(No Model.) 2 Sheets—Sheet 1.

J. M. W. HICKS.

CALENDAR.

No. 457,717. Patented Aug. 11, 1891.

Fig. 1.

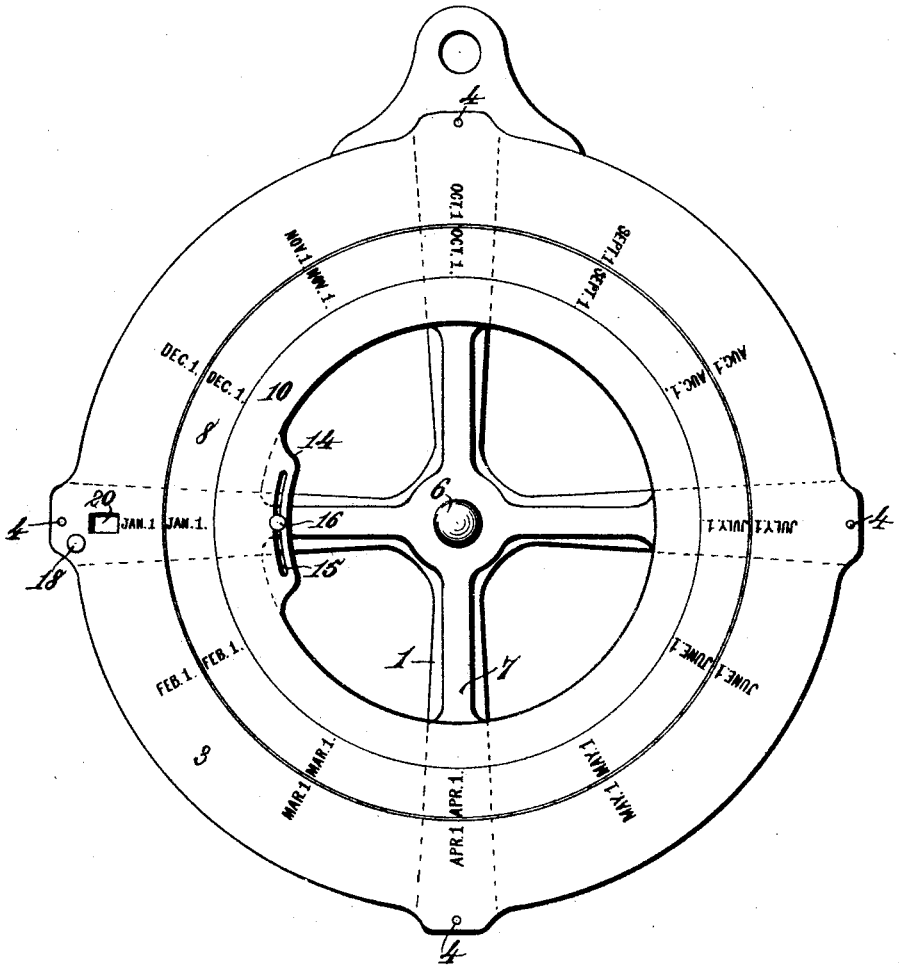
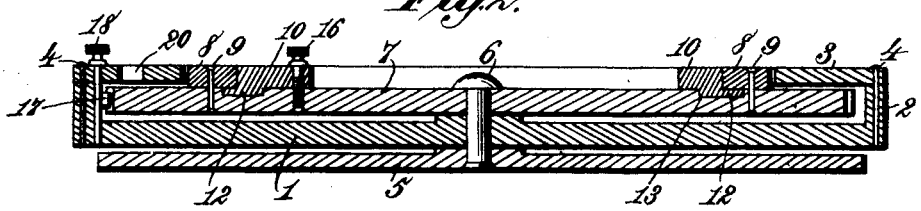


Fig. 2.



Witnesses.
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J. A. Rutherford

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(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

