No. 855,078. PATENTED MAY 28, 1907.

H. V. VOGT.

PERPETUAL CALENDAR.

APPLICATION FILED SEPT. 12, 1906.

3 SHEETS—SHEET 1.

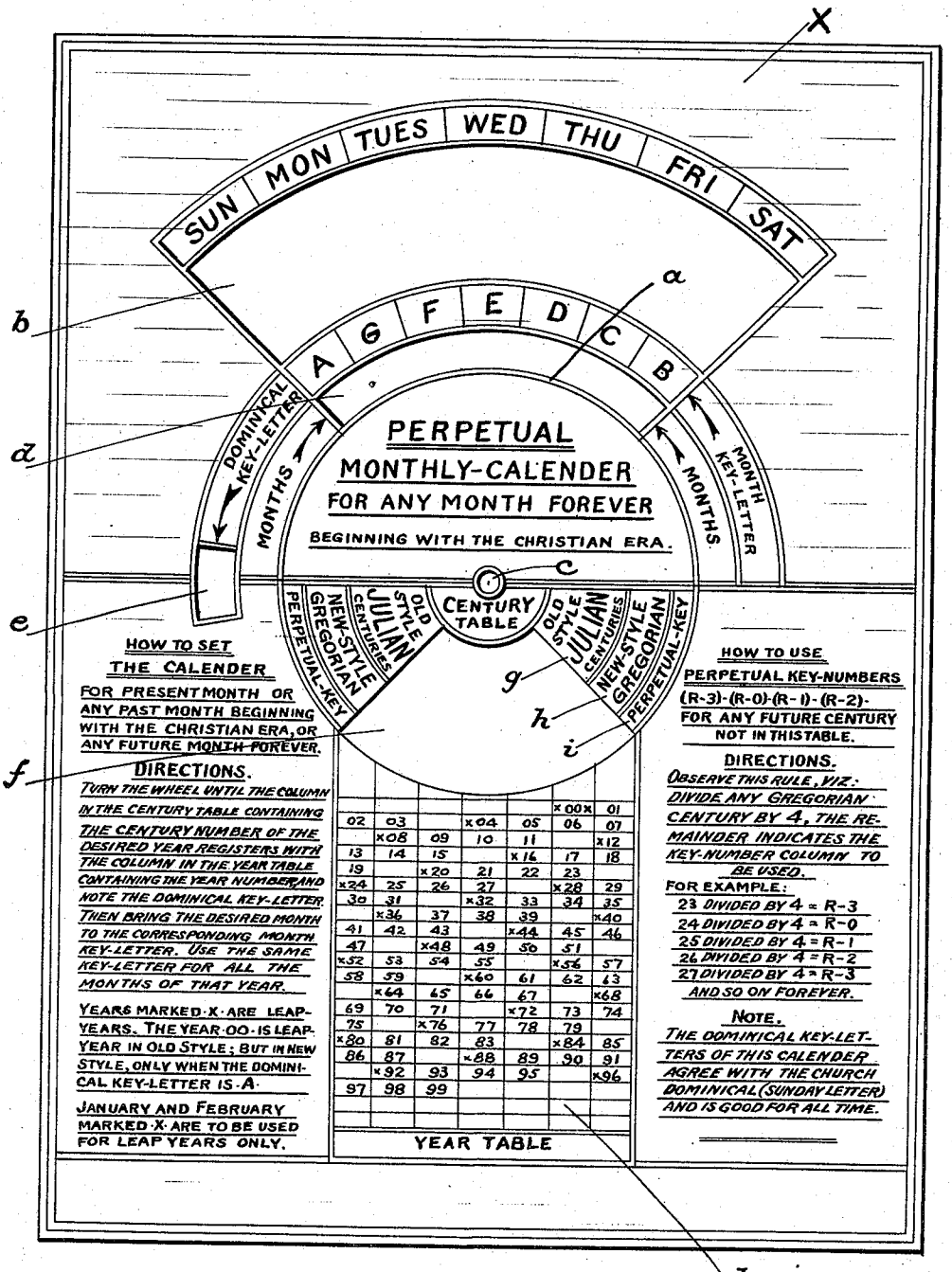


FIG. 1.

