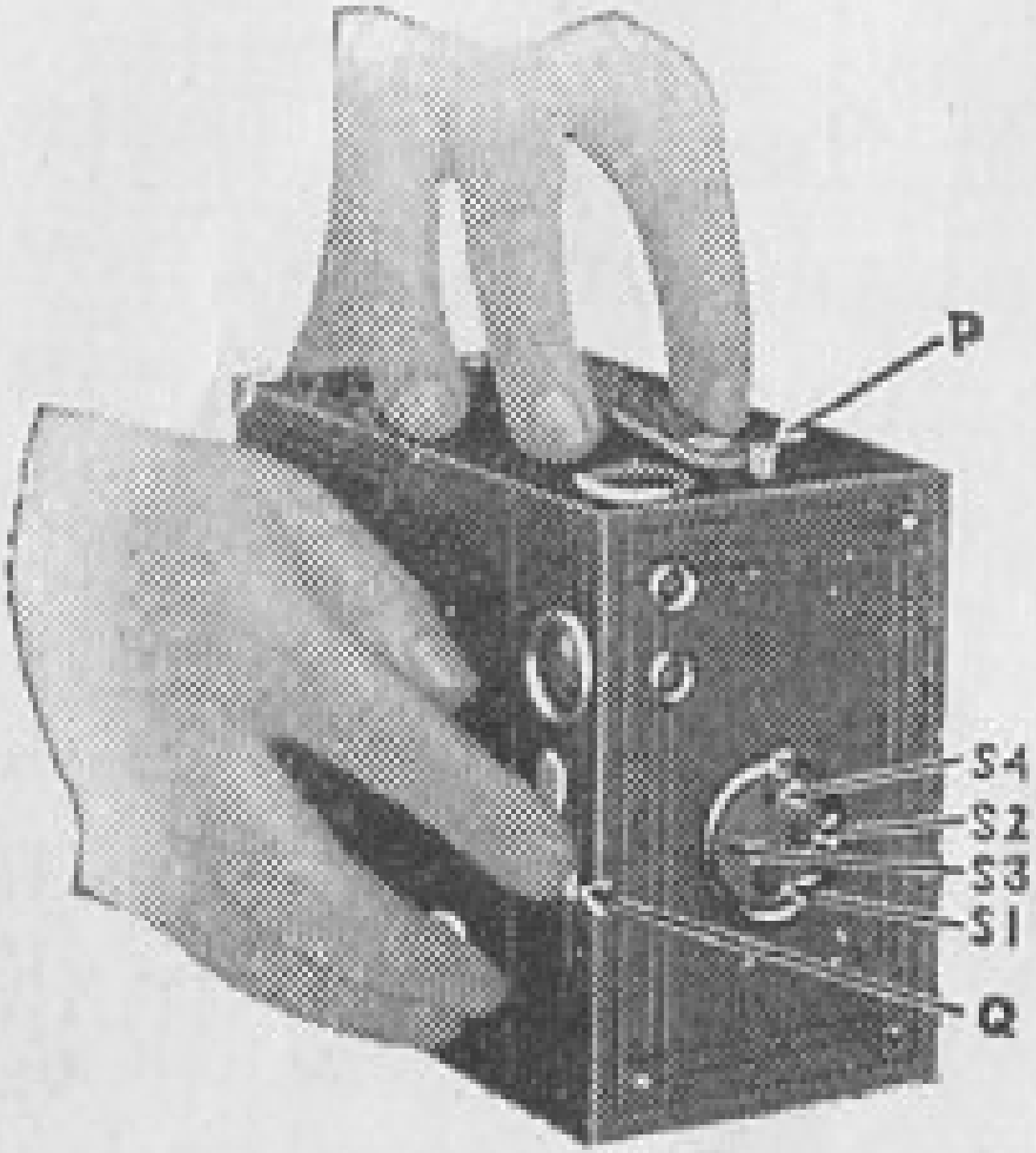


Figure 5.

www.butkus.org

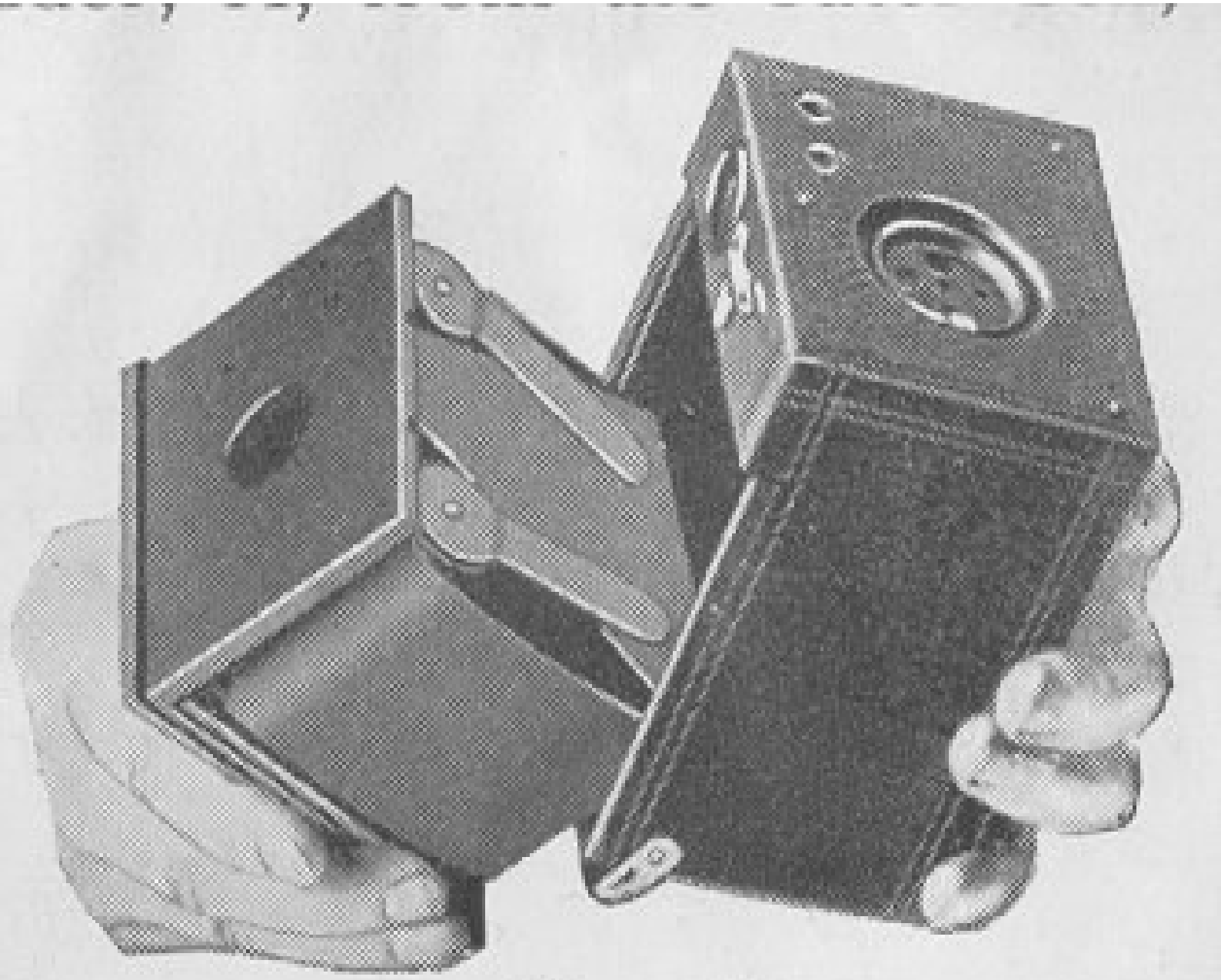


Figure 16.

Figure 17.
No. 2A Kewpie.

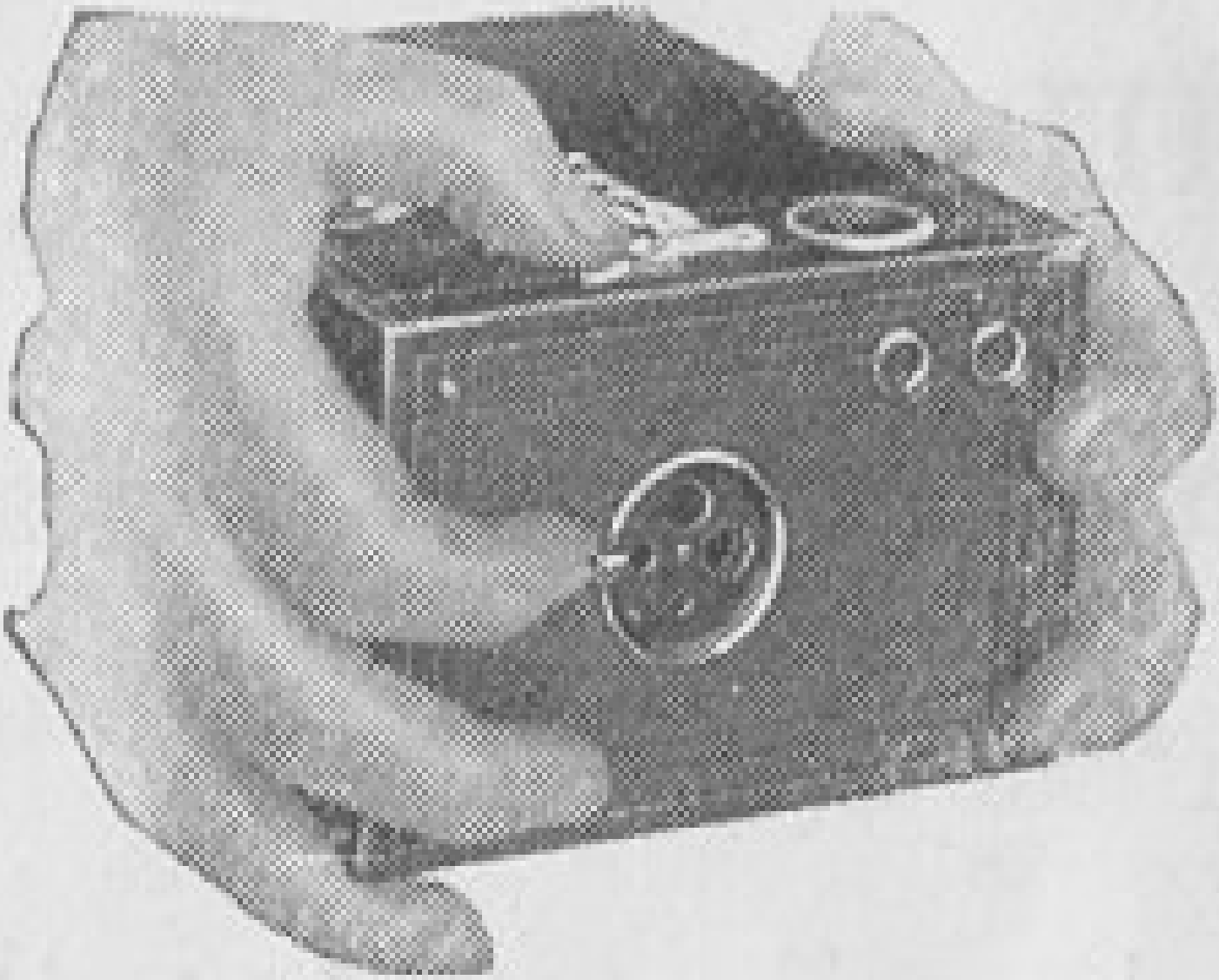


Figure 19.

Figure 20.

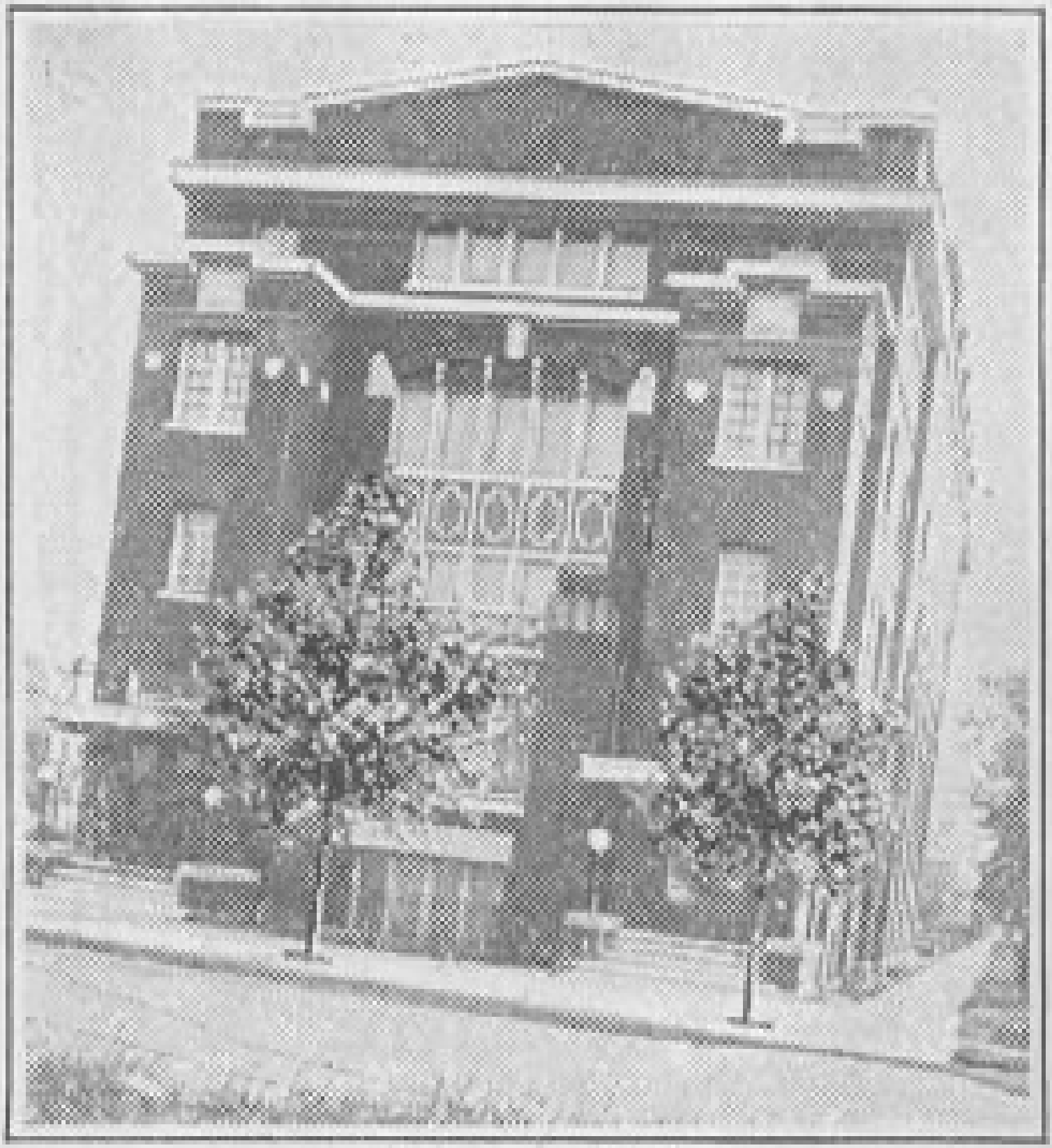


Figure 22.