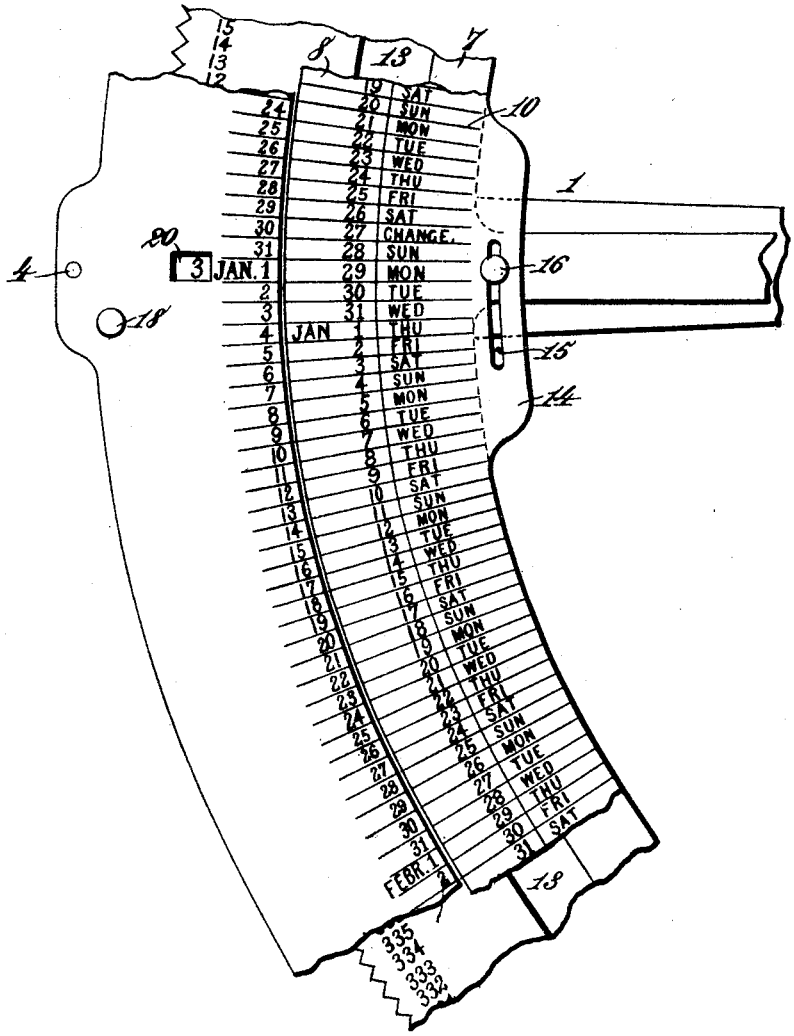
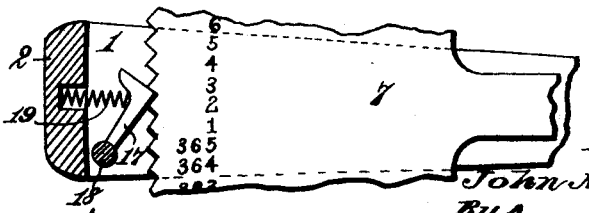


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN M. W. HICKS, OF NEW YORK, N. Y.

CALENDAR.

SPECIFICATION forming part of Letters Patent No. 457,717, dated August 11, 1891.

Application filed March 14, 1891. Serial No. 385,074. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. W. HICKS, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Calendars, of which the following is a specification.

It is the purpose of my invention to provide a perpetual calendar by which two different dates not more than one year apart may be brought into opposition and the interval of time separating said dates caused to appear in days at a point convenient for inspection.

It is my object, in other words, to provide a yearly calendar which may, by a simple and obvious adjustment, be rendered perpetual, and wherein an independent series of successive dates is provided and rendered adjustable with respect to the current calendar in such manner that any day in any given month may be brought, by a single rapid movement, into line with any day distant not more than one year, and a numeral or numerals simultaneously displayed indicating the number of days intervening, the calendar being also arranged in such a manner that it will show the month and day of the month upon which any given event in the future will take place—as, for example, the maturity of a note, the number of days which must elapse being given.

The invention consists, to these ends, in the several novel features of construction and new combinations of parts, hereinafter fully described, and then particularly pointed out in the claims which follow this specification.

To enable others skilled in the art to understand and use my said invention, I will proceed to describe the same in detail, reference being had to the accompanying drawings, in which—

Figure 1 is a plan or face view of one form of calendar embodying my invention. Fig. 2 is a central transverse section of the parts shown in Fig. 1. Fig. 3 is a detail view upon an enlarged scale of the devices for making the yearly adjustments, correcting the relations between the days of the week and the corresponding days of the month. Fig. 4 is a fractional horizontal section showing the detent locking the pivoted disk.

In the said drawings the reference-numeral 1 indicates, in the form of construction shown, the movable or adjustable member of the calendar, consisting of a disk formed of pasteboard or card-board, of hard rubber, celluloid, metal, or other suitable material. From the edge of this disk, at right angles with its flat face, rises a low flange or collar 2, upon which is sustained an annular plate 3, its outer edge flush, or nearly so, with the exterior face of the flange. Rivets 4, passing through the latter and through the annular plate, unite said parts firmly, giving a structure which is practically the same as if it were formed in one integral piece. The disk 1 rests upon or is attached to a base-plate or support 5 by means of a central pivot 6.

