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Penn

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[54] CALENDAR AND DATE COMPUTER

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[51] **Int. Cl.** **G06c 3/00**

[58] **Field of Search** ..... 235/88, 84, 78, 85 FC, 70 R, 235/70 A; 40/113, 115

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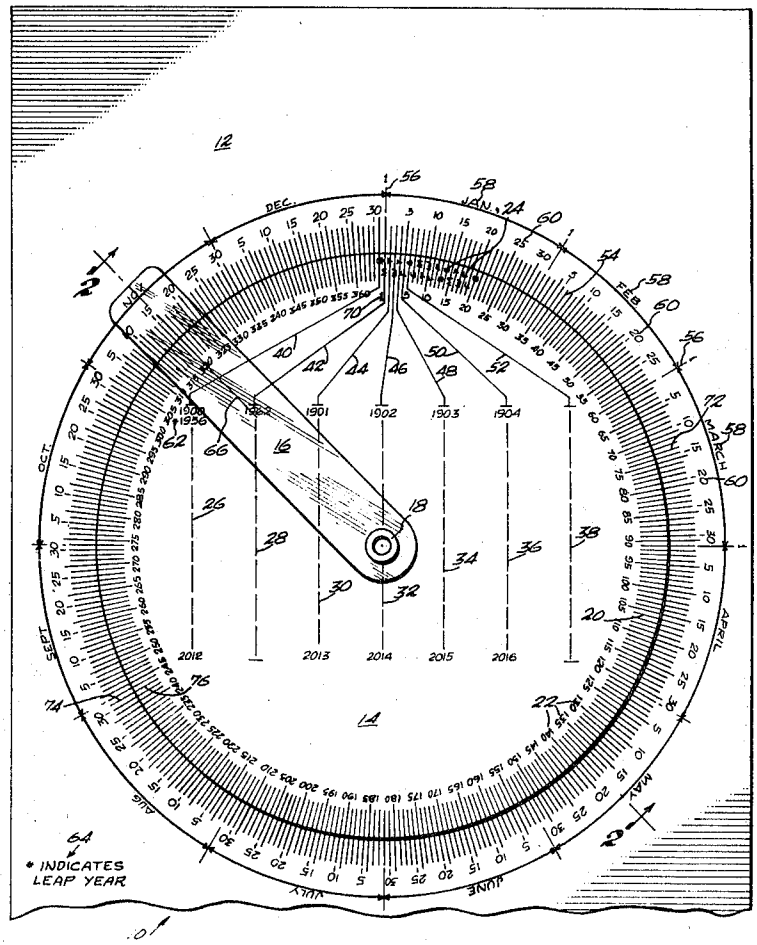
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[57] **ABSTRACT**

A calendar to record the correct date over a span of many years, for instance from the year 1950 to the year 2025, and to count calendar days from any point in the year, either into the future or back in time. Indicia are also provided to determine what day of the week is associated with any particular date.

