J. C. FOWLER.

PERPETUAL CALENDAR AND DATE FINDER.

APPLICATION FILED NOV. 18, 1909.

1,004,158. Patented Sept. 26, 1911.

Fig. 1.

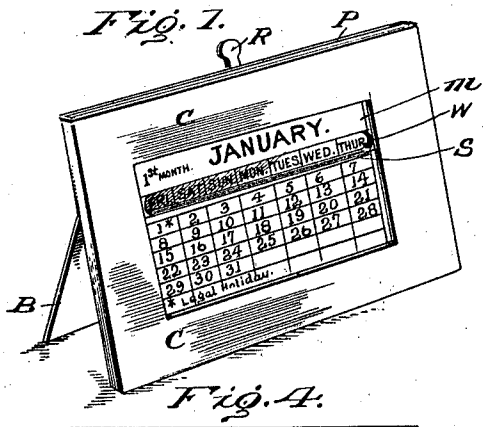

Fig. 2.

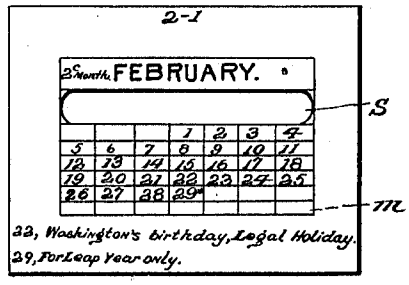

Fig. 4.

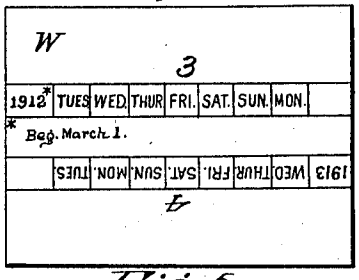

Fig. 3.

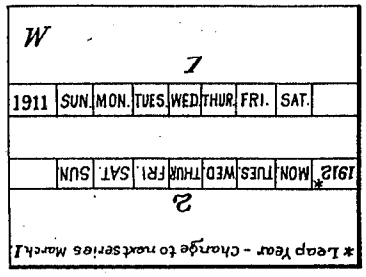

Fig. 5.

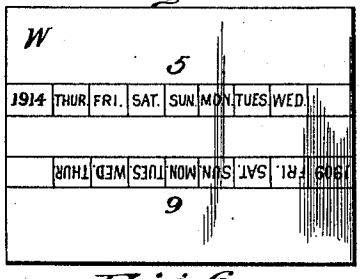

Fig. 6.

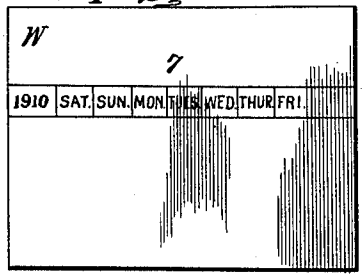

Fig. 7.

Julian A.D. Units.

A.D. Jul. Centuries.	1	2	3	4	10	5	6	B.C. Jul. Centuries.
7c 14 21 28 3500	THUR	SAT.	SUN.	MON	TUES.	WED.	THUR	FRI.
6 13 20 27 3400	FRI.	SUN.	MON	TUES	WED.	THUR	FRI	SAT.
5 12 19 26 3300	SAT.	MON.	TUES	WED.	THUR	FRI.	SAT	SUN.
4 11 18 25 3200	SUN.	TUES.	WED.	THUR	FRI.	SAT.	SUN	MON.
3 10 17 24 3100	MON.	WED.	THUR	FRI.	SAT.	SUN.	MON	TUES.
2 9 16 23 3000	TUES.	THUR	FRI.	SAT.	SUN.	MON	TUES	WED.
1c 8 15 22 2900	WED.	FRI.	SAT.	SUN.	MON.	TUES.	WED	THUR

Gregorian.	6	5	10	4	3	2	1	B.C. Jt. G. Units.
	SUN.	MON.	TUES	WED	THUR	FRI.	SAT.	
1 5 9 13 1700 FRI.	SAT.	SUN.	MON	TUES	WED.	THUR	FRI.	SAT.
2 6 10 14 1800 WED.	THUR	FRI.	SAT.	SUN.	MON.	TUES.	WED.	THUR
3 7 11 15 1900 MON.	TUES	WED.	THUR	FRI.	SAT.	SUN.	MON.	TUES.
4 8 12 16 2000 SAT.	MON.	TUES.	WED	THUR	FRI.	SAT.	SUN	

A.D. Greg. Centuries. B.C. Greg. Centuries

1	2	3	4	10	5	6
7	8	14	9	16	11	12
18	13	20	16	21	22	17
24	19	25	26	27	28	22
29	30	31	32	38	33	34
35	36	42	37	44	39	40
46	41	48	43	49	50	45
52	47	53	54	55	56	51
57	58	59	60	66	61	62
63	64	70	65	72	67	68
74	69	76	71	77	78	73
80	75	81	82	83	94	99
85	86	87	88	94	89	90
91	92	98	93		95	96
	97		99			

A.D. Greg. Units.