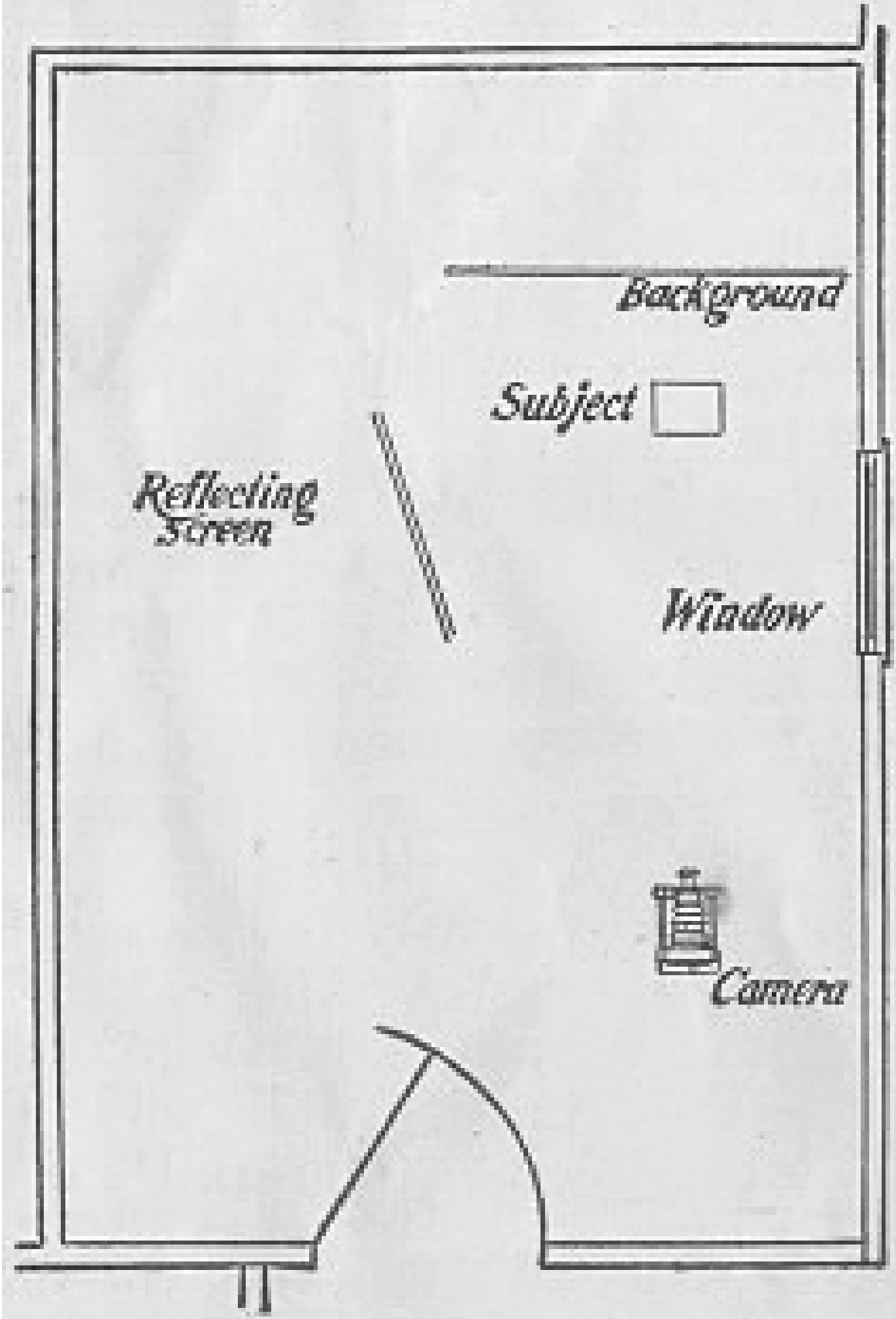


Figure 23.

www.butkus.org

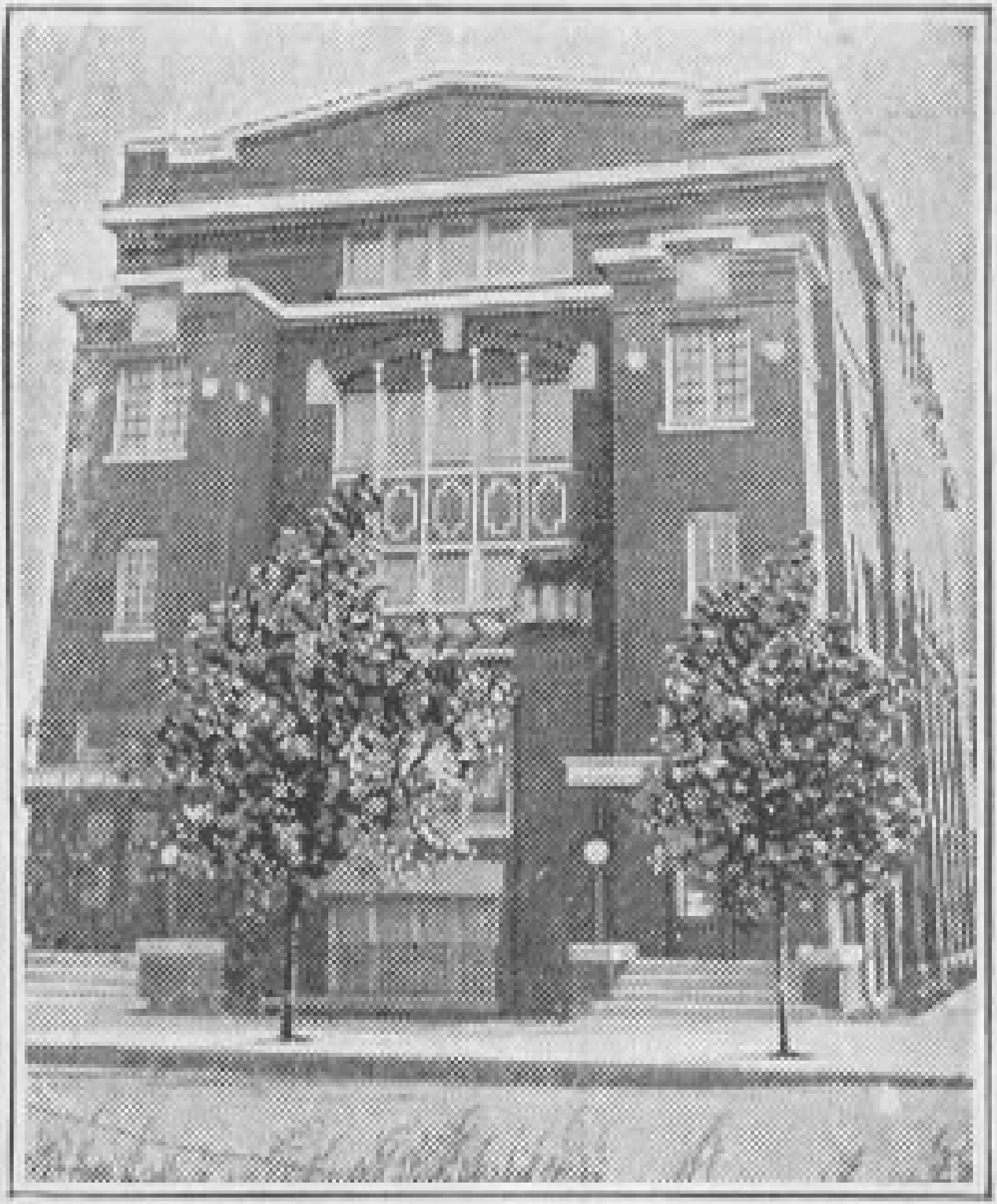


Figure 21.

www.butkus.org

f:	10 feet	15 feet	30 feet	∞ (infinity)
2	9 f 3'' - 10 f 10½''	13 f 4½'' - 17 f ¾''	24 f 1¾'' - 39 f 7¼''	122 f 11¼'' - ∞
2,8	8 f 12'' - 11 f 3¼''	12 f 10'' - 18 f ½''	22 f 4¾'' - 45 f 5¼''	87 f 10'' - ∞
4	8 f 7½'' - 11 f 10¾''	12 f 1'' - 19 f 9¼''	20 f 2½'' - 58 f 3½''	61 f 5¾'' - ∞
5,6	8 f 2'' - 12 f 10¾''	11 f 2½'' - 22 f 7¾''	17 f 10¼'' - 99 f 7''	43 f 11'' - ∞
8	7 f 7'' - 14 f 8½''	10 f 1½'' - 29 f —''	15 f 2¾'' - 1019 f 4¼''	30 f 9'' - ∞
11	6 f 11¼'' - 17 f 10¼''	9 f ¼'' - 44 f 7''	12 f 10¼'' - ∞	22 f 4¼'' - ∞
16	6 f 1¼'' - 27 f 9¼''	7 f 7½'' - 431 f 6''	10 f 2½'' - ∞	15 f 4½'' - ∞

INSERTING THE BATTERIES

1. Push in the Battery Compartment Lid on the side of the Winder, and pull it downwards in the direction of the arrow.
2. Insert four batteries according to the polarity diagram inside the battery compartment.
3. Push in the Battery Compartment Lid and slide it upwards to close.

★ If the Batteries are inserted incorrectly, the Winder will not operate.

★ Keep the switch at OFF position when not in use.

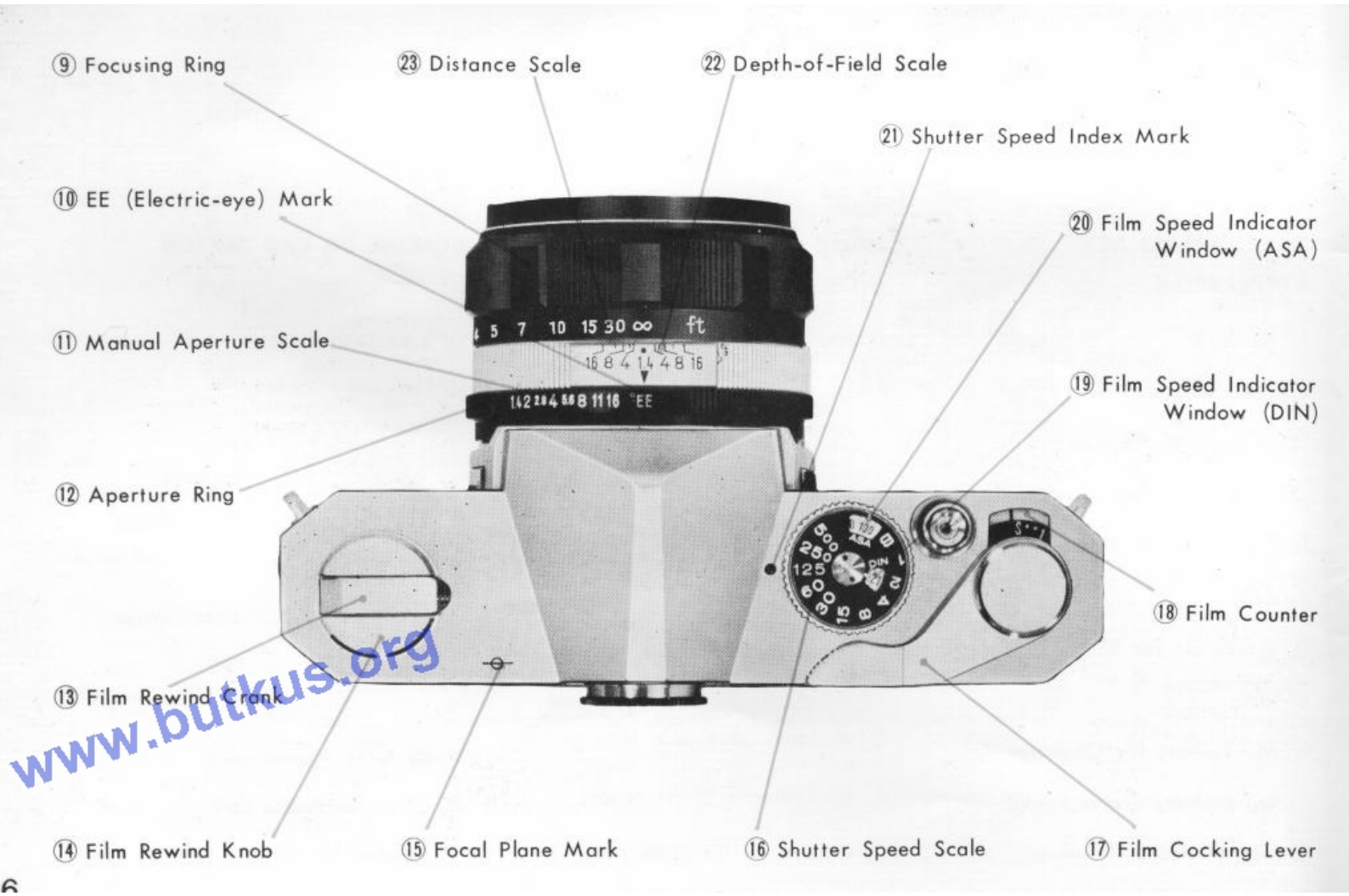
★ In cold conditions, the voltage of the batteries may decrease so that the described number of shots cannot be taken. Therefore the batteries should be warmed, and a spare set kept warm to be used alternately.

www.butkus.org

DEPTH-OF-FIELD-TABLE

for Heligon f/2.0, Xenon f/2.0, Xenar f/2.8. F = 50 mm

f:	3 feet	3,5 feet	4 feet	5 feet	6 feet
2	2 f 11 1/4'' - 3 f 3/4''	3 f 5'' - 3 f 7 1/4''	3 f 10 1/2'' - 4 f 1 1/2''	4 f 9 3/4'' - 5 f 2 1/2''	5 f 8 3/4'' - 6 f 3 1/2''
2,8	2 f 10 3/4'' - 3 f 1 1/4''	3 f 4 1/2'' - 3 f 7 3/4''	3 f 10'' - 4 f 2 1/4''	4 f 8 3/4'' - 5 f 3 1/2''	5 f 7 1/2'' - 6 f 5''
4	2 f 10 1/2'' - 3 f 1 3/4''	3 f 3 3/4' - 3 f 8 1/2''	3 f 9 1/4'' - 4 f 3 1/4''	4 f 7 1/2'' - 5 f 5''	5 f 5 3/4'' - 6 f 7 1/2''
5,6	2 f 9 3/4'' - 3 f 2 1/2''	3 f 3'' - 3 f 9 1/2''	3 f 8 1/4'' - 4 f 4 1/2''	4 f 6'' - 5 f 7 1/2''	5 f 3 1/2'' - 6 f 11''
8	2 f 9'' - 3 f 3 3/4''	3 f 2'' - 3 f 11''	3 f 6 3/4'' - 4 f 6 3/4''	4 f 3 3/4'' - 5 f 11 1/4''	5 f 1/2'' - 7 f 4 3/4''
11	2 f 8'' - 3 f 5 1/4''	3 f 1/2'' - 4 f 1 1/4''	3 f 5'' - 4 f 10''	4 f 1 1/4'' - 6 f 4 1/2''	4 f 9'' - 8 f 1 1/2''
16	2 f 6 1/2'' - 3 f 8 1/4''	2 f 10 1/2'' - 4 f 5 3/4''	3 f 2 1/2'' - 5 f 4''	3 f 9 3/4'' - 7 f 3 1/2''	4 f 4 1/4'' - 9 f 3/4''



www.butkus.org

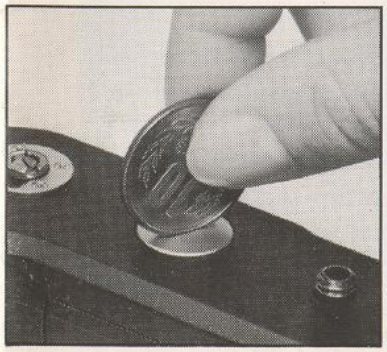
clockwise with a coin.

Fig. 9 In order not to loose the coupler cap, screw it into the cap holder provided on the belly of the winder.

Fig. 10 Set the C/S dial on top of the winder grip to the green OFF setting.

