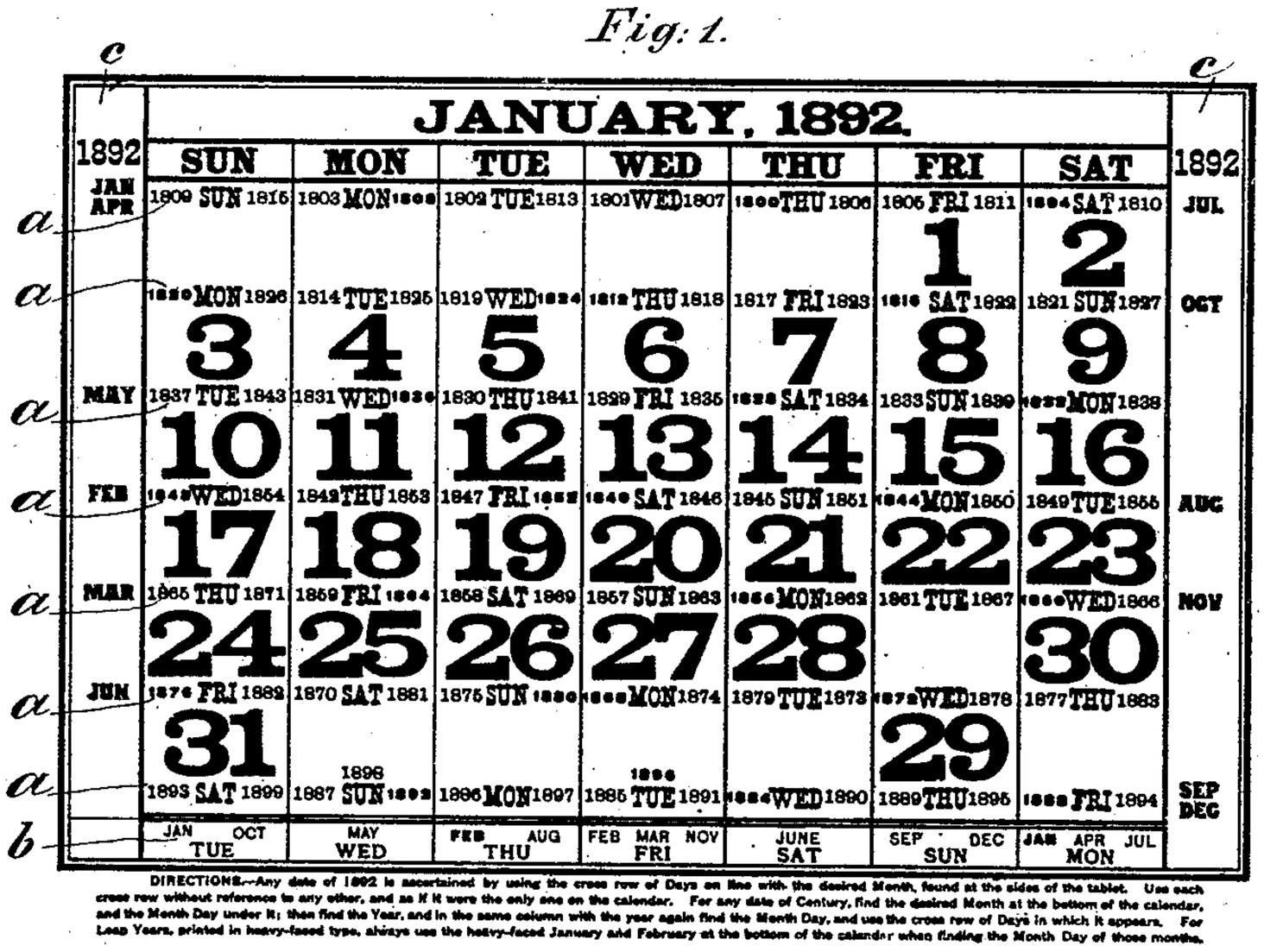
(No Model.) 3 Sheets—Sheet 1.

C. N. HOYT.

CALENDAR.

