

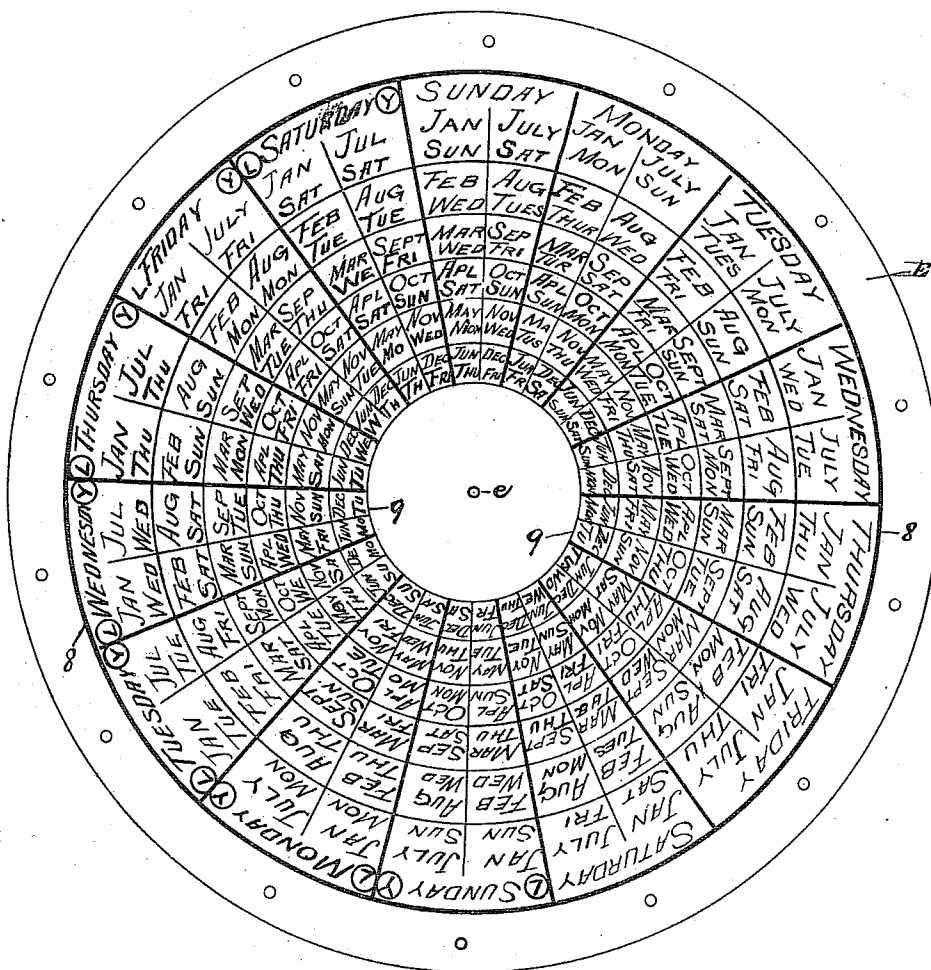
J. M. CRAWFORD.
 INDICATOR FOR PERPETUAL CALENDARS.
 APPLICATION FILED MAR. 14, 1906.

979,655.

Patented Dec. 27, 1910.

3 SHEETS-SHEET 2.

Fig 2



WITNESSES:

M. M. Depee
J. M. Springer

INVENTOR

James M. Crawford
 BY
Thompson & Depee
 ATTORNEY

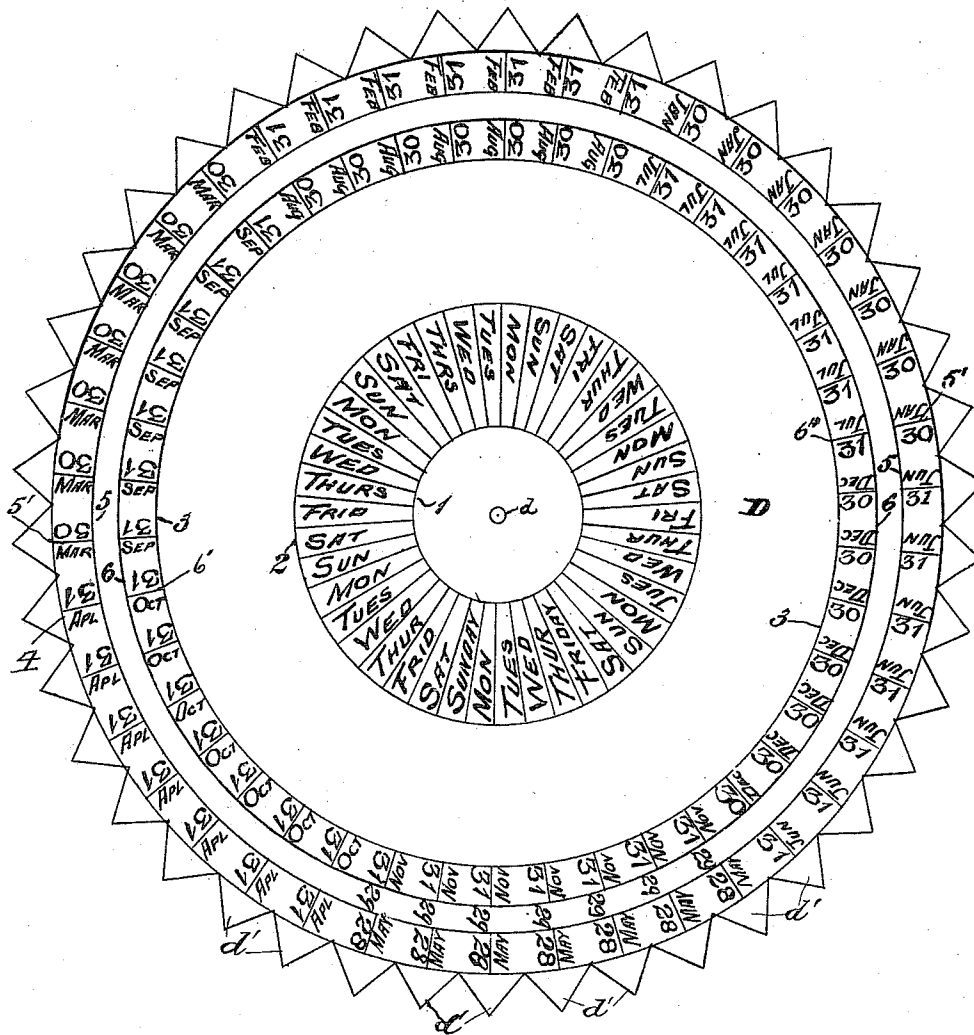
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Fig 3



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UNITED STATES PATENT OFFICE.

JAMES M. CRAWFORD, OF BENTONVILLE, INDIANA.

INDICATOR FOR PERPETUAL CALENDARS.

979,655.

Specification of Letters Patent.

Patented Dec. 27, 1910.

Application filed March 14, 1906. Serial No. 306,059.

To all whom it may concern:

Be it known that I, JAMES M. CRAWFORD, a citizen of the United States, residing at Bentonville, in the county of Fayette and State of Indiana, have made certain new and useful Improvements in Indicators for Perpetual Calendars, of which the following is a full and accurate specification.

My present invention has for its object, more particularly, to provide means whereby I am enabled to denote the day of the week on which each month of any year commences, the same to be employed in combination with a monthly calendar which is to be associated therewith but which forms no part of this present invention, as it is included in a former patent issued to me November 14, 1905, Number 804,385.

In the drawings, forming part of this specification, Figure 1 shows, in its upper portion, my invention as it would appear in operative position; while associated therewith is a monthly calendar, shown in the lower portion of said view. Fig. 2 shows the entire face of the disk comprising the essential element of my invention. And Fig. 3 shows the entire face of the monthly disk with which my invention may be associated.

Similar reference characters denote like parts throughout the several views of the three sheets of drawings.