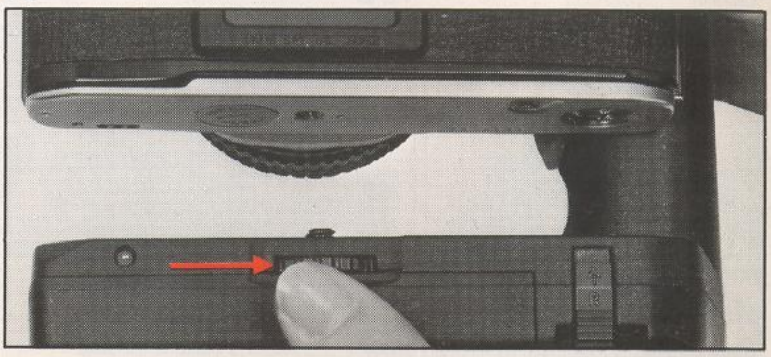
Fig. 11 Attach Winder ME II to the camera by lining up the winder screw with the tripod socket at the base of the camera. After ascertaining that the winder unit is flush with the camera body, and all contact points match up properly, turn the thumbwheel at the side of the winder clockwise to secure the winder to the camera body. Be sure to tighten the wheel firmly; otherwise proper electrical contact will not be made.

9



10

11



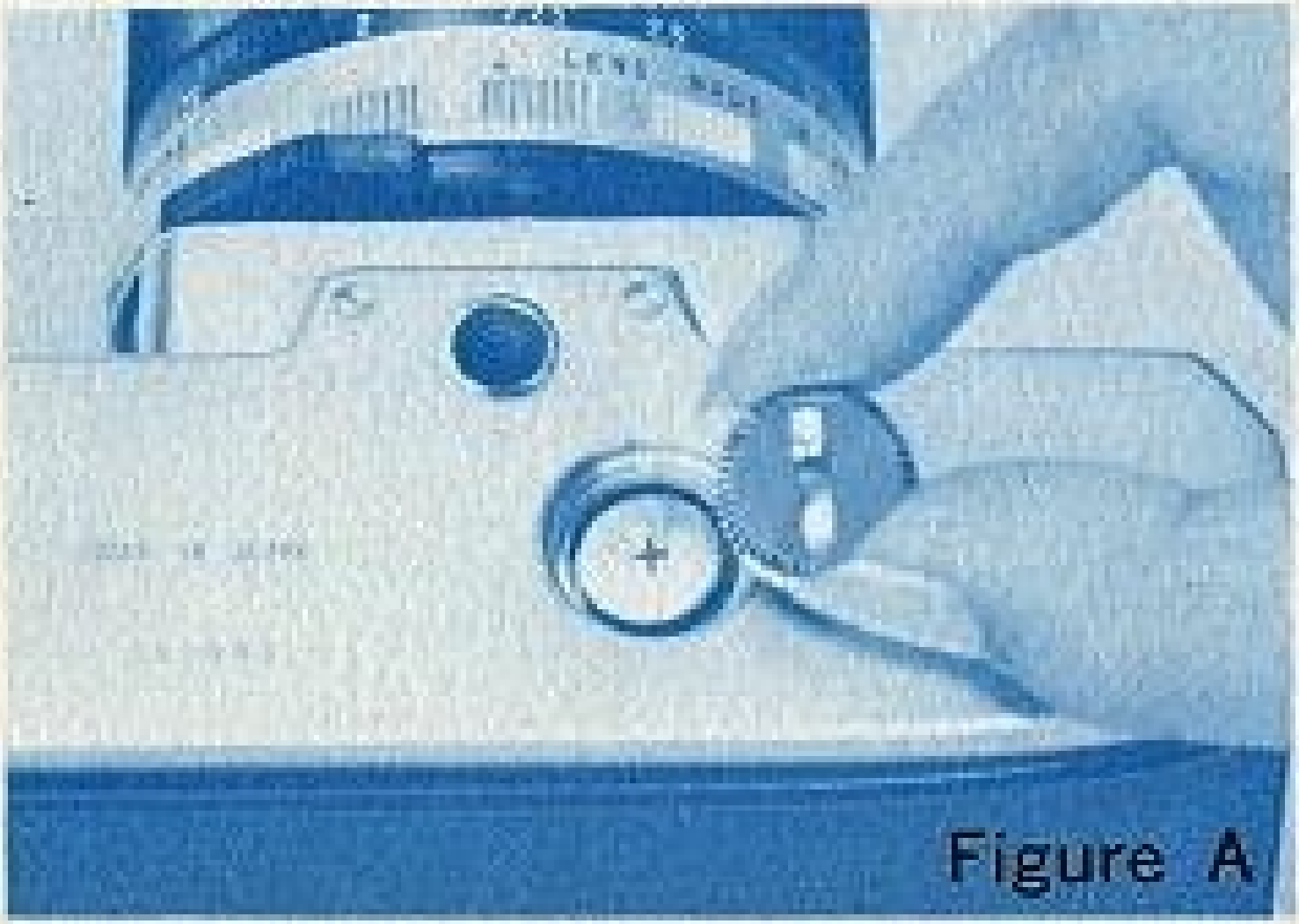
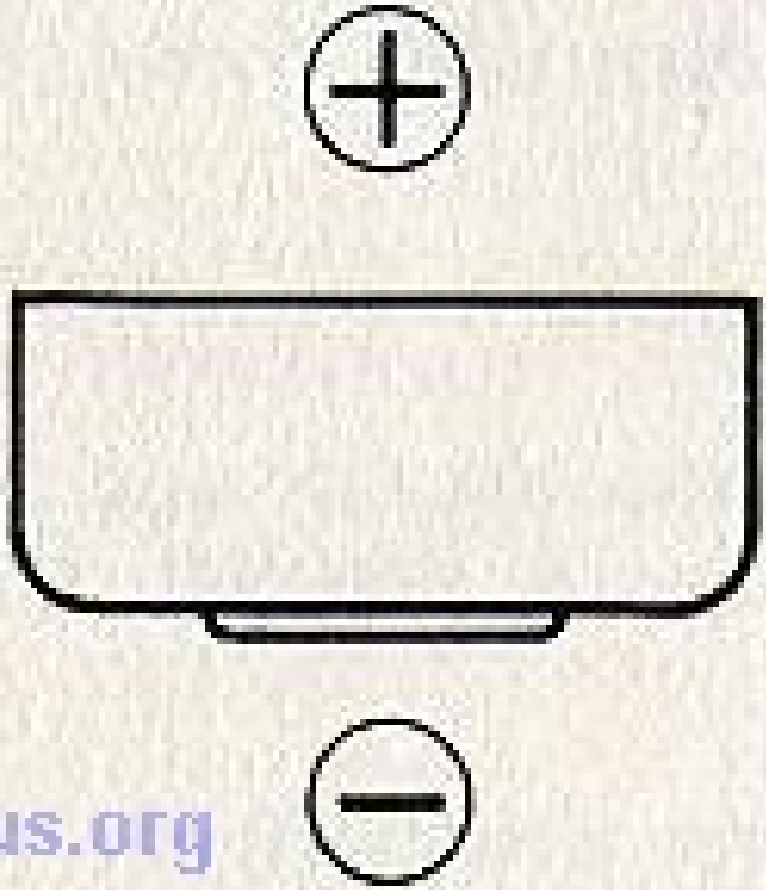


Figure A



www.butkus.org

OPERATING THE WINDER

BASIC OPERATION

Fig. 12-A & 12-B Winder ME II features two operating modes. After the preliminaries have been completed, set the winder C/S dial to either C (for consecutive exposures) or S (for single-frame film advance).

The shutter is released via the trigger release button on top of the winder grip (do not use the camera shutter button as the film will not advance automatically).

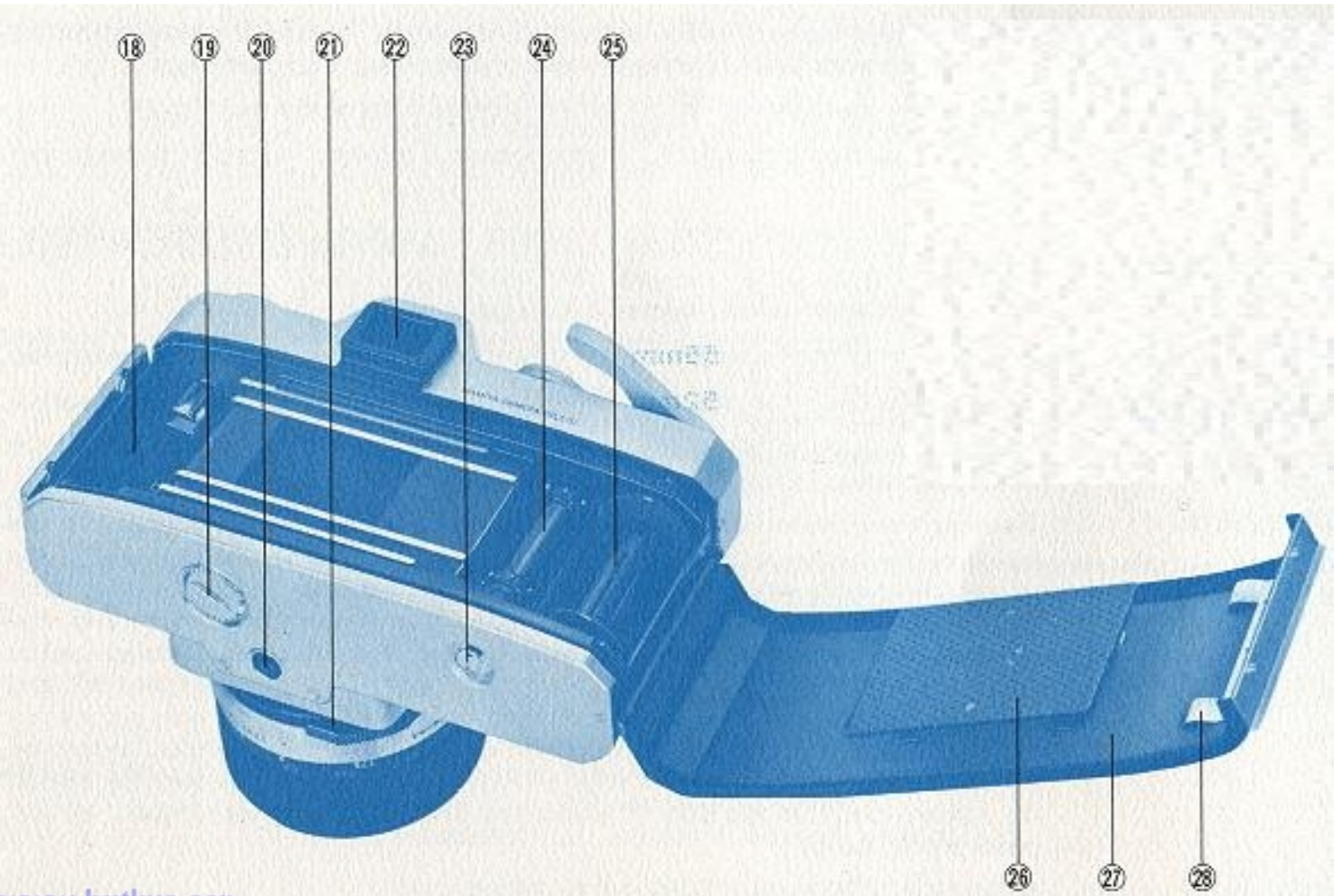
12-A

12-B

When operating in the C mode, the winder fires continuously until you let go of the trigger release button with your finger. Film advance speed varies in relation to the shutter speed in use. Top speed is 2 frames-per-second with fresh batteries when shutter speed permits. At slow shutter speeds the film advance rate slows to synchronize with the shutter speed being used. All shutter speed settings on the camera's exposure mode dial (except B) synchronize with the winder.

In the S mode, the winder advances the film to the next exposure and stops after you release the shutter with the trigger release button. To take another picture, you must press the button again.

CAUTION: When shooting in limited lighting conditions with the camera set for the AUTO mode, long exposures may result. Regardless of whether the winder is set for the C or S mode, extreme care should be taken to hold the camera



