

(No Model.)

A. SACHS.  
CALENDAR.

No. 476,929.

Patented June 14, 1892.

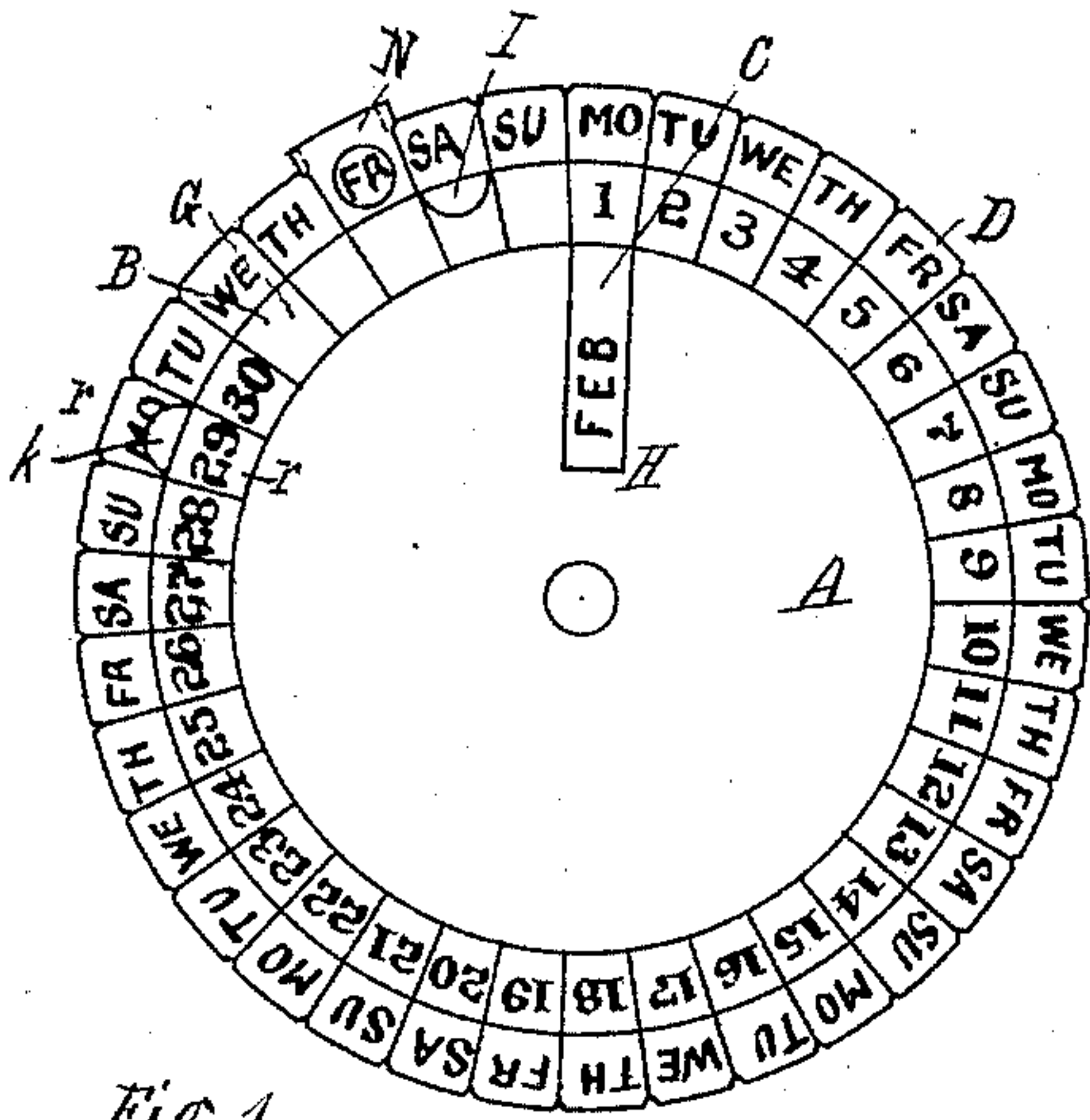


Fig. 1.

