WELLCOME'S

Photographic . .
Exposure Record

AND DIARY

1901.

CALENDAR FOR 1901.

JAN.						FEB.						MARCH						APRIL					
S	.	6	13	20	27	.	3	10	17	24	.	3	10	17	24	31	.	7	14	21	28
M	.	7	14	21	28	.	4	11	18	25	.	4	11	18	25	..	1	8	15	22	29
Tu	1	8	15	22	29	.	5	12	19	26	.	5	12	19	26	..	2	9	16	23	30
W	2	9	16	23	30	.	6	13	20	27	.	6	13	20	27	..	3	10	17	24	..
Th	3	10	17	24	31	.	7	14	21	28	.	7	14	21	28	..	4	11	18	25	..
F	4	11	18	25	..	1	8	15	22	..	1	8	15	22	29	..	5	12	19	26	..
S	5	12	19	26	..	2	9	16	23	..	2	9	16	23	30	..	6	13	20	27	..

MAY						JUNE						JULY						AUG.					
S	.	5	12	19	26	.	2	9	16	23	30	.	7	14	21	28	.	4	11	18	25
M	.	6	13	20	27	.	3	10	17	24	..	1	8	15	22	29	.	5	12	19	26
Tu	.	7	14	21	28	.	4	11	18	25	..	2	9	16	23	30	.	6	13	20	27
W	1	8	15	22	29	.	5	12	19	26	..	3	10	17	24	31	.	7	14	21	28
Th	2	9	16	23	30	.	6	13	20	27	..	4	11	18	25	..	1	8	15	22	29
F	3	10	17	24	31	.	7	14	21	28	..	5	12	19	26	..	2	9	16	23	30
S	4	11	18	25	..	1	8	15	22	29	..	6	13	20	27	..	3	10	17	24	31

SEPT.						OCT.						NOV.						DEC.					
S	1	8	15	22	29	.	6	13	20	27	.	3	10	17	24	1	8	15	22	29
M	2	9	16	23	30	.	7	14	21	28	.	4	11	18	25	2	9	16	23	30
Tu	3	10	17	24	..	1	8	15	22	29	.	5	12	19	26	3	10	17	24	31
W	4	11	18	25	..	2	9	16	23	30	.	6	13	20	27	4	11	18	25	..
Th	5	12	19	26	..	3	10	17	24	31	.	7	14	21	28	5	12	19	26	..
F	6	13	20	27	..	4	11	18	25	..	1	8	15	22	29	6	13	20	27	..
S	7	14	21	28	..	5	12	19	26	..	2	9	16	23	30	7	14	21	28	..

CALENDAR FOR 1902.

JAN.						FEB.						MARCH						APRIL					
S	.	5	12	19	26	.	2	9	16	23	.	2	9	16	23	30	.	6	13	20	27
M	.	6	13	20	27	.	3	10	17	24	.	3	10	17	24	31	.	7	14	21	28
Tu	.	7	14	21	28	.	4	11	18	25	.	4	11	18	25	..	1	8	15	22	29
W	1	8	15	22	29	.	5	12	19	26	.	5	12	19	26	..	2	9	16	23	30
Th	2	9	16	23	30	.	6	13	20	27	.	6	13	20	27	..	3	10	17	24	..
F	3	10	17	24	31	.	7	14	21	28	.	7	14	21	28	..	4	11	18	25	..
S	4	11	18	25	..	1	8	15	22	..	1	8	15	22	29	..	5	12	19	26	..

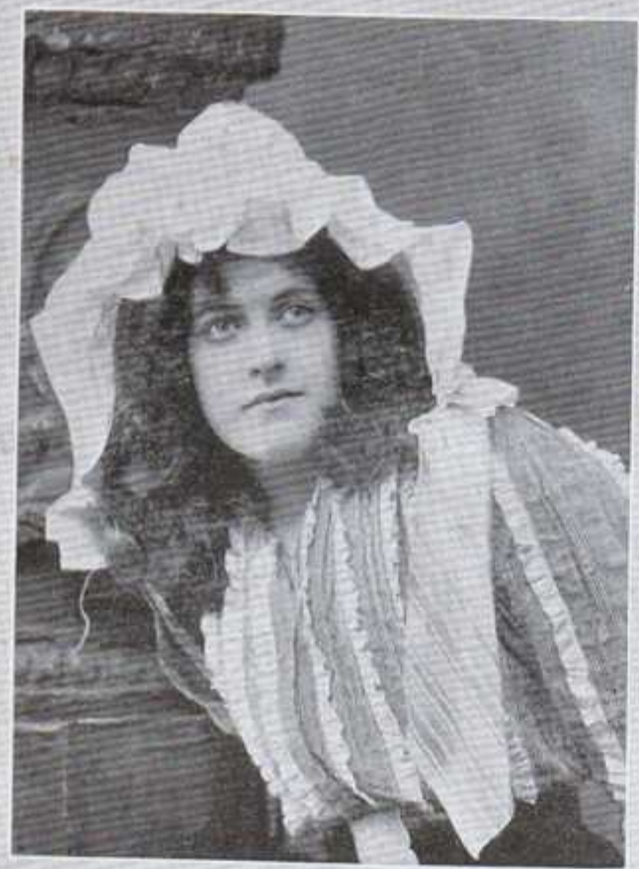
MAY						JUNE						JULY						AUG.					
S	.	4	11	18	25	1	8	15	22	29	.	6	13	20	27	.	3	10	17	24	31
M	.	5	12	19	26	2	9	16	23	30	.	7	14	21	28	.	4	11	18	25	..
Tu	.	6	13	20	27	3	10	17	24	..	1	8	15	22	29	.	5	12	19	26	..
W	.	7	14	21	28	4	11	18	25	..	2	9	16	23	30	.	6	13	20	27	..
Th	1	8	15	22	29	5	12	19	26	..	3	10	17	24	31	.	7	14	21	28	..
F	2	9	16	23	30	6	13	20	27	..	4	11	18	25	..	1	8	15	22	29	..
S	3	10	17	24	31	7	14	21	28	.	5	12	19	26	.	2	9	16	23	30	..