www.butkus.org

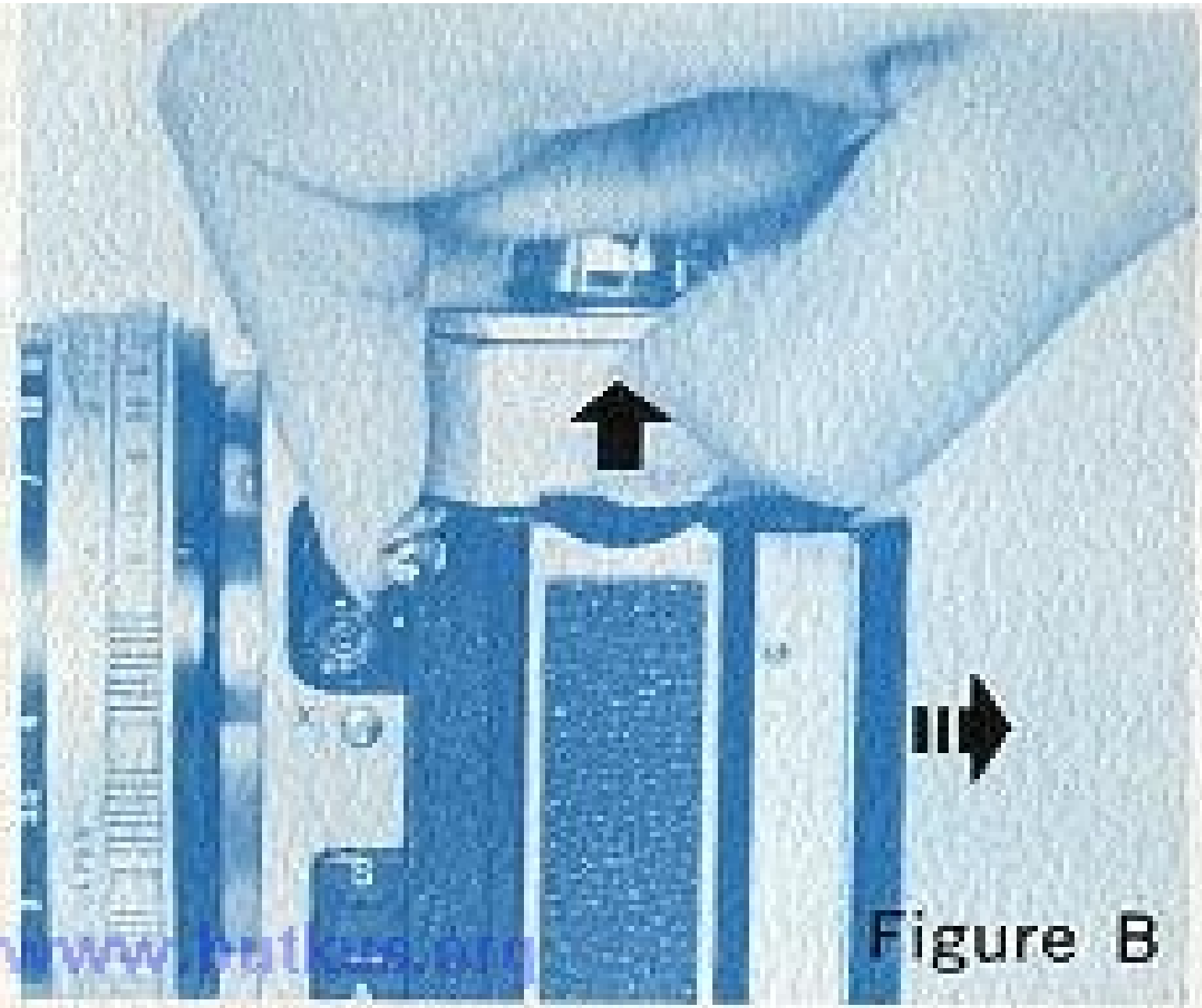
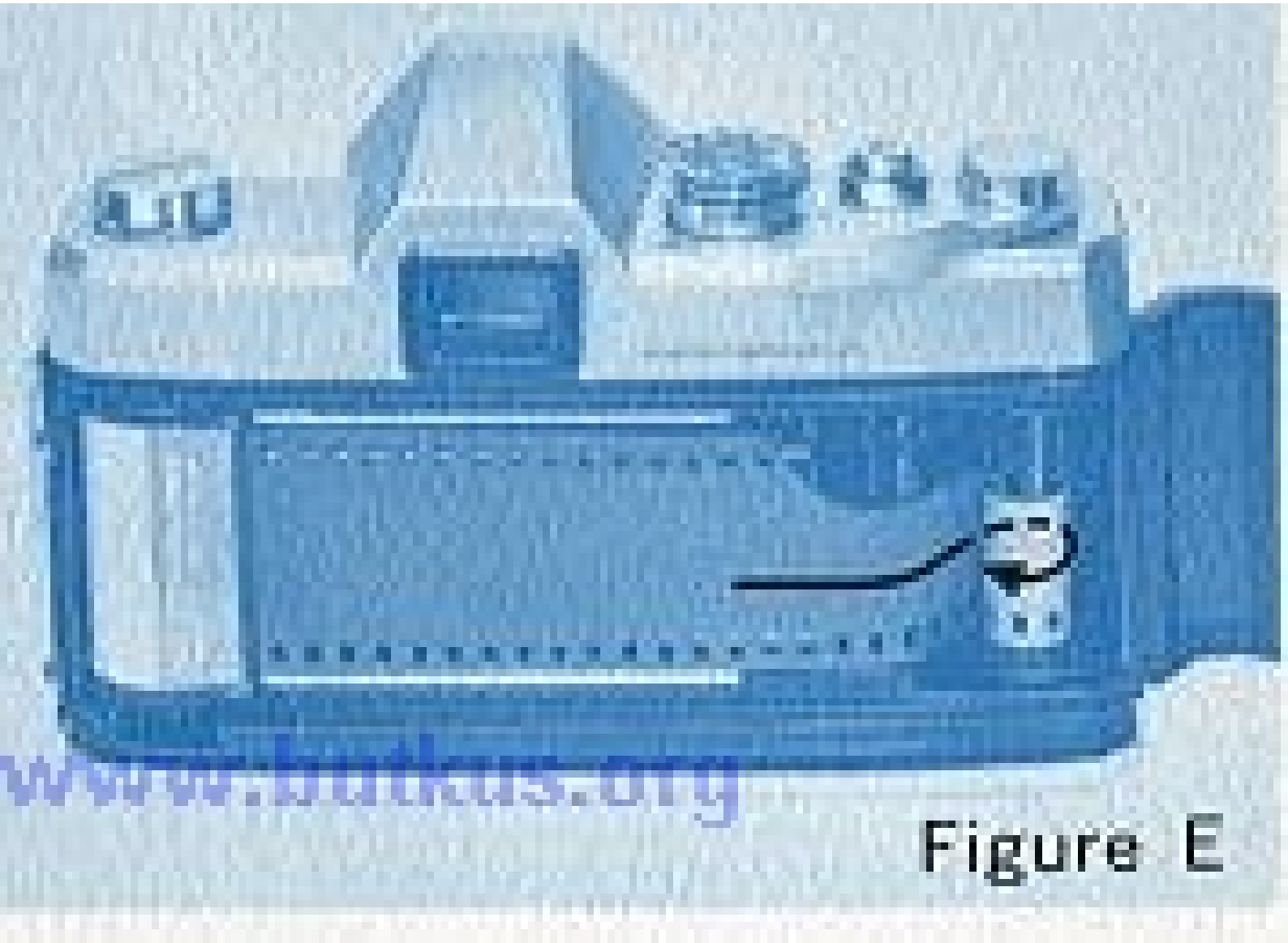


Figure B

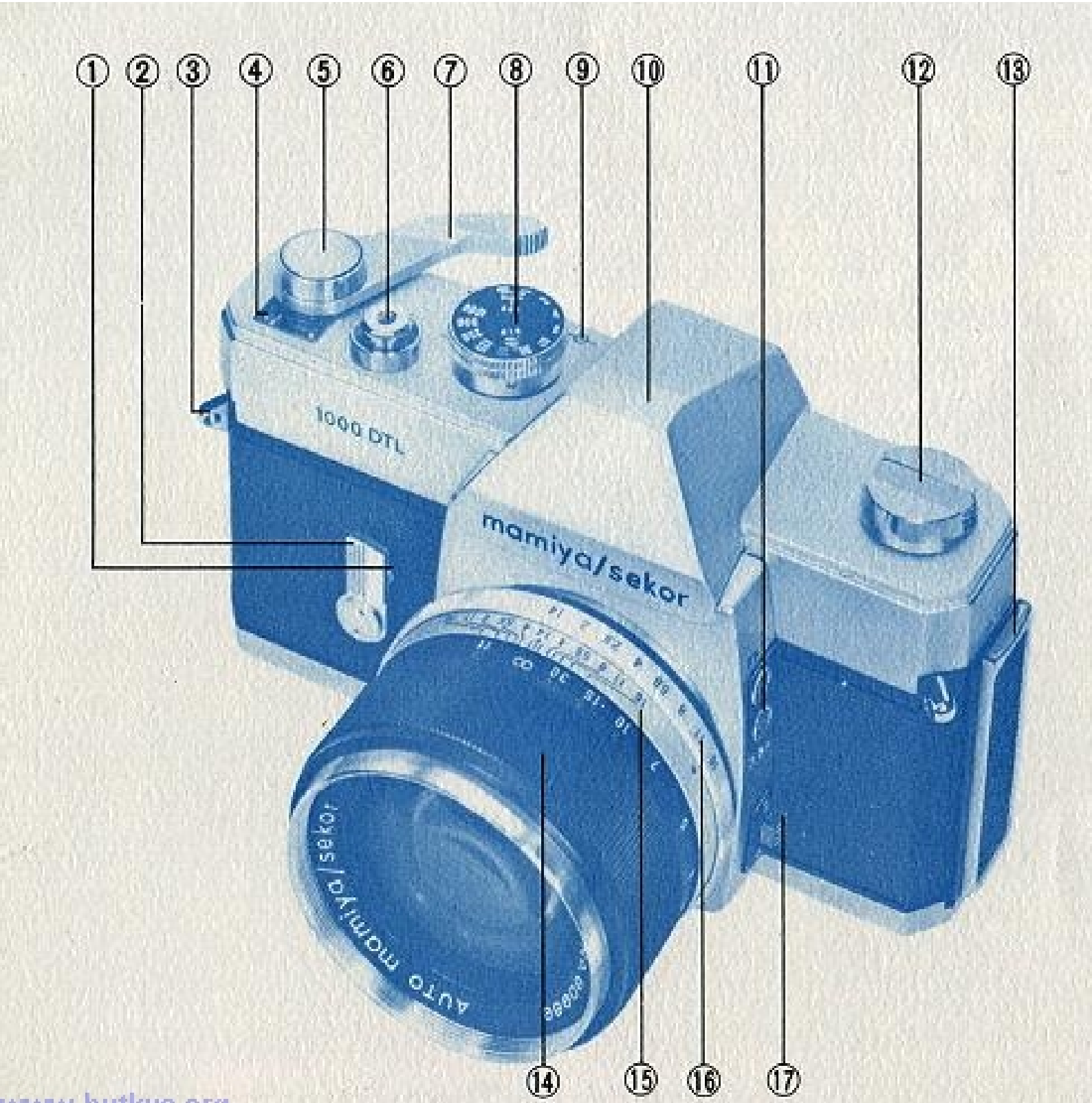


www.bibliotis.org

Figure E

www.bulkus.org

Figure F



www.butkus.org

COMPARATIVE TABLE OF FILM SENSITIVITY

DIN-Grade /10	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
ASA Arithmetic Exposure Index	8	10	12	16	20	25	32	40	50	64	80	100	125	160	200	250	320	400
ASA Logarithmic Exposure Index	20^0	21^0	22^0	23^0	24^0	25^0	26^0	27^0	28^0	29^0	30^0	31^0	32^0	33^0	34^0	35^0	36^0	37^0
Weston Numbers	6	8	10	12	16	20	24	32	40	50	64	80	100	125	160	200	250	320
General Electric	10	12	16	20	24	32	40	48	64	80	100	125	150	200	250	300	400	500
H & D (Ilford)	400	500	600	750	1000	1200	1500	2000	2500	3000								
H & D in Europe	1300	1700	2100	2700	3500	4400	5600	7200	9100	11600								
Relative exposure times	8,00	6,40	5,13	4,00	3,20	2,56	2,00	1,60	1,28	1,00	0,80	0,64	0,50	0,40	0,32	0,25	0,20	0,16

In the above table films having practically the same sensitivity are indicated in vertical columns.

The numbers of the last row are only comparative values showing the ratio of the amount of light needed by films of different sensitivity. A film of $^{16}/_{10}{}^0$ DIN, for instance, needs double the amount of light as one of $^{19}/_{10}{}^0$ DIN (difference of $^3/_{10}$ DIN degrees). It follows that either the lens aperture must be increased by one stop or that the exposure time has to be doubled.

