W. L. JONES.

PERPETUAL CALENDAR.

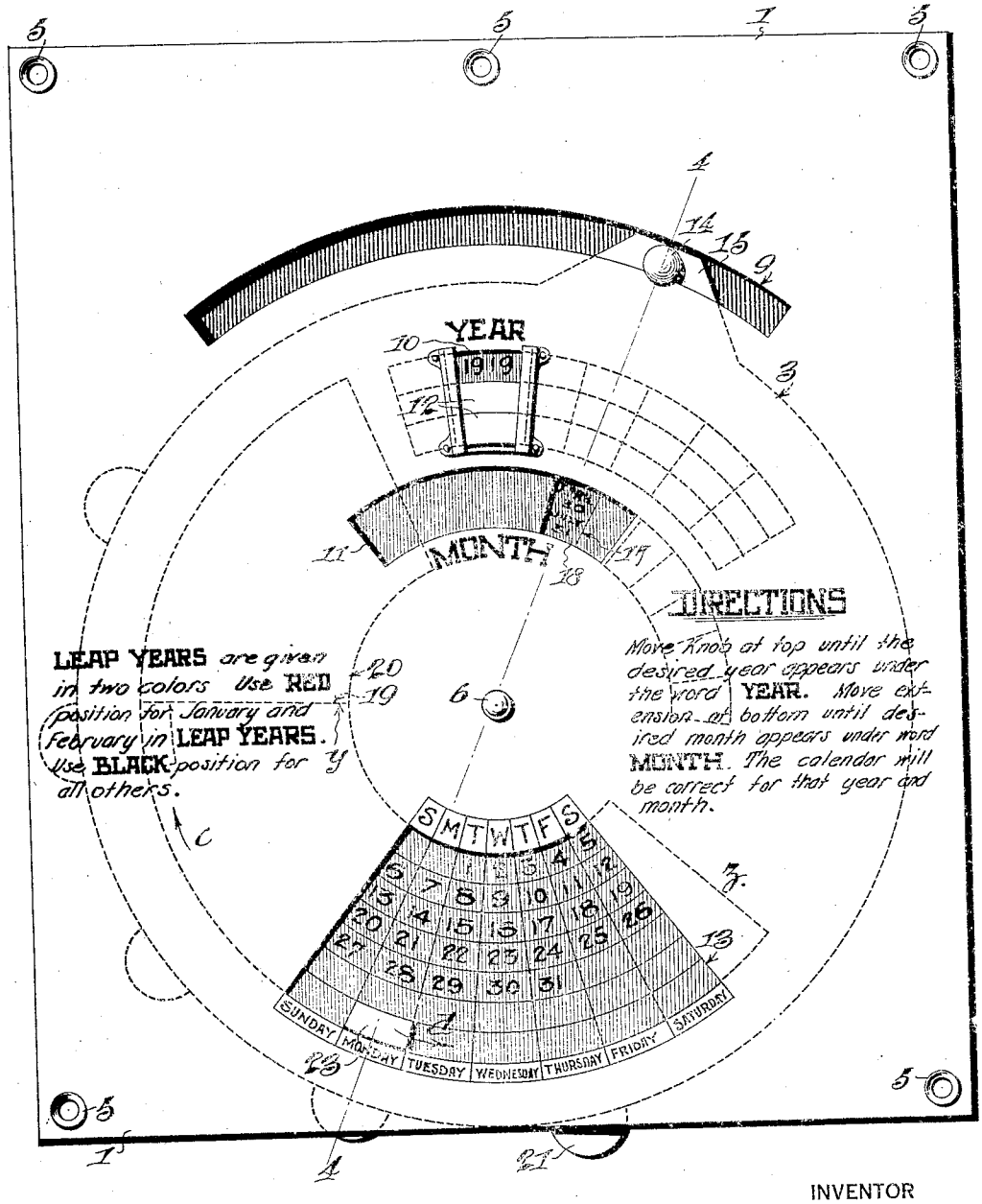
APPLICATION FILED JUNE 9, 1919.

1,367,053.

Patented Feb. 1, 1921.