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PERPETUAL CALENDAR AND DATE-FINDER.

1,004,158. Specification of Letters Patent. Patented Sept. 26, 1911.

Application filed November 18, 1909. Serial No. 528,841.

To all whom it may concern:

Be it known that I, JOHN C. FOWLER, a citizen of the United States, residing at Syracuse, in the county of Onondaga and State of New York, have invented new and useful Improvements in Perpetual Calendars and Date-Finders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in perpetual calendars and date finders wherein by means of one or two so called week day cards and six so called month and date cards held together in a case or otherwise a calendar is made perpetual and operative by simply changing the position of a month and date card once a month, and of a week day card twice a year leap years and once a year common years, while it also designates the legal holidays and the anniversary dates of important events, and with the aid of the so called date finding card enables one to ascertain the day of the week on which any year or month commenced or date occurred, new or old style, either before or since the Christian era commenced. I attain these objects by means of the mechanism illustrated in the accompanying drawing, in which—

Figure 1 represents a perspective view of my invention showing all the cards in position for use in the case for the month of January 1909, the letter C representing the single pocket case; M the month and date cards, with the January card standing in front of the others; W, the week day cards, on one of which a series of week days is seen through the slots, S, in the month and date cards; Fig. 2 represents the opposite face of the January month and date card; Fig. 3 represents a face of a week day card; and Fig. 4 its opposite face; Fig. 5 represents a face of the other week day card and Fig. 6 its opposite face and Fig. 7 represents the chart on the date finding card. The nine cards thus used are all of the same size.

Similar letters refer to similar parts throughout the several views.

The case, C, is made of any material in the ordinary manner, has one or more pockets as desired, open at the top or sides, and of suitable size for holding all the cards; it has an open rectangular face. At the back, the case has a hinged support, B, for supporting the same on the table or desk at a proper angle, or a ring, R, for holding it on the wall, or the case may consist of two pockets hinged together at the top so as to spread a sufficient distance at the bottom for support, and one or both pockets with an open face as above described.

The date finding card gives the day of the week on which any year commenced or will commence under the Julian or Gregorian method of reckoning and either before or since the Christian era commenced. The chart of the date finding card Fig. 7 explains itself; the upper part being Julian and the lower Gregorian, the units between serving for both in B. C. years. The columns of these B. C. units and the Julian A. D. units are not extended as they have the same numbers as those in the Gregorian A. D. unit columns below, that is, the B. C. J. and G. 1 and the Julian A. D. 1, each represents all the numbers in the A. D. Greg. unit column below, commencing with 1 and ending with 91; and the 2, all the numbers in that column commencing with 2 and ending with 97, etc., and, in both parts, that week day commences the century or the fraction of a century, which is nearest to it and in the same column; that is, the week day that heads a column, commences all the years in that column; and that week day commences a year composed of a century or centuries and a fraction of a century which is found where the century and unit columns containing those years meet. Thus for reasons above stated all years B. C. 1–91 commenced, Gregorian on Saturday and Julian on Thursday; B. C. 2–97, Gregorian on Friday and Julian on Wednesday; and all years A. D. 1–91 commenced, Gregorian on Monday and Julian on Saturday: A. D. 2–97, Gregorian on Tuesday and Julian on Sunday: and all the Julian centuries, as 100 and 100 plus any multiple of 700, if B. C. commenced on Sunday, and if A. D. on Wednesday, while all the Gregorian centuries as 100 and 100 plus any multiple of 400, if B. C. commenced on Tuesday, and if A. D. on Friday, as all those week days were nearest to and in the same column with those respective numbers: likewise A. D. 1909 Gregorian composed of 1900, centuries, and 9 units commenced on Friday, as the two A. D. Gregorian columns containing those numbers unite at Friday.

Each of the Julian and Gregorian cen-

tury columns may be extended indefinitely in the arithmetical progression of 400 for the Gregorian and 700 for the Julian, as in those respective periods the same day of the week returns to the same day of the year under those two systems. This chart is also based on the fact that all years A. D. and all years less one B. C. that are divisible by four without a remainder are leap years, except all Gregorian A. D. centuries, and every Gregorian B. C. year less one year, that are divisible by 100 and not by 400, which are common years under the Gregorian system.

The six month and date cards on each of their 12 faces have marginal lines parallel to their four sides forming a rectangle corresponding to that of the open face of the case. Within each of these twelve rectangles, at its top, is the number and name of a different month: next below this, the slot S, extending the length of the rectangle, and wide enough (about one eighth the width of the card from top to bottom) so as to clearly display the names or abbreviations thereof of one of the seven week day series on the week day card when placed back of it in position for use in the case: and next below the slot, in seven equal spaced and vertical columns, the numerical dates of the month named above, and as shown in Figs. 1 and 2, except that while January has its first date at the top of the first column, the first date of each of the eleven succeeding months, is at the top of the column next in number succeeding that in which the last date of the preceding month ends, thus while January has its first seven dates in the first row, and 8 to 14; 15 to 21: 22 to 28 and 29 to 31, both inclusive, in the 2d, 3d, 4th and 5th succeeding rows, February first is placed in the first row and fourth column, as January's thirty one dates ended in the third column; but while February's last date 28 in common years is in the third column and February 29 with a star for leap year in the fourth column and last row, to save a multiplicity of cards, March first is placed at the top of the fourth column in the first row for both the common and leap years, which arrangement, though it necessitates a change to the next succeeding week day series on March first in leap years is much less confusing, than to have duplicate month and date cards in leap years for March and the following months.