www.butkus.org

Figure C

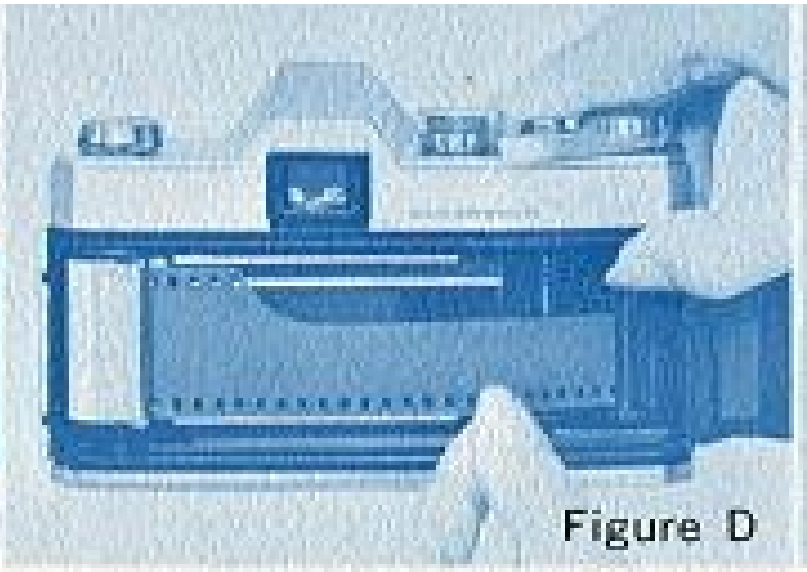


Figure D

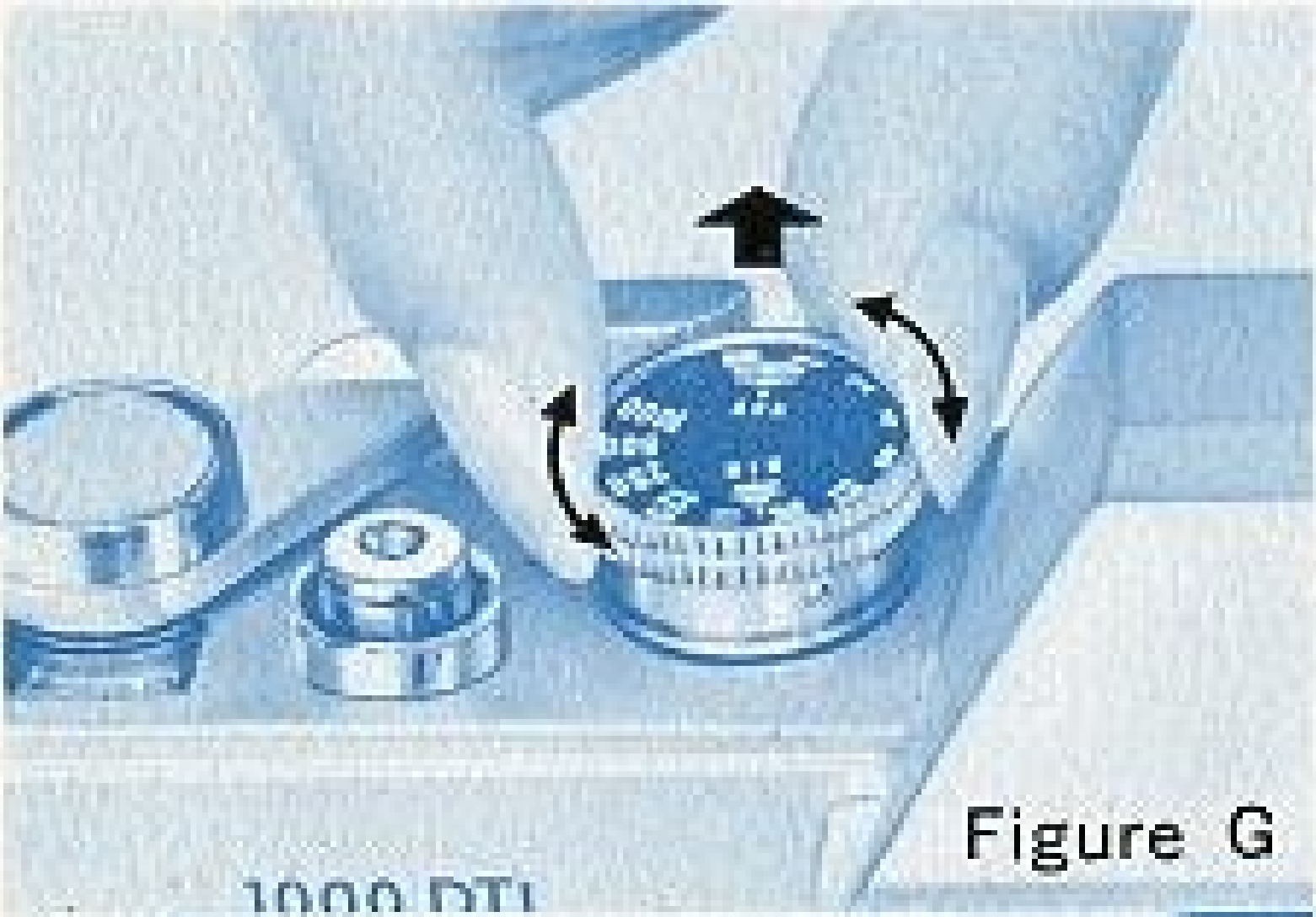


Figure G

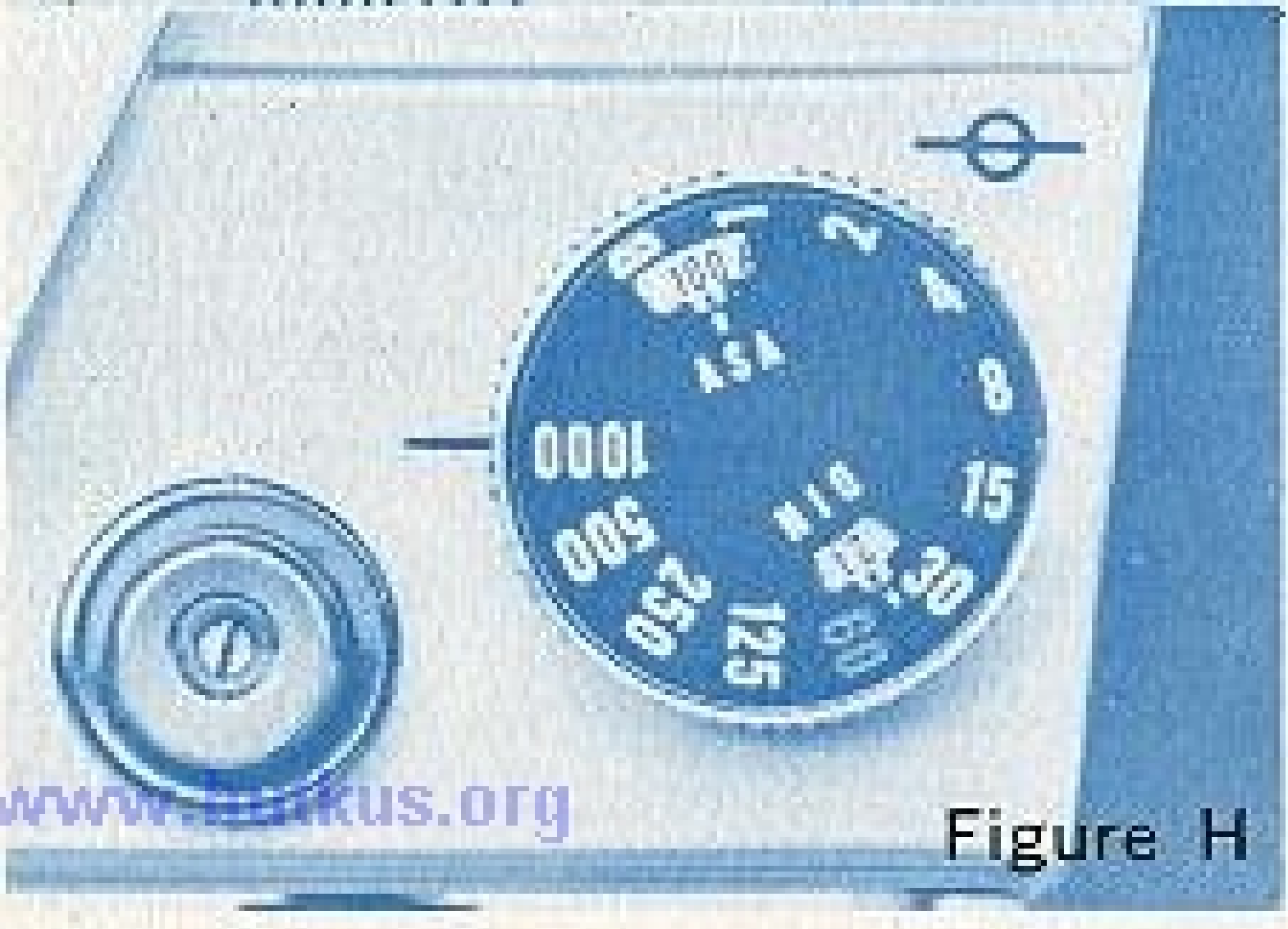
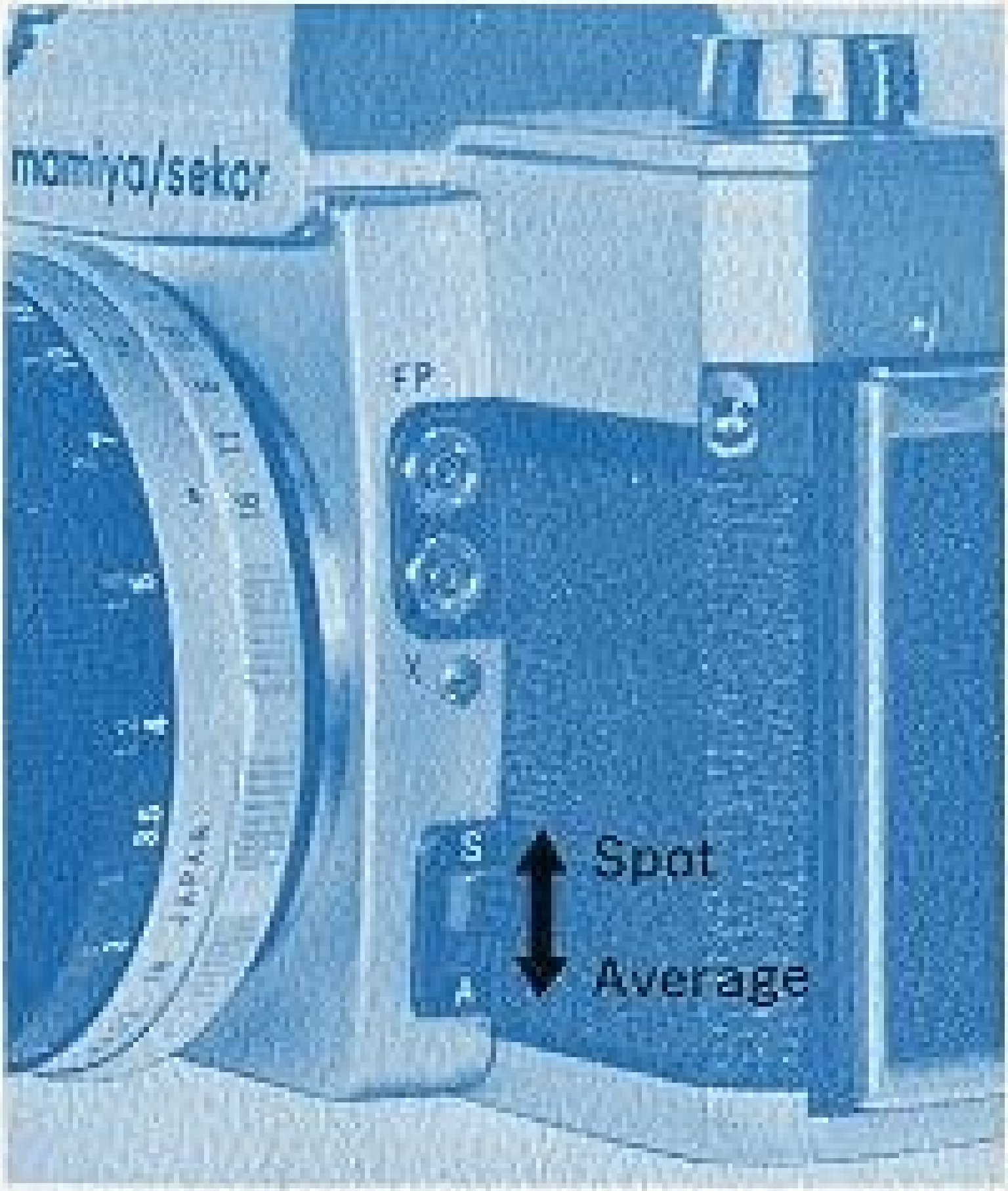


