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PERPETUAL CALENDAR.

1,065,101.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, LOUIS V. ARONSON, a citizen of the United States, residing in the city of Newark, county of Essex, and State of New Jersey, have invented certain new and useful Improvements in Perpetual Calendars, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it pertains to make and use the same.

My invention relates to improvements in perpetual calendars, which are adapted to indicate the name and date of days in a week, and also the months of a year in chronological order, and has for its objects, to provide a novel device of the character indicated, which by proper manipulation, will display the name of the day, its date, as well as the name of the month.

To these ends, my invention consists in the peculiar construction and combination of parts, as is hereinafter described and claimed, reference being had to the accompanying drawings forming a part of this specification, in which, similar letters of reference indicate the like parts in all the figures.

Figure 1 is a front view of my improved device. Fig. 2 is a vertical section on line $x-x$ of Fig. 1, the day, month, and numeral disks not being shown. Fig. 3 is a front view of one of the shallow boxes or trays, in which is secured the operating mechanism showing in dotted lines, the disks upon the faces of which, near their circumferences, are placed the days of the week and the names of the months. Fig. 4 is a similar view of the other box or tray, also indicating in dotted lines, the disk upon which are placed the numerals 1 to 3, and 0 to 9 inclusive; and Figs. 5 and 6 are longitudinal sections on lines $x-x$ of Figs. 3 and 4, the day, month, and numeral disks not being shown.

In the drawings, the box or case in which the working parts are contained, is designated by the letter a . This case may be made of any suitable material, and with any suitable kind or amount of ornamentation. As shown, it consists of a metallic case holding a plate or cover b , provided with apertures c designed to expose the days and months and the number of the day, the latter being at the central apertures, with the months upon the right, and the day upon the left. The case may be hung upright upon a ver-

tical wall or similar support by the loops d , that will engage projecting nails on the wall, and thus maintain the calendar in proper position for reference. Pull chains e are provided for the proper actuation of the mechanism which pass through slots in the lower wall of the case and trays.

f , f' represent shallow boxes or trays, preferably made of metal and conveniently secured within the case a , the tray f being nearest the front of the case, and in which are supported the working parts and disks and mechanism connected therewith, whereby the disks are rotatably moved upon their supports, as will be explained. Rotatably secured to the tray f , (see Fig. 3), in any convenient manner, preferably by means of the metallic eyelets g are the ratchet wheels h and h' , the former ratchet wheel provided with seven and the latter with twelve teeth.

i and i' are disks (shown in dotted lines) rigidly secured to the ratchet wheels by means of a tubular connection, provided with nibs extending from the upper and lower edge of said tubular connection, the nibs of the lower edge engaging and secured in slots formed in the ratchet wheel, the upper nibs pass through slots in the face of the disk, thus rigidly securing the disks in position on the ratchet wheels.

Upon the face of the disk i near its circumference, are printed in radial lines, the days of the week, and upon the disk i' in a similar manner, are printed the names of the months. The number of teeth in the ratchet wheel i corresponding to the number of days in a week, and the number of teeth in the ratchet wheel i' corresponding to the number of months in a year.

j and j' indicate retaining pawls pivotally secured to the tray f in any convenient manner, and k and k' indicate actuating pawls pivoted to the levers l and l' in any suitable manner for engaging the teeth of the ratchet wheels i and i' . The levers l and l' are also pivotally secured to the eyelets g and are provided at their ends, opposite to where the retaining pawls are secured with hooks struck up from the material of the said levers, to which are fastened the pull chains e . Suitable stops m are struck up from the body of the tray to limit the movements of the levers l and l' . The actuating pawls k and k' as well as the retaining pawls j and j' have formed integral therewith, at their extremities, hooks for the reception of the

ends of the spiral spring l^2 , which are positioned and held in place by means of the lugs struck up from the rear of the tray f .

The pull chains e which are connected to the levers l and l' cause the pawls h and h' to rotate the ratchet wheels i and i' in the direction indicated by the arrows to the extent of one notch, and hence, the disks to the extent of one-seventh and one-twelfth of a rotation respectively, thus changing the day of the month, and the month of the year exposed in the apertures c .

The construction of the rear tray f' and the mechanism secured to it, is similar to that of the front tray f , and the description of the front tray with its actuating mechanism will therefore apply to the rear tray. On the rear tray, (see Fig. 4), are also rotatably secured in the same manner as in the front tray, the ratchet wheels m' and m^2 , provided with ten teeth each. The disks n and n' (shown in dotted lines) are secured in substantially the same manner as the disks previously described. The disk n has printed thereon, the numerals 1 to 3 inclusive, while the disk n' has printed thereon, the numerals 0 to 9 inclusive, which together or independently, indicate the day of the month. Retaining pawls o and o' , actuating pawls p and p' , levers q and q' , springs r and r' , and pull chains e are also provided, which operate in substantially the same manner as those described in connection with the front tray f .

On the front and rear trays f and f' and on that portion of them covered up by the ratchet wheels h and h' , and ratchet wheels m' and m^2 are a series of projections or supports s , formed integral with and struck up from the back of said trays, designed to give lateral support to the ratchet wheels.

It will thus be seen that I have provided a calendar in which I have reduced the number of parts to a minimum, and when assembled, presents a neat and tasty appearance. The parts are of such shape as to lend themselves readily to manufacture by the use of suitable punches and dies from ordinary sheet metal. While I have only shown the preferred form of my invention, I do not wish to be limited to the exact structure shown.

I claim:

1. In a calendar, the combination with a case, the under side of said case being provided with apertures, a front plate provided with apertures located in said case, a front and rear tray located in said case, the

under side of said trays provided with apertures registering with the apertures in the under side of the case, a day name and a month name disk rotatably secured to the front tray, disks containing numerals rotatably secured to the rear tray and in alignment with the said disks on the front tray, a ratchet wheel for each disk rotatably secured to the tray and provided with means for securing the disk to the ratchet, a lever for each ratchet wheel extending beyond the periphery of said wheel, and spring actuated pawls pivotally secured to each lever at a point beyond the periphery of said ratchet wheels, a spring-actuated retaining pawl for each ratchet wheel pivotally secured to the tray and means secured to one end of each of said levers passing through the apertures in the under side of said case and trays for actuating said ratchet wheels and disks.

2. In a calendar, the combination with a case, the under side of said case being provided with apertures, a front plate provided with apertures located in said case, a front and rear tray located in said case, the under side of said trays provided with apertures registering with the apertures in the under side of the case, a day name and a month name disk rotatably secured to the front tray, disks containing numerals rotatably secured to the rear tray and in alignment with the said disks on the front tray, a ratchet wheel for each disk rotatably secured to the tray and provided with means for securing the disk to the ratchet, projections in said front and rear trays designed to give lateral support to said ratchet wheels, a lever for each ratchet wheel extending beyond the periphery of said wheel, stops for said levers formed integral with the front tray, and spring actuated pawls pivotally secured to each lever at a point beyond the periphery of said ratchet wheels, spring-actuated retaining pawls for each ratchet wheel pivotally secured to the trays, spiral springs secured to the trays, one end of each spring being secured to the actuating pawl and one end to the retaining pawl, and means secured to one end of each of said levers passing through the apertures in the under side of said case and trays for actuating said ratchet wheels and disks.

This specification signed and witnessed this 30th day of August, 1909.

LOUIS V. ARONSON.

Witnesses:

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