10 Claims, 2 Drawing Figures



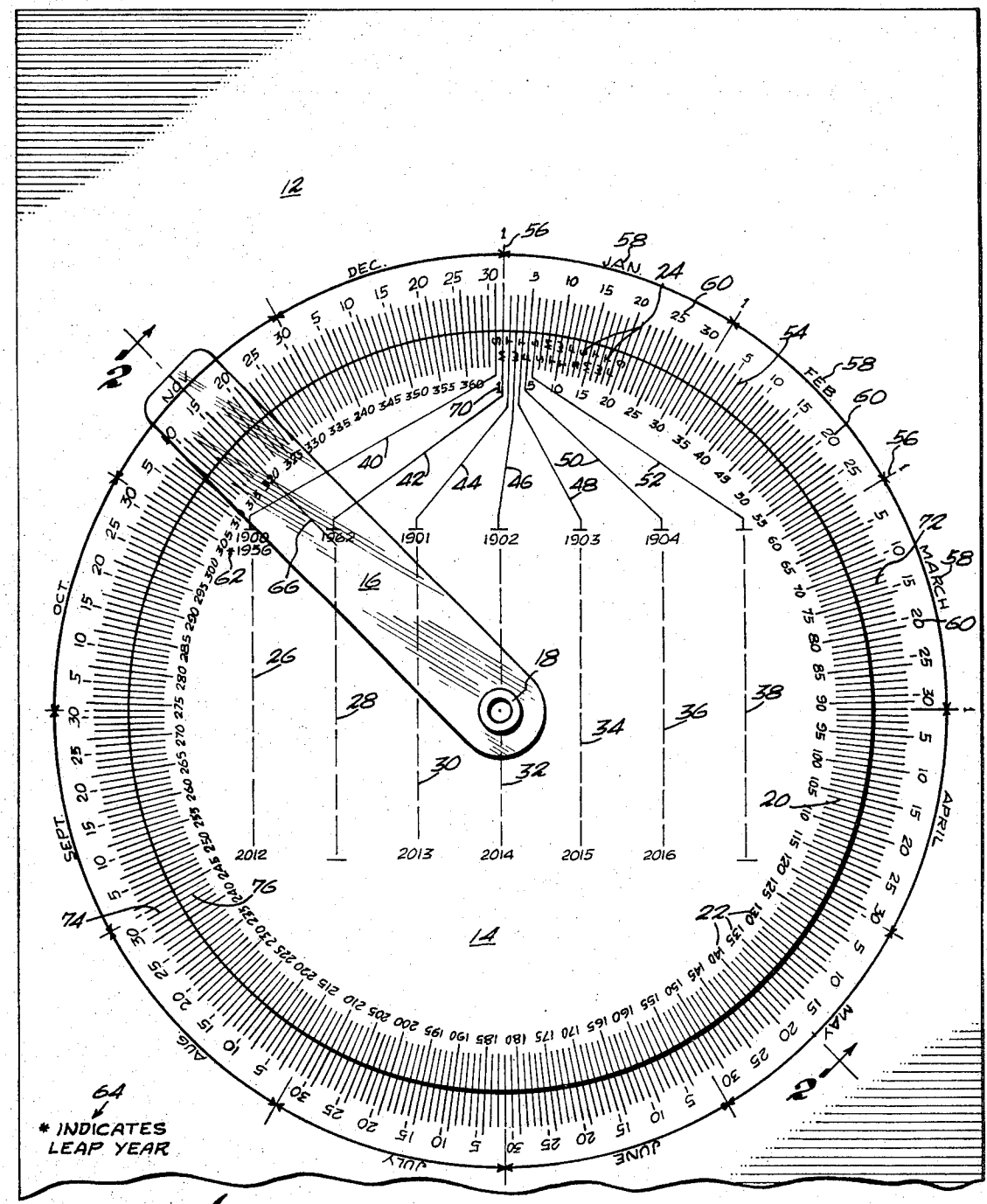

12
DEC.
JAN.
FEB.
MARCH
APRIL
MAY
JUNE
JULY
AUG.
SEPT.
OCT.
NOV.
1900
1956
1962
1901
1902
1903
1904
2012
2013
2014
2015
2016
14
* INDICATES LEAP YEAR
10

Fig. 1


16
18
14
12

Fig. 2

CALENDAR AND DATE COMPUTER

OBJECTS AND ADVANTAGES OF THE PRESENT INVENTION

The present invention pertains to calendars for determining the date as well as computing future or past dates and the days of the week associated therewith.

It is a principal object of this invention to provide a calendar comprised generally of a base member with a rotatable dial and a rotatable arm assembled thereon on a common pivot.

It is a further object of the present invention to provide 365 numbered calibrations about the periphery of the rotatable dial, representing the days of 1 year, with indicia on each calibration identifying the days of the week.

A further object of the instant invention is to provide 365 like calibrations, on the base member, about the dial periphery which are in effect radial extensions of the dial calibrations.

A still further object of this invention is to provide twelve radially extended lines on the base member dividing the 365 calibrations thereon into properly numbered groupings representing the twelve months of the year.

Yet another object of this invention is to provide, on the dial, seven groupings of year dates, with leadlines extending from each grouping, identifying, on the first week of the year, the day of the week for each group on which the first of January falls.