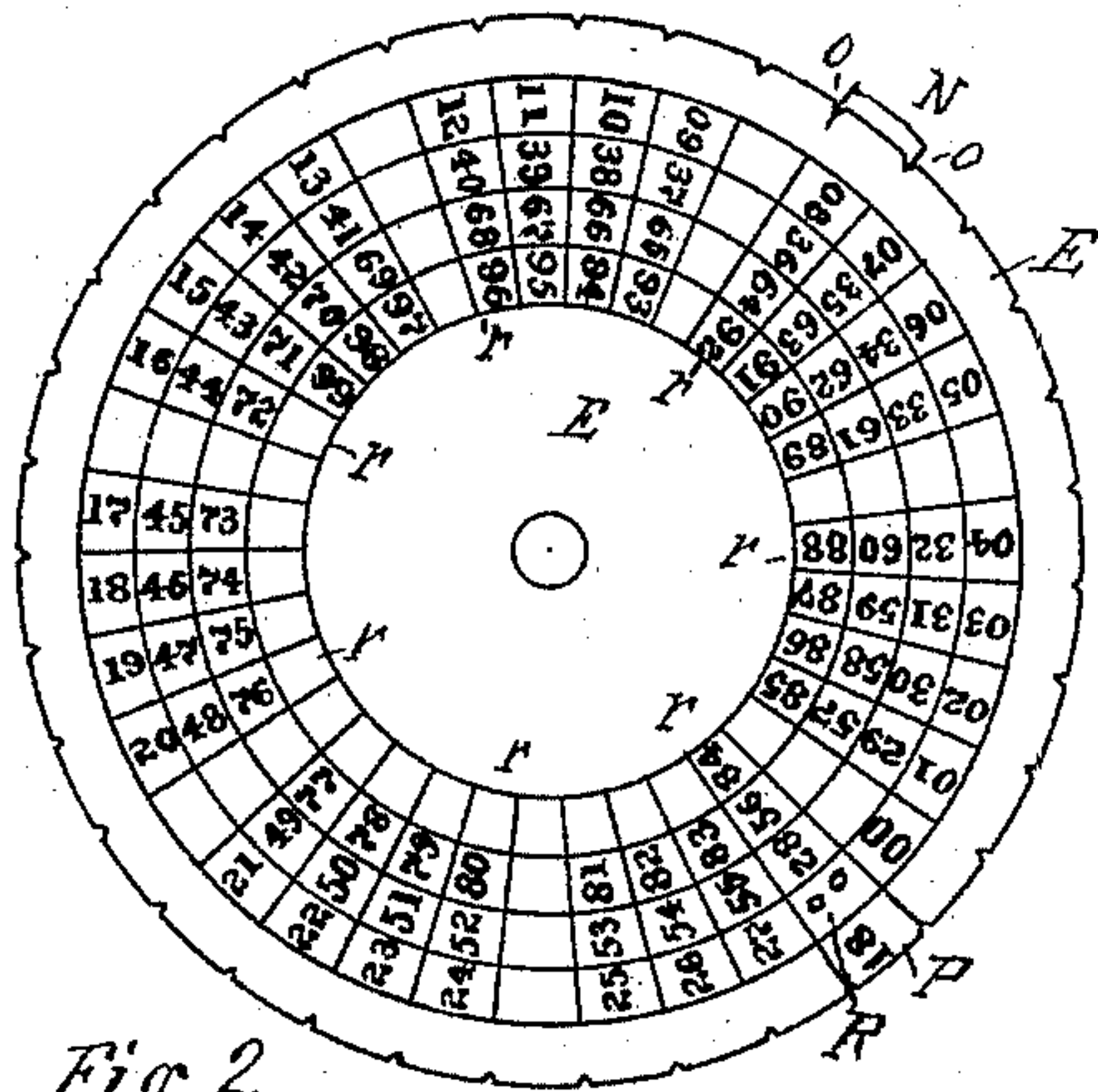


Fig. 2.