In the drawings the letter A denotes a card or the like, and through the upper central portion thereof is formed an elongated trapezoidal vertical aperture *a*, which tapers downward convergently as shown. A short distance above said aperture *a*, there is formed through the card A, a small aperture *a'* by which the card may be suspended. Directly below the center of the aperture *a* is a small pivot aperture in which a pivot, or eyelet B, is located, for the purpose presently set forth.

The letter E denotes a disk, shown entire in Fig. 2, having a small central aperture *e* therethrough through which passes the rear end of the eyelet B, and by which said disk is revolvably mounted whereby certain portions thereof will appear through the aperture *a*, as in Fig. 1.

From the above it will be observed that the disk E, together with the matter printed thereon, with the means of exposing to view only certain parts at a time, are the most

important features of my present invention, which I will now describe in detail: A circle 9 is printed on the face of the disk E, having the aperture *e* as its center, and the radius of said circle is equal to the distance of the lower end of the aperture *a* from the center of the pivot B. A circle 8 is also formed on the disk E, it also having the aperture *e* as its center, and said circle is located the same distance from its center as is the upper end of the aperture *a* from the center of the pivot B. The space between the said circles 9 and 8 is subdivided by radial lines into fourteen major spaces, corresponding in both shape and size to the aperture *a* of the card A. Said major spaces are each again subdivided into two minor divisions each by a single radial line. It is to be understood however that said circles and radial lines may be only imaginary, but their employment is preferred. In each of said major spaces is contained, in two radial columns, the abbreviations of the months of the year, the abbreviations for the first six months of the year being located in the left-hand column or subdivision, and the abbreviations for the last six months of the year being located in the right-hand column or subdivision of the major space, as indicated. Under each abbreviation for the month of the year, contained in each of said major spaces, is placed an abbreviation denoting the day of the week upon which that month commences. Each of said abbreviations for months and the day of the week upon which that month commences is divided from the others by said radial lines and by a series of concentric circles, which together with certain of the other lines divide each major space into twelve spaces as indicated. Heading each of said major spaces, and located near the circle 8 are printed, in progressive succession, the days of the week, once repeated, which occur in their regular order from left to right, and which provide a caption for each of the major spaces. These headings for the major spaces represent the first day on which any one year commences. One half of the captions, adjoining each other, is inclosed by the letters "L" and "Y," which denote leap year, the remaining half of the major columns are for common years. It is common knowledge and everyone knows the day of the week on which the next approaching year

commences, and also everyone knows as to whether it will be a leap year or not, and these two items are all that is necessary for the operator to know. It is arranged that the disk E is to be revolved to bring either of said major columns opposite the aperture a , and consequently with the matter printed in that space exposed therethrough as shown.

The above described invention may be employed in connection with a calendar, such for instance as that issued to me and above referred to, certain parts of which are shown herein in Fig. 3 and the lower portion of Fig. 1 of the drawings, wherein the letter D denotes a disk revolubly mounted to the back of the card A by the pivot C, there being a segmental aperture formed through the card A below the pivot C whose sides are shown by the lines x, x' . From the bottom line x^3 of said aperture there radiate seven columns $6'$ having cross lines b' to form thirty-five spaces, in thirty-one of which is printed a number, arranged in progressive succession from left to right starting at the upper left hand corner, arranged in the usual calendar order as shown. Printed on the face of the disk D is a circular row of spaces in which are printed the names of the days of the week, or abbreviations thereof, seven of which will at all times be exposed through said segmental aperture, as shown in the lower portion of Fig. 1, to form captions for the seven columns of the calendar proper.

Located equally distant from the pivot C and on each side thereof and formed through the card A, are the two apertures A' and A^2 which are laterally elongated. Pivoted to the card A at points above the center of the respective apertures A', A^2 , are blinds F and F' mounted by the respective pivots f and f' , whereby one end of the apertures A' and A^2 may be covered when desired.