4 SHEETS—SHEET 1.

Fig. 1.



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4 SHEETS—SHEET 2.

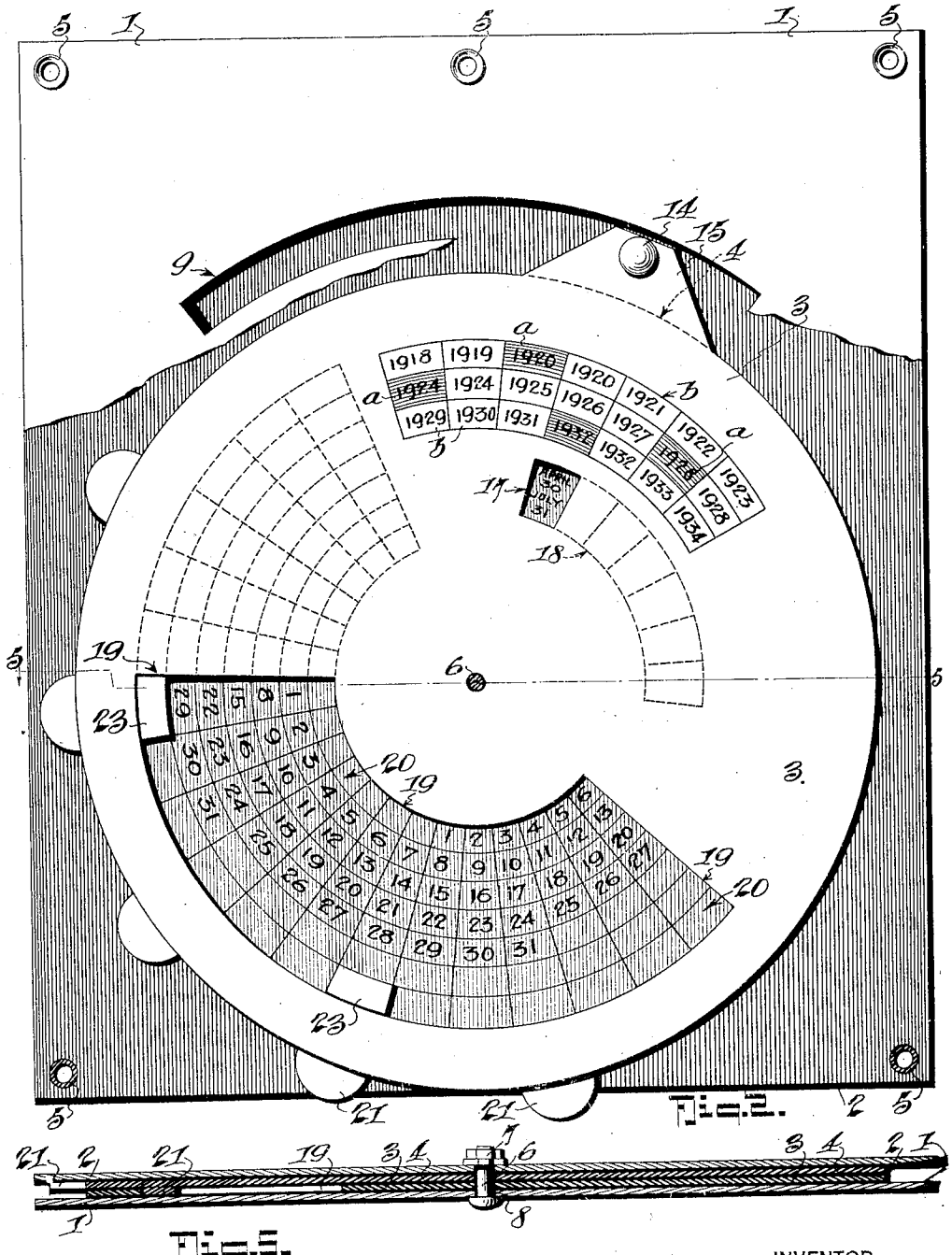


Fig. 2.

Fig. 3.