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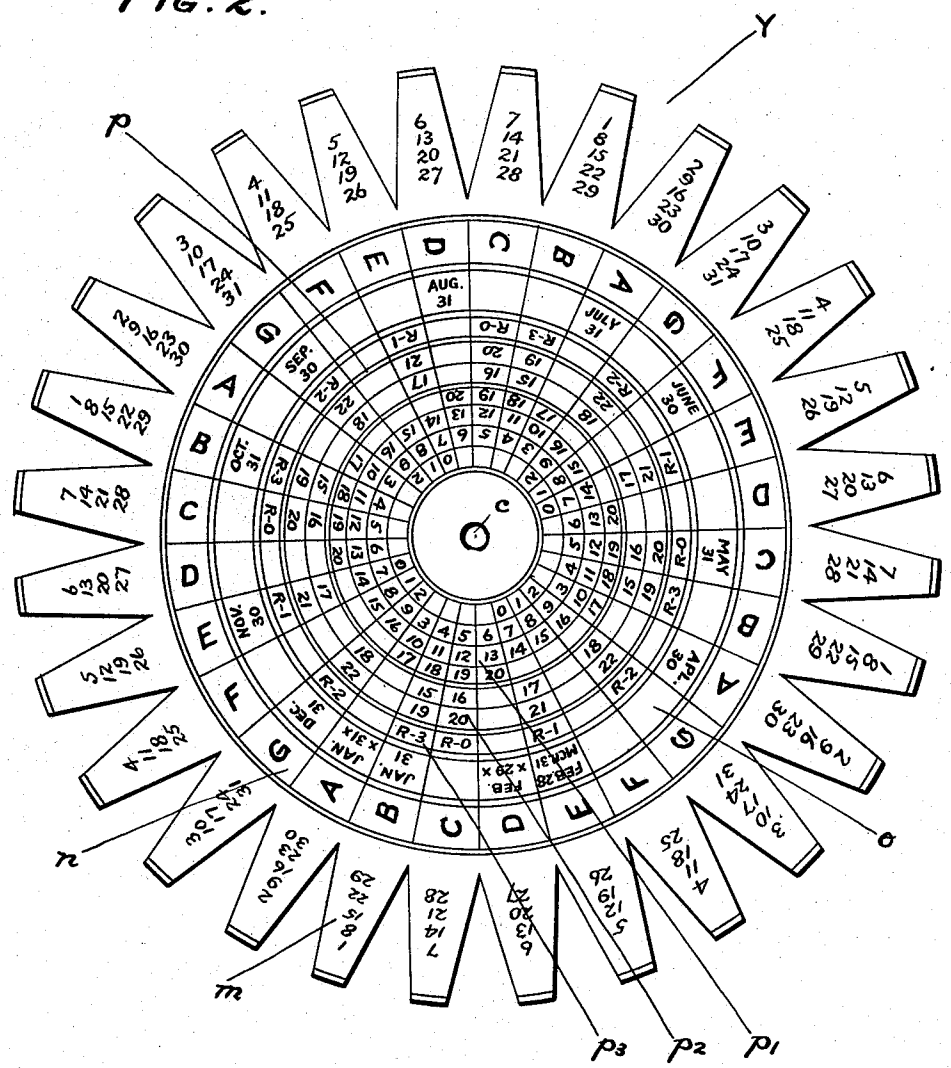
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3 SHEETS—SHEET 2.

FIG. 2.