SEPT.						OCT.						NOV.						DEC.					
S	.	7	14	21	28	.	5	12	19	26	.	2	9	16	23	30	.	7	14	21	28
M	1	8	15	22	29	.	6	13	20	27	.	3	10	17	24	..	1	8	15	22	29
Tu	2	9	16	23	30	.	7	14	21	28	.	4	11	18	25	..	2	9	16	23	30
W	3	10	17	24	..	1	8	15	22	29	.	5	12	19	26	..	3	10	17	24	31
Th	4	11	18	25	..	2	9	16	23	30	.	6	13	20	27	..	4	11	18	25	..
F	5	12	19	26	..	3	10	17	24	31	.	7	14	21	28	..	5	12	19	26	..
S	6	13	20	27	.	4	11	18	25	..	1	8	15	22	29	..	6	13	20	27	..

Luke 13 . 24

Phil 3 . 10

Sept 26



PORTRAIT STUDY

From a negative by
KERRY & CO., SYDNEY, N.S.W.

Developed with 'Tabloid' Brand Pyro Developer

NORTHERN HEMISPHERE EDITION.

WELLCOME'S
Photographic . .
Exposure Record
AND DIARY

1901

BURROUGHS WELLCOME & CO.
Snow Hill Buildings, LONDON, and
108, Pitt Street, SYDNEY, N.S.W. . . .

INDEX

POSTAL INFORMATION.

For United Kingdom.

Inland Letter Rates.—Not exceeding 4 oz. 1d.; and ½d. extra for every additional 2 oz.

Foreign and Colonial Rates.—Letters may now be sent to the following places at a charge of 1d. per ½ oz.: Aden, Ascension, Bahamas, Barbados, Bermudas, British Central and East Africa Protectorates; British Columbia, British Guiana, British Honduras, British North Borneo, Canada, Cape Colony, Ceylon, Cyprus, Falkland Islands, Fiji, Gambia, Gibraltar, Gold Coast, Hong Kong, India, Jamaica, Johore, Labuan, Lagos, Leeward Islands, Malay States (Protected), Malta, Mauritius, Natal, Newfoundland, Nigera (Northern), Nigera (Southern), Sarawak, St. Helena, Seychelles, Sierra Leone, Straits' Settlements, Tobago, Trinidad, Turk's Islands, Windward Islands, and Zanzibar. All other places 2½d. per ½ oz.

Newspaper Rates.—Every registered inland newspaper, if wrapped so that it may be easily examined by the post office authorities, ½d., without regard to weight. More than one in a packet ½d. for each newspaper, or at book post rate if cheaper. Newspaper packets must not exceed 5 lbs. in weight, 2 ft. in length, 1 ft. in width or depth.

Book Post Rate.—½d. for not exceeding 2 oz.

Registration.—Inland—2d. over and above the ordinary postal rate. Registration fee of 2d. effects insurance against loss or damage up to £5, a fee of 3d. up to £10, a fee of 4d. up to £20, and so on at the rate of an extra 1d. for every additional £10 up to £120, unless contents are coins, when the insurance only goes up to £2.

Parcel Rates.—1 lb. 3d.; 2 lbs. 4d.; 3 lbs. 5d.; and so on for greater weights at 1d. for each additional pound up to 9 lbs. The limit of weight is 11 lbs. for which the maximum charge of 1s. is made. The limit of length is 3 ft. 6 in., and the maximum of length and girth is 6 ft., *i.e.*, a parcel 3 ft. 6 in. long may measure 2 ft. 6 in. in girth round the thickest part.

Money Order Rates.—For sums not exceeding £1, 2d.; £3, 3d.; above £3 but not exceeding £10, 4d. No single money order may be issued for a higher amoun than £10.

Foreign Money Orders are issued in the United Kingdom to most foreign countries at 6d. for sums not exceeding £2; 1s. not exceeding £6; 1s. 6d. not exceeding £10.

Inland Postal Order Rates.—1s. and 1s. 6d., ½d. 2s., 2s. 6d., 3s., 3s. 6d., 4s., 4s. 6d., 5s., 7s. 6d., 10s. 10s. 6d., 1d.; 15s., 20s., 1½d.

Telegram Rates.—United Kingdom—6d. for 12 words and ½d. for every additional word.

EXPOSURE.

IN estimating the exposure necessary for the production of satisfactory negatives various factors have to be taken into consideration. Some of these factors, such as the aperture of the lens, the character of the subject, and the relative sensitiveness of the plate, can be estimated with sufficient accuracy by means of tables, but tables cannot do more than serve as rough guides to the actinic power of the light prevailing at the moment of exposure. Experience will materially lessen the difficulty of estimating the light value but will not altogether overcome it, especially when exposures for interiors have to be calculated. The only certain method is the employment of an actinometer, or exposure meter, in which the time taken by a strip of sensitive paper to darken to a standard tint is used as the basis for calculating the correct exposure.

The monthly exposure tables given in the diary pages of this book, based on careful actinometric and other tests made regularly throughout the year, will be found of great service. These tables give at a glance the exposure for the most usual subjects under standard conditions, and it is believed that they will be found as simple and as reliable as possible.

The figures are calculated to yield *fully* exposed negatives upon development with normal 'Tabloid' Pyro Developer. In hand camera work it will often be found necessary to work the shutter at a greater speed than indicated, but by careful development or by choosing one of the more rapid 'Tabloid' Developers such as 'Tabloid' Paramidophenol, Metol, Amidol, etc., it will generally be found possible to obtain satisfactory results even when one-half or even one-third of the exposure indicated has been given.

