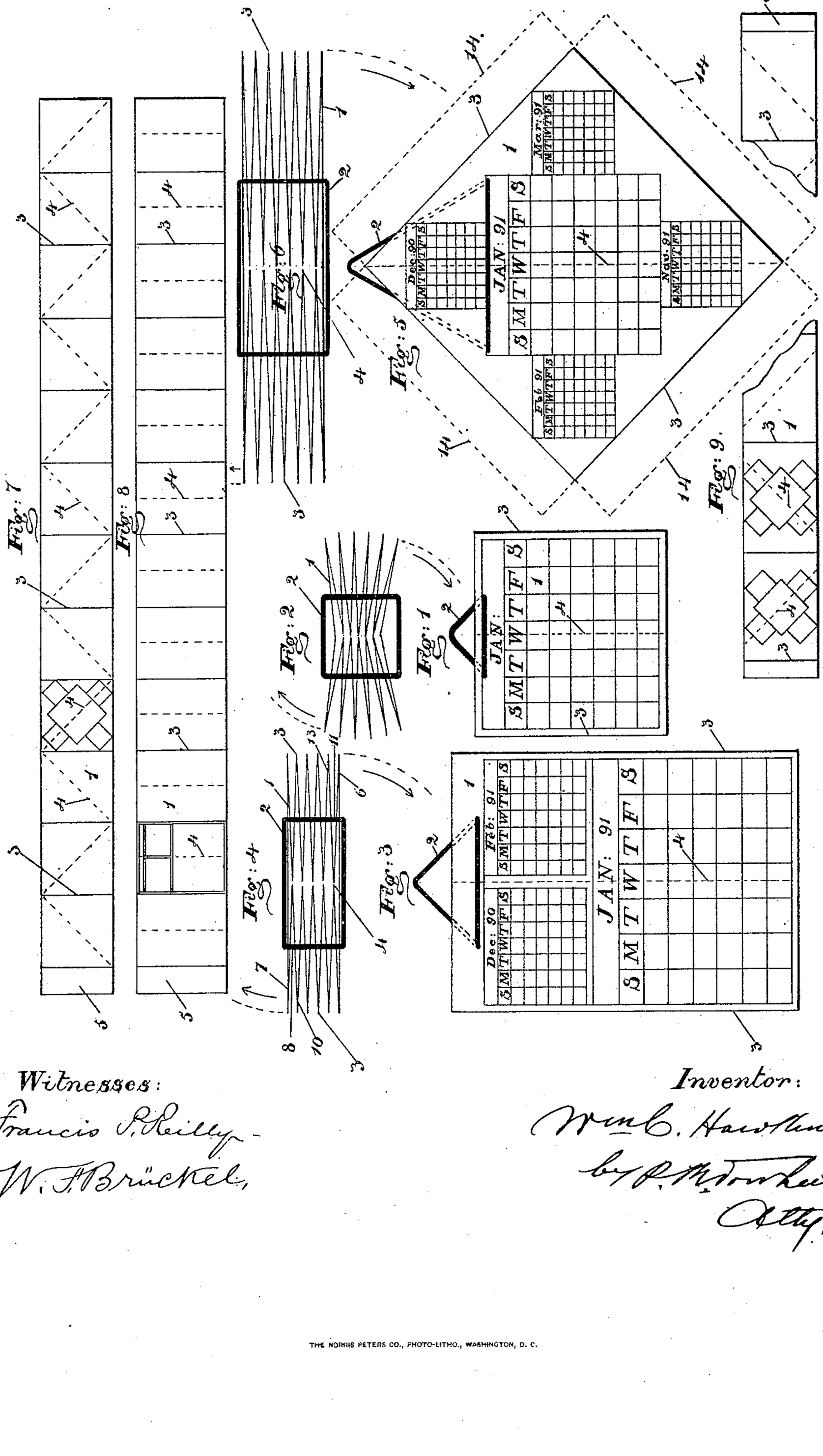
(No Model.) 3 Sheets—Sheet 1.

W. C. HAWKINS.

CALENDAR.

No. 467,114. Patented Jan. 12, 1892.