Another object of the present invention is to provide a radially scribed hairline on the rotating arm.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a top plan view of the compute-a-date calendar of the present invention; and

FIG. 2 is a cross sectional view taken along the line 2—2 of FIG. 1 and looking in the direction of the arrows.

DETAILED DESCRIPTION OF THE DRAWINGS

With reference to the drawings, in which like reference numerals designate like or similar parts throughout the two views, the numeral **10** indicates the calendar device, generally comprised of a base member **12**, a rotatable dial **14** and an overlying, radially extending rotatable arm **16**.

The rotatable dial and arm **14** and **16** are attached to the base member **12** on a common pivot means such as the eyelet **18** with the dial inbetween the base member **12** and the rotatable arm **16**. While both the dial and arm **14** and **16** are freely movable about the pivot **18**, sufficient frictional forces, to prevent accidental displacement thereof, is desirable.

Referring to FIG. 1, the dial **14** is provided with 365 equally spaced calibrations **20** which are numbered as at **22**. The calibrations **20** represent the days of 1 year. As indicated at **24** on the first 20 calibrations, indicia is provided on all 365 calibrations, indicating the names of the days of the weeks. The indicia may be in the form of initials, as shown, or abbreviations.

Seven columns of year dates, **26** through **38** are provided, on the dial **14**, in the annular space defined by the 365 calibrations. These year dates may cover a

substantial time span, 50 to 100 years, for example, and they are grouped according to the day of the week on which the first of January falls. In other words, in all of the years indicated in column **26**, the first of January occurs on a Sunday, the years in column **28**, the first of January occurs on a Monday, etc.

Lead lines **40** through **52** extend from the columns **26** through **38** to the respective days of the week, in the first week of the year indicated by the calibrations **20**, on which the first of January occurs.

As illustrated in FIG. 1, the base member **12** is provided with 365 calibrations **54** which are, in effect, radial extensions of the calibrations **20** on the dial **14**. However, the 365 calibrations **54** on the base member **12** are provided with twelve radially extending dividing lines **56**, depicting the 12 months of the year as indicated by the indicia **58**, in the form of abbreviations of the respective months, between each pair of lines **56**. Numeral indicia **60** is provided to indicate the number of days in each month.

It should be noted that each year date, in the columns **26** through **38**, representing a leap year is identified by an asterisk **62** as noted at **64** on the base member **12**.

The radially extending rotatable arm **16** extends outwardly across the calibrations **20** and **54** on the dial and base member **14** and **12**. A radially extending indicator marker line **66** is scribed in the arm **16** across both sets of calibrations **20** and **54**.

The year dates indicated in the columns **26** through **38** can be extended either backward, or into the future and, in fact, the calendar device of the present invention is operable with any year date, not appearing thereon, if the operator is aware of the day of the week on which the first of January falls and if it is a leap year.

In operation, the calendar device of the present invention can be used as a perpetual calendar as follows: the dial **14** is rotated about the axis of the pivot **18** until a lead line **40** through **52**, from the proper column containing the selected year, is aligned with Jan. 1 on the base member. This would, of course, be done on the first of January, and, thereafter, the proper lead line would be advanced one calibration **54** each day to maintain a record of the date and the day of the week. If the calendar is put into operation on a date, other than the first of January, it is only necessary to ascertain the correct date and to set the proper lead line to the calibration indicating that date and to continue the daily operation as above described.

If the operator desires to count the number of calendar days from one particular date to another date, the dial **14** is rotated until the number one **70** of the dial indicia **22** is aligned with the start date. The operator then can make a direct reading from the numeral indicia **22** on the dial **14** which indicates the correct numerical calendar day span between the two dates. For instance, if it is desirable to know the number of days between Mar. 13 and Aug. 31, the lead line **42**, corresponding to numeral one **70**, is rotated into alignment with the calibration **72**, on the base member **12**, which designates Mar. 13 by means of the indicia **58** and **60**. The calibration line **74** on the base member **12**, will then be in radial alignment with the calibration line **76**, on the dial **14**, which indicates, by means of the indicia **22**, that the calendar span is 171 days.