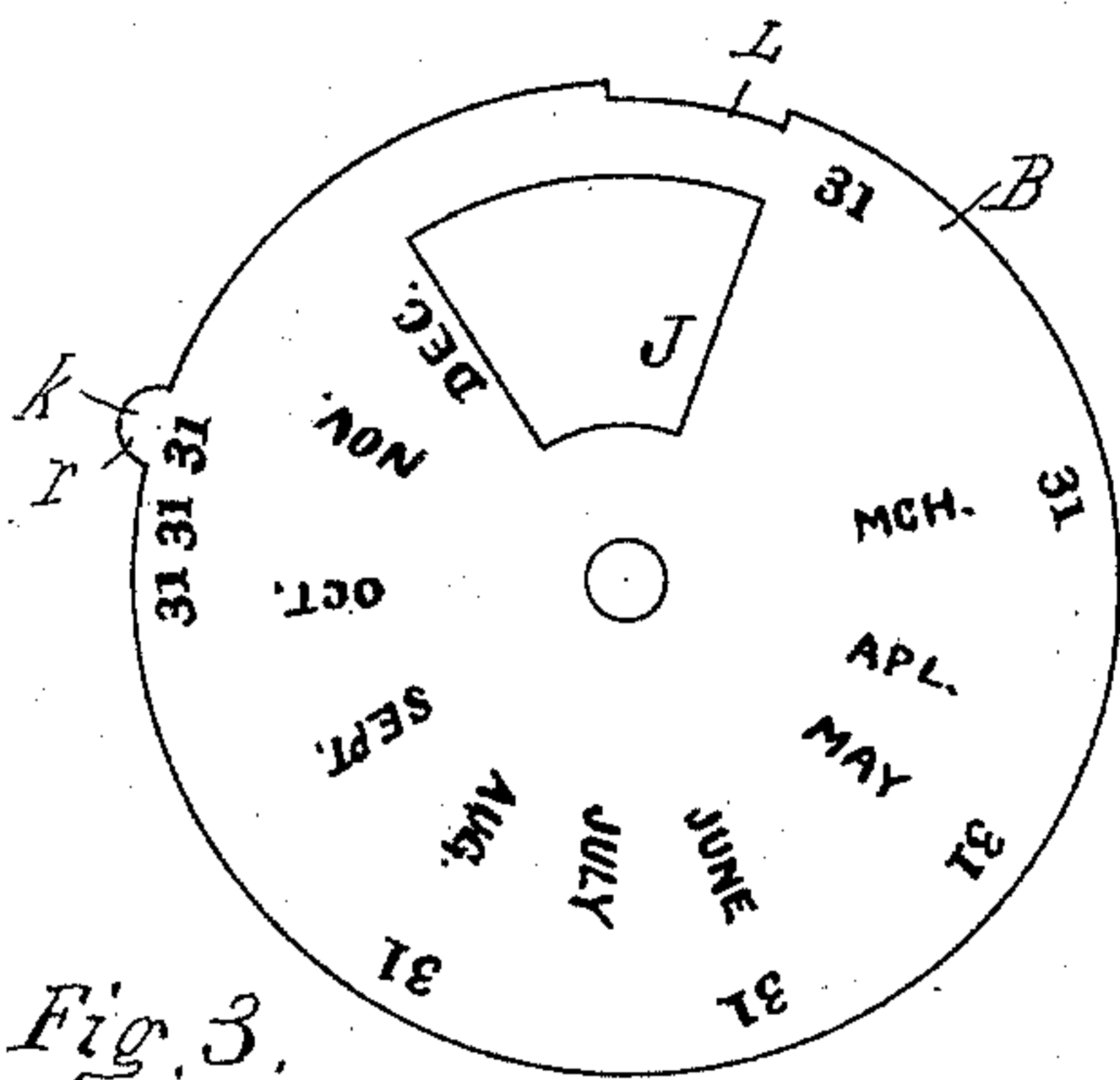


Fig. 3.