Upon the outer face of the disk 1 is placed a second independent disk 7, its periphery lying close to the interior face of the flange or collar 2. Upon this disk 7 is an annular plate 8, which may be formed of a separate piece, and, if desired, of different material, in which case it will be secured to the flat face of the disk 7 in any suitable manner—as, for example, by means of rivets 9. The disk and annular plate may, however, be formed in one and the same piece, if preferred.

Upon the disk 7, just within the annular plate 8, is an independent flat ring 10, formed of any suitable material and having upon its face, which lies adjacent to the disk 7, flat projecting pieces 12, which lie beneath the inner edge of the annular plate 8 and move in arc-shaped channels 13, formed in the face of the disk 7 or in the under or inner face of the annular plate 8. At a suitable point in said ring is formed a swell or enlargement 14, provided with a curved slot 15, which is concentric with the ring. Through this slot passes a set-screw 16, the threaded point of which enters the disk 7, and by the manipulation of which the ring 10 may be locked or released to permit its adjustment in the manner hereinafter described.

It will be seen from the construction described and shown that the disk 1 may be revolved upon the pivot 6, carrying with it the disk 7 and ring 8, the latter being temporarily prevented from independent rotation by means of a latch 17, mounted upon a pivot 18, which passes through the annular plate 3 and

into the disk 1 close to the flange 2. This latch, which is of angular form, engages with notches or teeth formed in the edge of the disk 7, being thrown into and held in engagement by a spring 19. By turning the pivot-pin 18 by means of its milled head, which lies above the annular plate 3, the disk 7 is released and may be turned independently of the disk 1 and plate 3, carrying with it the plate 8.

Upon the inner marginal portion of the annular plate 3 is imprinted or otherwise indicated the several months of the year in their proper order, and following the name of each month are arranged the numerals, in consecutive order, which designate the days in that month, the whole series from the beginning to the end of the year being arranged in circular order upon the inner portion of the plate 3. These words and numerals may be printed or indicated upon or between real or imaginary radial lines drawn from the center or pivot 6 outward. These lines, whether real or imaginary, pass over the surface of the annular plate 8 and flat ring 10. Upon the face of the former is printed or indicated in any suitable manner a duplicate series of the twelve calendar months with the numerals denoting the days of each month arranged in precisely the same order as upon the annular plate 3 and on or between the same real or imaginary radial lines. Upon the flat ring 10 in like manner are indicated the days of the week in their order, the names being arranged on or between the same radial lines, already referred to. This series of week-days may consist of any number of series from one to fifty-two, in which latter case the first series may be preceded by the word "Change" or any other word or sign denoting the adjustment of the flat ring 10 relatively to the annular plate 8, which is made in the following manner: At the expiration of each year the set-screw 16 is loosened and the ring 10 is rotated until the name of the day immediately following the word "Change" is brought into line with that one of the numerals upon the annular plate 3 denoting the last seven days of the year, which gives the proper enumeration of said day. For example, in the drawings the day immediately following the word "Change" is Sunday. The last Sunday in the year 1890 fell upon the 28th day of December, and by adjusting the flat ring 10 until the designation of that day was brought opposite the numerals 28 in the December series the calendar was set for the ensuing year 1891. The last Sunday of the year 1891 will fall upon the 27th day, and by adjusting the ring 10 until this day is brought opposite the 27th day of December on the face of the annular plate 8 the calendar will be set for the year 1892. I consider it preferable to locate the word "Change" or whatever is substituted therefor directly over the last Sunday of the year, but it is obvious that it may be similarly located with reference to the last Monday, Tuesday, or other week-day at the close of the last month of the current year.

Upon the flat face of the disk 7, outside the annular plate 8 and quite near the periphery of the said disk, is placed a series of figures ranging from 1 up to and including 365, said numbers being arranged in their regular order between or upon the radial lines, by which the other characters described are located upon the annular plates 3 and 8 and the ring 10. These numbers are arranged with the numeral 1 opposite the 31st day of December, as it appears upon the annular plate 8. From this point the numbers proceed entirely around the disk 7, the last number 365 being placed opposite the first day of January, which completes the diurnal series for the year. As the disk 7 is rotated independently, these numbers are successively visible through a small opening 20, formed in the annular plate 3 and arranged directly opposite the characters designating January 1 upon the annular plate 3. The disk is preferably adjusted so as to bring these characters upon the left-hand side directly adjacent to the opening 20, where they may easily and conveniently be read, and when used as a daily calendar the annular plate 8 and disk 7 may be turned to bring the abbreviation or characters indicating January 1 in the same radial line.