The "standard" subject is taken to be an ordinary landscape with heavy foliage or dark buildings in the foreground, or a portrait or animal study in the open air—the "standard" stop is F 8.

Using an ordinary landscape plate under these conditions, no reference to any other table is necessary, but when the subject, or the rapidity of the plate differs from the standard, Tables A and B, given on pages 74 and 75, must also be consulted.

Variations for different latitudes (Table C) are given on pages 79 and 80.

LIGHT VALUES.

It will be noticed that five distinct conditions of light are recognized in the monthly exposure tables. To avoid misunderstanding it is advisable to indicate more precisely than is possible in the tables themselves what is meant by each of these light values.

A. BRIGHT SUNLIGHT means that the sun is shining unobscured by cloud or mist: the sky may be either cloudless and blue or there may be light clouds which serve to increase by reflection rather than diminish the actinic power of the sun's rays.

B. SUN SHINING THROUGH LIGHT CLOUDS indicates a frequently occuring condition. There are light thin clouds or a slight mist between the sun and the earth but the light is still sufficiently direct and powerful to give the feeling of sunlight and to throw strong shadows.

C. DIFFUSED LIGHT means that there is a general even light but no direct sunlight. With this light it is just possible to distinguish cast shadows.

D. DULL indicates a sky covered with dull clouds as distinct from Diffused Light when the sky is covered with bright clouds.

E. VERY DULL means that the whole sky is overcast with heavy gloomy clouds.

LENS APERTURE.

The stops or diaphragms with which lenses are provided serve to control the amount of light transmitted to the sensitive plate or film. Various methods of marking these stops have been suggested and used, but by far the most common is that known as the *f* system, which indicates the relationship of the diameter of the aperture of the stop to the focal length of the lens with which it is used. Thus *f* 8 indicates a stop having an aperture the diameter of which measures 1/8th the focal length of the lens with which it is used. A stop with a diameter of 1 in. when used with a lens of 8 in. focal length would therefore be marked *f* 8, but if the same stop were used with a 16 in. lens it would become *f* 16. This fact must be borne in mind when using the front or back combinations of an R.R. lens separately. In such cases the focal length is

generally doubled, *f* 8 becomes *f* 16, *f* 11 becomes *f* 22, and the exposure required is not twice but *four* times as long.

The following table gives the *f* values in common use, their corresponding numbers according to the U.S. or Universal System of the Royal Photographic Society of Great Britain, and also their relative exposures taking *f* 8 as the unit:—

f value	*f*4	*f*5.6	*f*6	*f*8	*f*11	*f*16	*f*22.6	*f*32	*f*45.2	*f*64
U.S. No.	1	2	2.25	4	8	16	32	64	128	256
Relative Exposure	0.25	0.5	0.56	1	2	4	8	16	32	64

RECORDING EXPOSURES.

The left hand pages of the diary portion of this book are ruled to enable the photographer to keep a careful record of each exposure he makes. System in this matter is absolutely essential to success in development and it is believed that these pages are so arranged as to greatly facilitate the systematic recording of exposures.

At the time the slides are loaded, the first and second columns should be filled in, so that when more than one kind of plate is carried, a glance will tell which slide contains the plate best suited to the subject to be photographed, or the exposure to be given. There will then be no danger of giving a rapid exposure to a slow plate, or a long exposure to a fast one owing to confusing the slides.

Directly each exposure is made, the necessary notes are jotted down in the third, fourth, fifth, sixth, and seventh columns. This will prevent two views being taken on one plate, and will be an invaluable guide to development, no matter how long that process may be delayed. The date should not be neglected, as it will often be useful for subsequent reference. It is suggested that so far as possible the exposure records should be made opposite the diary page for the same date. The letters A, B, C, D, E may be used in the fifth column to indicate the light value at the time of exposure.

The last column is designed for use in recording the number of the finished negative. Its value depends on whether or not negatives are systematically stored. If so, it is easy, by means of the numbers in this column, to turn up particulars of exposure, etc., of any negative.

Table A.—SUBJECTS.

To use this table multiply the exposure given in the monthly tables for the "standard" subjects by the number opposite to the subject to be photographed. Thus: If the exposure for the "standard" subject is given as 1/2 sec., that for boats at sea will be 1/2 × 1/4 = 1/8 sec.

Clouds	1/20 to 1/10
Wave Studies	1/10
Snow Scenes, Boats at Sea, Glaciers, Panoramic Views	1/4
Landscapes with Light Foregrounds, White Buildings	1/2
Standard Subjects.—Landscapes with Dark Buildings or Heavy Foliage in Foreground, Animal Studies or Portraits out of Doors	1
Under Trees and Shady Banks	4 to 20
Portraits in Studio or Conservatory	2 to 6
Portraits in well lighted room.	
,, near Window	4 to 12
,, away from Window	10 to 30
*Copying Black and White Drawings or Engravings same size (see also page 14)	4
*Copying Photographs same size (see also page 14)	4 to 6
*Copying Oil Paintings or Photographing Dark Furniture	10 to 50
Interiors (Light)	20 to 60
,, (Medium)	60 to 100
,, (Dark)	100 to 500

*These figures are calculated for use when working near a window in a well lighted room. The exposure must be considerably increased if made in a poorly lighted room or away from the window.

Table B.—PLATE SPEEDS.

The monthly exposure tables give the correct exposures for plates such as those marked 1 in the table below. When plates of greater, or less, rapidity are used this table will give, approximately, the relative exposure. As however, different batches of the same make of plate often vary considerably in speed it is not possible to accept any responsibility for the absolute or relative correctness of the figures given, although every care has been taken to ensure their being reliable. It must also be remembered that rapid and orthochromatic plates are very liable to deteriorate in speed on keeping. Stale plates should therefore be avoided.

To use this table.—Multiply the exposure given in the monthly tables by the figure opposite the plate or film used.