A month date in red or with a star or both indicates a leap year or a holiday or an anniversary day referred to below or on the margin of the card. On the opposite face of each month and date card is the name and dates of the ensuing month as in the case of the January and February card, and at the extreme top of each face of a month and date card appears the numbers of the two months on that card in small figures, as shown in Fig. 2 for quick reference when changing to another month card.

The two week day cards as shown in Figs. 3, 4, 5 and 6 on their four faces have seven different series of the seven days of the week in their usual order, but each series commencing one day later than the preceding one, two series on each of their three faces and one on the fourth face, and numbered from 1 to 7 both inclusive, series number 1 commencing with Sunday, series number 2 with Monday and so on. The names of the week days in each of said series are in full or preferably abbreviated as shown in Figs. 3 to 6, and are arranged horizontally in a rectangle formed by lines corresponding in position and dimensions to the border lines of the slot, S, on the month and date cards so as to be read through the same when placed back thereof and in position for use. This rectangle is divided into seven equal spaces corresponding, in length, each to the width of the date column on the month and date card, with the name or the abbreviation thereof of one week day in each space, as shown in Figs. 3 to 6. The series numbered 1 and 2 are placed on one face, and those numbered 3 and 4 on the opposite face of one card, and the series numbered 5 and 6 on one face and that numbered 7 on the opposite face of the second week day card, the series numbered 2, 4 and 6 reading from right to left, when those numbered 1, 3, and 5 read from left to right, but all seven series reading from left to right when placed back of the slot, S, and in position for use. At the side of each series is placed the number of a year for which it is to be used, reference being had to the date finding card for all others.

To operate my perpetual calendar with the single pocket case, which has the pocket open at the top as shown in Fig. 1, place all the cards in the case with the given or present month and date card in front followed by all the other month and date cards and next thereto the week day card having the series of week days which commences with the same day as the given year commenced with, or, if it be a leap year and after February 29, the next succeeding series, and placed so that the same may be read through the slots, S, of the month and date cards in front thereof. For example if the given date is October 23, 1909, place the month and date card face entitled October in the front of the case, back of it the other month and date cards and then the week day series commencing with Friday as Friday commenced the common year 1909, which will give October 23, 1909 as Saturday, 24th Sunday &c. At the close of each month the next succeeding month and date card is

placed in front, and the week day card changed to the next succeeding series only on the first day of January in each year and on the first day of March in leap years.

To find the week day on which any date or event occurred, first find by the date finding card the day of the week on which such year commenced, then over the series of week days commencing with such day on the week day card, (or the next day, if the year be a leap year and the date later than February 29,) place the slot S, of the proper month and date card, when the week day required will be found standing above the given date and in the same column. For example July 4, 1776 is in a leap year which the date finding card shows commenced on Monday, and by accordingly placing the Tuesday or No. 3 week day series as above directed back of the July card, July 4 A. D. 1776 is shown to have been Thursday. To find the day of the week on which February 22 A. D. 1909 commenced, place Fig. 2 the February month and date card over Fig. 5, so that the No. 6 series commencing with Friday (the day which commenced the year A. D. 1909) may be read through the slot, S, and the week day Monday will appear above and in the same 4th column as the date 22, showing that February 22 A. D. 1909, was Monday.

The superiority of my perpetual calendar over others consists first in its small number of cards; second, in the few changes necessary in the position of the cards; third in the cheapness and simplicity of its construction and durability, all the cards being of the same dimensions: fourth in its various uses, as it not only gives the date of any week day of any month in any year past, present, or future, Julian or Gregorian, but also the week day that commences any such year, or on which any date or event occurred.

The cards are easily removed from the case by placing the thumb in the slots, S, and pushing up.

While I prefer to make the slot in the cards bearing the name of the month and the table of the dates of the months continuous, it is obvious that it might be made up of a plurality of small slots one for each column. It will also be clear that when I refer to the names of the months and the names of the days of the week, I refer to the said names whether printed in full or abbreviated.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. A calendar consisting of but nine cards as follows: six cards bearing on each face the name of a month and a table of the dates of that month and having a slot, two cards bearing on each face the names of the days of the week in sequence there being seven different sequences located to be made visible through the slot, and one card bearing a date finding chart.

2. A calendar comprising a series of six cards bearing on each face the name of a month and a table of the dates of that month arranged in seven parallel rows and having a slot at right angles to said rows, two cards each bearing on one side in corresponding location, a pair of different reversely printed week day name sequences, one of them bearing on the other side a single different week day name sequence and the other of them bearing such pairs of different reversely printed week day name sequences on both sides, each sequence being located to be made visible through the slot.

JOHN C. FOWLER.

Witnesses:
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