May 6, 1924. 1,493,378

W. H. PATTERSON

PERPETUAL CALENDAR

Filed April 20, 1923

Fig. 1.

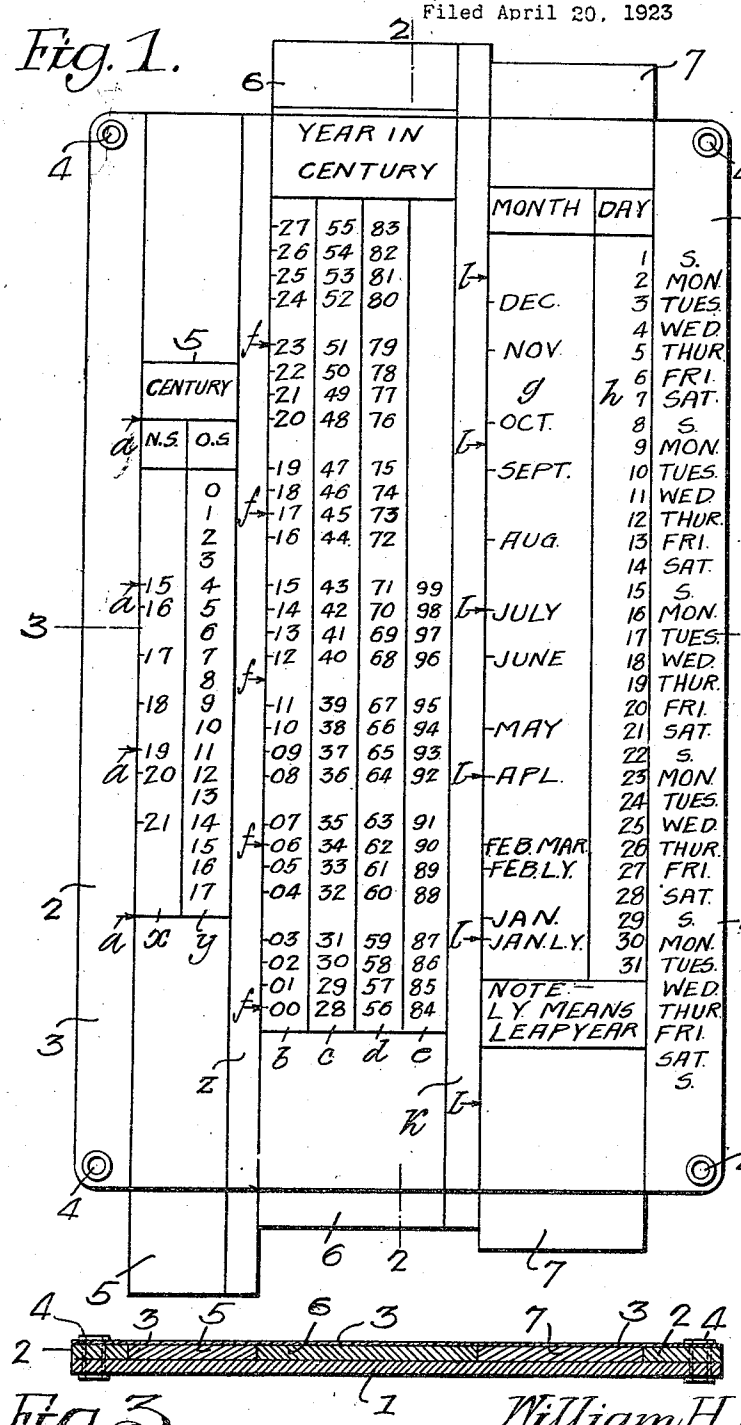


Fig. 2.

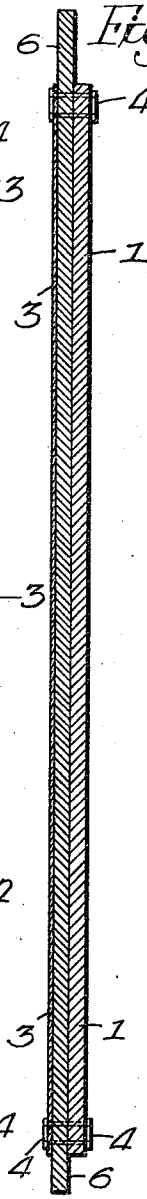


Fig. 3.

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UNITED STATES PATENT OFFICE.

WILLIAM H. PATTERSON, OF MERION, PENNSYLVANIA.

PERPETUAL CALENDAR.

Application filed April 20, 1923. Serial No. 633,483.

To all whom it may concern:

Be it known that I, WILLIAM H. PATTERSON, a citizen of the United States, residing in Merion, Pennsylvania, have invented a Perpetual Calendar, of which the following is a specification.