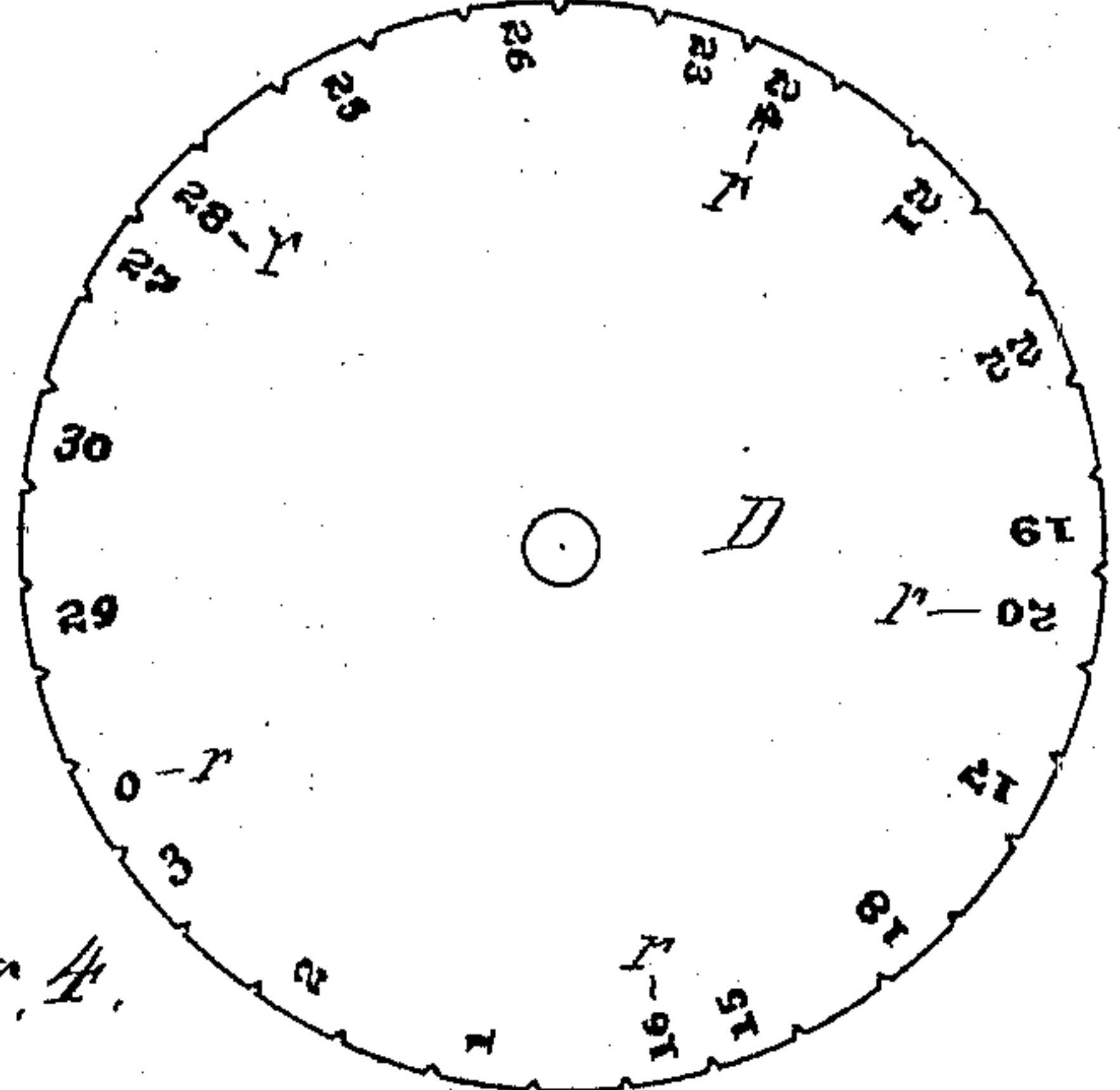


Fig. 4.