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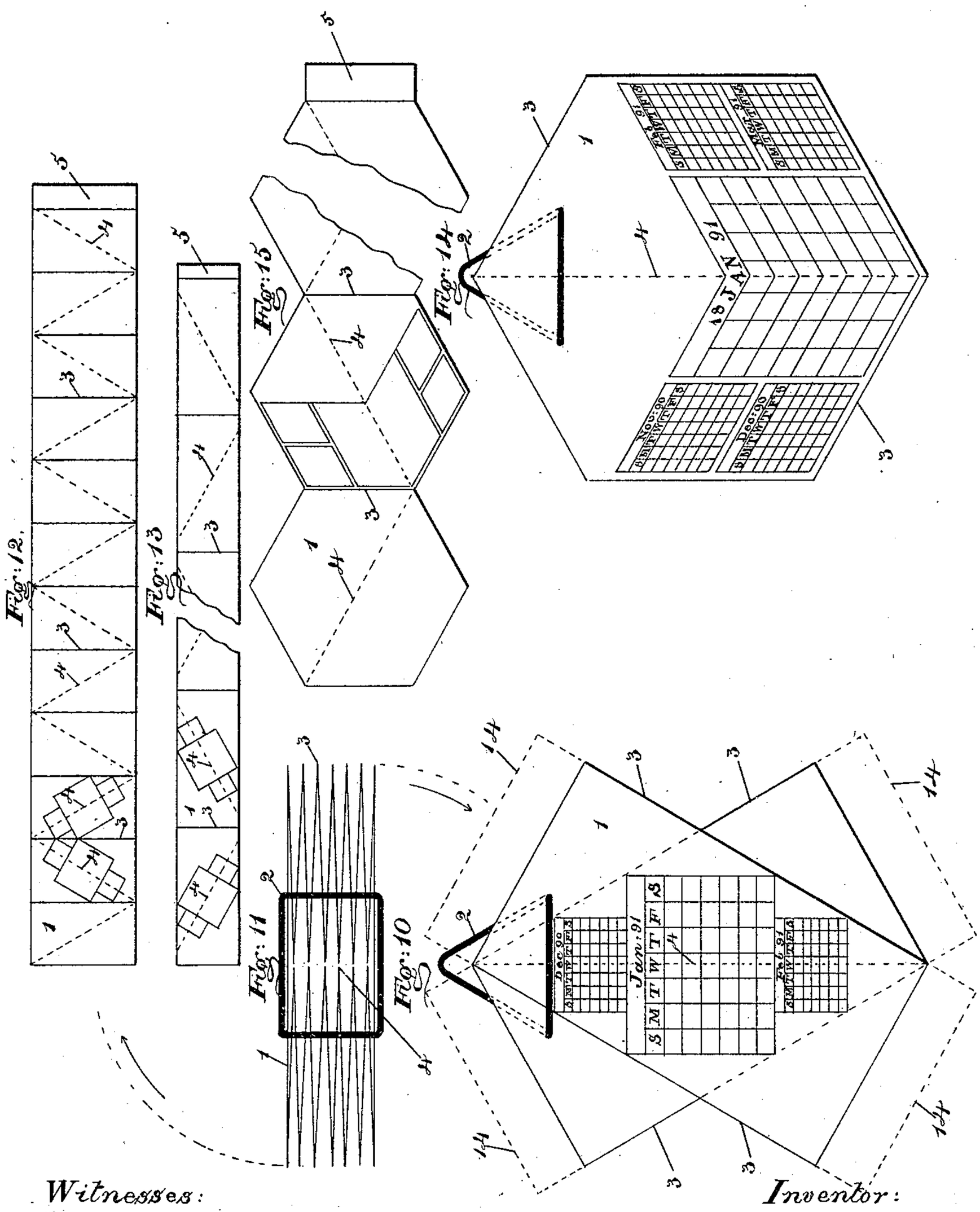
by P. Mitchell
Atty.

(No Model.) 3 Sheets—Sheet 2.

W. C. HAWKINS.

CALENDAR.