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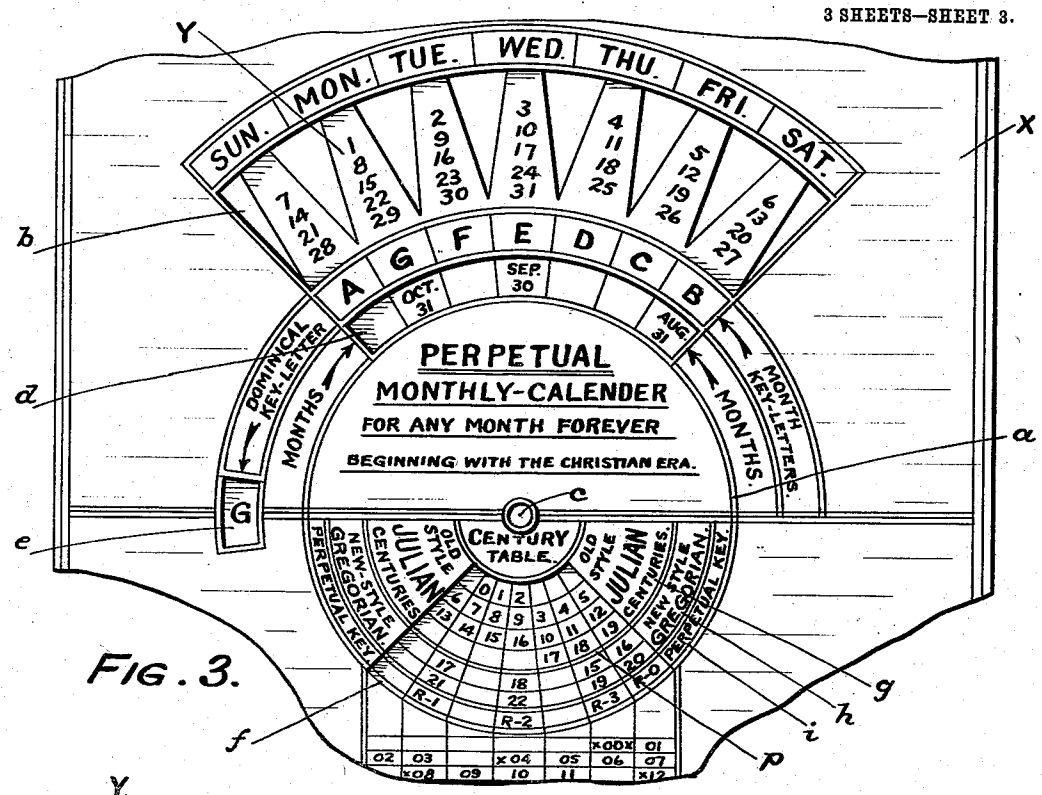


FIG. 3.