The disk D is pivoted in the center to the back of the card A by said pivot C. By the above it is apparent that the lines 1 and 2 on the disk are located the same distance from the pivotal point as are the respective lines X^2 and X^3 of the card A. Also printed in circular columns around the face of the disk D are the abbreviations six times repeated for each month of the year, said abbreviations being so located that they will appear properly in the aperture A' , and adjoining each of said abbreviations but oppositely disposed thereto is a numeral to denote the number of days in each month, said numerals being so located that they will appear through the aperture A^2 where they will indicate the number of days contained in the month denoted in the aperture A' . Said last mentioned abbreviations are inclosed in elongated spaces formed by the concentric circles 3 and 6, and 4 and 5, these two sets of circles being subdivided by the lines $6''$ and $5'$ respectively. The outer periphery of the

disk d is formed with serrations d' in order that said disk may be more easily turned.

Operation: As previously stated, every one knows the day of the week on which the next year will commence, as by reference to a current calendar, therefore in order to set the indicator I have only to revolve the disk E until the day of the week on which the year commences appears as the caption of the major columns appearing through the aperture a , which will give therebelow the day of the week on which each month for that year commences, thereby furnishing all the information necessary for arranging the calendar proper for each succeeding month for that year. To illustrate the above: The year 1905 commenced on "Sunday," and was a common year, consequently I turn the disk E until a common year "Sunday" appears at the top of the aperture a as shown, and I then have an indicator showing that "January," for that year, commenced on "Sunday;" February commenced on "Wednesday;" March commenced on "Wednesday;" August commenced on "Saturday," et cetera. In order to utilize this information I now, for instance, desire the calendar to be set for the month of January in that year, I therefore revolve the disk D until the abbreviation "Jan." appears in the aperture A' and the word "Sunday" appears opposite the figure "1" of the calendar proper simultaneously, which will give me a correct calendar for the month of January 1905. If it be desired to have a calendar for the month of August in said year, I will find that, by reference to the indicator, that August commences on "Tuesday," I therefore revolve the disk D until the abbreviation "Aug." appears in the aperture A' simultaneously with the appearing of the word "Tuesday" on the disk E, in alignment with the figure "1" of the calendar. As the year 1908 approaches we know that it will commence on a Wednesday, and that it will be a leap year, therefore we may revolve the disk E until a "L Wednesday Y" appears at the head of the aperture a , the L Y denoting leap year, and we then have an indicator for the year 1908, which need not be changed for that year. Then desiring to set the calendar for January of that year I have only to revolve the disk D until the abbreviation "Jan." appears in the aperture A' coincident with the appearing of the word "Wednesday" opposite the figure "1" of the calendar, and so on in like manner for either month of the year. In order that the disk E may not become inadvertently moved after being set I provide an aperture a' directly above the center of the aperture a , with corresponding apertures formed through the outer portion of the disk E, one being opposite the center of each major space as indicated and then when the calen-

dar is suspended from a nail or hook the device will be locked, as the disk E can not be revolved until removed therefrom.

From the above it will be noticed that I
5 utilize the fact that the years repeat themselves, as to the day of the week on which the year commences, every five, six, and eleven years, consequently I provide words denoting the day of the week on which each year
10 commences, in place of numerals as heretofore, by reason of which I provide an absolutely perpetual calendar, requiring no table or other references for its utilization.

Having now fully shown and described
15 my invention, what I claim and desire to secure by Letters Patent of the United States, is—

The combination of a card, and an indicator mounted on the rear thereof said indicator comprising a disk pivotally mounted at
20 its center and having rings marked thereon

adjacent its pivot point and its periphery, a space between said rings being divided into fourteen segmental divisions, each division being subdivided by annular and radial 25 lines, said divisions being captioned by the names of one of the days of the week, and the subdivisions being provided with the names of the months of the year, and the week-day on which each month begins to- 30 gether with names of seven additional days corresponding to leap year, the days of the week in the caption being arranged in regular order said card having an aperture of the same size and shape as one of the fourteen 35 segmental divisions.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES M. CRAWFORD.

Witnesses:

THOMAS A. SCOTT,
HARRY E. CRAWFORD.