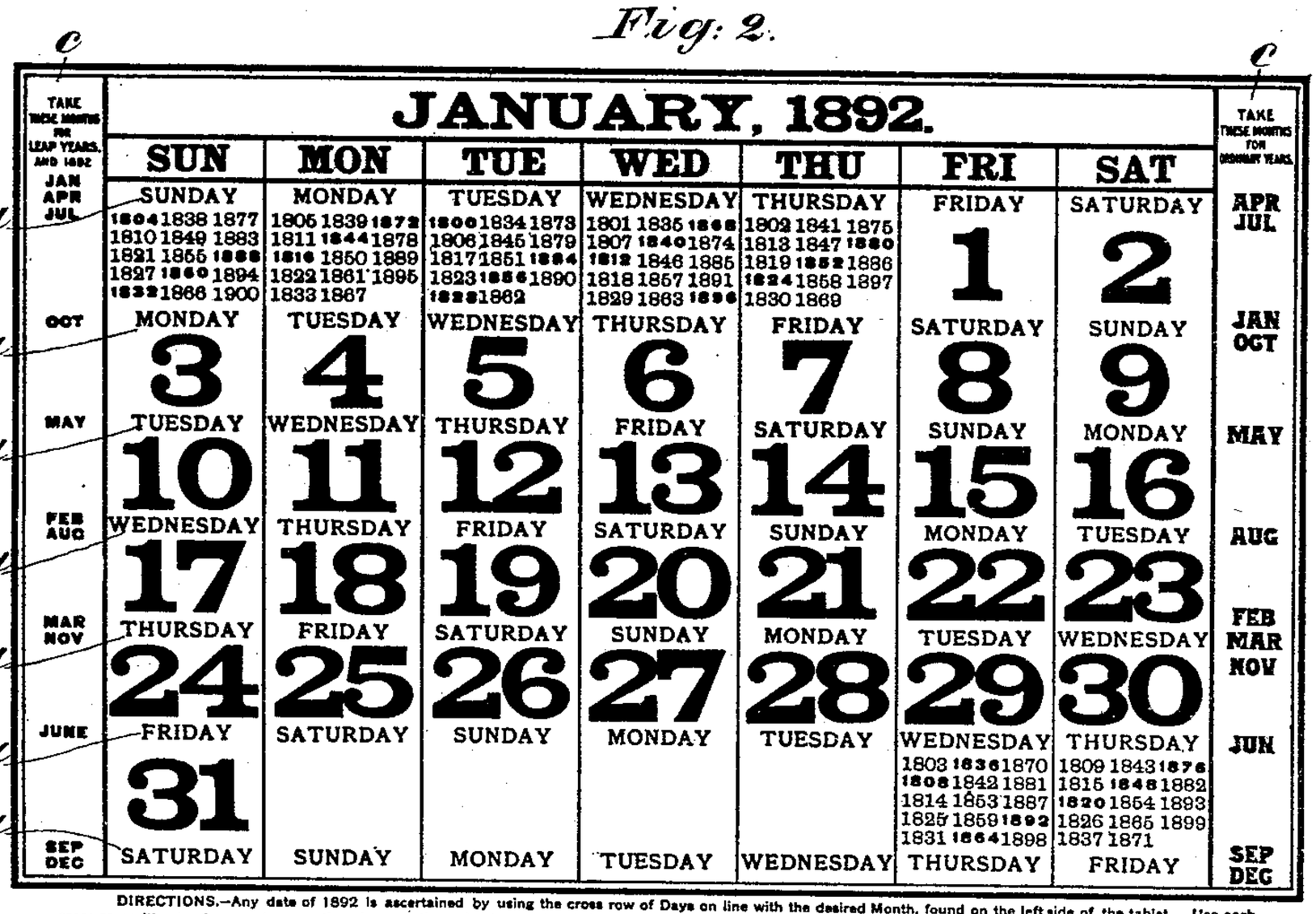
No. 481,563. Patented Aug. 30, 1892.

Fig. 1.



DIRECTIONS.—Any date of 1892 is ascertained by using the cross row of Days on line with the desired Month, found at the sides of the tablet. Use each cross row without reference to any other, and as if it were the only one on the calendar. For any date of Century, find the desired Month at the bottom of the calendar, and the Month Day under it; then find the Year, and in the same column with the year again find the Month Day, and use the cross row of Days in which it appears. For Leap Years, printed in heavy-faced type, always use the heavy-faced January and February at the bottom of the calendar when finding the Month Day of those months.

