(No Model.)

H. S. HACK.

CALENDAR.

No. 387,784. Patented Aug. 14, 1888.

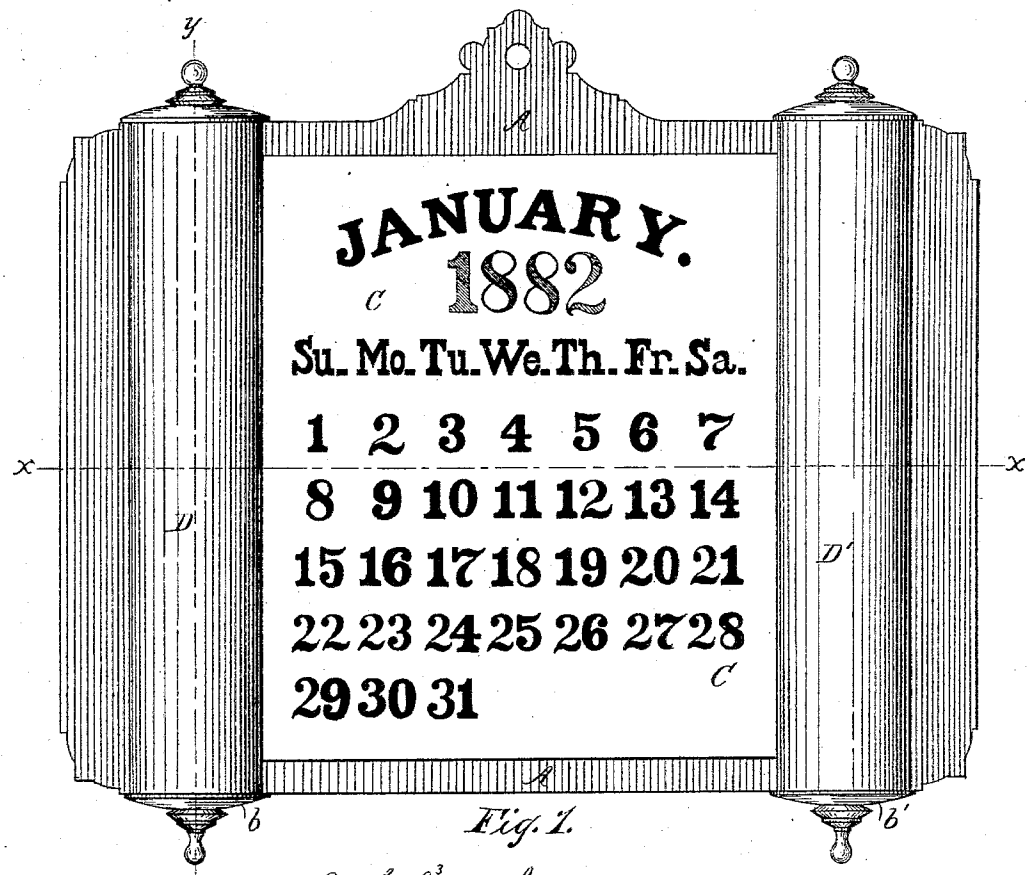


Fig. 1.

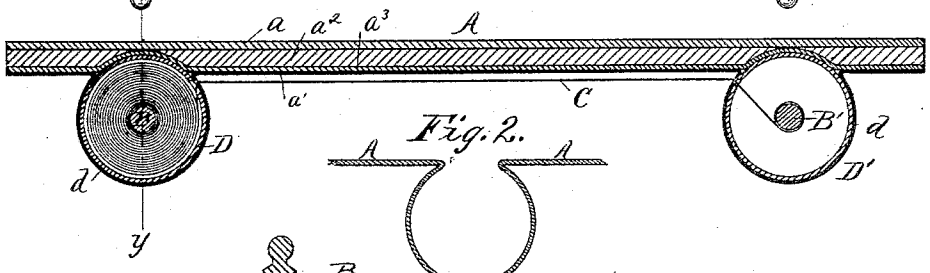


Fig. 2.

Fig. 5.

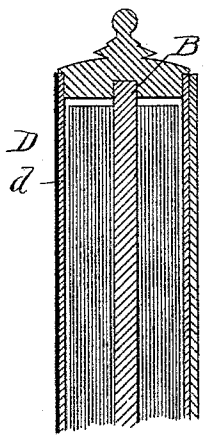


Fig. 3.



Fig. 4.