Figure H

www.manuals.org

Figure K

www.butkus.org



www.butkus.org

Figure L

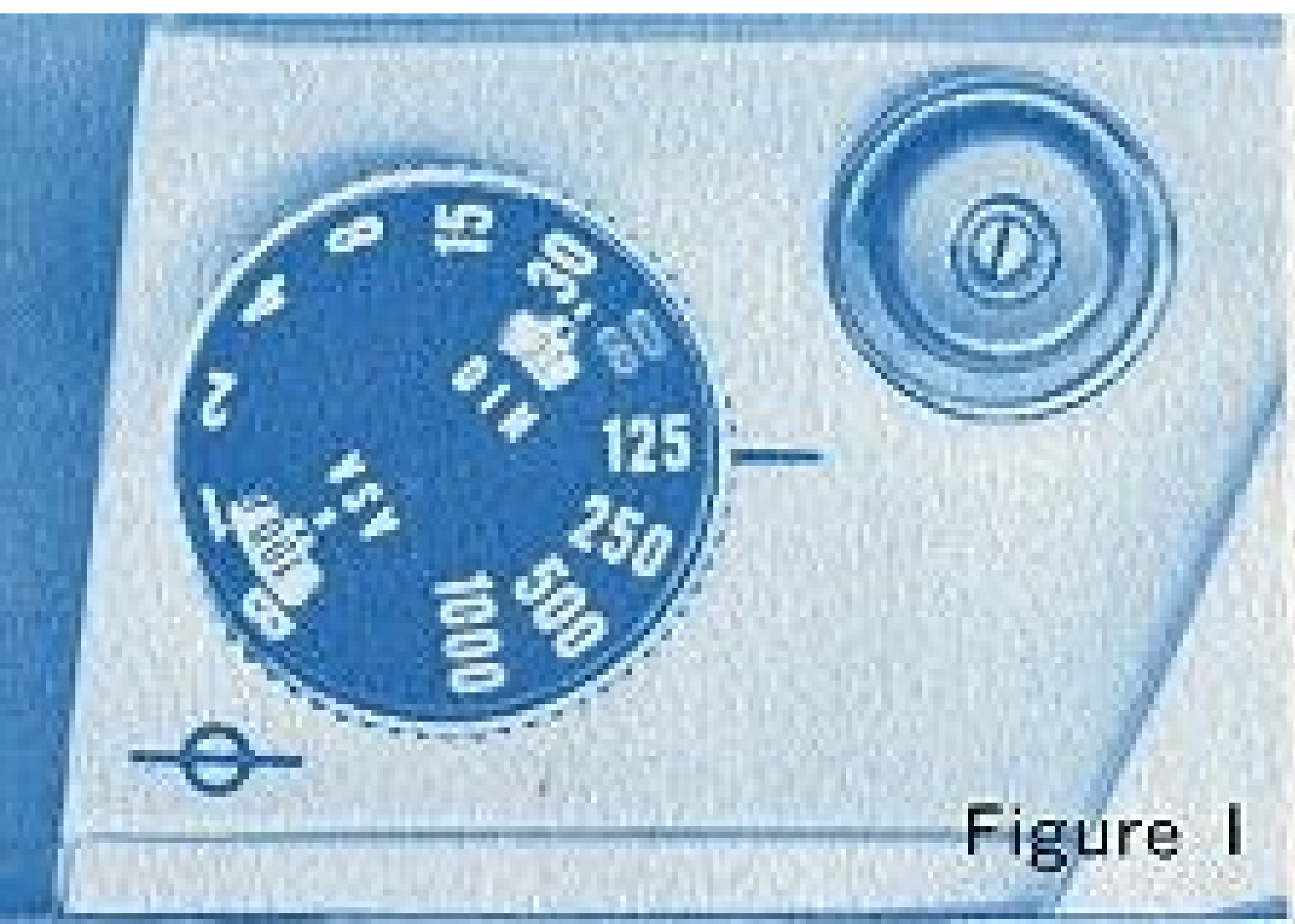


Figure I

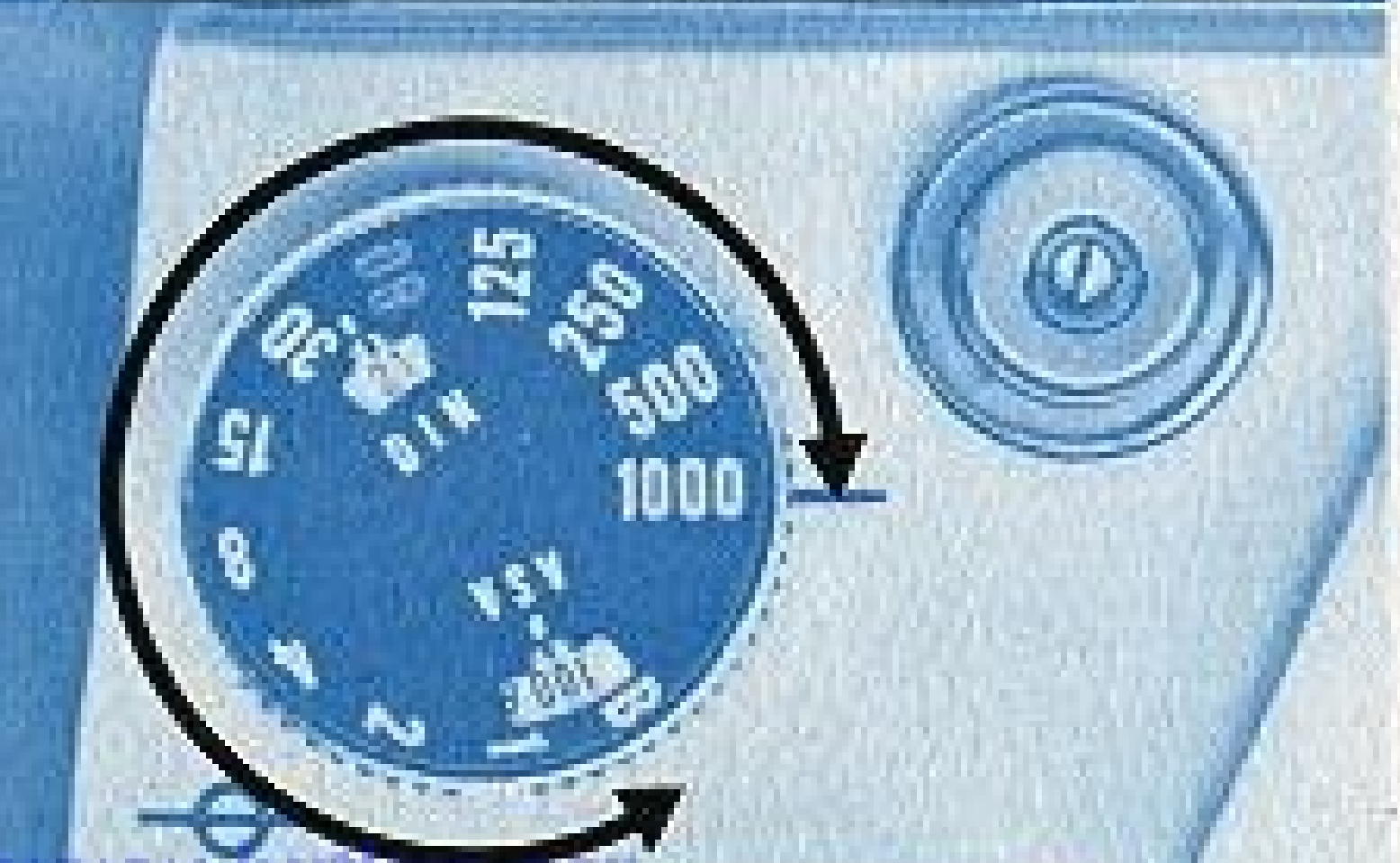


Figure J

Correct Use of Spot Meter

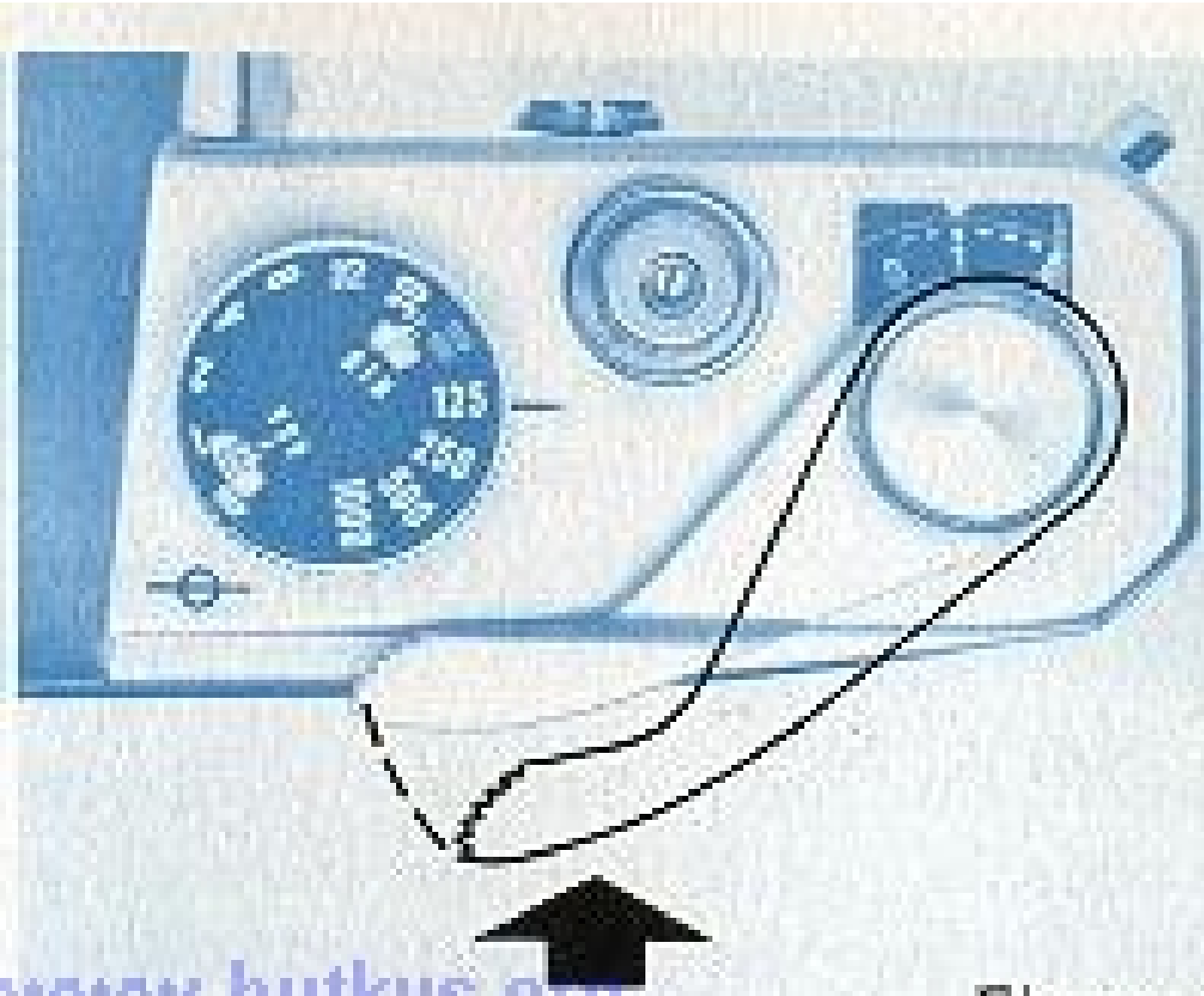
Figure M

www.kmkns.org

Incorrect Use of Spot Meter

www.hutkus.org

Figure N



www.butkus.org

Figure O

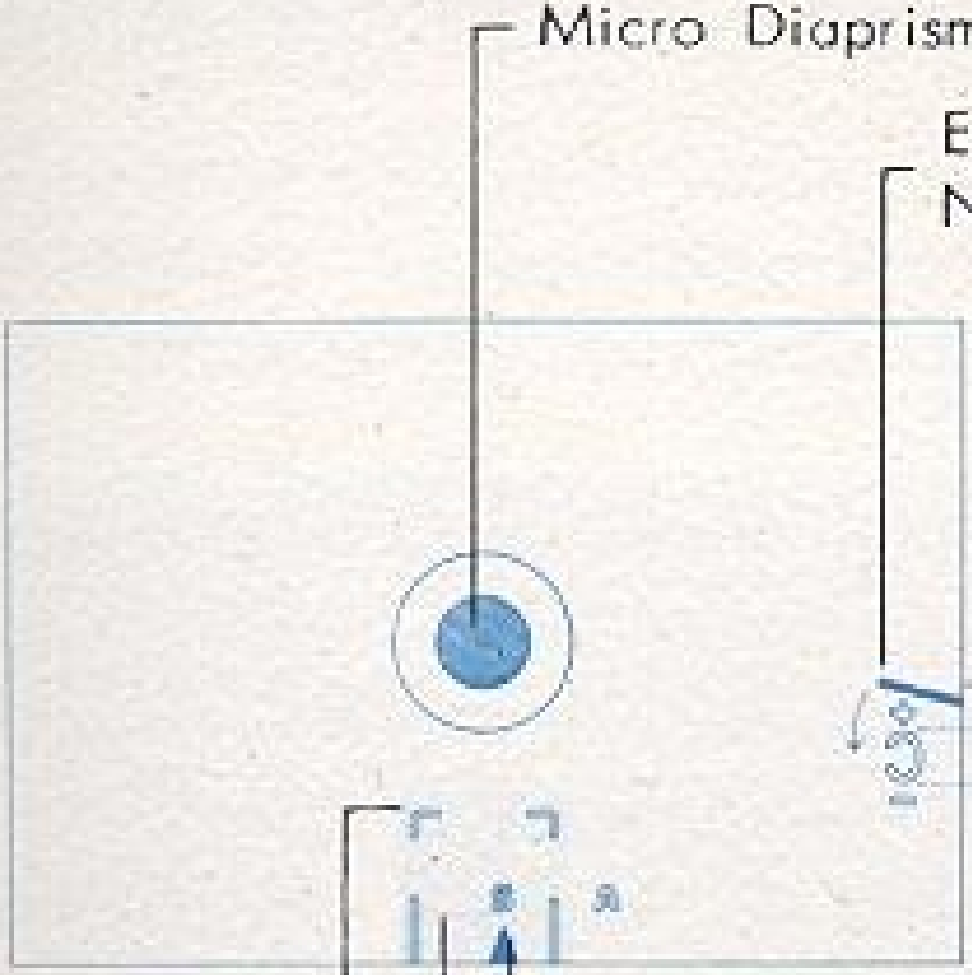


Figure P

www.butkus.org

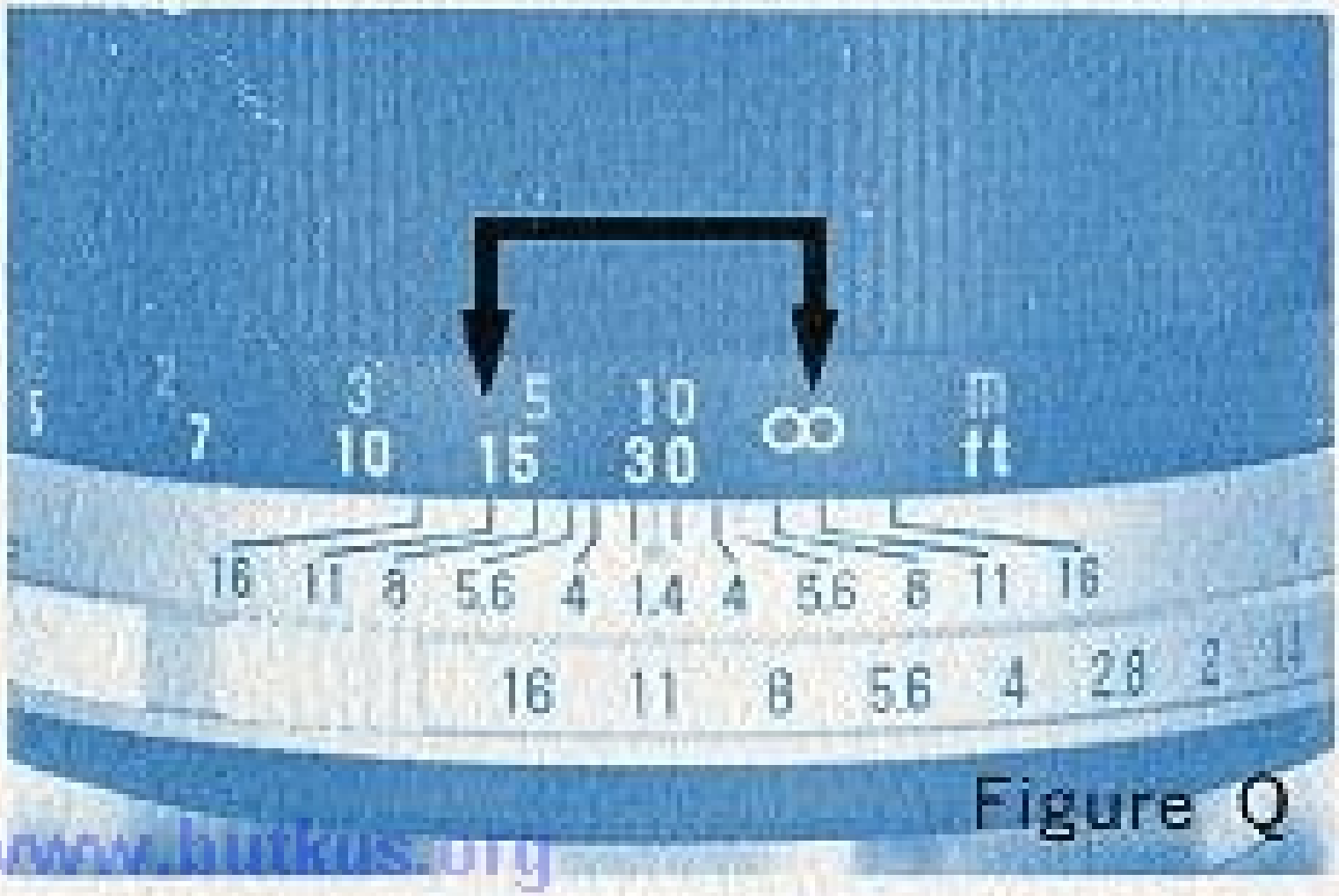
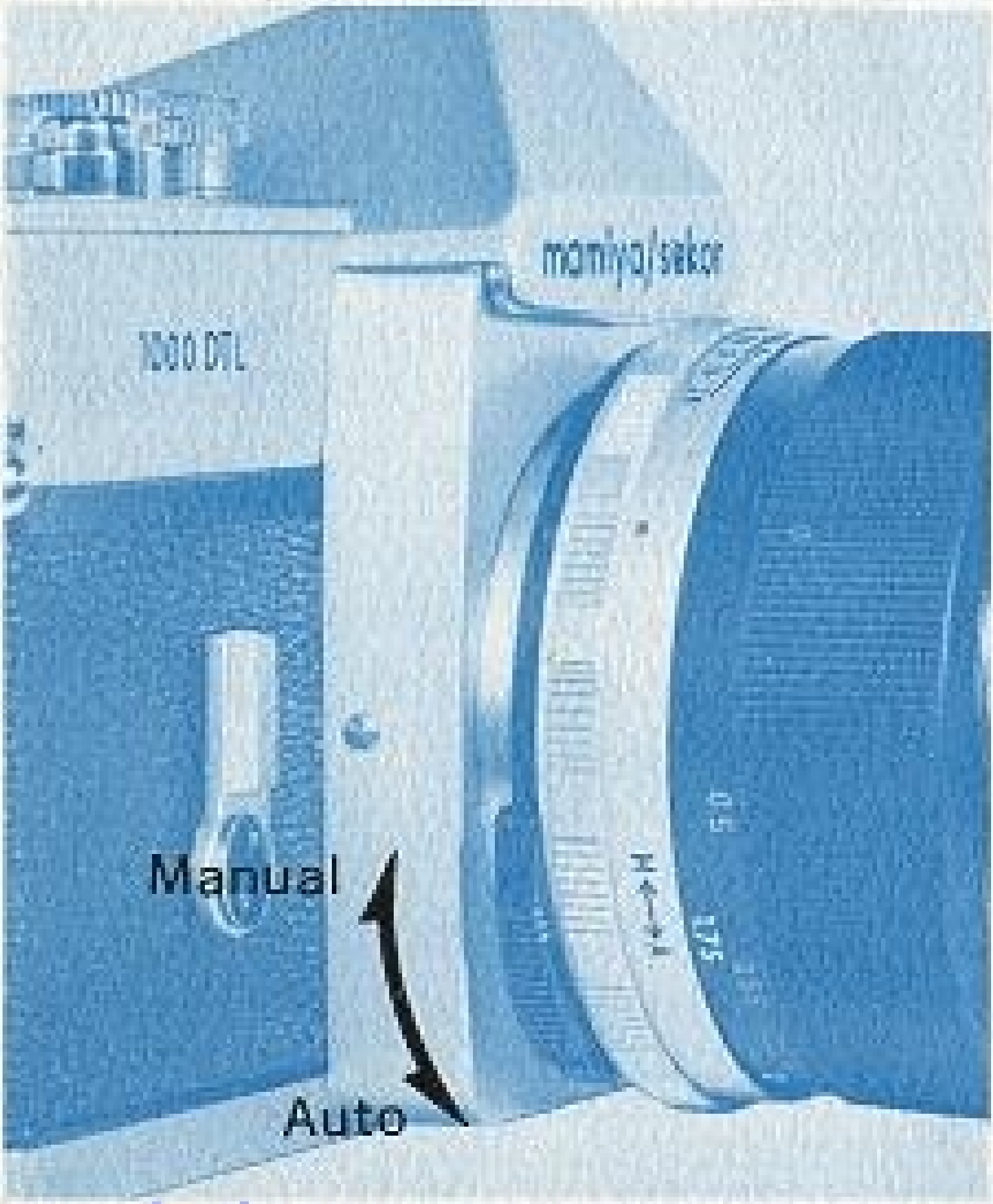