In order to ascertain the number of days intervening between two different dates, the disk 7 and annular plate 8 are turned until the two terminal dates are brought side by side, the date upon which the term is to begin to run being shown upon the annular plate 8 and the final date upon the outer series of the annular plate 3. When this adjustment is made, the figures denoting the number of days in the interval or term appear through the sight-opening 20.

It should be noted that in using this calendar the disk 7 and annular plate 8 may be turned from the left toward the right, or in the direction of rotation of the hands of a watch, or in either direction.

By this invention I provide a perpetual calendar by which the number of days between any two dates within a year of each other may be instantly and accurately shown. Moreover, the date of maturity of a note or other instrument having a specified number of days to run may be ascertained by simply turning the disk 7 until the number or figures appearing through the sight-opening 20 correctly denote the days of the term in question. For example, knowing the day upon which the term is to begin, this date is noted upon the annular plate 8, and the disk 7 is then turned until the figures denoting the number of days in the term appear in the opening 20. The last day of the term will then be found upon the annular plate 3 in the same radial line with the first day of the term on the plate 8.

What I claim is—

1. A perpetual and calculating calendar containing two independent series of consecutive dates arranged in parallelism and covering the period of one year, said series being arranged upon parts which are movable with relation to each other in the same or in opposite directions, a series of figures reading from 1 to 365, inclusive, arranged in parallelism with the date series named and carried upon a support moving with said date series, and a series of characters indicating the consecutive week-days, said series having an independent adjustment relatively to one of the date series, substantially as described.

2. A perpetual and calculating calendar containing two independent and parallel series of characters denoting the names of the months and the days in each arranged in proper consecutive order, the characters in one series being arranged side by side or on the same lines with those in the other series and upon independent movable supports, and a series of numbers reading from 1 to 365, arranged side by side with one of the series of month and day characters, the first number being opposite December 31 and the last opposite January 1, said numbers and one of the series of months and days having adjustment in unison with relation to the remaining series, which is arranged upon a plate having a sight-opening showing the numbers in succession, substantially as described.

3. In a perpetual and calculating calendar, the combination, with a fixed support containing the names of the months and an enumeration of the days of each month both in consecutive order, of a movable plate or support containing a similar series of names of the months and enumeration of days and a series of numbers from 1 to 365, the three series being arranged in parallelism, the fixed series being between the two movable series, and a series of week-day characters having parallel adjustment in either direction relatively to the movable series and partaking of the movement thereof, substantially as described.

4. In a perpetual and calculating calendar, the combination, with a disk having an overhanging annular plate with the names of the months and the enumeration of the days in each month arranged concentrically thereon in proper order, of a second disk pivoted upon the first and provided with a raised annular plate lying within the overhanging annular plate on the first disk and provided with a similar series of characters and figures arranged upon or between the same radial lines, the second disk being provided with a series of numbers from 1 to 365 arranged beneath the overhanging annular plate, which is provided with a sight-opening cut opposite the characters indicating January 1, and a flat ring arranged within the raised annular plate and having means for circular adjustment, said flat ring having the days of the week indicated thereon, substantially as described.

5. In a perpetual and calculating calendar, the combination, with an annular plate having indicated thereon the names of the months and numbers following each name and denoting the number of days in said month, the whole arranged concentrically, of a disk pivoted upon the axis of the annular plate and having a raised annular plate lying just within and flush with said annular plate and having indicated thereon a series of characters and numbers which are duplicates of those on the annular plate, a flat ring adjustably mounted immediately within the raised annular plate and having upon its surface a series of characters indicating the days of the week, one of said days being preceded by a space containing a word or character signifying the circular adjustment necessary at the end of the year, a set-screw locking the flat ring, and a latch or detent engaging the disk, the latter being provided with a concentric series of numbers from 1, located opposite or on the same radial line with the 31st day of December on the raised annular plate, to 365, placed opposite January 1, said numbers being placed on the disk beneath the annular plate and shown through a sight-opening therein, said opening being opposite the characters indicating January 1 on the annular plate, substantially as described.

6. In a perpetual and calculating calendar, the combination, with a continuous fixed series of characters denoting the months in their order and the successive numerals for each day in each month, of a parallel duplicate series movable beside the fixed series, an independent adjustable series of letters or characters denoting the days of the week, one of said designations being arranged opposite each of the numerals in the movable series, one of the week-day spaces being occupied by a word or character denoting the change or adjustment at the end of the year to correct the readings for the ensuing year, substantially as described.

In testimony whereof I have hereunto set my hand and affixed my seal in presence of two subscribing witnesses.

JOHN M. W. HICKS. [L. S.]

Witnesses:
T. P. BURGER,
C. V. R. COGSWELL.