Adams Tella Films		1/3
Austin Edwards Films.	Ordinary	1 1/2
	Seteloid & Instantaneous	1/2
	Double Instantaneous	1/4
Barnet Ordinary		1/2
Medium		1/3
Extra Rapid		1/4
Rocket		1/5
Beernaert A		1/3
B		2/3
C		1
D		2/3
Brilliant Ordinary		1
Special Studio		1/2
Extra Rapid		1/3
Blair Film		1/2
Cadett Ordinary		1
Royal		1/2
Special Rapid		1/4
Lightning		1/5

Table B.—Plate Speeds (*continued*)

Edwards Special Landscape & Medium	1 1/2
Special Rapid & Med. Iso.	1
Instantaneous Iso. & Excelsior	1/2
Snap Shot & Snap Shot Iso.	1/3
Fitch Films, Ordinary	1
Rapid	2/3
Extra Rapid	1/3
Gem Universal	1
Portrait	1/2
Meteor	1/4
Ilford Photo Mechanical	8
Half Tone	2
Ordinary or Chromatic	1
Empress	1/2
Special Rapid	1/4
Imperial Photo Mechanical	6
Fine Grain	2
Ordinary	1
Sovereign	1/2
Special Rapid	1/4
Flashlight	1/5
'Kodak' Film	1/3
Lumiere Extra Rapid	1/3
Orthochromatic A or B	1/3
Marion Landscape	1/2
Portrait	1/3
Instantaneous	1/5
Mawson & Swan Photo Mechanical	7
Half Tone	2 1/2
Castle	1/2
Orthochromatic	1/2
Electric	1/4
Mawson	1/5

Table B. - Plate Speeds (*continued*)

Paget Phœnix & Portrait	1/2
xxx	1/2
xxxxx	1/4
Rainbow, slow	1/2
fast	1/3
Sandell Landscape	2
Ordinary	1
'Cristoid' Film	1/2
Perfect	1/3
'Secco' Film	1/2
Thomas Medium, Ordinary or Iso.	1 1/2
Extra Rapid, Ordinary or Iso.	1
Bee	1/2
A. 1, Ordinary or Iso.	1/3
Thornton Film	1/2
Verel Ordinary	1/2
Special Rapid	1/4
Runaway	1/5
Warwick Ordinary	1
Instantaneous	1/2
Special Rapid	1/4
Double Instantaneous	1/4
Wellington Film	1/2
Negative Paper	1/2
Wratten Ordinary	3
Instantaneous	1
Drop Shutter	1/2
Speed	1/4

EXPOSURES FOR MOVING OBJECTS.

The speed at which the shutter must be worked to give a sharp image of a moving object depends on the focal length of the lens, the rate and direction of movement of the objects and its distance from the camera.

If D = distance of object in feet, F = focal length of lens, S = speed of object in feet per second, and E = exposure for an object moving across the field of view, then

$$E = \frac{D}{100\ F \times S}$$

To save constant calculation the following table has been prepared, showing in round figures the exposures for various moving objects at 50 ft. distance, using the ordinary quarter plate lens of about 5 in. focus. The column A is for objects moving towards the operator, that marked B for objects moving across the field of view.

Distance of Object, 50 ft.	A.	B.
Street groups (no rapid motion) ...	1/5	—
Pedestrians (two miles per hour) } Cattle grazing ... ... }	1/10	1/30
Pedestrians (three miles per hour)....	1/15	1/45
Pedestrians (four miles per hour) ...	1/20	1/60
Vehicles (six miles per hour)... ...	1/30	1/90
Vehicles (eight miles per hour) ...	1/40	1/120
Cyclists and trotting horses	1/80	1/240
Foot races and sports	1/120	1/360
Cycle races, horse galloping... ...	1/175	1/500
Yachts (10 knots per hour)	1/60	1/180
Steamers (20 knots per hour) ...	1/120	1/360
Trains (30 miles per hour)	1/160	1/480
Trains (60 miles per hour)	1/320	1/900

For the exposure at 100 ft. *multiply* the above figures by 2.

For the exposure at 25 ft. *divide* the above figures by 2.

VARIATIONS IN EXPOSURE FOR DIFFERENT LATITUDES.

Owing to the world-wide demand for Wellcome's Photographic Exposure Record and Diary it has been found necessary to issue two separate and distinct editions—one with Exposure Tables suitable for use in the Northern and one with similar tables for the Southern Hemisphere.

The exposures given in this book are calculated for about 52° North Latitude and are approximately correct for—ENGLAND, IRELAND, BELGIUM, HOLLAND, GERMANY, SOUTHERN RUSSIA, NORTHERN CHINA, NEWFOUNDLAND, AND SOUTHERN CANADA.

To find the corresponding exposures for other latitudes use Table C. (see next page), multiplying the exposure given in the monthly tables by the factor opposite the latitude and month for which the correct exposure is required.

The latitudes given may be taken to correspond to the following countries, etc.

60° North Latitude. — ICELAND, FAROE ISLANDS, SHETLAND ISLANDS, SOUTHERN NORWAY (BERGEN), CENTRAL SWEDEN (STOCKHOLM), NORTH RUSSIA (ST. PETERSBURG), CENTRAL SIBERIA (OKHOTSK), ALASKA, YUKON (KLONDIKE), NORTH CANADA AND SOUTH GREENLAND (CAPE FAREWELL).

55° North Latitude.—NORTH BRITAIN (NEWCASTLE, EDINBORO', GLASGOW, PERTH), DENMARK (COPENHAGEN), SOUTHERN SWEDEN, CENTRAL RUSSIA (MOSCOW), SOUTHERN SIBERIA (TOMSK), CENTRAL CANADA.

40° North Latitude. — SOUTHERN EUROPE (THE MEDITERRANEAN), ASIA MINOR, CENTRAL CHINA (PEKIN), KOREA, JAPAN, UNITED STATES (NEW YORK, CHICAGO, DENVER, SAN FRANCISCO).