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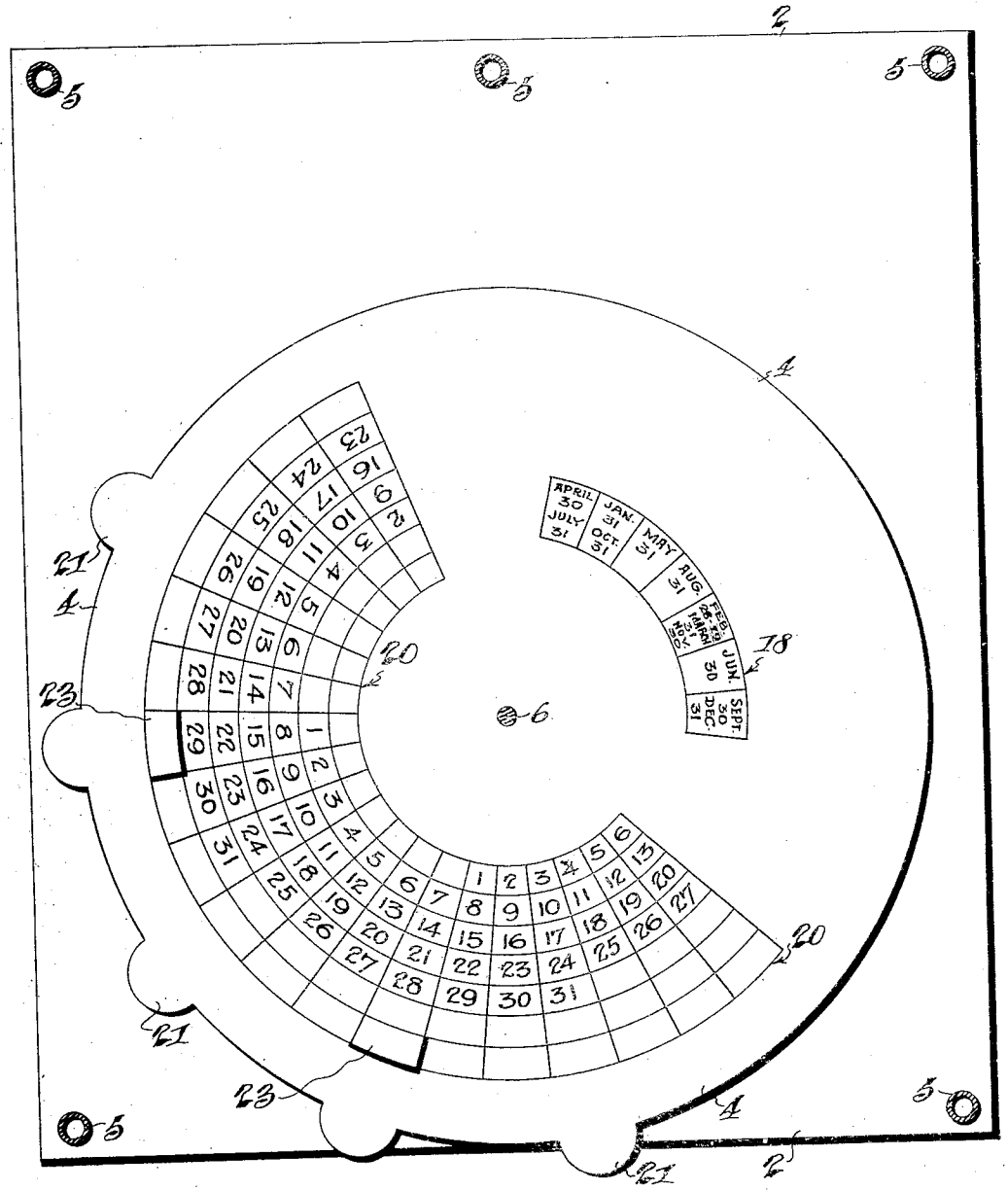
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4 SHEETS—SHEET 3.

Fig. 3.



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4 SHEETS—SHEET 4.