Fig. 2.



DIRECTIONS.—Any date of 1892 is ascertained by using the cross row of Days on line with the desired Month, found on the left side of the tablet. Use each cross row without reference to any other days on the calendar, and as if it were the only one in view. For any date of Century, find the desired Year. In the same column with this year, on line with the desired Month, is that month's first day. The cross row of Days in which this first day appears in the same column with date 1, is the row to use with the dates. The Leap Years of the Century are printed in heavy-faced type. Always use the months on the left for Leap Years, and those on the right for Ordinary years.

INVENTOR:

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 3 Sheets—Sheet 2.

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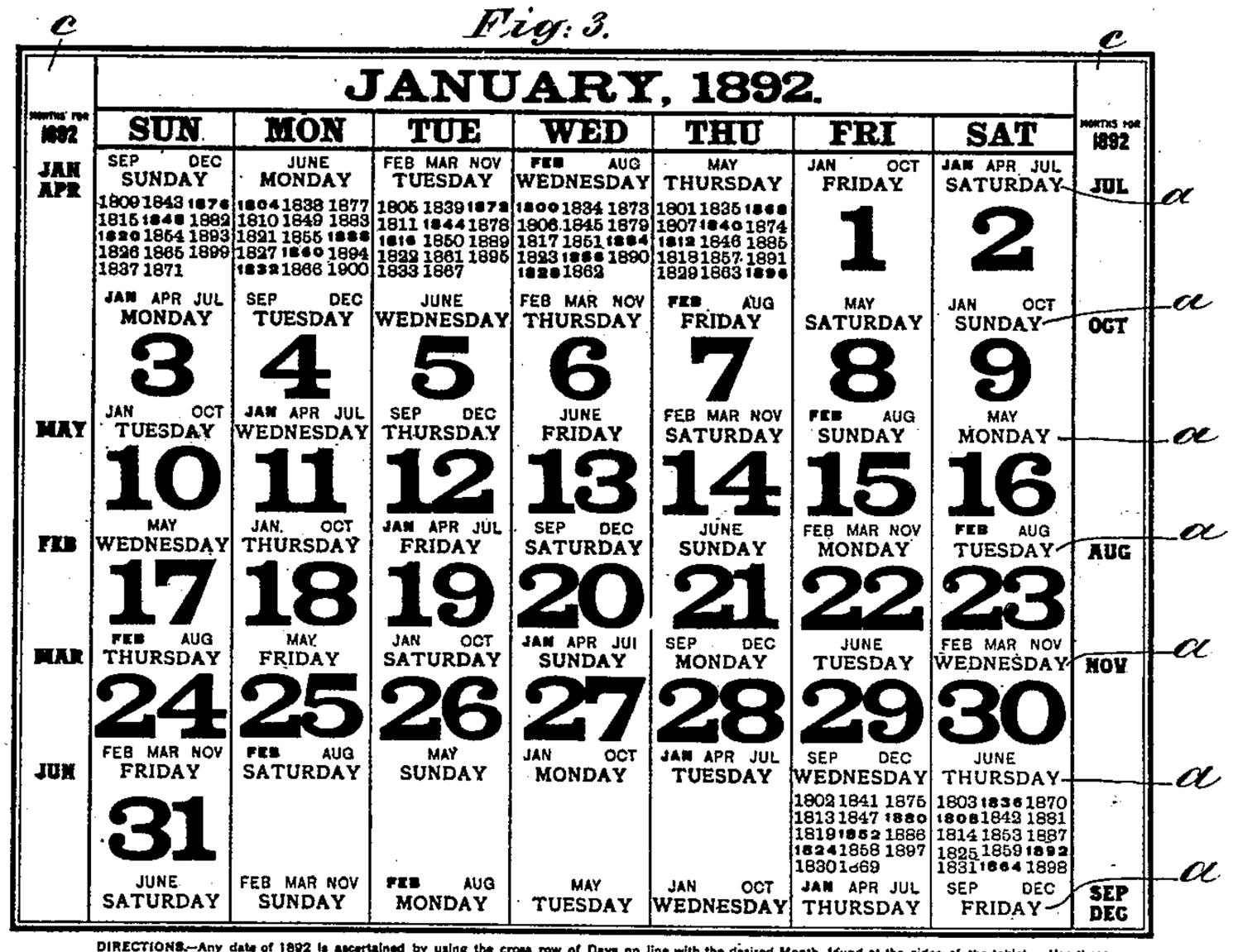
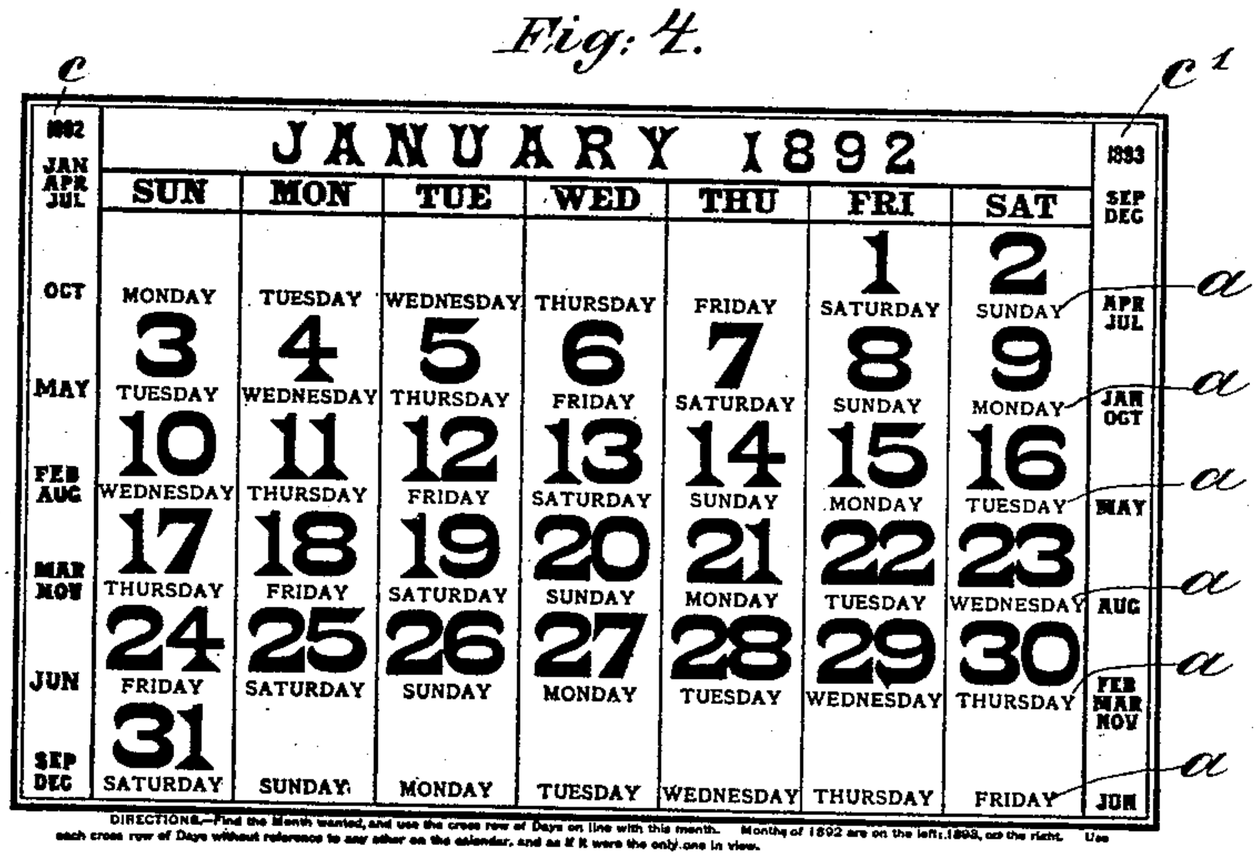
Fig. 3.



DIRECTIONS.—Any date of 1892 is ascertained by using the cross row of Days on line with the desired Month, found at the sides of the tablet. Use these days without reference to any other cross row on the calendar, and as if they were the only ones in view. For any date of Century, find the desired Year, and in the same column with this year find the Month wanted; then use the cross row of Days directly under this month. For Leap Years, printed in heavy-faced type, always use the heavy-faced January and February, and for Ordinary years the light-faced.