30° North Latitude.—MADEIRA, CANARY ISLANDS, NORTH AFRICA (MOROCCO, CAIRO), PERSIA, AFGHANISTAN, NORTHERN INDIA (DELHI), TIBET, CHINA (SHANGHAI), UNITED STATES (FLORIDA, NEW ORLEANS, SOUTH CALIFORNIA).

20° North Latitude.—CAPE VERD ISLANDS, SENEGAMBIA, SOUDAN (KHARTOUM), ABYSSINIA, ARABIA (ADEN), INDIA (BOMBAY, CALCUTTA), BURMA (MANDALAY), TONGKING, JAMAICA, CUBA, HAITI, CENTRAL AMERICA (MEXICO), SANDWICH ISLANDS.

Between 10° North Latitude & 10° South Latitude.—CENTRAL AFRICA (UGANDA, ZANZIBAR), SUMATRA, BORNEO, PHILIPPINES, PANAMA, TRINIDAD, VENEZUELA, GUIANA, EQUADOR, PERU, NORTHERN BRAZIL (PERNAMBUCO).

Table C.—EXPOSURE FACTORS FOR VARIOUS DEGREES OF LATITUDE.

EXAMPLE.—The exposure given in Monthly Tables for December, 12 a.m., Bright Sunlight, is 1/2 sec. At Stockholm under the same conditions it will be 1/2 × 2 = 1 sec., at Cairo 1/2 × 1/3 = 1/6 sec., and at the Equator 1/2 × 1/5 = 1/10 sec.

North Latitude.	Dec.	Jan. Nov.	Oct. Feb.	Sept. March.	Aug. April.	May, June, July.
60°	2	1 1/2	1 1/2	1 1/4	1	1
55°	1 1/2	1	1	1	1	1
40°	1/2	1/2	1	1	1	1
35°	1/3	1/3	1/2	1/2	3/5	4/5
20°	1/4	1/4	2/5	1/2	3/5	4/5
10° North Latitude to 10° South Latitude	1/5	1/4	2/5	1/2	3/5	4/5

Exposures for the Month :—

The table below gives the exposure in seconds under the following conditions :

Slow plate (marked 1 in TABLE B.—Plate Speeds) Stop *f*/8.

Landscapes with heavy foliage or dark buildings in oreground. Portraits and animal studies in the open air.

Ratios for other subjects are given in TABLE A.—Subjects.

	A	B	C	D	E
TIME.	Bright Sunlight.	Sun shining through light clouds.	Diffused light.	Dull.	Very dull.
12	3/8	1/2	3/4	1	1 1/2
11 a.m. and 1 p.m	1/2	3/4	1	1 1/2	2
10 a.m. and 2 p.m.	2/3	3/4	1 1/4	1 3/4	2 1/2
9 a.m. and 3 p.m.	*1 1/2	*2	*3	*4	*6

If using Stop *f*/4, divide above numbers by 4.
" " *f*/5.6, " " " 2.
" " *f*/11, multiply " " " 2.
" " *f*/16, " " " " 4.
" " *f*/22, " " " " 8.
" " *f*/32, " " " " 16.
" " *f*/45, " " " " 32.

For relative exposures with plates of different speeds see TABLE B.—Plate Speeds.

* Unless orthochromatic plates are employed these exposures must be increased from 5 to 10 times if there is a yellow sunset light.

No. of Slide.	Plate.	DATE Jan 26th Subject: direction and character of lighting, etc.	Time of day.	Light.	Stop.	Exposure.
1	[illegible]	Snow scene	10am	Brill	[illegible]	5 sec
2		Snow scene	10am	Bright		6 sec
3	Rapid	Snow scene	10am	Bright		4 sec

Exposures for the Month :—

The table below gives the exposure in seconds under the following conditions :

Slow plate (marked 1 in TABLE B.—Plate Speeds): Stop f/8.

Landscapes with heavy foliage or dark buildings in foreground. Portraits and animal studies in the open air.

Ratios for other subjects are given in TABLE A.—Subjects.

	A	B	C	D	E
TIME.	Bright Sun-light.	Sun shining through light clouds.	Diffused light.	Dull.	Very dull
11 a.m. to 1 p.m.	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{2}$	$\frac{2}{3}$	1
10 a.m. and 2 p.m.	$\frac{1}{3}$	$\frac{1}{2}$	$\frac{2}{3}$	$1\frac{1}{3}$	$1\frac{1}{2}$
9 a.m. and 3 p.m.	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{2}$	2
8 a.m. and 4 p.m.	*$1\frac{1}{2}$	*2	*3	*4	*6

If using Stop f/4, divide above numbers by 4.
" " f/5.6, " " " 2.
" " f/11, multiply " " 2.
" " f/16, " " " 4.
" " f/22, " " " 8.
" " f/32. " " " 16.
" " f/45, " " " 32.

For relative exposures with plates of different speeds see TABLE B.—Plate Speeds.

* Unless orthochromatic plates are employed these exposures must be increased from 5 to 10 times if there is a yellow sunset light.

No. of Slide.	Plate.	DATE.................... Subject : direction and character of lighting, etc.	Time of day.	Light.	Stop.	Exposure.
1	(Special)	Monotone Painting, faint, in the house	30	Dull	f 8	30 sec
2	(Rapid)	Monotone Painting, strong, in the house	3.10	Dull	f 8	20 sec
				D		
		May 7th 1901				
1	(Special)	Monotone painting, faint.				
	(Rapid)	in studio, North Window	1.5	Dull	f 8	30 sec
2	special					
	(Rapid)	Monotone painting, strong in studio north window	1.15	Dull	f 8	20 sec
		Too bad wasting so many plates on such an unimportant thing				

Exposures for the Month :—

The table below gives the exposure in seconds under the following conditions :

Slow plate (marked 1 in TABLE B.—Plate Speeds): Stop f/8.