No. 467,114. Patented Jan. 12, 1892.



(No Model.) 3 Sheets—Sheet 3.

W. C. HAWKINS.

CALENDAR

No. 467,114. Patented Jan. 12, 1892.

Fig: 22

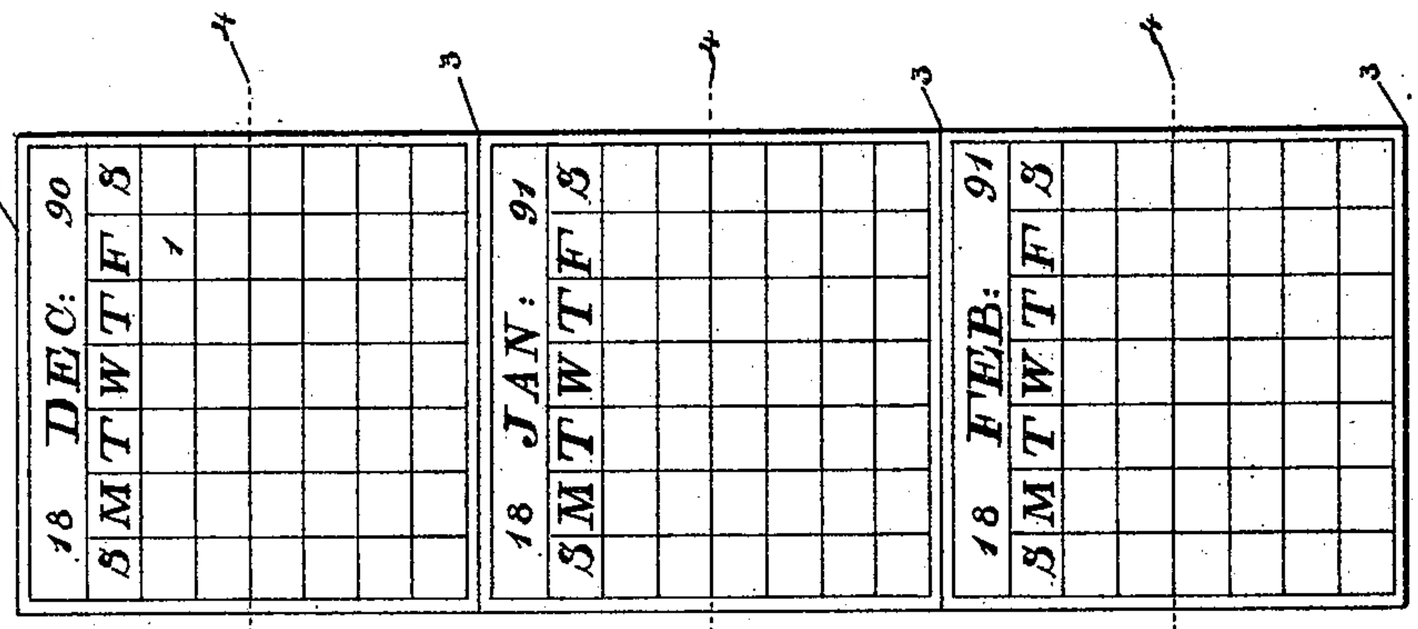


Fig: 23

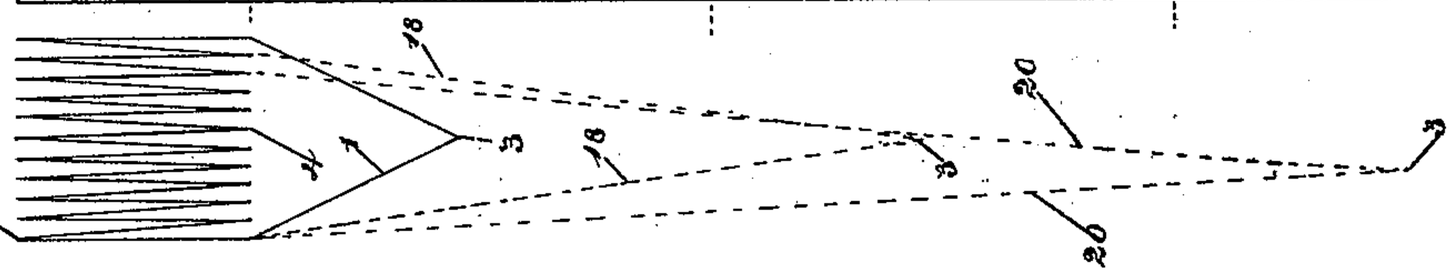


Fig: 21

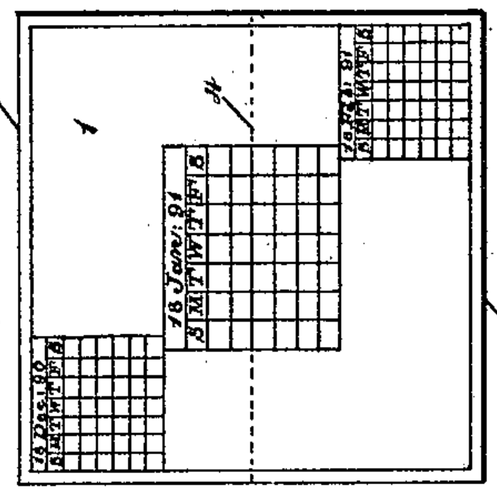


Fig: 19

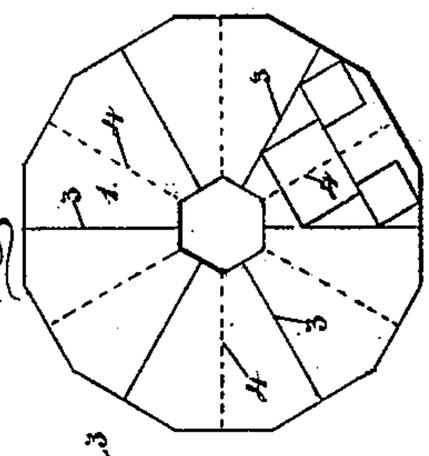


Fig: 20.