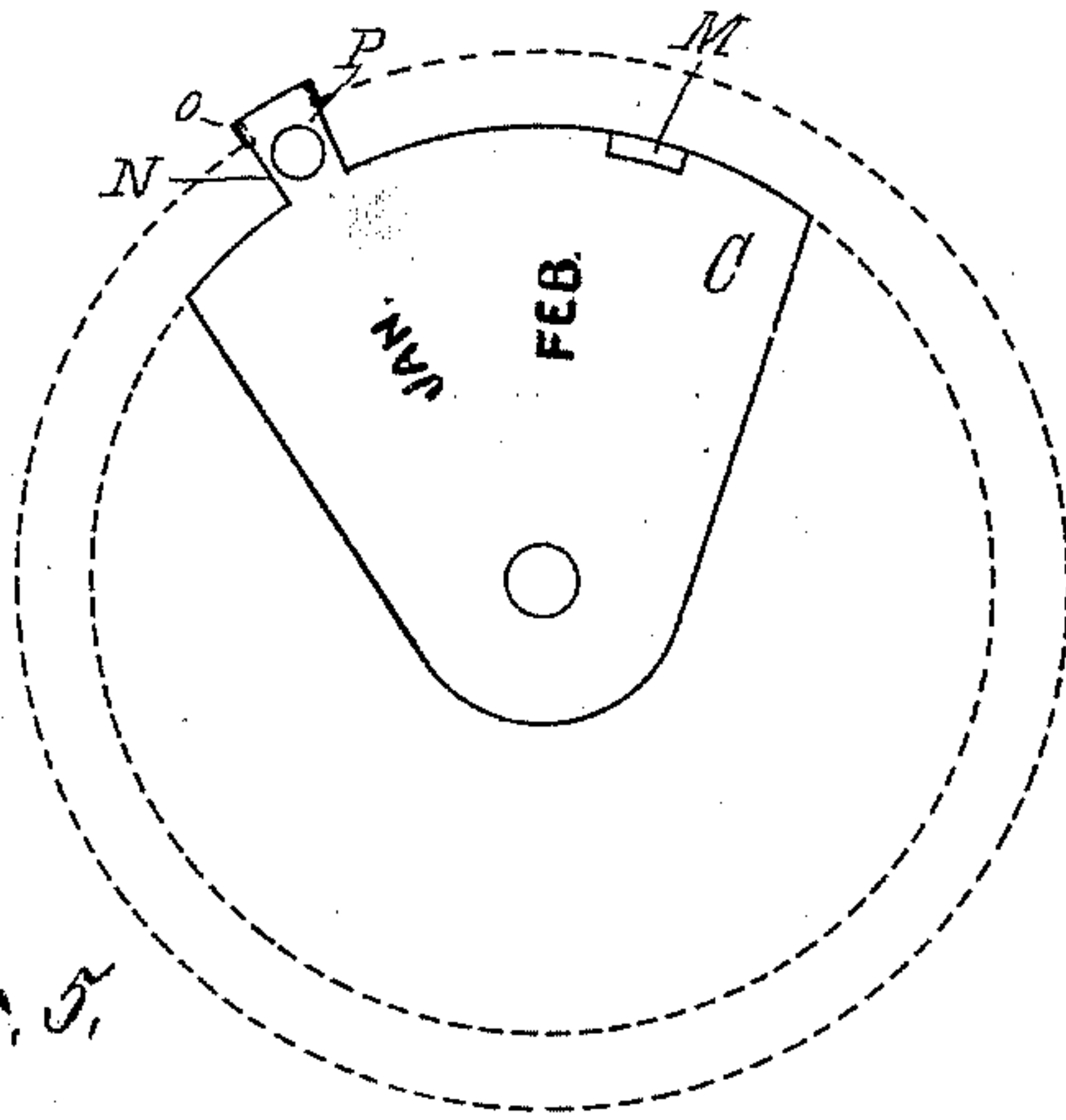


Fig. 5.