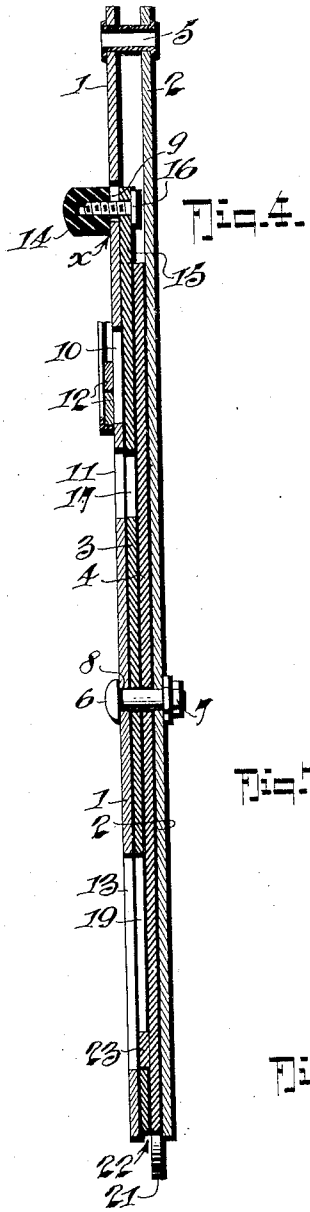


Fig. 4.

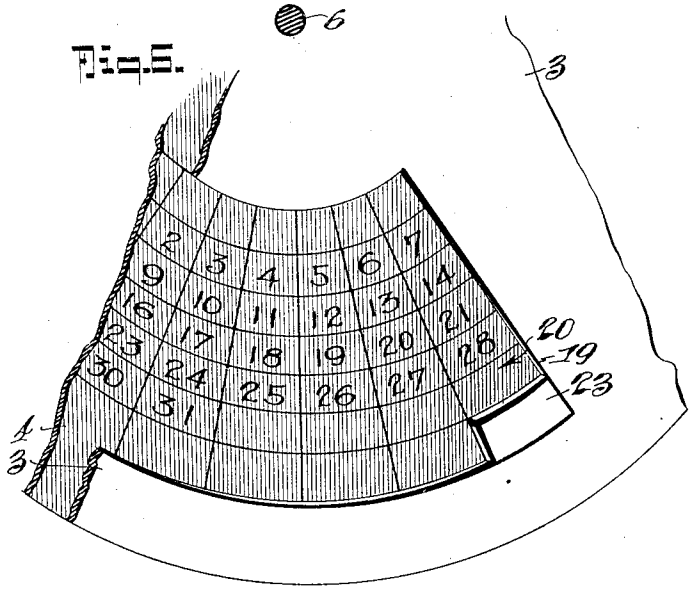


Fig. 5.

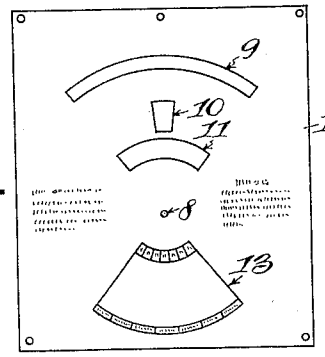


Fig. 7.

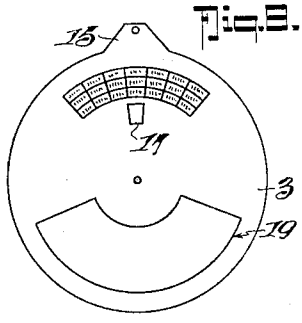


Fig. 8.

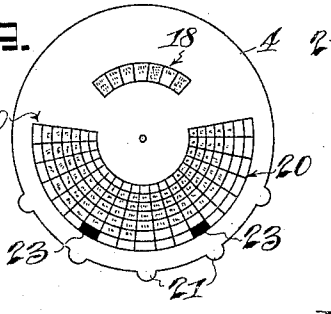


Fig. 9.

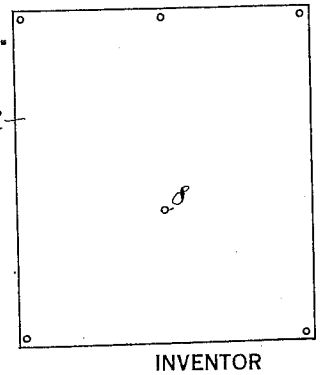


Fig. 10.