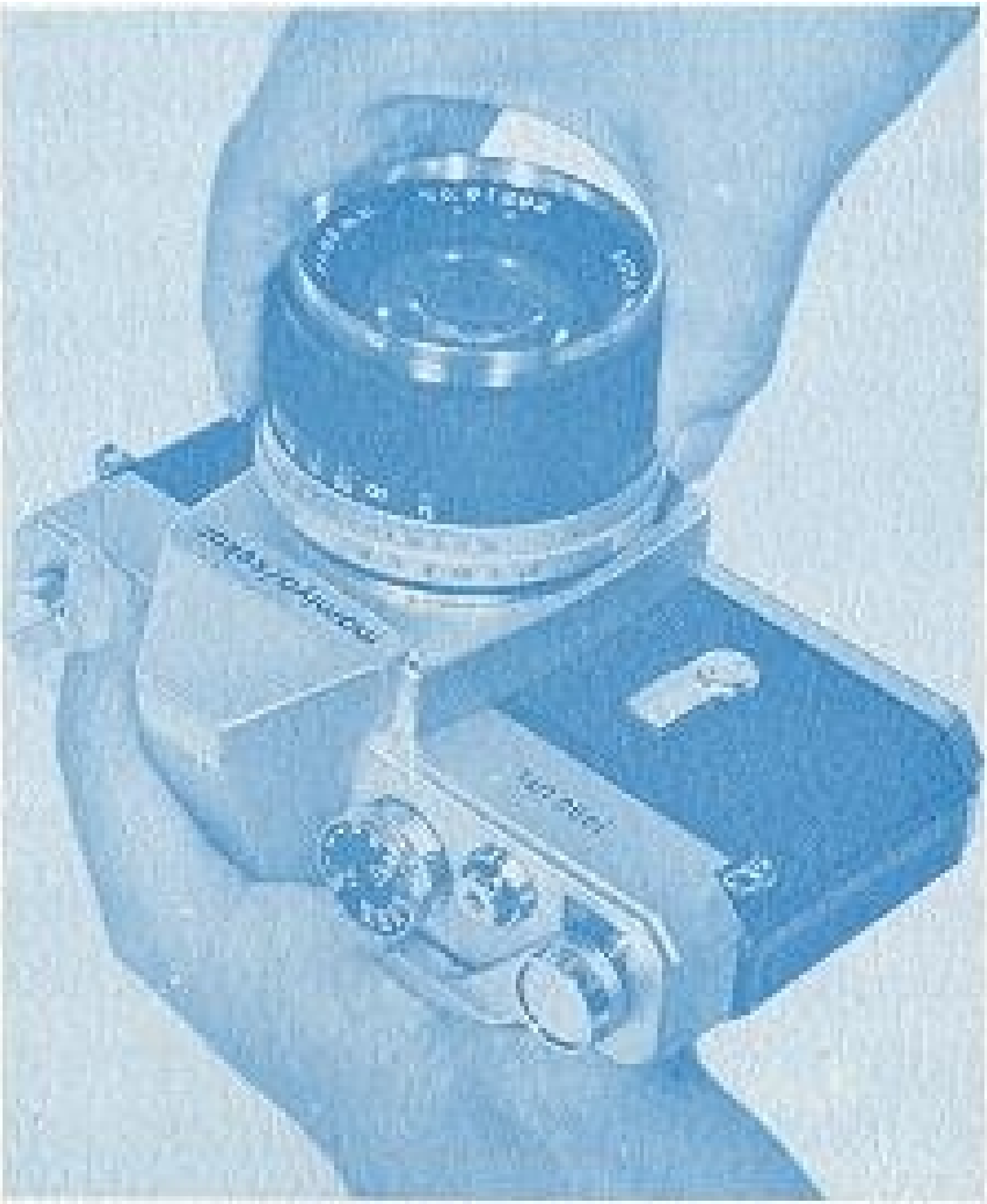
Figure Q

www.hutkus.org



www.butkus.org

Figure R



www.butkus.org

Figure S

Figure V

www.bibus.org

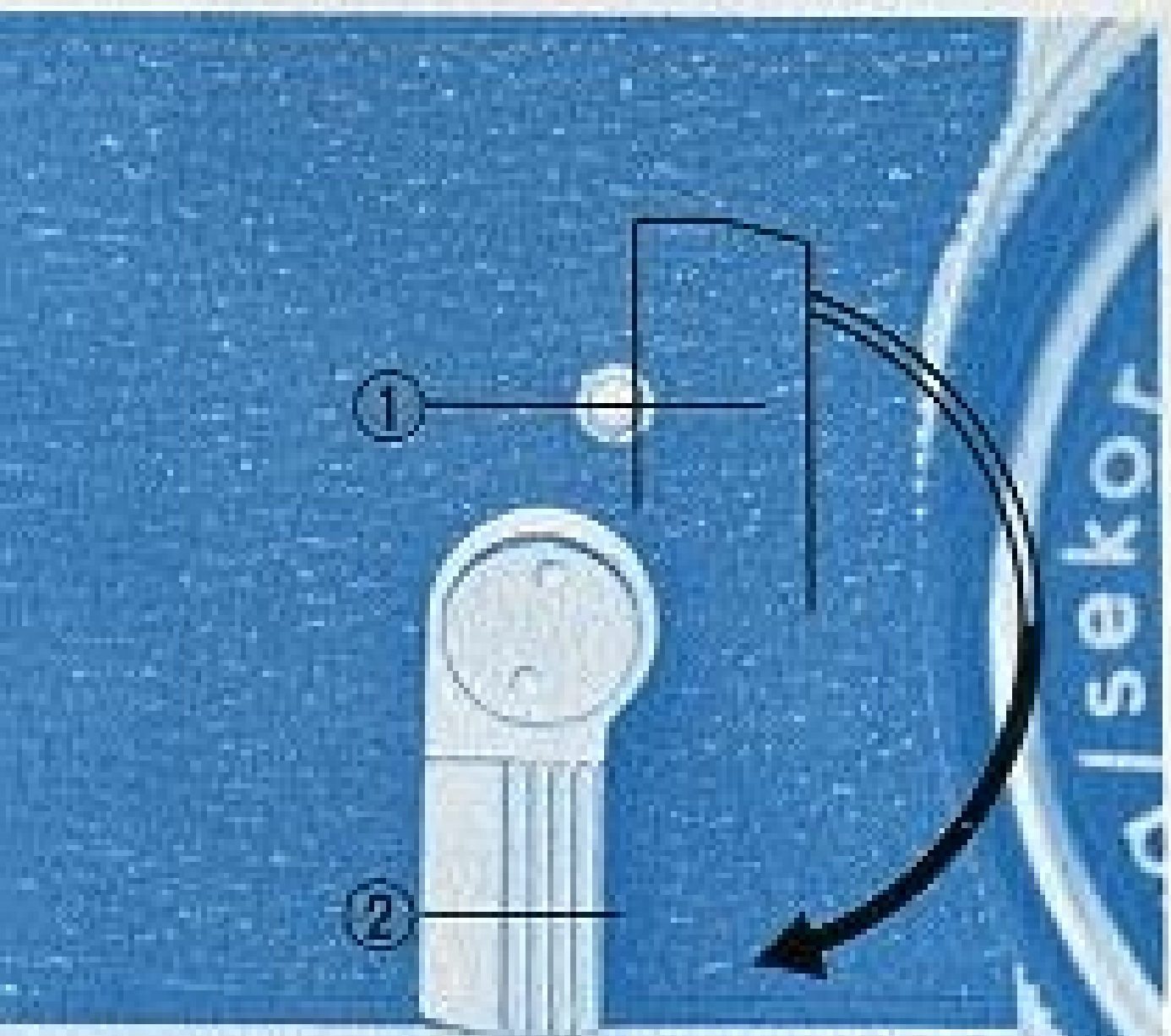
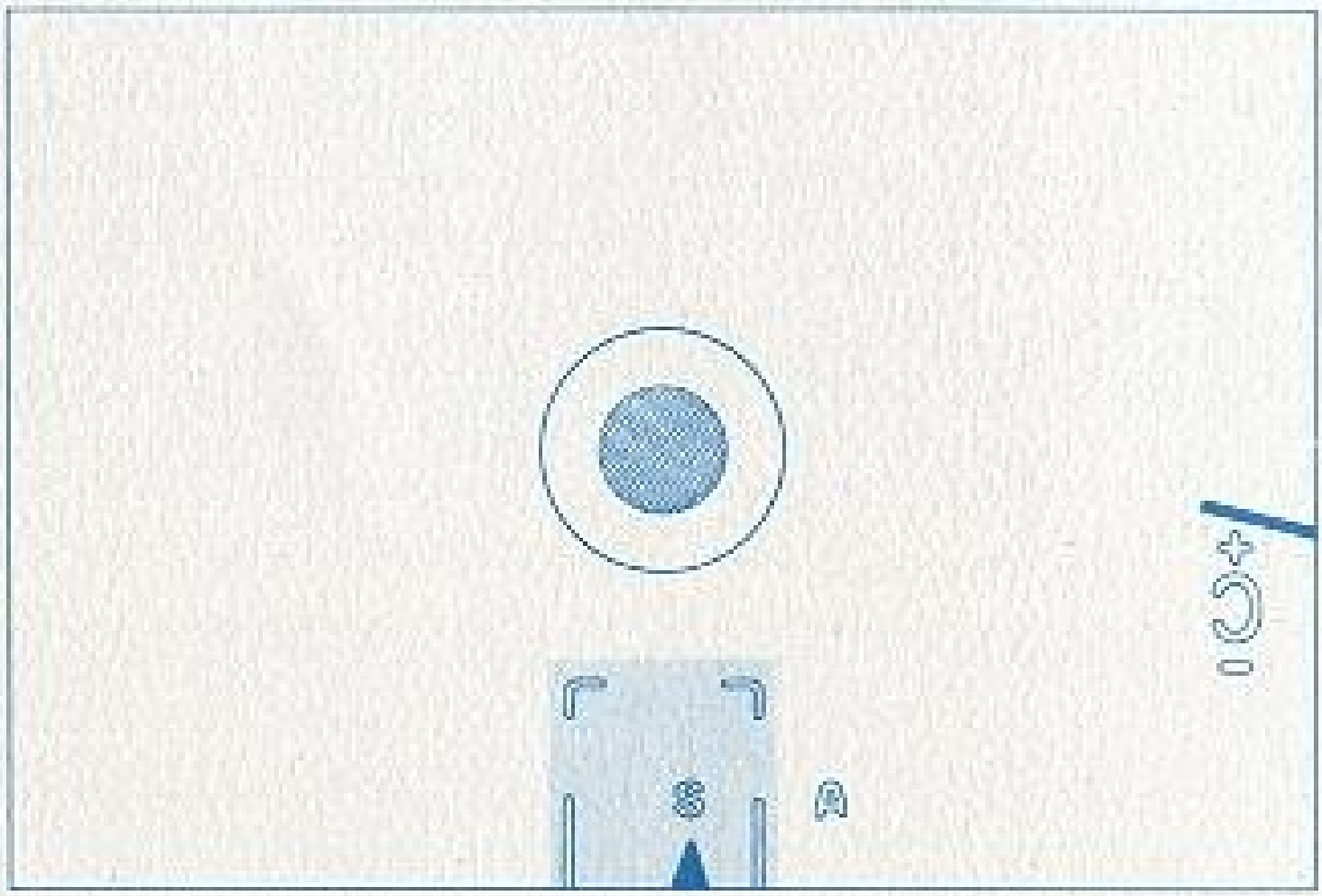


Figure U

www.butkus.org

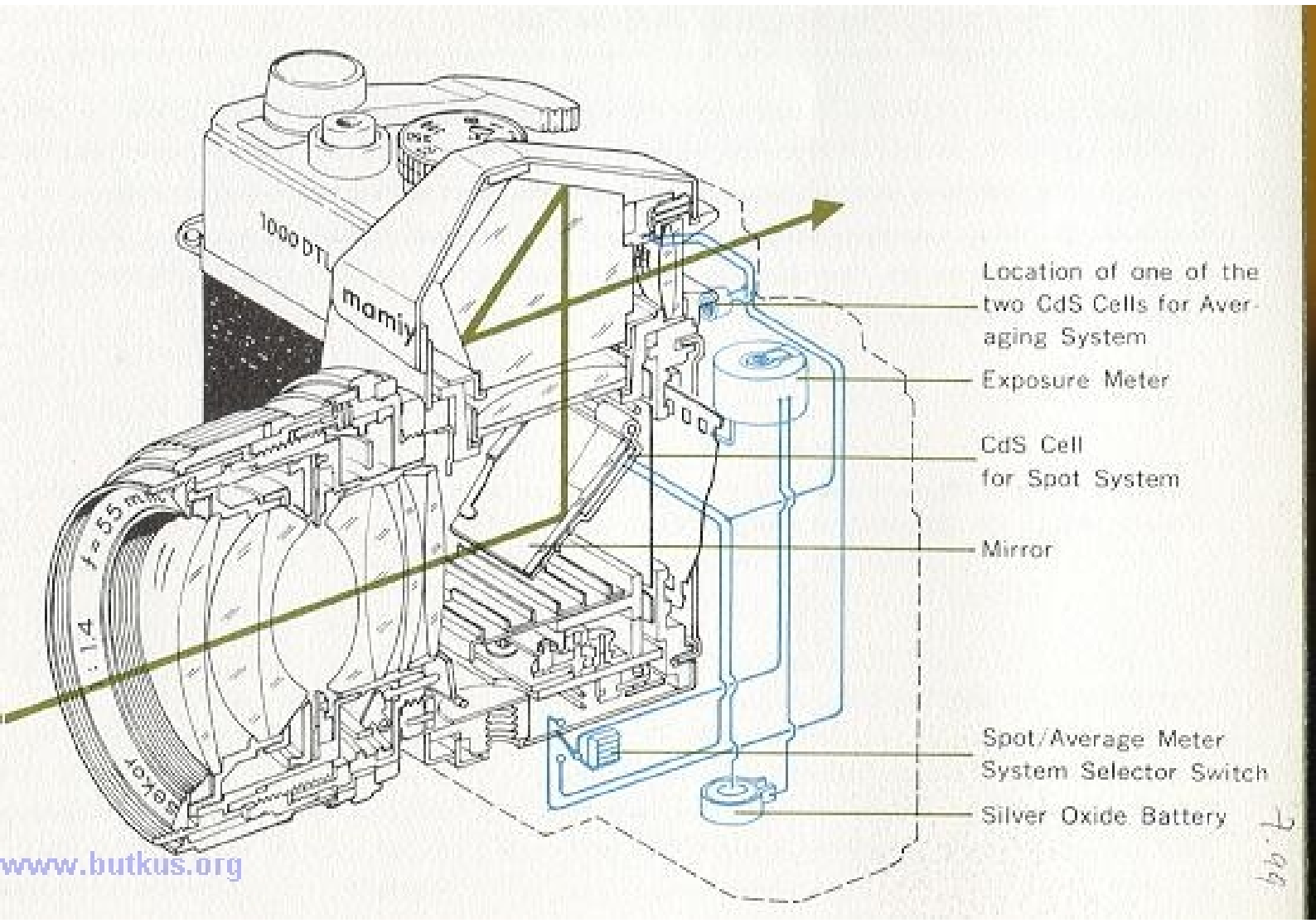
www.butkus.org

Figure T



www.butkus.org

Figure W



www.butkus.org

Lighting \ Film Speed (ASA) (DIN)	25 15/10	32 16/10	50 18/10	100 21/10	200 24/10	400 27/10	800 30/10	1600 33/10	3200 33/10
Bright Sun on Sand or Snow	1/125	1/125	1/250	1/500	1/500	1/500	—	—	—
Bright Sun Strong Shadows	1/125	1/125	1/125	1/250	1/250	1/500	1/500	—	—
Hazy Sun Weak Shadows	1/125	1/125	1/125	1/125	1/250	1/250	1/500	1/500	—
Cloudy Bright No Shadows	1/60	1/60	1/60	1/60	1/60	1/125	1/125	1/250	1/500
Open Shade Under Clear Blue Sky	1/60	1/60	1/60	1/60	1/60	1/125	1/125	1/250	1/500
Cloudy Rain	1/30	1/30	1/30	1/30	1/30	1/60	1/125	1/125	1/500

SHUTTER SPEED GUIDE

Lighting \ Film Speed (ASA) (DIN)	25 15/10	32 16/10	50 18/10	100 21/10	200 24/10	400 27/10
Bright Sun on Sand or Snow	1/125	1/125	1/250	1/500	1/1000	1/1000
Bright Sun Strong Shadows	1/125	1/125	1/125	1/250	1/250	1/500
Hazy Sun Weak Shadows	1/125	1/125	1/125	1/125	1/250	1/250
Cloudy Bright No Shadows	1/60	1/60	1/60	1/60	1/60	1/125
Open Shade Under Clear Blue Sky	1/60	1/60	1/60	1/60	1/60	1/125
Cloudy Rain	1/30	1/30	1/30	1/30	1/30	1/60

OUTDOOR EXPOSURE GUIDE

For Average Fast Film Like Kodak Plus X, ANSCO Supreme, etc.