If it is further desirable to know what day of the week on which Aug. 31 falls, the rotatable arm **16** is moved until the scribed line **66** thereon is in alignment with the Aug. 31st calibration **74** on the base member **12**. This is done for memory purposes or to permit a quick reading after the final operation which is as follows. The year date is noted in one of the columns **26** through **38** and using the year 1972, for example, the dial **14** is rotated until the lead line **52** is aligned with Jan. 1 on the base member **12**, because Jan. 1 in the year 1972 fell on a Saturday. The initial or abbreviation **24** on the calibration **20** which is then aligned with the scribed line **66** on the arm **16** will indicate the day as a Thursday. As previously stated, the initials or abbreviations **24** are on all of the calibration lines **20** but are not all illustrated on FIG. **1** for clarity reasons.

Calendar days may be added if desired by using Aug. 31 as the starting date and proceeding as above and the day of the week for any particular date may also be ascertained by proceeding as above described.

If it is desirable to count calendar days back into time, for instance, from Aug. 31 backwardly to Mar. 13, the lead line **42** is set on the earlier date, Mar. 13, and the answer would obviously be the same, 171 days, and the same method, as above described, is used to ascertain what day of the week Mar. 13 falls on. A series of time spans, either forwardly or backwardly, may be added to arrive at an overall time span.

All years marked with an asterisk **62**, as stated, are leap years with an added day, Feb. 29th. After passing Feb. 28th, in these years, because of the added day, the rotatable dial **14** should be moved back one day following Feb. 28th when it is desirable to read the day of the week by means of the indicia **24**. Obviously, one day should be added when counting calendar days between two dates spanning Feb. 28th in any leap year.

Various materials, such as plastics, cardboard, fiberboard, etc., can be used in manufacturing the calendar device of the instant invention, however, the rotatable arm **16** should be transparent to permit viewing the calibrations and indicia therethrough. Other shapes can be used, for instance, a base member and two longitudinal sliding members, in the general form of a slide-rule with all of the indicia and calibrations on the respective members.

What is claimed is:

1. A calendar device comprising,

A. a first member, forming a base, including,

1. 365 equally spaced calibration lines representing the days of 1 year,
2. twelve calibration lines associated with said first 365 lines and dividing same into 12 groupings representing the 12 months of the year, each group containing a number of said first 365 lines corresponding to the number of days in the respective months,
3. indicia, indicating the names of the respective months,
4. numeral indicia, indicating the numerical order of the days of each month;

B. a second member, associated with said base member, said base and second members being movable relative to each other, said second member including,

1. a second 365 equally spaced calibration lines representing the days of 1 year,
2. numeral indicia, indicating the numerical order of the days of 1 year,
3. indicia, indicating the names of the days of the week for 1 year, associated with said second 365 lines,
4. seven lead lines on said second member leading respectively to the seven days of the week as indicated by said name indicia.

2. The calendar device as defined in claim **1** including a third member, movable relative to said first and second members, including a scribed line therealong, positioned to register with any of said equally spaced calibration lines on said first and second members.

3. The calendar device as defined in claim **2** including seven columns of year dates, each column including a plurality of years all beginning on the same day of the week, each of said seven lead lines extending between one of said seven columns and said name indicia to indicate the name of the first day of the year of all of the years in each respective column.

4. The calendar device as defined in claim **3** including a distinctive mark, such as an asterisk, by each year date representing a leap year.

5. The calendar device as defined in claim **4** in which the one ends of said seven lead lines respectively indicate the seven days generally at the first part of the year as represented by said second 365 lines.

6. The calendar device as defined in claim **5** wherein said first member, forming said base, is composed of a generally rectangular flat board formed from any suitable material.

7. The calendar device as defined in claim **6** wherein said second member is formed in the shape of an annular dial, pivotally connected to said first member.

8. The calendar device as defined in claim **7** wherein said second 365 lines are radially disposed about the periphery of said dial and said first 365 lines are radially disposed, on said first member, outwardly of said periphery, forming, in effect, radial extensions of said first 365 lines.

9. The calendar device as defined in claim **7** wherein said third member comprises a transparent, radially disposed arm, pivotally connected to said first member on a common pivot with said second member.

10. The calendar device as defined in claim **7** wherein said seven columns are disposed in an annular center space of said dial, defined by said second 365 lines.

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