Fig. 4.



DIRECTIONS.—Find the Month wanted, and use the cross row of Days on line with this month. Months of 1892 are on the left; 1893, on the right. Use each cross row of Days without reference to any other on the calendar, and as if it were the only one in view.

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Fig. 5.

DIRECTIONS.—Any date of 1892 is ascertained by using the cross row of Days on line with the desired Month found at the sides of the calendar. Use each cross row without reference to any other days on the calendar, and as if it were the only one in view. For any date of Century, find the calendar DATE like the number opposite the desired Year; then find in the same column with this date the Month wanted, and use the cross row of Days directly under this month. For Leap Years, printed in heavy-faced type, always use the heavy-faced "January" and "February," and for Ordinary years the light-faced.

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UNITED STATES PATENT OFFICE.

CHARLES N. HOYT, OF BROOKLYN, NEW YORK.

CALENDAR.

SPECIFICATION forming part of **Letters Patent No. 481,563, dated August 30, 1892.**

Application filed January 27, 1892. Serial No. 419,434. (No model.)

To all whom it may concern:

Be it known that I, CHARLES N. HOYT, a citizen of the United States, and a resident of Brooklyn, Kings county, New York, have invented certain Improvements in Calendars, of which the following is a specification.

My invention relates to the class of calendars comprising each a monthly calendar and a calendar for the year or a series of years combined therewith; and the essential feature of the calendar is the arrangement between or with the rows of conspicuous numerals which designate the days of the month on the monthly calendar of alternating rows of time divisions—that is, days, month, or years, one or more—these time divisions being designated by names or numerals and printed in much less conspicuous characters than the characters of the monthly calendar. Thus the calendar when placed at a little distance from the eye will present clearly the matter forming the common monthly calendar without liability of confusion with the interlined matter, while the latter enables the user to readily ascertain on what day of the week will fall any given day of the month in a given year.

My invention will be fully described hereinafter, and its novel features carefully defined in the claims.

In the accompanying drawings I have illustrated several forms of calendars embodying my invention.

Figures 1, 2, and 3 are different forms of combined monthly and century calendars. Fig. 4 illustrates a simpler form of the calendar combining a monthly and biennial calendar. Fig. 5 is a combined monthly and century calendar in which the years or the numerals designating them are arranged in numerical order, so as to be readily found.

In all of the calendars illustrated the monthly calendar is that of January, 1892; but the principle is the same for any month of any year.

Referring first to Fig. 1, at the top is printed, in conspicuous characters, "January, 1892," and below this, in conspicuous type and in a horizontal row, the names of the seven days of the week—"Sun.," "Mon.," "Tue.," &c. Below each name of a week-day of this row are the numbers of the days of the month it falls on, arranged in vertical columns divided by ruled lines. Under "Sun." we find, for example, the numerals "3," "10," "17," "24," and "31." These numbers of the days of the month read from left to right, being arranged in horizontal rows, and the numerals are large and conspicuous. For brevity I will call these conspicuous day-of-the-month numerals (which are common to most calendars) the "D. O. M." numerals.

What I have so far described constitutes the ordinary monthly calendar. On the face of such a calendar I print cross-rows *a* of time divisions, which alternate with the rows of "D. O. M." numerals and are usually parallel therewith. Thus the time divisions in each row *a* will be divided into groups, each group being in one of the vertical columns of "D. O. M." numerals, and each group in Fig. 1 consists of the name of a day of the week and one or more year numbers. For example, in the first group to the left of the second row *a* of time divisions, over the "D. O. M." numeral "3," we find "1820, Mon., 1826." At the extreme lower part of the calendar in Fig. 1 is a horizontal row *b* of time divisions, which are also divided into groups in the same manner as those in the rows *a*. The groups in the row *b* are index groups and contain each the name of a day of the week and one or more names of months. For example, on the left under the first column of the "D. O. M." numerals the group in row *b* is "Tue., Jan., Oct."