Subject	Brilliant	Bright	Cloudy-Bright	Cloudy-Dull
Beach, Water and Snow Scenes; Distant Landscapes.	Shutter 1/100 Lens f/18	1/100 f/12.7	1/100 f/9	1/100 f/6.3
Close-ups in Beach, Water and Snow Scenes; Landscapes with Foreground.	1/100 f/12.7	1/100 f/9	1/100 f/6.3	1/100 f/4.5
Pictures of People, Children at Play, Gardens, Houses, Street Scenes.	1/100 f/9	1/100 f/6.3	1/100 f/4.5	1/50 f/4.5
All Subjects in Open Shade; Not Under Trees or Porches.	1/100 f/6.3	1/100 f/4.5	1/50 f/4.5	1/25 f/4.5

www.butkus.org

For color see instructions supplied with film

For indoor pictures see instructions supplied with flood and flash bulbs

DEPTH OF FIELD TABLE (distances in feet)

UV Topcor F/2 53mm

1/30mm

Distance \ Aperture	2	2.8	4	5.6	8	11	16	22
∞	∞ ~ 141.3	∞ ~ 101.1	∞ ~ 70.8	∞ ~ 50.7	∞ ~ 35.6	∞ ~ 26.0	∞ ~ 18.0	∞ ~ 13.2
30	38.0 ~ 24.8	42.5 ~ 23.2	51.8 ~ 21.2	73.2 ~ 19.0	193.8 ~ 16.4	∞ ~ 14.0	∞ ~ 11.4	∞ ~ 8.92
15	16.7 ~ 13.6	17.5 ~ 13.1	18.9 ~ 12.4	21.1 ~ 11.7	25.7 ~ 10.7	35.2 ~ 9.62	93.4 ~ 8.30	∞ ~ 7.13
10	10.7 ~ 9.37	11.0 ~ 9.14	11.6 ~ 8.81	12.3 ~ 8.42	13.7 ~ 7.89	16.0 ~ 7.32	22.2 ~ 6.54	42.0 ~ 6.07
8	8.45 ~ 7.60	8.65 ~ 7.45	8.96 ~ 7.23	9.41 ~ 6.97	10.2 ~ 6.61	11.4 ~ 6.20	14.1 ~ 5.64	20.1 ~ 5.09
6	6.24 ~ 5.77	6.35 ~ 5.69	6.51 ~ 5.57	6.74 ~ 5.41	7.13 ~ 5.20	7.67 ~ 4.95	8.81 ~ 4.59	10.7 ~ 4.23
5	5.17 ~ 4.85	5.24 ~ 4.79	5.34 ~ 4·70	5.50 ~ 4 59	5.74 ~ 4.44	6.09 ~ 4.26	6.77 ~ 4.00	7.83 ~ 3.72
4	4.10 ~ 3.90	4.14 ~ 3.87	4.21 ~ 3.81	4.30 ~ 3.74	4.45 ~ 3.64	4.64 ~ 3.52	5.02 ~ 3.35	5.57 ~ 3.16
3.5	3.58 ~ 3.43	3.61 ~ 3.40	3.66 ~ 3.36	3.72 ~ 3.30	3.83 ~ 3.23	3.97 ~ 3.14	4.24 ~ 3.00	4.61 ~ 2.85
3	3.05 ~ 2.95	3.08 ~ 2.93	3.11 ~ 2.90	3.16 ~ 2.86	3.23 ~ 2.80	3.33 ~ 2.74	3.51 ~ 2.63	3.75 ~ 2.52
2.5	2.54 ~ 2.47	2.55 ~ 2.45	2.57 ~ 2.43	2.60 ~ 2.41	2.65 ~ 2.37	2.72 ~ 2.32	2.83 ~ 2.25	2.98 ~ 2.17
2.25	2.28 ~ 2.22	2.29 ~ 2.21	2.31 ~ 2.20	2.33 ~ 2.17	2.37 ~ 2.14	2.42 ~ 2.11	2.50 ~ 2.05	2.62 ~ 1.99

Distance Focused on	f:4.5		f:6.3		f:9		f:12.7		f:18	
	Sharply Focused		Sharply Focused		Sharply Focused		Sharply Focused		Sharply Focused	
	From	To	From	To	From	To	From	To	From	To
∞	83′	∞	60′	∞	41′	∞	30′	∞	21′	∞
60	35′	215′	30′	∞	24′ 4″	130′	20′	∞	15′ 6″	∞
30	22′	47′	20′	60′	17′ 4″	111′	15′	∞	12′ 4″	∞
20	16′ 1″	26′ 4″	15′	30′	13′ 5″	39′	12′	60′	10′	∞
15	12′ 8″	18′ 4″	12′	20′	11′	23′ 8″	10′	30′	8′ 9″	52′ 6″
10	8′ 11″	11′ 5″	8′ 7″	12′	8′	13′ 3″	7′ 6″	15′	7′	19′
8	7′ 4″	8′ 10″	7′	9′	6′ 8″	10′	6′ 4″	10′ 11″	5′ 8″	12′ 11″
7	6′ 5″	7′ 8″	6′ 3″	8′	6′	8′ 5″	5′ 8″	9′ 2″	5′ 3″	10′ 6″
6	5′ 7″	6′ 5″	5′ 5″	6′ 8″	5′ 2″	7′	5′	7′ 6″	4′ 8″	8′ 5″
5	4′ 8″	5′ 4″	4′ 7″	5′ 5″	4′ 5″	5′ 8″	4′ 3″	6′	4′	6′ 9″
4.5	4′ 4″	4′ 11″	4′ 3″	5′	4′ 1″	5′	4′	5′ 2″	3′ 10″	5′ 6″
4	3′ 10″	4′ 4″	3′ 9″	4′ 5″	3′ 7″	4′ 5″	3′ 6″	4′ 7″	3′ 4″	5′
3.5	3′ 4″	3′ 7″	3′ 4″	3′ 8″	3′ 3″	3′ 9″	3′ 2″	4′	3′ 1″	4′ 1″

www.hutkus.org

DEPTH OF FIELD TABLE (distances in feet)

UV Topcor F/4 135mm

1/30mm

Distance \ Aperture	4	5.6	8	11	16	22
∞	∞ ~419.61	∞ ~299.97	∞ ~210.24	∞ ~153.14	∞ ~105.56	∞ ~77.01
100	132.36~80.29	151.97~74.41	195.28~67.02	302.91~59.61	3549.08-50.30	∞ ~42.32
50	56.65~44.77	59.85~42.97	65.39~40.54	73.98~37.87	94.82~34.14	143.69~30.55
30	32.24~28.06	33.24~27.35	34.86~26.36	37.13~25.22	41.67~23.53	48.88~21.78
20	20.96~19.13	21.37~18.81	22.01~18.34	22.88~17.79	24.50~16.94	26.78~16.03
15	15.52~14.51	15.74~14.33	16.08~14.06	16.53~13.74	17.35~13.24	18.44~12.69
12	12.33~11.69	12.46~11.57	12.67~11.40	12.94~11.19	13.43~10.86	14.06~10.50
10	10.22~ 9.79	10.31~ 9.71	10.45~ 9.59	10.63~ 9.44	10.95~ 9.21	11.36~ 8.95
8	8.14~ 7.87	8.19~ 7.82	8.28~ 7.74	8.39~ 7.65	8.58~ 7.50	8.82~ 7.33
7	7.10~ 6.91	7.14~ 6.86	7.21~ 6.81	7.29~ 6.74	7.43~ 6.62	7.61~ 6.49
6	6.07~ 5.93	6.10~ 5.90	6.15~ 5.86	6.20~ 5.83	6.30~ 5.73	6.43~ 5.64
5	5.05~ 4.95	5.07~ 4.93	5.10~ 4.91	5.13~ 4.87	5.20~ 4.82	5.28~ 4.76

DEPTH OF FIELD TABLE (distances in meters)

UV Topcor F/2 53mm

1/30mm

Distance \ Aperture	2	2.8	4	5.6	8	11	16	22
∞	∞ ~ 43.1	∞ ~ 30.8	∞ ~ 21.6	∞ ~ 15.5	∞ ~ 10.8	∞ ~ 7.92	∞ ~ 5.47	∞ ~ 4.01
10.0	13.0 ~ 8.14	14.7 ~ 7.58	18.5 ~ 6.87	28.3 ~ 6.11	∞ ~ 5.24	∞ ~ 4.46	∞ ~ 3.57	∞ ~ 2.89
5.0	5.64 ~ 4.49	5.94 ~ 4.32	6.47 ~ 4.08	7.33 ~ 3.81	9.19 ~ 3.45	13.5 ~ 3.10	63.0 ~ 2.65	∞ ~ 2.26
3.0	3.21 ~ 2.81	3.31 ~ 2.75	3.46 ~ 2.65	3.69 ~ 2.53	4.10 ~ 2.38	4.76 ~ 2.21	6.54 ~ 1.97	9.28 ~ 1.75
2.0	2.09 ~ 1.92	2.13 ~ 1.89	2.19 ~ 1.84	2.28 ~ 1.79	2.42 ~ 1.71	2.63 ~ 1.62	3.08 ~ 1.49	4.19 ~ 1.37
1.5	1.55 ~ 1.45	1.57 ~ 1.44	1.60 ~ 1.41	1.65 ~ 1.35	1.72 ~ 1.33	1.82 ~ 1.28	2.02 ~ 1.20	2.33 ~ 1.12
1.2	1.23 ~ 1.17	1.24 ~ 1.16	1.26 ~ 1.14	1.29 ~ 1.12	1.33 ~ 1.09	1.39 ~ 1.06	1.50 ~ 1.01	1.66 ~ 0.95
1.0	1.02 ~ 0.98	1.03 ~ 0.97	1.04 ~ 0.96	1.06 ~ 0.95	1.09 ~ 0.93	1.12 ~ 0.90	1.19 ~ 0.87	1.29 ~ 0.83
0.9	0.92 ~ 0.88	0.92 ~ 0.88	0.93 ~ 0.87	0.95 ~ 0.86	0.97 ~ 0.84	1.00 ~ 0.82	1.05 ~ 0.79	1.12 ~ 0.76
0.8	0.81 ~ 0.79	0.82 ~ 0.78	0.83 ~ 0.78	0.84 ~ 0.77	0.85 ~ 0.75	0.87 ~ 0.74	0.91 ~ 0.72	0.96 ~ 0.69
0.7	0.71 ~ 0.69	0.71 ~ 0.69	0.72 ~ 0.68	0.73 ~ 0.68	0.74 ~ 0.67	0.75 ~ 0.65	0.78 ~ 0.64	0.82 ~ 0.62

www.butkus.org

DEPTH OF FIELD TABLE (distances in meters)

UV Topcor F/4 135mm 1/30mm

Distance \ Aperture	4	5.6	8	11	16	22
∞	∞ ~127.9	∞ ~9.14	∞ ~64.1	∞ ~46.7	∞ ~32.2	∞ ~23.5
30	39.1~24.3	44.6~22.6	56.3~20.5	84.3~18.3	493.4~15.6	∞ ~13.2
20	23.7~17.3	25.5~16.5	29.0~15.3	34.9~14.1	53.1~12.4	142.4~10.9
10	10.8~9.29	11.2~9.04	11.8~8.68	12.7~8.28	14.4~7.68	17.3~7.07
5	5.19~4.82	5.27~4.75	5.40~4.66	5.57~4.54	5.87~4.36	6.29~3.61
3	3.07~2.94	3.09~2.91	3.13~2.88	3.19~2.84	3.28~2.77	3.40~2.69
2	2.03~1.97	2.03~1.96	2.05~1.95	2.08~1.93	2.11~1.90	2.16~1.87
1.7	1.72~1.68	1.73~1.67	1.74~1.66	1.75~1.65	1.78~1.63	1.81~1.61

DEPTH OF FIELD TABLE (distances in meters)

UV Topcor F/4 100mm

1/30mm

Distance \ Aperture	4	5.6	8	11	16	22
∞	∞ ~76.4	∞ ~54.6	∞ ~38.3	∞ ~27.9	∞ ~19.2	∞ ~14.1
20.0	27.0~15.9	31.5~14.7	41.9~13.2	71.3~11.7	∞ ~9.99	∞ ~8.31
10.0	11.5~8.87	12.2~8.48	13.5~7.97	15.5~7.41	20.8~6.63	35.3~5.90
5.0	5.34~4.71	5.48~4.60	5.72~4.45	6.05~4.27	6.70~4.01	7.69~3.73
3.0	3.11~2.89	3.16~2.86	3.24~2.80	3.34~2.73	3.52~2.62	3.76~2.51
2.0	2.05~1.96	2.07~1.94	2.10~1.91	2.14~1.88	2.21~1.83	2.30~1.78
1.7	1.73~1.67	1.75~1.66	1.77~1.64	1.80~1.62	1.84~1.58	1.90~1.54
1.5	1.53~1.48	1.54~1.47	1.55~1.54	1.57~1.44	1.61~1.41	1.65~1.38

DEPTH OF FIELD TABLE (distances in feet)

UV Topcor F/4 100mm 1/30mm

Distance \ Aperture	4	5.6	8	11	16	22
∞	∞ ~250.6	∞ ~179.2	∞ ~125.6	∞ ~91.5	∞ ~63.1	∞ ~46.1
100	108.6~71.6	226.3~64.4	496.7~55.9	∞ ~48.0	∞ ~38.9	∞ ~31.7
50	62.3~41.8	69.2~39.2	82.8~35.9	110.1~32.5	246.3~28.1	∞ ~24.2
30	34.0~26.9	35.9~25.8	39.2~24.3	44.4~22.7	57.0~20.5	86.6~18.4
20	21.7~18.6	22.4~18.1	23.7~17.3	25.4~16.5	29.0~15.3	35.1~14.1
15	15.9~14.1	16.3~13.9	16.9~13.5	17.8~13.0	19.5~12.2	22.0~11.5
10	10.4~9.64	10.5~9.51	10.8~9.32	11.1~9.08	11.8~8.73	12.6~8.33
7	7.18~6.83	7.25~6.77	7.37~6.65	7.43~6.56	7.78~6.37	8.13~6.17
5	5.09~4.92	5.12~4.89	5.17~4.84	5.24~4.78	5.36~4.69	5.52~4.58

www.butkus.org

DEPTH OF FIELD TABLE (distances in feet)

UV Topcor F/3.5 35mm

1/30mm

Aperture / Distance	3.5	4	5.6	8	11	16	22
∞	∞ ~ 37.5	∞ ~ 32.9	∞ ~ 23.6	∞ ~ 16.6	∞ ~ 12.1	∞ ~ 8.43	∞ ~ 6.21
20	42.5 ~ 13.2	50.7 ~ 12.5	133.6 ~ 19.9	∞ ~ 9.18	∞ ~ 7.66	∞ ~ 6.03	∞ ~ 4.83
10	13.5 ~ 7.97	14.2 ~ 7.84	17.1 ~ 7.12	24.8 ~ 6.35	57.2 ~ 5.60	∞ ~ 4.69	∞ ~ 3.94
7	8.51 ~ 5.96	8.78 ~ 5.84	9.78 ~ 5.48	11.8 ~ 5.02	16.1 ~ 4.55	41.7 ~ 3.94	∞ ~ 3.41
5	5.70 ~ 4.46	5.82 ~ 4.39	6.23 ~ 4.19	6.98 ~ 3.92	8.23 ~ 3.64	11.8 ~ 3.20	25.7 ~ 2.89
3	3.22 ~ 2.80	3.26 ~ 2.78	3.37 ~ 2.71	3.57 ~ 2.60	3.85 ~ 2.48	4.43 ~ 2.31	5.46 ~ 2.13
30″	31.8 ~ 28.5	32.0 ~ 28.2	32.9 ~ 27.6	34.4 ~ 26.7	36.4 ~ 25.7	40.5 ~ 24.2	47.0 ~ 22.6
24	25.0 ~ 23.1	25.2 ~ 22.9	25.7 ~ 22.5	26.6 ~ 22.0	27.7 ~ 21.3	29.9 ~ 20.3	33.0 ~ 19.2
18	18.5 ~ 17.5	18.6 ~ 17.4	18.9 ~ 17.2	19.3 ~ 16.9	19.8 ~ 16.6	20.8 ~ 16.0	22.1 ~ 15.4
15	15.3 ~ 14.7	15.4 ~ 14.6	15.5 ~ 14.5	15.8 ~ 14.3	16.1 ~ 14.1	16.7 ~ 13.7	17.5 ~ 13.3

SUITABLE SHUTTER SPEEDS FOR FLASH BULBS

Class	Make	Type	Setting	
			X	M
F	General Electric Westinghouse Sylvania	SM	1～1/125	1～1/30
		SF		
M	Osram	S2	1～1/18	1～1/500
		S0, S1	1～1/30	1～1/500
	Philips	PF 14/25/59		
	General Electric Westinghouse	No. 5/11/12		
S	Sylvania	No. 0/25-40	1～1/10	1～1/50
	Philips	PF 110		
	General Electric	No. 50		
	Westinghouse			
	Sylvania	No. 3		
Electronic Flash			1～1/500	

www.butkus.org