Landscapes with heavy foliage or dark buildings in foreground. Portraits and animal studies in the open air.

Ratios for other subjects are given in TABLE A.—Subjects.

TIME.	A Bright Sun-light.	B Sun shining through light clouds.	C Dif-fused light.	D Dull.	E Very dull.
10 a.m. to 2 p.m.	$\frac{1}{5}$	$\frac{1}{4}$	$\frac{2}{5}$	$\frac{1}{2}$	$\frac{4}{5}$
9 a.m. and 3 p.m.	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{2}$	$\frac{2}{3}$	1
8 a.m. and 4 p.m.	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{2}$
7 a.m. and 5 p.m.	*$\frac{3}{4}$	*1	*$1\frac{1}{2}$	*2	*3

If using Stop f/4, divide above numbers by 4.
" " f/5.6, " " " 2.
" " f/11, multiply " " 2.
" " f/16, " " " 4.
" " f/22, " " " 8.
" " f/32, " " " 16.
" " f/45, " " " 32.

For relative exposures with plates of different speeds see TABLE B.—Plate Speeds.

* Unless orthochromatic plates are employed these exposures must be increased from 5 to 10 times if there is a yellow sunset light.

No. of Slide.	Plate.	DATE August 1st 1901 Subject: direction and character of lighting, etc.	Time of day.	Light.	Stop.	Exposure.
1	(Special Rapid)	Waterfall, partly in sunshine, light towards side of camera.	4.10	Bright	—	1 sec
2	"	Waterfall, in shade	4.30	Bright	—	2 sec
3	"	River, in sunshine	5.10	Bright	—	½ sec
4	"	Portrait, in shade	6.40	Bright	—	2 sec

Exposures for the Month :—

The table below gives the exposure in seconds under the following conditions :

Slow plate (marked 1 in TABLE B.—Plate Speeds): Stop f/8.

Landscapes with heavy oliage or dark buildings in foreground. Portraits and animal studies in the open air.

Ratios for other subjects are given in TABLE A.—Subjects.

	A	B	C	D	E
TIME.	Bright Sun-light.	Sun shining through light clouds.	Dif-fused light.	Dull.	Very dull.
10 a.m. to 2 p.m.	$\frac{1}{6}$	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{2}$	$\frac{2}{3}$
9 a.m. and 3 p.m.	$\frac{1}{5}$	$\frac{1}{3}$	$\frac{2}{5}$	$\frac{2}{3}$	$\frac{4}{5}$
8 a.m. and 4 p.m.	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{2}$	$\frac{3}{4}$	1
7 a.m. and 5 p.m.	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{2}$
6 a.m. and 6 p.m.	$*\frac{3}{4}$	*1	$*1\frac{1}{2}$	*2	*3

If using Stop f/4, divide above numbers by 4.
,, ,, f/5.6, ,, ,, ,, 2.
,, ,, f/11, multiply ,, ,, 2.
,, ,, f/16, ,, ,, ,, 4.
,, ,, f/22, ,, ,, ,, 8.
,, ,, f/32, ,, ,, ,, 16.
,, ,, f/45, ,, ,, ,, 32.

For relative exposures with plates of different speeds see TABLE B.—Plate Speeds.

* Unless orthochromatic plates are employed these exposures must be increased from 5 to 10 times if there is a yellow sunset light.

No. of Slide.	Plate.	Subject: direction and character of lighting, etc.	Time of day.	Light.	Stop.	Exposure.
		DATE: Dec 8th 1901				
1	Ordinary	Hills Life - Study	11.10	D	f/8	35 sec

MAY.

Exposures for the Month :—

The table below gives the exposure in seconds under the following conditions :

Slow plate (marked 1 in TABLE B.—Plate Speeds) : Stop *f*/8.

Landscapes with heavy foliage or dark buildings in foreground. Portraits and animal studies in the open air.

Ratios for other subjects are given in TABLE A.—Subjects.

	A	B	C	D	E
TIME.	Bright Sunlight.	Sun shining through light clouds.	Diffused light.	Dull	Very dull.
9 a.m. to 3 p.m.	$\frac{1}{8}$	$\frac{1}{6}$	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{2}$
8 a.m. and 4 p.m.	$\frac{1}{6}$	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{2}$	1
7 a.m. and 5 p.m.	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{2}$	$\frac{3}{4}$	$1\frac{1}{2}$
6 a.m. and 6 p.m.	*$\frac{1}{2}$	*$\frac{3}{4}$	*1	*$1\frac{1}{2}$	*2
5 a.m. and 7 p.m.	*1	*$1\frac{1}{2}$	*2	*3	*4

If using Stop *f*/4, divide above numbers by 4.
" " *f*/5.6, " " " 2.
" " *f*/11, multiply " " 2.
" " *f*/16, " " " 4.
" " *f*/22, " " " 8.
" " *f*/32, " " " 16.
" " *f*/45, " " " 32.

For relative exposures with plates of different speeds see TABLE B.—Plate Speeds.

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* Unless orthochromatic plates are employed these exposures must be increased from 5 to 10 times if there is a yellow sunset light.

No. of Slide.	~~Plate.~~ Negative	DATE.......... Subject : ~~direction and character of lighting, etc.~~	~~Time of day. Light. Stop. Exposure.~~ Name of Place
37		Bridge 2	
38		Portrait (5)	
39		Portrait (2)	
40		Lake 2	Brafnant
41		Lanscape 4	
42		Part of River "	Conway River
43		Lake 3	Gwynydd
44		Landscape (Mine)	
45		Portrait (2)	
46		Portrait (4)	
47		Portrait (2)	
31		Part of Lake 4	Brafnant

Exposures for the Month:—

The table below gives the exposure in seconds under the following conditions :—

Slow plate (marked 1 in Table B.—Plate Speeds): Stop f/8.