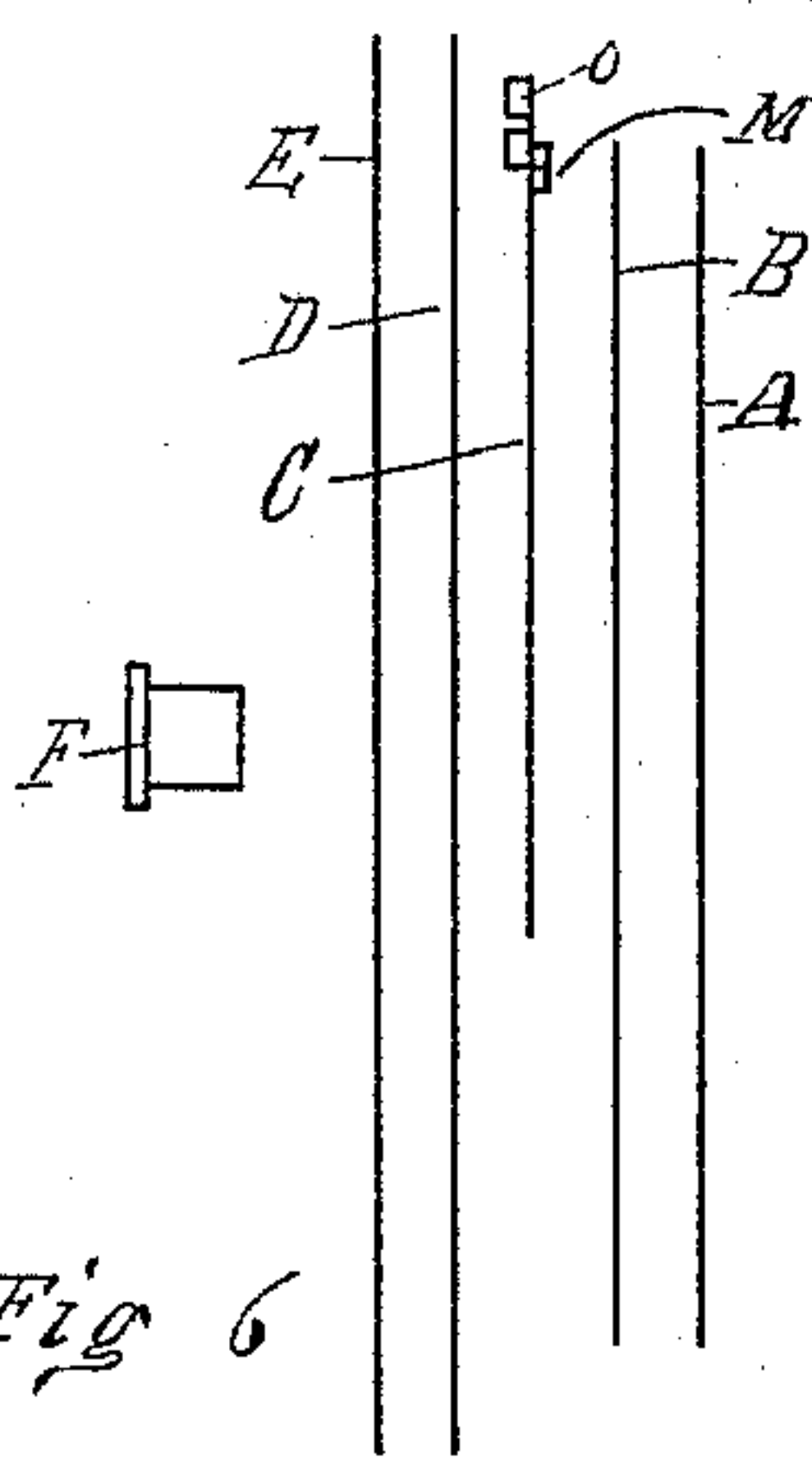


Fig. 6.

Witnesses Edwin J. Schroder  
John Seward

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# UNITED STATES PATENT OFFICE.

ALBERT SACHS, OF HAMILTON, OHIO.

## CALENDAR.

SPECIFICATION forming part of Letters Patent No. 476,929, dated June 14, 1892.

Application filed February 23, 1892. Serial No. 422,475. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT SACHS, of Hamilton, Butler county, Ohio, have invented certain new and useful Improvements in Perpetual Calendars, of which the following is a specification.

My invention relates to that class of perpetual calendars composed of a plural number of circular disks having appropriate characters inscribed thereon, centrally pivoted together, and adapted, respectively, to radial adjustment; and the objects of my improvements are to correctly indicate any date within a stated period of time by the special arrangement of the characters on the various disks and the manner in which the disks are radially or axially adjusted, respectively, on a central pivot. These objects are attained in the following described manner, as illustrated in the accompanying drawings, in which—

Figure 1 is a front view of the calendar adjusted to indicate the month of "February." Fig. 2 is a rear view of the same adjusted for the year "1892." Fig. 3 is a front view of intermediate disk B. Fig. 4 is a rear view of intermediate disk D. Fig. 5 is a front view of the section of a disk resembling a sector. Fig. 6 shows edgewise the respective disks composing the calendar arranged in their proper order to be connected by rivet F, but slightly separated.

In the drawings, A represents the front disk of the calendar and is shown in place in Fig. 1. It is of the same diameter as disks B and sector C, and the numerical characters from "1" to "30," inclusive, are inscribed on its front marginal surface in regular order from left to right to indicate the number of respective days of the month. A gap or notch G is made in its edge immediately after the number "30," to permit the number "31" on the margin of disk B, placed immediately thereunder, to be respectively shown through said gap.

H represents a slot cut through disk A, through which may be shown, respectively, the names of the months on disk B and sector C thereunder.

I is a lip extended from the edge of disk A, by which it may be turned to a desired position.