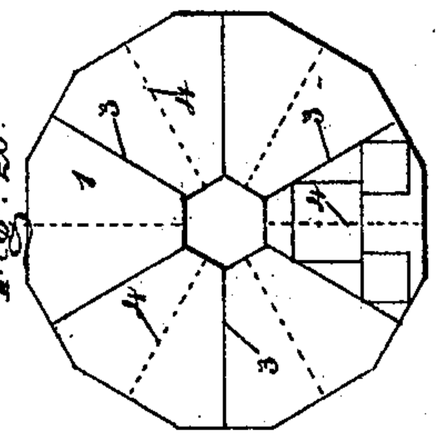


Fig: 17

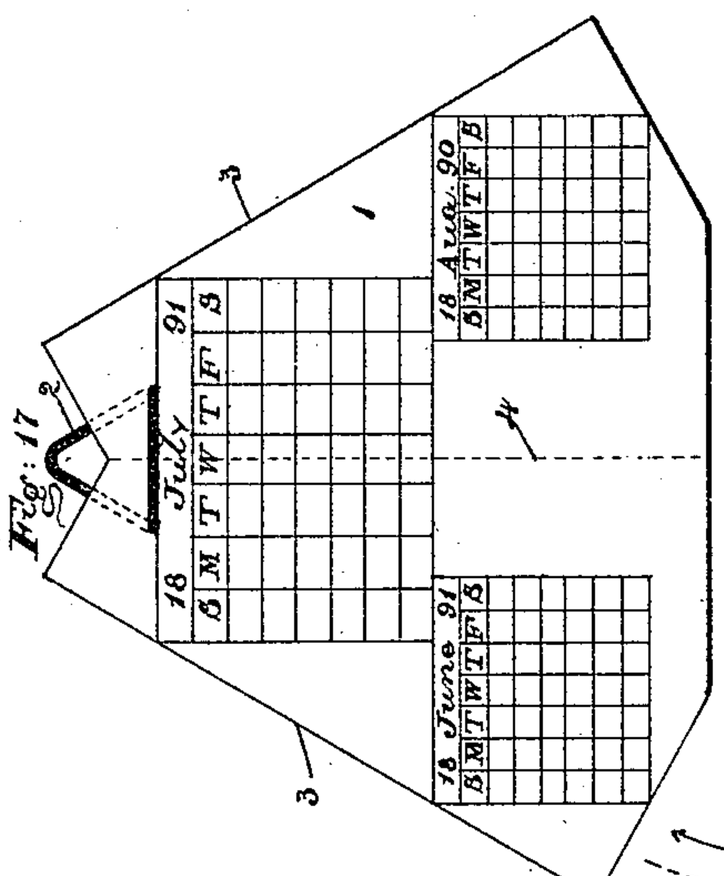


Fig: 18

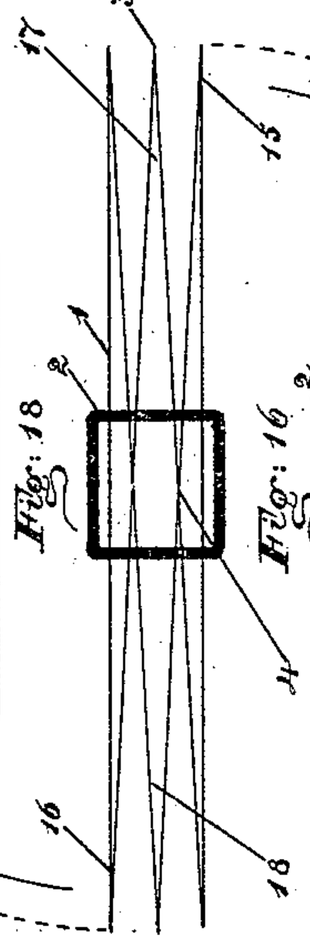
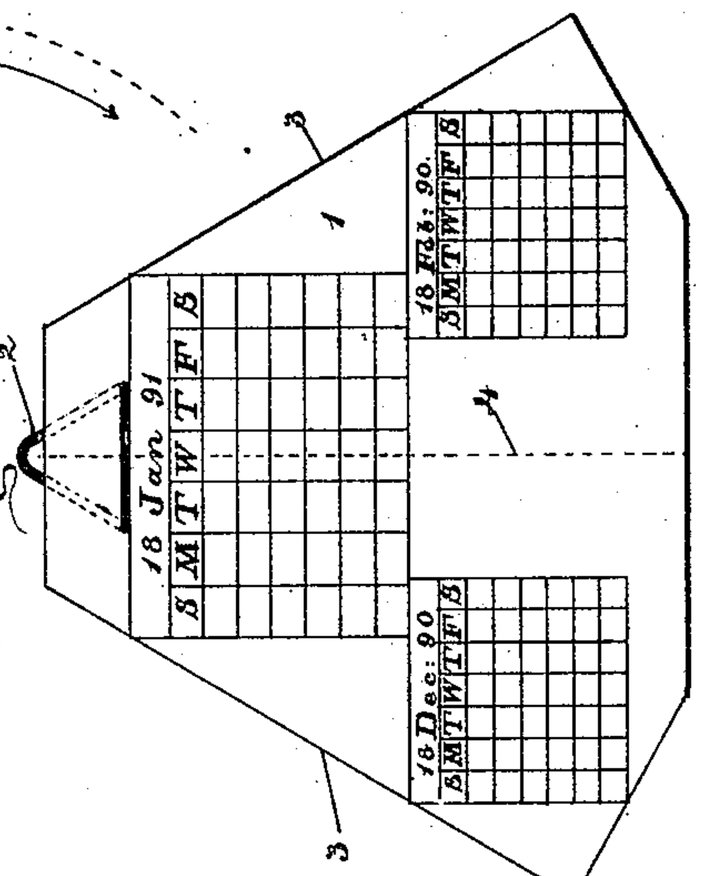


Fig: 16



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM C. HAWKINS, OF TAUNTON, MASSACHUSETTS, ASSIGNOR TO JOHN T. HAWKINS, OF SAME PLACE.

CALENDAR.