Landscapes with heavy foliage or dark buildings in foreground. Portraits and animal studies in the open air. Ratios for other subjects are given in Table A.—Subjects.

	A	B	C	D	E
Time.	Bright Sun-light.	Sun shining through light clouds.	Diffused light.	Dull.	Very dull.
9 a.m. to 3 p.m.	$\frac{1}{8}$	$\frac{1}{6}$	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{2}$
8 a.m. and 4 p.m.	$\frac{1}{6}$	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{2}$	$\frac{2}{3}$
7 a.m. and 5 p.m.	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{2}$	$\frac{2}{3}$	1
6 a.m. and 6 p.m.	$\frac{1}{3}$	$\frac{1}{2}$	$\frac{2}{3}$	1	$1\frac{1}{3}$
5 a.m. and 7 p.m.	*1	*$1\frac{1}{2}$	*2	*3	*4
4 a.m. and 8 p.m.	*2	*3	*4	*6	*8

If using Stop f/4, divide above numbers by 4.
" " f/5.6, " " " 2.
" " f/11, multiply " " 2.
" " f/16, " " " 4.
" " f/22, " " " 8.
" " f/32, " " " 16.
" " f/45, " " " 32.

For relative exposures with plates of different speeds see Table B.—Plate Speeds.

* Unless orthochromatic plates are employed these exposures must be increased from 5 to 10 times if there is a yellow sunset light.

No. of Slide. | Plate. | Time of day. | Light. | Stop. | Exposure.

DATE.....

Subject : direction and character of lighting, etc.

JULY.

Exposures for the Month :—

The table below gives the exposure in seconds under the following conditions :

Slow plate (marked 1 in TABLE B.—Plate Speeds) : Stop *f*/8.

Landscapes with heavy foliage or dark buildings in foreground. Portraits and animal studies in the open air.

Ratios for other subjects are given in TABLE A.—Subjects.

	A	B	C	D	E
TIME.	Bright Sunlight.	Sun shining through light clouds	Diffused light	Dull.	Very Dull.
9 a.m. to 3 p.m.	$\frac{1}{8}$	$\frac{1}{6}$	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{2}$
8 a.m. and 4 p.m.	$\frac{1}{6}$	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{2}$	1
7 a.m. and 5 p.m.	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{2}$	$\frac{3}{4}$	$1\frac{1}{2}$
6 a.m. and 6 p.m.	*$\frac{1}{2}$	*$\frac{3}{4}$	*1	*$1\frac{1}{2}$	*2
5 a.m. and 7 p.m.	*1	*$1\frac{1}{2}$	*2	*3	*4

If using Stop *f*/4, divide above numbers by 4.
" " *f*/5.6, " " " 2.
" " *f*/11, multiply " " 2.
" " *f*/16, " " " 4.
" " *f*/22, " " " 8.
" " *f*/32, " " " 16.
" " *f*/45, " " " 32.

For relative exposures with plates of different speeds see TABLE B.—Plate Speeds.

* Unless orthochromatic plates are employed these exposures must be increased from 5 to 10 times if there is a yellow sunset light.

No. of Slide.	Plate.	Date...... Subject : direction and character of lighting, etc.	Time of day.	Light.	Stop.	Exposure.
		Aug 12 1902				
1	Colin	Grain light a little to side	3.30	A	4	1/2
2	"	Miss Roberts light to side	3.0	A	4	3
		Aug 16/1902				
1	Colin	[illegible] Landseer [illegible]	12.0	D	4	2
		Aug 19/02 light all back	1.0	B	6	3
1		Mother & [illegible] on bridge light from [illegible]	1.20	D	4	1
2		Waterfall light to side	3.0	A	4	1/2

AUGUST.

Exposures for the Month :—

The table below gives the exposure in seconds under the following conditions :

Slow plate (marked 1 in TABLE B.—Plate Speeds): Stop $f/8$.

Landscapes with heavy foliage or dark buildings in foreground. Portraits and animal studies in the open air.

Ratios for other subjects are given in TABLE A.—Subjects.

	A	B	C	D	E
TIME.	Bright Sun-light.	Sun shining through light clouds.	Dif-fused light.	Dull.	Very Dull.
10 a.m. to 2 p.m.	$\frac{1}{6}$	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{2}$	$\frac{2}{3}$
9 a.m. and 3 p.m.	$\frac{1}{5}$	$\frac{1}{3}$	$\frac{2}{5}$	$\frac{2}{3}$	$\frac{4}{5}$
8 a.m. and 4 p.m.	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{2}$	$\frac{3}{4}$	1
7 a.m. and 5 p.m.	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{2}$
6 a.m. and 6 p.m.	*$\frac{3}{4}$	*1	*$1\frac{1}{2}$	*2	*3

If using Stop $f/4$, divide above numbers by 4.
,, ,, $f/5.6$, ,, ,, ,, 2.
,, ,, $f/11$, multiply ,, ,, 2.
,, ,, $f/16$, ,, ,, ,, 4.
,, ,, $f/22$, ,, ,, ,, 8.
,, ,, $f/32$, ,, ,, ,, 16.
,, ,, $f/45$, ,, ,, ,, 32.

For relative exposures with plates of different speeds see TABLE B.—Plate Speeds.

* Unless orthochromatic plates are employed these exposures must be increased from 5 to 10 times if there is a yellow sunset light.

No. of Slide.	Plate.	Date..... Subject : direction and character of lighting, etc.	Time of day.	Light.	Stop.	Exposure.

SEPTEMBER.

Exposures for the Month :—

The table below gives the exposure in seconds under the following conditions :

Slow plate (marked 1 in TABLE B.—Plate Speeds) : Stop *f*/8.

Landscapes with heavy foliage or dark buildings in foreground. Portraits and animal studies in the open air.

Ratios for other subjects are given in TABLE A.—Subjects.