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UNITED STATES PATENT OFFICE.

WALTER L. JONES, OF DALLAS, TEXAS.

PERPETUAL CALENDAR.

1,367,053. Specification of Letters Patent. Patented Feb. 1, 1921.

Application filed June 9, 1919. Serial No. 302,811.

To all whom it may concern:

Be it known that I, WALTER L. JONES, a citizen of the United States, residing at Dallas, in the county of Dallas and State of Texas, have invented a new and Improved Perpetual Calendar, of which the following is a specification.

My invention has reference to improvements in calendars, particularly perpetual calendars, and primarily it has for its purpose to provide such a calendar of a simple and economical construction, capable of being easily and quickly adjusted to adapt it for presenting the correct calendar for any month in the year, past, present or future, and which may be found in a rapid and accurate manner.

Another object of my invention is to provide an improved calendar of the general type mentioned in which the calendar elements are designed and coöperatively so related whereby the desired information may be ascertained by direct reading, and without the need of a key table or calculations such as are incident in the use of calendars of this type heretofore provided and in which the number of indications (figures) required is reduced to the minimum and the indications that designate the week days, remain stationary. With the above objects in view and other objects that will hereinafter appear, my invention, in its practical development, embodies certain features of construction and novel arrangement of parts, as stated in the following detail description, specifically pointed out in the appended claims and illustrated in the accompanying drawings, in which:

Figure 1 is a face view of a calendar embodying my invention, the parts being adjusted to serve as a calendar for the month of April in the year 1919.

Fig. 2 is a similar view, the parts being in the same position as in Fig. 1, portions of the face plate or card being removed to better illustrate the year and the adjustable or intermediate month and day cards.

Fig. 3 is a diagrammatic face view of my calendar, the front or face card and the years card being omitted to better illustrate the months, days and weeks card.

Fig. 4 is a central vertical section of my calendar, taken substantially on the line 4—4 on Fig. 1.

Fig. 5 is a central horizontal section of the same on the line 5—5 on Fig. 2.

Fig. 6 is a detail perspective view of a portion of the years card and the days and months card and illustrates the function of one of the stop members fixedly connected with the months and days card.

Figs. 7, 8, 9 and 10 are diagrammatic views of the face or front member, the years card, the months and days and weeks card and the back card or member, respectively.

In the practical development of my invention, the calendar is composed of four members, preferably of card board, and which constitute an outer or face member and a back plate or card, the said front and back members being designated 1 and 2, respectively, and a pair of intermediate disk-shaped cards 3 and 4, one of which, 3, is hereinafter termed the year card and the other, 4, the months, weeks and days card.

The front and back cards, which may have any desired ornamental edge contour, are preferably of a slightly elongated square shape and are connected by eyelets 5 at the corners thereof, as clearly shown in Figs. 1, 2 and 3, from which it will be noticed that the diameter of the intermediate or movable disks and the opposite edges of the front and back members 1 and 2 are so proportioned that, when the pivot bolt that joins the several parts together and the knob, are disconnected, the intermediate or rotatable cards may be slid out of the lower open end between the front and back members.

The intermediate cards 3 and 4 are rotatably movable, in relation to each other and the front and back members 1 and 2, and for such purpose they are axially mounted on a pivot bolt 6 that also takes through the back and front cards 1 and 2 and is secured by the nut 7, as is clearly shown in Fig. 2, by reference to which it will also be seen the years card 3 is located in front of the months and weeks and days card 4 and back of the front or face member 1. The face card or member 1, see diagram Fig. 7, has a number of openings concentric with the center or pivot bolt aperture 8 and three of such openings, 9, 10 and 11, are located above the pivot opening and the other, 13, is located below said opening 8.