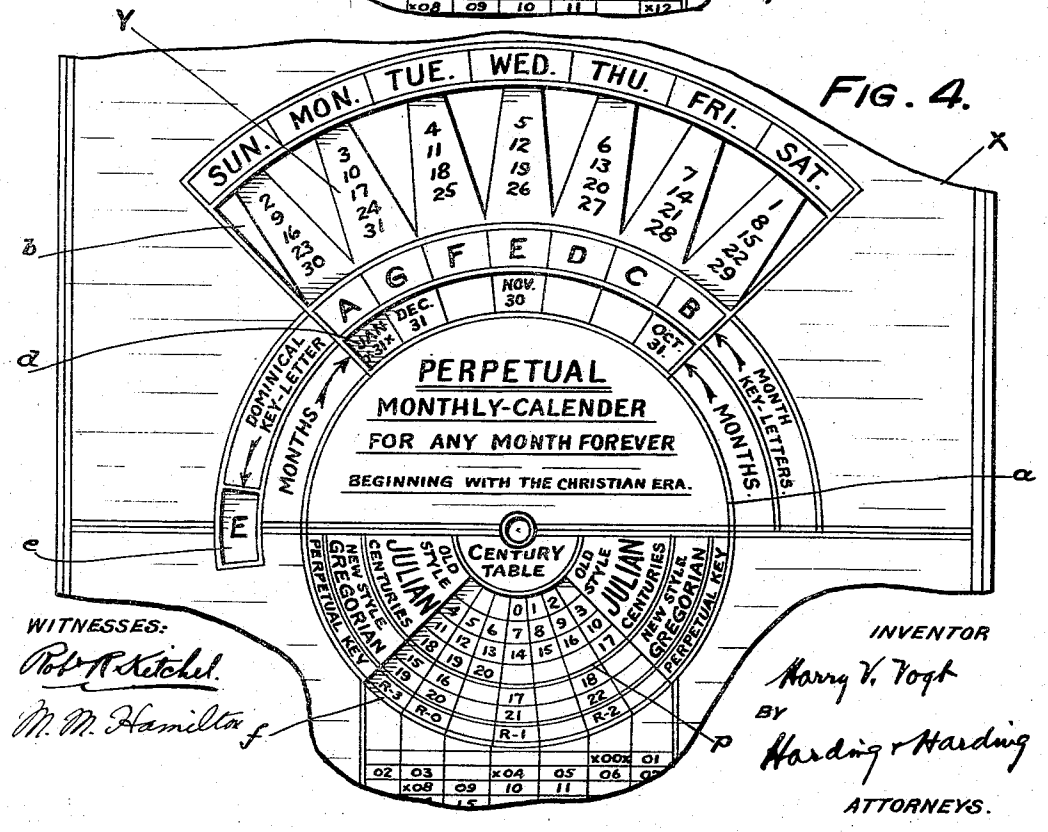


FIG. 4.

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PERPETUAL CALENDAR.

No. 855,078. Specification of Letters Patent. Patented May 28, 1907.

Application filed September 12, 1906. Serial No. 334,206.

To all whom it may concern:

Be it known that I, HARRY V. VOGT, a citizen of the United States, residing at Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Perpetual Calendars, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

The object of the invention is to provide a calendar having a fixed part and a movable part and data arranged on both parts in such manner that by the manipulation of the movable part so as to register certain data thereon with certain data on the fixed part, the calendar may be set for any given month of any given year from the beginning of the Christian era to the end of time.

In the drawings: Figure 1 is a front elevation of the card forming the fixed part of the calendar; Fig. 2 is a similar view of the revoluble disk forming the movable part of the calendar; Figs. 3 and 4 are similar views of the calendar, partly broken away, illustrating the method of using the same.

Near the center of the card X is a circle *a*, to the center *c* of which is pivotally attached the revoluble disk Y. The card X is provided, near its upper end, and outside of the circle *a*, with a segmental orifice *b* above which are the names of the week. Below the orifice *b*, and also outside of the circle *a*, is another segmental orifice *d* subtending an arc equal to that subtended by orifice *b*, both arcs being taken from the center *c*. At the side of orifice *d* is the word "Months." Above the orifice *d* are certain letters, A, G, F, E, D, C, B, known as "month key-letters." At the side of the space containing these letters are the words "Month key-letters." Another segmental orifice *e*, outside of the circle *a*, subtends an arc different from the arcs subtended by orifices *b*, and *d* and at a distance from the radius different from that at which orifices *b* and *d* are located. At the side of the orifice *e* are the words "Dominical key-letter."

Within the circle *a* is formed another segmental orifice *f*, which subtends an arc different from the arcs subtended by the other orifices. At the side of orifice *f* the segment of the circle is divided into three segmental spaces, *g*, *h* and *i*, located at respectively different distances from the center of the circle. The space *g* contains the words "Old style Julian centuries." The space *h* contains the words "New style Gregorian." The space *i* contains the words "Perpetual key." Above the orifice *f* are the words "Century table." In the unorificed upper half of the circle *a* are placed words indicating the character of the calendar.

Below the circle *a* and the orifice *f* therein is arranged a year table *k* divided into seven vertical columns, the year table containing the years of any given century properly arranged in the several columns. The leap years are indicated by a star.

On one side of the year table is a space containing directions for setting the calendar. On the other side of the year table is a space containing directions for using the "perpetual key-numbers."

The revoluble disk Y is provided with four concentric spaces *m*, *n*, *o* and *p* located at different distances from the center of the disk and adapted to register respectively with the orifices *b*, *e*, *d* and *f*.

The space *m* is provided with spaces having numbers indicating the days of the month, the numbers being divided into radial columns of either four or five numbers, and seven of the columns being adapted, at any given position of the disk, to register with the orifice *b* and respectively with the days of the week above the orifice *b*. For convenience, the disk Y is notched between each two adjacent columns.