	A	B	C	D	E
TIME:-	Bright Sunlight.	Sun shining through light clouds.	Diffused light.	Dull.	Very dull.
10 a.m. to 2 p.m.	$\frac{1}{5}$	$\frac{1}{4}$	$\frac{2}{5}$	$\frac{1}{2}$	$\frac{4}{5}$
9 a.m. and 3 p.m.	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{2}$	$\frac{2}{3}$	1
8 a.m. and 4 p.m.	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{2}$
7 a.m. and 5 p.m.	*$\frac{3}{4}$	*1	*$1\frac{1}{2}$	*2	*3

If using Stop *f*/4, divide above numbers by 4.
" " *f*/5.6, " " " 2.
" " *f*/11, multiply " " 2.
" " *f*/16, " " " 4.
" " *f*/22, " " " 8.
" " *f*/32, " " " 16.
" " *f*/45, " " " 32.

For relative exposures with plates of different speeds see TABLE B.—Plate Speeds.

* Unless orthochromatic plates are employed these exposures must be increased from 5 to 10 times if there is a yellow sunset light.

No. of Slide.	Plate.	Date..... Subject: direction and character of lighting, etc.	Time of day.	Light.	Stop.	Exposure.

Exposures for the Month:—

The table below gives the exposure in seconds under the following conditions:—

Slow plate (marked 1 in TABLE B.—Plate Speeds): Stop *f*/8.

Landscapes with heavy foliage or dark buildings in foreground. Portraits and animal studies in the open air.

Ratios for other subjects are given in TABLE A.—Subjects.

	A	B	C	D	E
TIME.	Bright Sunlight.	Sun shining through light clouds.	Diffused light.	Dull.	Very dull.
11 a.m. to 1 p.m.	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{2}$	$\frac{2}{3}$	1
10 a.m. and 2 p.m.	$\frac{1}{3}$	$\frac{1}{2}$	$\frac{2}{3}$	1	$1\frac{1}{2}$
9 a.m. and 3 p.m.	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{2}$	2
8 a.m. and 4 p.m.	*$1\frac{1}{2}$	*2	*3	*4	*6

If using Stop *f*/4, divide above numbers by 4.
" " *f*/5.6, " " " 2.
" " *f*/11, multiply " " 2.
" " *f*/16, " " " 4.
" " *f*/22, " " "
" " *f*/32, " " " 16.
" " *f*/45, " " " 32.

For relative exposures with plates of different speeds see TABLE B.—Plate Speeds.

* Unless orthochromatic plates are employed these exposures must be increased from 5 to 10 times if there is a yellow sunset light.

30 & 31 Days. **SEPT.—OCT.** 1901.

No. of Slide.	Plate.	Date..... Subject: direction and character of lighting, etc.	Time of day.	Light.	Stop.	Exposure.

S 29

M 30 I rode to school for the first time

T Oct. 1

W 2

Th 3

F 4

Sat 5

No. of Slide.	Plate.	Date..... Subject : direction and character of lighting, etc.	Time of day.	Light.	Stop.	Exposure.

NOVEMBER.

Exposures for the Month :—

The table below gives the exposure in seconds under the following conditions :

Slow plate (marked 1 in TABLE B.—Plate Speeds) : Stop *f*/8.

Landscapes with heavy foliage or dark buildings in foreground. Portraits and animal studies in the open air.

Ratios for other subjects are given in TABLE A.—Subjects.

	A	B	C	D	E
TIME.	Bright Sunlight.	Sun shining through light clouds.	Diffused light.	Dull.	Very dull.
12	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{2}$
11 a.m. and 1 p.m.	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{2}$	2
10 a.m. and 2 p.m.	$\frac{5}{8}$	$\frac{7}{8}$	$1\frac{1}{4}$	$1\frac{3}{4}$	$2\frac{1}{2}$
9 a.m. and 3 p.m.	*$1\frac{1}{2}$	*2	*3	*4	*6

If using Stop *f*/4, divide above numbers by 4.
" " *f*/5.6, " " " 2.
" " *f*/11, multiply " " 2.
" " *f*/16, " " " 4.
" " *f*/22, " " " 8.
" " *f*/32, " " " 16.
" " *f*/45, " " " 32.

For relative exposures with plates of different speeds see TABLE B.—Plate Speeds.

* Unless orthochromatic plates are employed these exposures must be increased from 5 to 10 times if there is a yellow sunset light.

No. of Slide.	Plate.	Exposure.	Stop.	Light.	Time of day.	DATE..... Subject : direction and character of lighting, etc.

DECEMBER.

Exposures for the Month :–

The table below gives the exposure in seconds under the following conditions :

Slow plate (marked 1 in Table B.—Plate Speeds) : Stop *f*/8.

Landscapes with heavy foliage or dark buildings in foreground. Portraits and animal studies in the open air.

Ratios for other subjects are given in Table A.—Subjects.

	A	B	C	D	E
TIME.	Bright Sunlight.	Sun shining through light clouds.	Diffused light.	Dull.	Very Dull.
12	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{2}$	2
11 a.m. and 1 p.m.	$\frac{5}{8}$	$\frac{7}{8}$	$1\frac{1}{4}$	$1\frac{3}{4}$	$2\frac{1}{2}$
10 a.m. and 2 p.m.	$\frac{3}{4}$	1	$1\frac{1}{2}$	2	3
9 a.m. and 3 p.m.	*2	*3	*4	*6	*8

If using Stop *f*/4, divide above numbers by 4.
" " *f*/5.6, " " " 2.
" " *f*/11, multiply " " " 2.
" " *f*/16, " " " 4.
" " *f*/22, " " " 8.
" " *f*/32, " " " 16.
" " *f*/45, " " " 32.

For relative exposures with plates of different speeds see Table B. Plate Speeds.

* Unless orthochromatic plates are employed these exposures must be increased from 5 to 10 times if there is a yellow sunset light.