Opening 9, in the plate 1, is in the nature of an elongated slot and constitutes a guide

way for a finger knob 14 which projects forward from a peripheral extension 15 on the years card 3, as is clearly shown in Fig. 4, by reference to which it will be also noticed that the knob 14 engages the threaded end of a clamp or screw stud 16 that takes through the extension 15 and through the slot or opening 9, by reason of which the years card 3 can be fixedly held to its adjustments by tightening up the knob 14 to cause its edge x to clamp the face card 1, the card 3 and the head of the stud bolt into tight frictional engagement.

Opening 10 in the face card 1 constitutes the years opening, since through it appears the selected ones of years numbers, presently again referred to, and the opening 11, which is also in the nature of an elongated slot, is the months opening, since through it the selected month is observed.

Opening 13 is of sector shape and, at the upper and lower edges thereof, are indicated the days of a week, the indications at the upper edge, owing to restricted space, being initialed, while the indications at the lower edge of such openings, are the week day names.

The years card, see diagram Fig. 8, has concentric rows of year numbers, which numbers continue in sequence in sets of seven, as is best shown in Fig. 2, from which it will be noticed that I have illustrated three concentric rows or sets of year numbers with seven numbers in each set and the said numbers as following along in sequence from the upper set to the next lower and so on and, while I have shown but three sets of year numbers, it is obvious that the numbering may be of such size relatively to the space on the card and the year opening 10, in the front plate, to cover a greatly increased space of time, in years; or in other words, when more years, than shown, are to be depicted, they are always arranged in sectors of seven radial divisions each. The card may be made larger or the numbers smaller and, when a larger number of rows of years indicia are employed, the year opening in the face plate 1 is preferably provided with shiftable adjusting members 12 for a proper coöperation of the year opening and the different concentric rows of year numbers, as clearly indicated on Fig. 1.

Referring again to Fig. 2, it will be seen a period of time for which the calendar, as illustrated, is useful, extends from 1918 to 1934, the number of years running in proper sequence along a top row, thence in an intermediate row and finally along a bottom row, and the said numbers are assembled in seven radial sectors and the number of each leap year in the series of years includes a supplemental number located adjacent to and in advance of the corresponding leap year number.

The supplemental leap year numbers, 1920, 1924 and so on, are printed or otherwise delineated in a color other than the color of the adjacent or regular leap year number, which has all of the series of numbers, excepting the supplemental leap year numbers, printed in black, the supplemental leap year number being preferably red to readily distinguish from the proper leap year numbers.

In the drawings, the supplemental and regular leap year numbers are designated a and b, respectively, and, at this point, it should be stated the supplemental leap year numbers a are brought into view through the opening 10 to designate the determined year, only when the calendar is to be set for January and February of such year, the black face leap year numbers b being brought to view when setting the calendar for all of the other months of the said year, as will hereinafter be further mentioned.

The year card 3 has a sector shaped radially disposed opening 17 which alines with the segmental slotway 10 in the face member 1, whereby to expose to view the determined month space 18 on the month, week and day card 4, when the several parts are brought to the desired adjustment.

The month spaces, in my arrangement of calendar, comprise a series of seven radial sectors or spaces in concentric alinement with the rows of year and day numbers.

Some of the month spaces have several of the months indicated thereon, one has three different months indicated thereon and several designating but one month, the space having February designated thereon has the numeral 28 in black, which indicates the usual number of days in February and 29 printed in red for designating the leap year number of days in February.

The year card has a large segmental opening 19 of a length double the annular distance space of the sector or week days opening 13 in the front member 1. One half of the opening 19 referred to, under all of the rotatable adjustments of the year card, remains in register with the sector opening 13 in the front member 1.

The month-day card is provided with numbers positioned in nineteen radial divisions 20 and these are arranged and combined in such manner, and in annular relation with respect to the card on which they appear, so that any seven consecutive ones of such divisions comprise a month sector, which registers with the opening 13 in the front card 1 and shows through such opening in positions, corresponding with the week day initials and names at the top and bottom edges of the said opening and in such a way that, when the number 1 of the month day card 4 comes beneath any one of the said week day initials, the remaining

numbers will be in proper order with relation to the rest of the said week day initials.