Disk B is perforated by an opening J in the form of a sector to expose the names "Jan." and "Feb." on sector C thereunder. It is provided with lip K, extended from its edge, by which it may be turned, and gap or notch L is made in its edge to receive guide M of sector C. Its front face is inscribed with the names of the days of the last ten months of the year, together with the numbers "31" in their respective situations, as shown in Fig. 3.

Disk or sector C is located under the opening J in disk B, and is provided with guide M, turned up from its edge to engage the edge of disk B in notch or recess L, to permit the radial adjustment of disk B thereon to the extent of one of the marginal numbers on disk A.

N is an arm extending radially from the edge of sector C, having a portion of each of its side edges turned downwardly to form hooks or flanges O, vertical to the plane of said sector and arm, and adapted to engage with disks D and E through the notches in the edges thereof. Said arm is provided with opening P to increase its flexibility and to show the days of the week on disk D thereunder.

On the front face of sector C is inscribed the characters "Jan." and "Feb.," to represent the first two months of the year.

Disk D is of sufficiently greater diameter than disk A to receive on its face margin the abbreviated days of the week in five successive series, extending from left to right, respectively, coinciding with the numbers for the days of the month on the margin of disk A, and on its rear marginal surface is inscribed the several numbers representing centuries, as shown in Fig. 4. Its edge is formed with a series of thirty-five narrow notches located at the extremity of radii passing between the days of the week on its face, said notches being adapted to receive the hooks O of arm N.

Disk E is devoid of characters on its front face, but its rear surface contains the numeral characters from "0" to "99" inclusive, arranged from right to left in concentric circles and spaced by intersecting radial lines, as shown in Fig. 2.

Notch or gap R is made in its edge to show the respective numbers of the centuries on



disk D. Its edge is also formed with a series of thirty-five small notches to coincide with those of disk D, and adapted to also engage with hooks O.

5 Lug K, together with all the numeral characters marked with a small "r," is to be used for leap-years, and should be red or some other uniform color different from that of the remaining characters.

10 The several disks are to be pivoted together by central rivet F in the order shown in Fig. 6. Washers may be interposed between them, if desired.

To adjust the calendar for any date, arm  
15 N is lifted to detach hooks O from the notches in the edges of disks D and E. Disk E is then turned on its center until the number on the margin of disk D, representing the desired century, is seen through gap R, when  
20 arm N is brought in a radial line with the number on the rear of disk E, which represents the desired year of the century. Hooks O are now engaged in the notches in the edges of disks D and E, terminating the radii that  
25 inclose the said number of the year. The adjustment is now completed for the year selected. Disk A is now turned on pivot F until the name of the desired month is exposed through slot H, said name being in-  
30 scribed on either disk B or C. Should the year chosen be a leap-year, it will be so indicated by the red or other special color of either the number representing the year on disk E or the number representing the cen-  
35 tury on disk D, sometimes as is evident by both. When leap-years are so indicated, disk B must be turned to the right on sector C to the limit of notch L, when lip K will radially coincide with number "29" on disk  
40 A, with which it agrees in color and which number represents the last day of February on leap-years. This adjustment turns the months succeeding February one day later to allow for February 29. For the same rea-  
45 sons on years or centuries not leap-years disk B should be turned to the left to the limit of notch L, when said lip K will radially coincide with the number "28" on disk A.

In the foregoing manner the calendar will  
50 be adjusted for any desired month and year, when the day of the month on disk A will radially coincide with the day of the week on the face margin of disk D. When slot H ex-  
55 poses the name of a month of thirty-one days, a respective number "31" on the margin of disk B will appear through gap G in the edge of disk A, immediately after number "30" thereon.

The numbers representing centuries on the  
60 margin of disk D may all be omitted except the characters "0," "1," "2," and "3." The "0" is to be used for leap-year centuries, being those that are evenly divisible by four hundred. The numbers "1," "2," and "3" are  
65 to be used, respectively, when they represent the number of hundreds of the remainder resulting from a division of the number of any

century by said four hundred. The calendar is thus substantially perpetual, as the dates for which it is adapted are without reason- 70  
able limit.