Provision is made for the current year 1892 of the calendar in a manner to be hereinafter described; but for any other year of the century the day of the month on which any day of any other year of the century will fall may be readily ascertained as follows: Seek the desired month in the index groups of row *b* at the bottom of the calendar and note the week-day in the same group. Then seek the year again in the groups of the rows *a*, and when found in the same vertical column find the week-day previously noted in the index group of row *b*. Then use the week-days in that cross-row *a* in lieu of the row of week-days at the top of the calendar. For example, suppose we wish to find on what day fell August 1, 1826. Turning to the index group of row *b*, under the third column from the left, we find the desired month "Aug.," and

note that in the same group is the week-day "Thu." We find the year "1826" in the second row *a* and first vertical column at the left. Following down this column we find "Thu.," the week-day noted, in the fifth row *a*. Now by mentally substituting the week-days as arranged in this fifth row *a* for those at the head of the monthly calendar we find that in the month of August, 1826, Tuesday was the 1st, 8th, 15th, 22d, and 29th, Thursday the 3d, 10th, 17th, 24th, and 31st, and so on.

For the current year of the calendar I have arranged the matter differently. At the left-hand and right-hand ends of the monthly calendar are auxiliary columns *c c*, at the head of each of which is printed the year number 1892, and opposite the respective cross-rows *a* are printed, in one or the other of the columns *c*, the names of the months in the year. All of the names of the months might as well be printed in one column *c* and the other column *c* be omitted; but for the purpose of attaining symmetry I prefer the arrangement shown. For any month in the year 1892 it is only necessary to mentally substitute for the cross-row of week-days at the top of the monthly calendar the cross-row of week-days found in the groups of the row *a* opposite to the desired month. For example, if we wish to know the arrangement of days of the month of May, 1892, we find "May" in the left-hand column *c* and mentally substitute the days in the opposite row *a*—viz., Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday, Monday—for those in the row at the head of the monthly calendar. We find that in May, 1892, Sunday will be the 1st, 8th, 15th, 22d, and 29th.

The leap-years of the century are printed in the rows *a* in darker-faced type than the other years, and for a leap-year if the month sought be January or February the "Jan." and "Feb." in the row *b*, which are printed in dark-faced type, should be used. The names of these two months will be found repeated in the row *b*. For practical use the leap-years and leap-year months may be printed in different colored ink.

The monthly calendar illustrated in Fig. 2 is the same as that seen in Fig. 1, but there is a slight variation in the other matter. In order to leave room in the alternating cross-rows *a* for the full name of the week-day, the number of the years of the century are grouped together, either at the top or bottom of the columns of conspicuous "D. O. M." numerals in the blank spaces of the monthly calendar. Therefore the groups in the rows *a* contain only the names of days. The row *b* of index groups is omitted. At the left, in column *c*, are the names of the months opposite the respective rows *a*, and at the right is a column *d*, containing, also, the names of the months opposite the respective rows *a*.

I will give an illustration which will explain how to find any desired date of the century. Suppose we wish to find, as before, on what day August 1, 1826, fell. Seek the year 1826 in the year groups. It will be found in the group at the foot of the last column to the right. Follow up this column to the cross-row *a* opposite to the month "Aug." in column *d*. The day "Tuesday" appears in the row *a* opposite the month "Aug." and in the same column with the year "1826." This is that month's first day. Now if we look down the column containing "1" of the "D. O. M." numerals until we come to the cross-row *a*, in which the name "Tuesday" appears, we may mentally substitute this row *a* for the row of week-days at the top of the monthly calendar, as explained with reference to Fig. 1. If the year sought be a leap-year use the column *c* at the left in place of the column *d*. The column *c* is also used, as before explained in reference to Fig. 1, for ascertaining a date in 1892.

The monthly calendar illustrated in Fig. 3 is the same as those already described; but the other matter varies slightly. The year numerals of the century are grouped in the blank spaces of the monthly calendar, as in Fig. 2, and the columns *c c* at the right and left are used for the year 1892 in the same manner as in the calendar of Fig. 1. The groups in the alternating cross-rows *a* contain the names of months and days, as "Tue.," "Jan.," "Oct." The cross-row *b* of Fig. 1 is not used.

I will explain by an illustration how we may find on what day any date of the century falls, and we will suppose, as before, that the date sought is August 1, 1826. Seek the year 1826 in the year groups. It will be found in the group at the head of the first column at the left. Follow down this column until the month "Aug." is found in a group of one of the alternately-arranged rows *a* of time divisions. It will be found in the fifth row from the top. Mentally substitute the arrangement of days in this row for that of the monthly calendar and we find that in August, 1826, the 1st, 8th, 15th, 22d, and 29th fell on Tuesday.