The space *n* is provided with sub-spaces containing letters A, B, C, D, E, F and G, which I call "Dominical key-letters." One of these letters is adapted, at any given position of the disk, to register with the orifice *e*.

The space *o* is provided with sub-spaces in which are properly arranged the names of the months, two of the spaces containing the names "February" and "January" associated with stars indicating that the months referred to are those occurring in leap years. Seven of the sub-spaces of space *o* are adapted, at any given position of the disk Y, to register with the orifice *d* and respectively with the month key-letters above the orifice.

The space *p* is provided with radial columns of figures indicating the century numbers from 1 to 22 inclusive. The space *p* is also divided into three concentric sub-spaces p^1 p^2 and p^3. Seven of these columns are adapted, at any given position of the disk, to register with the seven columns of the year

table, and the three sub-spaces p^1, p^2 and p^3, register with the spaces g, h and i respectively.

The columns of space p, and the sub-spaces of spaces m, n and o are arranged respectively in radial alinement.

The mode of operating the calendar is as follows: The disk is turned until the column in space p containing the desired century number registers with the column in the year table k containing the desired year. If the monthly calendar wanted is according to the old style Julian calendar, then the desired century number must be found in sub-space p^1. If the monthly calendar wanted is according to the new style Gregorian calendar, then the desired century number must be found in sub-space p^2. When the disk is turned to the described position a certain Dominical key-letter contained in one of the sub-spaces of space n will show through orifice e. The disk is then turned until the desired month in one of the sub-spaces of space o registers with a month key-letter corresponding to the said Dominical key letter. This gives a correct calendar for the particular month of the particular year desired. For example, if it is desired to provide a monthly calendar for December, 1906, the disk is turned, as indicated in Fig. 3, until the radial column containing the number "19" in sub-space p^2 of the disk registers with the vertical column containing "06" in the year table k. As will be seen, the Dominical key-letter in this position of the disk is G. The disk is then turned until the sub-space of space o containing the abbreviation "Dec." registers with the month key-letter G, as shown in Fig. 4. This gives the correct calendar for December, 1906.

In certain instances it may happen that when the disk is moved to cause the century number to register with the year number, the disk will be in such position that the desired month on the disk registers with the month-key letter corresponding to the Dominical key-letter. In such a case, a second movement of the disk is unnecessary. For example, if it is desired to provide a calendar for October, 1906, and the disk is turned to cause the century number to register with the year number, as before described, and as illustrated in Fig. 3, the character "Oct." on the disk registers with the month-key letter G corresponding to the Dominical key-letter G, thus providing the proper calendar for October, 1906 without a second movement of the disk.

If the calendar for any particular month of any year later than 2299 is desired, the century should be divided by 4, the remainder (which will be either 0, 1, 2 or 3) indicating the key number in space p^3 which should be registered with the column, in the year table, containing the desired year. By this means, the proper Dominical key-letter is ascertained.

It will be understood that the year "00" in any given century is always a leap year when combined with a Julian century, but when making a combination with a Gregorian century it is a leap year only when divisible by 400. The year "00" in the year table is associated with two stars, which indicates that any given year in the Gregorian calendar ending in "00" is a leap year only when its Dominical key-letter is A, as this combination can only register the key-letter A but once in 400 years.

Having now fully described my invention, what I claim and desire to protect by Letters Patent is:

1. A perpetual calendar comprising a fixed card having four orifices and a movable card having spaces containing respectively figures indicating the days of a month, Dominical key-letters, characters indicating the months of a year, and a table of century numbers, said spaces registering with said orifices respectively, said disk also containing a year table adjacent to the orifice with which said century table registers, and a series of month key-letters adjacent to the orifice registering with the space containing said month characters.

2. A perpetual calendar comprising a fixed card having an orifice and characters indicating the days of the week adjacent thereto, a second orifice and month key-letters adjacent thereto, a third orifice and at least two spaces adjacent thereto, a fourth orifice, and a table containing year numbers; and a movable card having a space containing figures indicating the days of the month and adapted to register with the first orifice, a second space containing characters indicating the months of a year adapted to register with the second orifice, a third space having two sub-spaces containing century numbers adapted to register with the third orifice, the year table, and respectively with the said two spaces of the fixed card, and a fourth space containing Dominical key-letters adapted to register with the fourth orifice.