Disks B and C taken together are substan-  
tially one adjustable disk by which the last  
ten months of the year thereon inscribed may  
be turned forward one day to compensate for 75  
February 29 of leap-years. By making sec-  
tor C a complete disk instead of a sector it  
will fill the entire space between disks B and  
D, which is desirable. The several disks are  
preferably of a plain surface and circular in 80  
form, but not necessarily so. They may be  
composed of sheet-brass, aluminum, or other  
metal, or of celluloid, card-board, or any other  
appropriate material, and the characters may  
be printed, stamped, or inscribed thereon in 85  
any manner desired. The central pivot may  
be adjustable to regulate the friction between  
the disks, when the notches may be omitted  
from the edges of disks D and E, and also the  
hooks O on arm N. 90

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

1. A calendar comprising a series of disks  
rotatably secured upon each other at a com- 95  
mon center, the rear disk being provided with  
a notch in its edge and numbers arranged ra-  
dially and concentrically upon its surface to  
indicate the different years of the different  
centuries, and the next to the rear disk being 100  
provided with numbers arranged concentri-  
cally to register with the notch in the rear  
disk to indicate the number of the century,  
and the front disks being provided with means  
for indicating the months and days, substan- 105  
tially as set forth.

2. A calendar comprising a series of disks  
rotatably secured upon each other at a com-  
mon center, the rear disks being provided with  
slits in their outer edges which register with 110  
each other, and the outer disk being provided  
with a notch or a cut-away portion between  
two of said slits, also with numbers arranged  
radially and concentrically upon its outer sur-  
face to indicate the years of the century, and 115  
the other disk being provided with numbers  
arranged concentrically upon its face to reg-  
ister with the notch of the outer disk to indi-  
cate the number of the century, and the front  
disks being provided with means for indicat- 120  
ing the month and days of the year, and one  
of them being also provided with an arm ex-  
tending out to the edge of the rear disk and  
provided with hooks which are adapted to en-  
gage with the slits in the edges of the rear 125  
disks, substantially as set forth.

3. A calendar comprising a series of disks  
rotatably secured upon each other at a com-  
mon center, the rear disks being provided with  
means for indicating the century and the 130  
number of the year of the century and the  
front side of one of said disks being provided  
with the names of the days of the week ar-  
ranged concentrically around its outer edge,



and the front disks being of a less diameter than the rear disks, and the outer one of said front disks being provided with two openings and a series of numbers around its outer edge to correspond with the names of the days upon the rear disk, and the next to the outer disk being provided with the names of the months of the years and with characters to indicate the last day of the month, said characters and names of the months being visible through the openings in the outer disk, substantially as set forth.

4. A calendar comprising a series of disks rotatably secured upon each other at a common center, the rear disks being provided with means for indicating the number and years of the centuries and the front surface of one of them being provided with the names of the days of the week, and the front disks being of less diameter than the rear disks and provided with names for indicating the months and days, the names of the months being upon two disks, one of which is stationary relatively to the rear disks and the other one is movable relatively thereto one space, whereby the month following January and February can be moved one space forward for leap-year, substantially as set forth.

5. A calendar comprising a series of disks rotatably secured upon each other at a common center, the rear disks being provided with means for indicating the number and years of the century and one of them being provided upon its front surface with the names of the days of the week, and the front disks being of a less diameter than the rear disks and provided with means for indicating the names of the months and the number of days of the month, the names of the months being upon two disks, one of which is provided with means for attaching it to the rear disk and

with a catch for engaging with the intermediate front disk, said intermediate front disk being provided with a notched edge to be engaged by the catch of the lower front disk, whereby it may be rotated one space for leap-year, and being also provided with a projection for rotating it and indicating the odd day in leap-years, and also with openings through which the names of the months upon the lower disks may be seen, and the outer front disk being provided with two openings, through which the names of the months upon the other disks may be seen, and also the character upon the intermediate front disk to indicate the last day of the month, substantially as set forth.

6. A calendar comprising a series of disks rotatably secured upon each other at a common center, the rear disk being provided with the names of the days of the week and the front disks being of less diameter than the rear disk and provided with numbers from one to thirty to register with the names of the days of the week of the rear disk, and the intermediate front disks being provided with the names of the months and with characters to indicate the last day of the month, the lower one of said intermediate disks being adapted to be secured to the rear disk and the next intermediate disk being rotatable one space relatively thereto to indicate leap-year, said front disk and the next one thereto each being provided with openings through which the names of the months and the character for the last day of the month can be seen, substantially as set forth.

ALBERT SACHS.

Witnesses:

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