The monthly calendar illustrated in Fig. 4 is the same as those before described. This is merely a biennial calendar for the years 1892 and 1893, and the alternating cross-rows *a* contain only the names of days. The column *c* at the left is for 1892, and contains the names of the months arranged as in the calendars before described. The column *c'* at the right is for 1893, and has the names of the months arranged opposite the respective rows *a*. For example, if we wish to know the arrangement of the days in October, 1893, we find "Oct." in the column *c'* and mentally substitute the opposite row *a* of days for those of the monthly calendar. Thus the 1st, 8th, 15th, 22d, and 29th of October, 1893, will fall on Sunday.

The monthly calendar of Fig. 5 is the same as those before described, and the other matter differs from that in Fig. 3 only in the ar-

rangement of the year numbers of the century in regular order in the successive groups, so that the desired year may be found with less difficulty. To permit of this arrangement, however, each year number is provided with an index number, as "1801–3," in which "3" is the index-number for that year. To illustrate the use of this calendar, suppose we take the same month and year as before. We wish to ascertain on what day August 1, 1826, will fall. In the group at the head of the third column of "D. O. M." numerals we find "1826–7". Take the column of "D. O. M." numerals of the monthly calendar in which the numeral "7" is found—that is, the fifth from the left. Seek the month "Aug." in the groups of the rows *a* in this column. It will be found in the fifth row *a* from the top. This fifth row *a* contains the arrangement of days to be used in lieu of that at the head of the monthly calendar, and by this we find, as before, that in the month of August, 1826, the 1st, 8th, 15th, 22d, and 29th fell on Tuesday.

It will be seen that the several calendars illustrated differ only in detail and not in principle. Each has an ordinary monthly calendar printed in conspicuous characters and adapted for the ordinary purposes of such a calendar. Each has, also, the same simple arrangement for ascertaining on what day any date of the current calendar year will fall. Each has, also, a provision for ascertaining on what day any date of the current year and other years will fall, this provision comprising cross-rows *a* of time divisions, as years, months, days, which alternate with the cross-rows of "D. O. M." numerals of the monthly calendar and are less conspicuous than the latter.

Having thus described my invention, I claim—

1. A monthly calendar having the numbers of the days of the month in conspicuous numerals arranged in seven columns and forming cross-rows reading from left to right and having, also, cross-rows *a* of time divisions in less-conspicuous characters extending across the calendar and alternating with the rows of conspicuous numerals of the monthly calendar, substantially as and for the purposes set forth.

2. A monthly calendar having the numbers of the days of the month in conspicuous numerals arranged in seven columns and forming cross-rows reading from left to right and having cross-rows *a* of time divisions in less-conspicuous characters extending across the calendar and alternating with the rows of conspicuous numerals of the monthly calendar, and having, also, a column *c*, containing the number of the current year of the calendar, and the names of the months arranged opposite the respective rows *a*, substantially as and for the purposes set forth.

3. A monthly calendar consisting of the names of the current month and year, the names of the days of the week arranged in a row, and the numbers of the days of the month in conspicuous numerals arranged in columns and forming cross-rows, as set forth, said monthly calendar having cross-rows *a* alternating with the rows of day-of-the-month numerals of the calendar and consisting of groups, each comprising the name of a week-day and the name of one or more months, and having, also, printed in the blank spaces of the calendar the numbers of the years of the century arranged in groups, substantially as and for the purposes set forth.

4. A monthly calendar consisting of the names of the current month and year, the names of the days of the week arranged in a row, and the numbers of the days of the month in conspicuous numerals arranged in vertical columns and forming cross-rows, as set forth, said calendar having rows *a* alternating with the rows of conspicuous numerals of the monthly calendar, the rows *a* being composed of groups comprising each the name of a day of the week and the name of a month, and having, also, printed in the blank spaces of the monthly calendar the numbers of the years of the century arranged in their proper order and each having an index-number, substantially as and for the purposes set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

CHAS. N. HOYT.

Witnesses:
JOSEPH A. GALLAGHER,
SAMUEL J. COMFORT.