One object of this invention is to provide a simple, easily operated device for quickly ascertaining the day of the week of any particularly date in any century, from the beginning of or prior to the Christian era,—the device being designed to give correct results both for dates of the old or Julian calendar as well as for those of the present or Gregorian calendar.

These objects and other advantageous ends I attain as hereinafter set forth, reference being had to the accompanying drawings, in which,

Fig. 1 is a front elevation of a perpetual calendar constructed in accordance with my invention; and,

Figs. 2 and 3 are vertical and horizontal sections taken respectively on the lines 2—2 and 3—3 of Fig. 1.

While my device may be embodied in any of a number of different forms, I have found it convenient to make it as shown in the above drawings, in which 1 represents a backing in the form of a flat body of metal, wood, pasteboard, paper or other piece of sufficiently stiff sheet material. This backing is preferably of elongated rectangular outline and along its longitudinal side edges is provided with guides in the form of strips 2—2. Fastened to the outer faces of these strips and extending across the space between them is a cover of transparent sheet material such as celluloid, glass or the like, held to the strips 2—2 and to the backing 1 by eyelets or rivets 4—4. This transparent cover 3 which may be omitted without departing from my invention has preferably the same outline as the backing 1 and coacts with the same to define a chamber or slideway in which are mounted three elongated strips or slides 5, 6 and 7, completely filling said chamber and movable longitudinally relatively to each other.

The first or "Century" slide 5 is divided into two vertically extending columns x and y, in the latter of which is placed a series of numerals running consecutively from zero to seventeen and designated by the symbols "O. S.", indicating that the centuries so designated have dates in accordance with the old system commonly known as the Julian system. In the column x are placed numerals unevenly spaced running consecutively from fifteen to twenty-one, inclusive and these are designated by the symbols "N. S.", indicating that in the centuries which they represent dates are given in accordance with the Gregorian calendar.

At distances apart equal to the space occupied by seven consecutive numerals in the column y, I place on the left hand guide strip 2 a number of arrows or pointers a and it will be understood that the slide 5, which is of such length as to project at either or both ends of the back 1, may be gripped by the fingers of an operator and moved longitudinally to bring any one of the numerals from zero to twenty-one in horizontal alignment with some one of said arrows or pointers a.

The middle or "Year" slide 6 in the case illustrated, is provided with four parallel longitudinally extending columns b, c, d, and e, in which are numerals running consecutively from zero to ninety-nine. The first column b includes those numerals from zero to twenty-seven, the second column c includes numerals from twenty-eight to fifty-five, the third column d has numerals from fifty-six to eighty-three and the fourth column e numerals from eighty-four to ninety-nine.

It will be understood, however, that the number of columns and the number of numerals in each column is immaterial, and I have grouped them as shown merely for the sake of convenience since without departing from my invention, said numerals may be disposed in a greater or less number of columns. In any case the numerals are divided into sets of four each and each set is spaced from the set vertically adjacent to it by a distance equal to the space occupied by one numeral. On the extreme right hand side of the slide 5, I provide a series of pointers or arrows f and make the distance between adjacent pointers equal to seven of the spaces in the columns b, c, d, and e. For convenience of designation, I have placed at the top of the slide 6 the words "Year in century".

The slide 7 is divided into two vertical columns g and h and the first of these, which is adjacent the slide 6, contains the names of the months of the year spaced at

appropriate distances apart and with the exception of January and February of a leap year arranged in their natural order. The names "February" and "March" are on the same horizontal line and January and February of a leap year occur on lines immediately below those on which the same months are designated for years other than the leap year. It is further noted that in this column *g*, the months are named from the bottom upwardly, January of the leap year being at the bottom of the column and December at the top thereof.

The extreme right hand side of the slide 6 is provided with a column *k* in which is placed a third series of arrows or pointers *l* and these are likewise uniformly spaced seven units of distance apart, being designed to coact with the month names in the column *g*.

The column *h* of the slide 7 is designated at the top by the word "Day" and contains numerals running consecutively from one at its upper end to thirty-one at its bottom.

The extreme right hand guide strip 2 has upon its face the names of the days of the week, repeated vertically for any of a number of times, there being in the case illustrated five complete sets of the same.

With a calendar constructed as above described, if it should be desired to ascertain the day of the week on which fell a certain date, for example October 12, 1492, the century slide 5 is moved vertically until the numeral fourteen designating the century of the year above noted, is in horizontal alignment with any one of the arrows or pointers *a*. Thereafter the slide 6 is moved up or down until the numeral 92 is horizontally aligned with some one of the arrows or pointers *f*. The slide 7 is then in turn adjusted until the name of the month, to wit, October, is in alignment with one of the arrows *l*, whereupon it will be found that the twelfth day of the mouth is immediately adjacent or in alignment with the day Friday, thus giving the desired result that the date above given fell upon Friday.