SPECIFICATION forming part of Letters Patent No. 467,114, dated January 12, 1892.

Application filed December 6, 1890. Serial No. 373,822. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. HAWKINS, of Taunton, in the county of Bristol and State of Massachusetts, have invented a new and useful Calendar, which invention is fully set forth and illustrated in the following specification and accompanying drawings.

The objects of this invention are, first, to construct a calendar from an endless or annular strip of paper, so that after folding it in certain permanent folds in several ways, as hereinafter described, and folding it in other ways on the center of the exhibition-pages one or more calendar-tables printed on said exhibition-pages may be exhibited for each month of the year by merely folding one double leaf so formed in one direction and the opposite diagonal double leaf in the opposite direction; second, to avail of certain geometrical figures in giving ornamental and novel outlines to said calendars as made possible by the methods of folding described and shown; third, to leave spaces on said exhibition-pages for advertising or ornamental purposes when desired; fourth, to combine with said printed or folding endless or annular strips a cord which will serve to draw and hold together the several thicknesses of paper as folded for any given month, as well as provide means for suspending the calendar available for every month of the year without removal of said cord in changing from one month to another.

The invention will first be described in detail, and then particularly set forth in the claims.

In the accompanying drawings, Figure 1 is a front view, and Fig. 2 a top view or plan, of the calendar in its simplest form, exhibiting one monthly calendar only on each exhibition-page. In Fig. 2, as also in the similar views Figs. 4, 6, 11, 18, and 23, the folds are shown much more open than in practice in order to more clearly show the methods of folding and the transverse parts of the suspension and binding cords proportionally lengthened, it being understood that in practice the several thicknesses of the strip lie close together and that the transverse parts of the suspension and binding cord are only of sufficient length to pass through the whole. Fig. 3 is a face view, and Fig. 4 a top view, of a construction similar to Figs. 1 and 2, but so proportioned as to have printed on each exhibition-page, in addition to the table for the current month, distinguished by size and position from the other two, a table for the month last past and a table for the month next ensuing. Figs. 3 and 4 are shown as exhibiting for the month of January, 1891. Fig. 8 shows a plan, on a reduced scale, of the methods of printing and folding a continuous strip to produce Figs. 3 and 4, Figs. 1 and 2 being produced from a similarly-folded strip, the printing of the calendar-tables only being different. The permanent folds are made on the full lines 3 and the changing folds on the dotted lines 4. Fig. 5 is a face view, and Fig. 6 a top view, of a calendar produced by folding the calendar-strip on rectangular lines 3, Fig. 7, for the permanent folds and on diagonal lines 4, Fig. 7, for the changing folds, Fig. 7 being a plan, on a reduced scale, showing the printing and folding of such a strip. Fig. 9 is a reduced plan showing the printing and folding for a modification of Fig. 5, hereinafter explained. Fig. 10 is a face view, Fig. 11 a top view, and Fig. 12 a reduced plan, of a printed strip of another form produced by folding on rectangular transverse lines 3, Fig. 12, for the permanent folds and on diagonal lines 4, Fig. 12, for the changing folds. Fig. 13 is a reduced plan showing the manner of printing and folding the strip for a modification of Figs. 10 and 11, as hereinafter described. Fig. 14 is a face view, and Fig. 15 a reduced plan, of printing and folding a strip on rectangular transverse lines 3 for the permanent folds and upon diagonal lines 4 for the changing folds. Fig. 11 answers for a top view of Fig. 14, as well as for Fig. 10. Fig. 10 exhibits for the month of January, 1891, and contains, in addition to the table for the current month, one for December, 1890, and one for February, 1891, the whole twelve exhibition-pages being similarly printed, with the current month distinguished from the others by size or position, or both, and in addition thereto a table for the month last past and one for the month next ensuing. Fig. 14 contains, in addition to the distinguishing table for the current month, tables for the two months

last past and tables for the two months next ensuing, each of the twelve exhibition-pages being similarly printed to suit the exhibition for the current month. Fig. 16 is a face view, and Fig. 18 a top view, of an annular calendar-strip; and Figs. 19 and 20 are reduced plans of printing and folding the same. Fig. 17 is a face view of Fig. 16 when turned inside out for the commencement of the last six months, as hereinafter described. Fig. 21 is a face view of a calendar on this plan constructed from an endless strip, exhibiting three months at a time; and Fig. 23 is a side elevation showing the method of folding. Fig. 22 is a face view of a similar strip, for which Fig. 23 answers, also, for a side elevation. Fig. 22 shows three months for every current month of the year, with the current month in the center as a distinguishing position and the month last past and the month next ensuing on either side of it.