For example, should the calendar be set as shown in Fig. 1 for the month of April 1919, the exposed numeral 1 of the week day series of numerals on card 4 is under the initial T (Tuesday) the day of the week on which the month of April begins.

Card 3 has a number of radial projections 21, at least one of which, at all times, projects through the opening 22 (see Fig. 4) between the bottom edges of the front and back cards 1 and 2. The said projections constitute convenient finger grips for rotating the card 4 to the proper position with relation to the year card 3 and the front card 1.

To prevent the turning of the card 4 too far, in either direction, and the possible showing of blank space at either end of the series of days numbers through the opening 13, a pair of stops 23—23 are located on the outer face of the card 4 and they are so spaced, relatively to the annular opening 19 in the years card, that they abut the edges of the said opening 19 at the respective ends of the day numbers, as will be clearly understood by referring to the dotted lines *y* and *z* and the arrows *c* and *d* on Fig. 1.

Although the days numbers that show through the openings 19 and 13, in the year and the front cards, respectively, always include 31, it is understood that the 31st day is of necessity dropped when the calendar is set for the months of less than thirty one days, the 30th day being likewise dropped, when the calendar is set for February of a leap year.

From the foregoing description taken in connection with the drawings, the complete arrangement, the manner of its use and the advantages of my invention is apparent.

By combining the two rotatably movable calendar cards or disks 3 and 4, mounting them between relatively stationary front and back cards, and placing the years, months and days indicia on the two disk cards 3 and 4 and the front or face card, as stated and shown, the adjustment of the several calendar disks to suit the particular year, month and week day combinations, can be so easily accomplished that brief printed directions on the front or face card, as shown in Fig. 1, are sufficiently explanatory to indicate how to set the calendar for a new month and year.

By arranging the numbers that designate the year on the card 3 and the month and day numbers on the card 4 and dividing the day numbers into nineteen sections, as shown and described, any seven of the said sections comprising a sector that registers with and shows through the opening 13 in the front plate 1, not alone provides a compact assemblage of the different year, month and day indicator numbers, but also provides for easily and conveniently effecting the necessary adjustments for setting the calendar for the different months during any specific year.

The arrangement of the different sets of indicator numerals makes the calendar a "direct reading" one, since it requires no study or calculations to determine the movement of the knob 14 to bring the year numbers in line and for turning the card 3 to bring the week days into proper position.

Another and important advantage attained by arranging the year, month and day indicating numbers, as stated and shown, is that the simple addition of a supplementary number for a leap year February is instantly distinctive from the regular month of February that has twenty-eight days.

Arranged as shown, to operate my calendar, it is only necessary to move the month card one space, from black to red, which changes the month section one radial space, thus producing the necessary change when it is desired to set my calendar for a leap year February month.

The stops on the day-month card that engage the year card or middle section 3, at certain points, also prevents the month position from showing blank.

The parts that constitute my calendar can be easily and economically made and assembled, and the adjustments necessary to set them for the different months can be effected by anyone.

The arrangement of the year, month and day members are such that no key tables or auxiliary selected numbers are necessary, especially since, in my construction, the "week days" remain stationary.

While I have illustrated and described an inexpensive, preferred and practical embodiment of my invention, it is to be understood that changes in the details, as set forth and illustrated, may be readily made without departing from my said invention. For example, the means described, the slot 9 in the face plate 1 and the finger knob devices 14 and 15, for turning the year card or disk 3, may be entirely omitted, since the opposite edges of the opening 17 can be used for pushing the card 3 laterally, relatively to the long opening 11 in the face plate to show the selected year designation in proper position to show through the opening 10.

Again, the finger extension 21 on the peripheral edge of the month-day card or disk 4 may be also omitted and the stops 23—23 on the face of said disk 4 may be pushed laterally to adjust the disk 4 to the desired positions, since the relation of the said two stops 23—23, the opening 13 in the face plate 1 and the opening 19 in the year disk 3, is such, that one of the stops 23 is, at all

times, exposed through the openings 19 and 13, so it may be readily engaged for turning the disk 4 to effect the desired adjustment thereof.