If the year in which a given date occurs is a leap year, and said date falls in February for example, then the slide 7 is manipulated to bring the month designated by L. Y. opposite one of the pointers *l*, whereupon the day of the week may be at once noted in line with the given day of the month.

By the arrangement and method of operation above described, my calendar when once set as noted has the numerals indicating the days of the month all immediately adjacent the names indicating the days of the week for the entire month. Again, it will be seen that the calendar is available for use in giving the day of the week of any date, regardless of whether this is given by the old or new system of reckoning.

My calendar moreover is available for use to ascertain the day of the week of dates prior to the Christian era, for if the given civil year B. C. of said date be subtracted from the number 1065, a figure is obtained which may be utilized as a year A. D. in the adjustment of the scales 5 and 6 as above described.

From the above description it will be appreciated that my invention is a simple, quickly operative. accurate calendar having the widest possible use, and it is obvious that if desired further century numerals may be added to the column *x* in order to make it possible to ascertain the day of the week upon which a future date falls.

I claim—

1. The combination in a perpetual calendar of a supporting structure; and movable elements mounted on said structure; one of said elements having century-indicating numerals, a second element having numerals indicating the years in the century, and a third element having the names of the months and numerals indicating the days of the month, the names of the days of the week being positioned on the supporting structure to co-operate with the numerals indicating the days of the month.

2. The combination in a perpetual calendar of a supporting structure; and movable elements mounted on said structure, one of said elements having century-indicating numerals spaced to make the necessary allowance for leap years, a second element having numerals indicating the years in the century, and a third element having the names of the months and numerals indicating the days of the month, the names of the days of the week being positioned on the supporting structure to co-operate with the numerals indicating the days of the month.

3. The combination in a perpetual calendar of a supporting structure; and movable elements mounted on said structure, one of said elements having century-indicating numerals, a second element having numerals arranged consecutively from one to ninety-nine indicating the years in the century, and a third element having the names of the months and numerals indicating the days of the month. the names of the days of the week being positioned on the supporting structure to co-operate with the numerals indicating the days of the month.

4. The combination in a perpetual calendar of a supporting structure; and movable elements mounted on said structure, one of said elements having century-indicating numerals, a second element having numerals indicating the years in the century, and arranged in groups of four separated by single spaces to make the necessary allowance for leap year, and a third element having the names of the months and numerals in-

dicating the days of the month, the names of the days of the week being positioned on the supporting structure to co-operate with the numerals indicating the days of the month.

5. The combination in a perpetual calendar of a supporting structure; and three slides movably guided thereon, two of said slides having columns of numerals respectively indicating centuries and the years of a century, the third slide having one column of month names and a second column of numerals of the days of the month; with a column of the names of the days of the week on the supporting structure adjacent the third slide.

6. The combination in a perpetual calendar of a supporting structure; and three slides movably guided thereon, two of said slides having columns of consecutive numerals respectively indicating centuries and the years of a century, the third slide having one column of month names arranged consecutively in their natural order and a second column of numerals of the days of the month; with a column of the names of the days of the week on the supporting structure adjacent the third slide.

7. The combination in a perpetual calendar of a backing; parallel guide strips on the backing; a transparent cover mounted on and extending between said guide strips to define a slideway; with three slides movable in said guideway, one of said slides having century-indicating numerals; the middle slide having numerals indicating the years of the century, and the third slide having thereon the month names and numerals indicating the days of a month; the guide strip adjacent said last slide having thereon the names of the days of the week.

8. The combination in a perpetual calendar of a backing; parallel guide strips on the backing; a transparent cover mounted on and extending between said guide strips to define a slideway; with three slides movable in said guideway, one of said slides having century-indicating numerals, the middle slide having numerals indicating the years of the century, and the third slide having thereon the month names and numerals indicating the days of a month, the guide strip adjacent said last slide having thereon the names of the days of the week, the other guide strip having at least one pointer for co-operation with the century numbers, the first slide having at least one pointer for cooperation with the numerals on the second slide; and said second slide having at least one pointer for co-operation with the month names on the third slide.

9. The combination in a perpetual calendar of a supporting structure; three movable elements mounted thereon; two columns of numerals on one element indicating centuries respectively of the old and new systems, the second movable element having thereon numerals indicating the years of a century divided into a plurality of columns, the third movable element having the month names and numerals indicating the days of the month; the names of the days of the week being positioned on the supporting structure adjacent said last movable element.

WILLIAM H. PATTERSON.