In said figures the several parts are respectively indicated by reference-numbers, as follows:

In all the figures the number 1 indicates the printed strip, and 2 the suspension and confining cord, there being no cord used with Figs. 21, 22, and 23. In the same figures the full lines 3 are the lines upon which the permanent folds are made, and the dotted lines 4 are the lines on which the folds are made in changing from month to month, except in Figs. 21, 22, and 23, in which there are no permanent folds. Both the full lines 3 and dotted lines 4 are used in changing from month to month.

All the strips except the annular ones, Figs. 16 to 20, inclusive, are pasted together at the ends to make them continuous, a blank space 5, Figs. 7, 8, 9, 12, 13, and 15, being left at one end to make the lap. Figs. 7, 8, 9, 12, 13, 15, 19, and 20 being on so small a scale, the outline of the calendar-tables to be printed thereon only is shown to correspond to their respective full-sized figures, and their positions on the strip with reference to the folding-lines are shown on a part of the exhibition-pages of the strip only.

Referring first to Figs. 3, 4, and 8, Fig. 3 shows the calendar as set for the first month of 1891 and suspended by the cord 2. It is evident that the weight of the calendar will tend to draw the cord 2 tight and bind the folds flat and close together and similarly for all the other figures, except Figs. 21, 22, and 23, in which no cord passing through the folds of the strip is used. In these latter any suitable clip-hanger may be employed. It is evident that if the cord 2 be loosened from its point of suspension and the double leaf 6 be folded about the change fold-line 4 to the left in the direction of the arrow and the diagonal opposite double leaf 7 be similarly folded to the right about a similar line 4, also in direction of its arrow, a new exhibition-page will be brought to view, and this page will be so printed as to have February, 1891, for the main table and the months of January and March for the auxiliary tables, and the whole will assume again the form shown in Fig. 4, that part of the cord 2 by which it will be suspended being now that represented by 8 between the table-leaves 7 and 10, Fig. 4, and that part passing across the face of the exhibition-page, as placed in Figs. 3 and 4, will now be the part 11 between the table-leaves 6 and 13, Fig. 4, and similarly for all the other figures except Figs. 21, 22, and 23, in which no cord is used.

Referring to Figs. 10, 11, 12, and 13, the diagonal folding-lines 4 in Figs. 10, 11, and 12 are made at an angle of sixty degrees with the line of the strip 1, and the resulting figure when folded is shown in Fig. 10 in full lines. If the strip, however, be made proportional, as in Fig. 13, and folded on diagonal lines 4 at an angle of thirty degrees with the line of the strip and spaces be left between the terminations of the diagonal lines 4, the resulting figure will be extended, as indicated by the dotted lines 14, Fig. 10, when folded, the object here being to provide for greater space for ornamentation or for advertising purposes. Similarly for the form shown in Figs. 5, 6, and 7, if the strip have spaces left between the terminations of the diagonal folding-lines 4, as shown in Fig. 9, the resulting folded figure will be indicated by the dotted lines 14, Fig. 5, for the same purposes.