3. A perpetual calendar comprising a fixed card having four orifices and a movable card having spaces containing respectively figures indicating the days of a month, Dominical key-letters, characters indicating the months of a year, and a table of century numbers and perpetual key-numbers, said spaces registering with said orifices respectively, said disk also containing a year table adjacent to the orifice with which the last named table registers, and a series of month key-letters adjacent to the orifice registering with the space containing said month characters.

4. A perpetual calendar comprising a fixed card having an orifice and characters indicating the days of the week adjacent thereto, a

second orifice and month key-letters adjacent thereto, a third orifice and three spaces adjacent thereto, a fourth orifice, and a table containing year numbers; and a movable card having a space containing figures indicating the days of the month and adapted to register with the first orifice, a second space containing characters indicating the months of a year adapted to register with the second orifice, a third space, adapted to register with the third orifice, having three sub-spaces containing two sets of century numbers and perpetual key-numbers all adapted to register with the year table and also adapted to register respectively with the three spaces of the fixed card adjacent to the third orifice, and a fourth space containing Dominical key-letters adapted to register with the fourth orifice.

5. A perpetual calendar comprising a revoluble disk having four concentric spaces arranged about a common center, one space containing radial columns of figures indicating the days of a month, another space containing a series of Dominical key-letters, another space containing characters indicating the months of a year, and another space containing a table of numbers indicating centuries; and a fixed card to which the revoluble disk is pivoted at said common center, said fixed card having four orifices located at radial distances from said common center corresponding to the radial distance from said common center of said four spaces so as to respectively register therewith, said fixed card also having a year table adjacent to the orifice registering with the space containing the century table, and month key-letters adjacent to the orifice registering with the space containing the month characters.

6. A monthly calendar comprising a fixed card and a revoluble disk pivoted thereto, said disk having four spaces concentric with said pivot point, one space being divided into sub-spaces containing radial columns of figures representing the days of a month, a second space being divided into sub-spaces containing Dominical key-letters, a third space being divided into sub-spaces containing characters indicating the months of a year, and a fourth space containing radial columns of figures indicating century numbers, said fixed card having an orifice adapted to register with the first space of the disk and substantially corresponding in length with the length of seven sub-spaces of the first space, a second orifice adapted to register with the second space of the disk and substantially corresponding in length with the length of one sub-space of the second space, a third orifice adapted to register with the third space of the disk and substantially corresponding in length with the length of seven sub-spaces of the third space, and a fourth orifice adapted to register with the fourth space of the disk and substantially corresponding in length with the width of seven columns of the fourth space, said fixed card also having seven columns indicating year numbers adapted to register with seven successive columns of the fourth space of the disk, and seven spaces containing seven month key-letters adapted to register with seven successive sub-spaces of the third space of the disk.

7. A perpetual calendar comprising a movable card containing columns of figures indicating century numbers, a fixed card containing columns of figures indicating year numbers, the movable card being adapted to be moved to cause one of the century columns thereon to register with one of the year columns on the fixed card, there being Dominical key-letters one for each combination of year column and century column thus adapted to be registered, means indicating the proper key-letter when said combination of year column and century column is thus registered, the fixed card containing a series of month key-letters corresponding to said Dominical key-letters, and the movable card containing a series of characters indicating the months of the year, said movable card being movable to register one of said month characters with one of said month key-letters the fixed card containing a series of characters indicating the days of the week and the movable card containing a series of columns of figures indicating the days of the month, seven of the last named columns registering respectively with seven of the last named characters when the movable card is moved to register its month characters with one of the month key-letters of the fixed card.

In testimony of which invention, I have hereunto set my hand, at Philadelphia, on this 10th day of September, 1906.

HARRY V. VOGT.

Witnesses:
HUGH BRITTON,
JNO. WALLACE.