WITNESSES.
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UNITED STATES PATENT OFFICE.

HENRY S. HACK, OF TAUNTON, MASSACHUSETTS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO EMILY F. HACK, OF SAME PLACE.

CALENDAR.

SPECIFICATION forming part of Letters Patent No. 387,784, dated August 14, 1888.

Application filed December 12, 1881. Serial No. 47,615. (No model.)

To all whom it may concern:

Be it known that I, HENRY S. HACK, of Taunton, in the county of Bristol and State of Massachusetts, have invented a new and useful Improvement in Calendars, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, in which—

Figure 1 is an elevation. Fig. 2 is a cross-section on line *x x*. Fig. 3 is a lengthwise section on line *y y*. Fig. 4 is a detail. Fig. 5 is a modification.

My invention is a novel double-roll calendar, the chief novelty of which is that the bearings for the two spindles which carry the calendar-strip are mounted upon the backing, instead of the two spindles and strip being in a box or case, the spindles extending through the sides of the box, as heretofore.

In that form of my invention shown in the drawings, A represents the backing, which is shown as formed of a sheet, *a*, of paper stiffened by sheets of card-board a^2, and finished by the paper sheet a^3. The other part, *a'*, forms bearings for the spindles B B', so that when the backing A is completed it consists of a backing with bearings upon it for holding the two spindles B B', and the calendar-strip C extends from one spindle to the other over the surface of the backing, thus forming a new article of manufacture which differs substantially from any other calendar known to me.

I am aware that I am not the first to use a calendar-strip wound on a spindle held in a pair of bearings on a backing, that being shown in Watson's Patent No. 199,764, of 1878. I therefore distinctly disclaim all that is shown in Watson's patent, and also disclaim a duplication of Watson's calendar-strip spindle and bearings—that is to say, I do not claim a backing with two or more separate strips and spindles mounted on its face.

I am also aware that a variety of calendars with two or more rolls have been patented. See, for examples, Pooler's Patent No. 77,837, of 1868, and Keller's Patent No. 171,227, of 1875. In both of these patents the spindles are in pairs and there is one strip for each pair of spindles. I disclaim, therefore, all that is shown in either of these patents, and in particular disclaim all calendars in which the strip is in a box or case and that portion only of the strip is visible which is brought under an aperture formed in the front wall of the box or case, for my invention is an improvement upon calendars of this class, consisting in forming two pairs of bearings upon a backing and mounting the two spindles in these bearings, instead of making a box or case and mounting the spindles and strip in it, as in Pooler's and Keller's.

It is desirable, in order to keep the calendar-strip C close to the front face of the backing, to deflect it as shown in Fig. 2, and this deflection also serves as a tension,

In that form of my invention shown in the drawings each spindle is mounted in a receiver, D D', the slot in each receiver serving to hold that part of the strip C between them close to the face of the backing. The end of each receiver D D' in this form of my invention forms a box or bearing by which the axis of the spindle is kept in a fixed relation with the other spindle and with the face of the backing, this arrangement of two spindles each mounted in a pair of bearings attached to the surface of a backing by which the axis of each spindle is kept in a fixed relation with the front of the backing and with the other spindle being the chief feature of novelty of my improved calendar.

When the part *a'* is of thin paper, it should be strengthened by a slotted tube, *d*, of thin metal, (see Fig. 4;) but the part *a'* may itself be of sheet metal or of card-board so strong as not to require the use of tube *d*. (See Fig. 5.)

The backing A having been formed with two receivers, D D', as shown in Figs. 1 and 2, the spindle B, having the calendar-strip C wound upon it, is inserted in receiver D and the end of strip C carried out through the slot in receiver D. The other spindle, B', having a short strip (or a portion of the calendar-strip C) secured to it, is placed in the other receiver, D', and the end of its strip is carried out through the slot and cemented to the strip from receiver D, thus making the strip continuous between the two spindles B B'. The end pieces, *b b'*, support the spindles and serve to turn them to wind up the calendar-strip on one of them as it is unwound from the other.

I do not claim a calendar consisting of a box,

two pairs of bearings in the side of the box, two spindles, and a calendar-strip.

What I do claim as my invention is—

The improved double-roll calendar above described, consisting of the backing, the two spindles, each mounted in a pair of bearings, and the calendar-strip, the two pairs of bearings being supported solely by the backing and that part of the strip lying between the rolls being uncovered.

HENRY S. HACK.

Witnesses:
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