What I claim is:

1. A calendar comprising a relatively fixedly held face plate having a large display opening in its lower part and two openings at the upper portion and provided with designations for the week displayed in order along one of the horizontal edges of the large display opening, a pair of disks mounted on the back of the face plate, a pivot connection located between the lower and upper openings in the face plate and on which pivot the pair of disks are axially and independently rotatable, the front one of the said disks having year designations in position for displaying any selected year designation through one of the upper openings in the face plate, the said front disk having a small opening in line with the other opening in the face plate, the latter opening being laterally extended, relatively to the said small opening in the front disk, the said front disk having a large opening in the lower part, constantly extending across the large opening in the face plate, the inner disk having month designations in position to be selectively displayed through the small opening in the front disk and having designations for the days of the week and month arranged for being selectively adjusted to position for being displayed through the large openings in the lower part of the outer rotatable disk and the face plate.

2. A calendar comprising a relatively fixedly held face plate, two calendar disks, one of which constitutes a year card and the other a month-day card, a single pivot that connects the two cards to the face plate and on which the cards are axially and independently rotatably mounted, the said face plate having two openings above the pivot and an opening below the pivot, the several openings being in vertical alinement, the front year card having year designations above its axis and arranged for displaying any selected one of the year designations through the uppermost opening in the face plate and having an opening below the year designations always in register with the other upper opening in the face plate and having an opening below its axis always in register with the lower opening in the face plate, the day-month disk having month designations above its pivot arranged to expose any selected month through the upper opening in the outer or year disk and the coincident opening in the face plate, said day-month disk having day designations below its axis, the said days designations being arranged for exposing a complete month of days under any adjustment of the said disk for bringing the selected month designation to view.

3. A calendar comprising a relatively fixedly held front plate, two calendar disks, one of which constitutes a year card and the other a month-day card, means connecting the said plates and cards, upon which they are mounted for independent rotation, the said front plate having openings above the pivot through which the year and month designating numbers are exposed, and an opening below the pivot through which the day-month designating members are exposed, week day designations along the lower opening, the year card having an upper opening adapted to expose a selected month designation on the day-month calendar card and a lower opening through which the days of a month designations on the day-month calendar card are exposed, means for rotatively adjusting the two calendar cards, the year designations on the year and the month cards and days of a month designations on the day-month card being concentrically arranged, the said month designations including a supplemental designation that indicates a leap year.

4. A perpetual calendar comprising relatively fixedly held front and back plates, two calendar disks between the said front and back plates, one of such disks constituting a year card and the other of such disks constituting a month-day card, means pivotally connecting the said front and back plates and the cards between the said plates upon which means the cards are mounted for independent rotation, the front plate having openings above the pivot connection through which the year and month designating numbers are exposed and an opening below the pivot connection through which the month-day designating members are exposed, week day designations along the lower opening, the year card having an upper opening adapted to expose a selected month designation on the month-day calendar card, and a lower opening through which the days of the month-day designations on the month-day calendar card are exposed, means for rotatably adjusting the two calendar cards, the year designations on the year and the month cards and the days of a month designation on the month-day card being concentrically arranged, the said year designations including a supplemental designation which indicates a leap year to be exposed through the year opening in the front plate.

5. A perpetual calendar comprising a front plate and a back plate, two calendar disks between the front and back plates, one of which constitutes a year card and the other a month-day card, means connecting the said plates and cards, upon which they are mounted for independent rotation, the said front plate having openings above the pivot

through which the year and month designating numbers are exposed, and an opening below the pivot through which the day-month designating members are exposed, week day designations along the lower opening, the year card having an upper opening adapted to expose a selected month designation on the day-month calendar card and a lower opening through which the days of a month designations on the day-month calendar card are exposed, means for rotatively adjusting the two calendar cards, the year designations on the year and the month cards and days of a month designations on the day-month card being concentrically arranged, means for rigidly connecting the said front and back plates at the corners thereof, the card disks being of less diameter than the distance space between the connections for one end of the two plates, whereby, when the pivotal connection that joins is removed the rotatable calendar cards can be slid edgewise from between the face and back plates.

WALTER L. JONES.