Referring to Figs. 16 to 20, inclusive, the annular strip is printed on each side in six exhibition-pages, upon which may appear tables for one or more months, as may be desired, the dotted folded lines 4 passing through the center of the exhibition-pages for each six months. For the first six months it is permanently folded on the full lines 3, Fig. 20, and the changing positions from month to month made on the dotted lines 4 in the same figure. The change from the month for January, 1891, is shown in Fig. 16, being made by folding the double leaf 15, Fig. 18, to the left and the double leaf 16 to the right, both in the direction of the arrows, and the cord 2 drawn out between double leaves 15 and 17 and 16 and 18, the whole again assuming the same form as shown in Figs. 16 and 18, with the proper exhibition-page for the month of February, 1891, exposed to view, and so on to the end of the six months. For the last six months the strip is turned inside out, the length of the cord 2 permitting this without removal, the permanent folds being made on full lines 3, Fig. 19, (which were the lines for changing folds for the first six months,) and the changing folds being made on the dotted lines 4, Fig. 19, (which were the lines for the permanent folds for the first six months.) The calendar will then assume the form shown in Fig. 17 to be set for the month of July, 1891, and similarly to be operated to change from month to month to the end of the year.

Referring to Figs. 21 and 23, the strip is folded at regular intervals transversely at a distance apart on the strip equal to one-half

the width of one exhibition-page, as shown in Fig. 23, two of the half-pages depending from the rest, in which position there will be seen on both back and front one full exhibition-page, the pages being upside down on the back. To change from month to month, a table-leaf, as 16, is folded down to the left, Fig. 3, on the dotted line 4, Fig. 21, and the pendent double leaf 3, Fig. 23, folded upon the line 4 to the right, bringing the calendar again into form shown in Fig. 23 set for the succeeding month. When printed as in Fig. 22, two months at a time may be exhibited by having three half exhibition-pages depending below the folded upper part or half, as shown in dotted lines 18, Fig. 23; or three months at a time may be exhibited by leaving five half exhibition-pages depending as in dotted lines 20, Fig. 23, and so on for as many months as may be desired to exhibit at one time.

I do not herein broadly claim a calendar-strip having printed thereon, in addition to a calendar-table for the current month, one or more tables for the months last past and one or more tables for the months next ensuing, as such construction is shown and claimed in another application filed by me on the 23d day of January, 1890, bearing the Serial No. 356,509.

I do not confine myself to the particular design, arrangement, or number of monthly calendar-tables to be printed on the exhibition-pages, as these may be varied indefinitely without departing from the gist of this invention; nor do I confine myself to the precise geometrical figures shown as resulting from folding upon rectangular and diagonal lines, as the angle, position, and relation of such lines may in like manner be varied indefinitely, producing other geometric figures when folded; but,

Having thus fully described my said invention, I claim—

1. A calendar consisting of an endless or annular strip of paper or other suitable material printed on one or both sides in one or more calendar-tables to each exhibition-page, folded in permanent folds, forming exhibition-pages for said calendar-tables, and also folded for changing from month to month on other lines passing through the centers of said exhibition-pages, whereby by turning the double leaves formed by said permanent folds upon the changing fold-line passing through the centers of said exhibition-pages the calendar may be changed from month to month and the whole be preserved for reference, substantially as set forth.

2. A calendar consisting of an endless strip of paper or other suitable material printed on one side in exhibition-pages, each containing one or more calendar-tables and folded on rectangular and diagonal transverse lines, one or both, one series of said lines passing through the center of said exhibition-pages, whereby said calendar may be given sundry geometrical outlines and by turning the double leaves formed by said permanent folds on the changing fold-lines passing through the centers of said exhibition-pages may be changed from month to month and the whole be preserved for reference, substantially as set forth.

3. A calendar consisting of an endless or annular strip of paper or other suitable material printed on one or both sides in exhibition-pages, each containing one or more calendar-tables and folded in permanent folds, forming said exhibition-pages for said calendar-tables, and also folded for changing from month to month on other lines passing through the centers of said exhibition-pages, in combination with a suspension and binding cord passing through said pages, whereby by turning the double leaves formed by said permanent folds on the folding-lines passing through the centers of said exhibition-pages and drawing said cord through between the pages so opened said calendar may be suspended and its leaves drawn and held close together for every month of the year without removal of said cord and the whole be preserved for reference, substantially as set forth.

4. In a folding calendar, a combined binding and suspension cord passed through the folded leaves thereof in such manner that when drawn tight and the calendar suspended thereby said leaves will be drawn and held thereby close together, substantially as set forth.

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THEO. H. FRIEND.