

(No Model.)

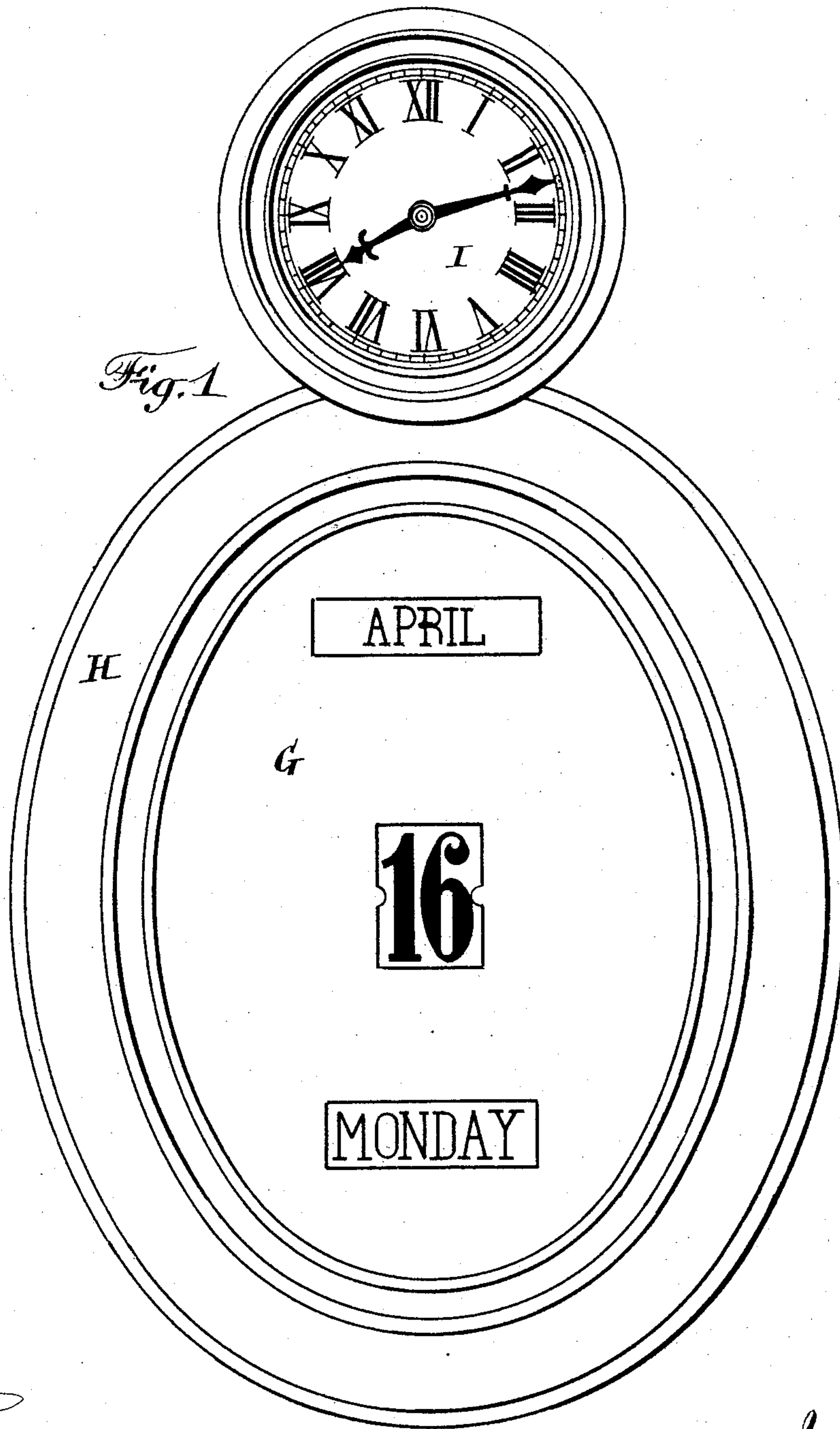
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J. A. GUYOT.

CALENDAR.

No. 369,054.

Patented Aug. 30, 1887.



Witnesses

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Geo. T. Pinckney

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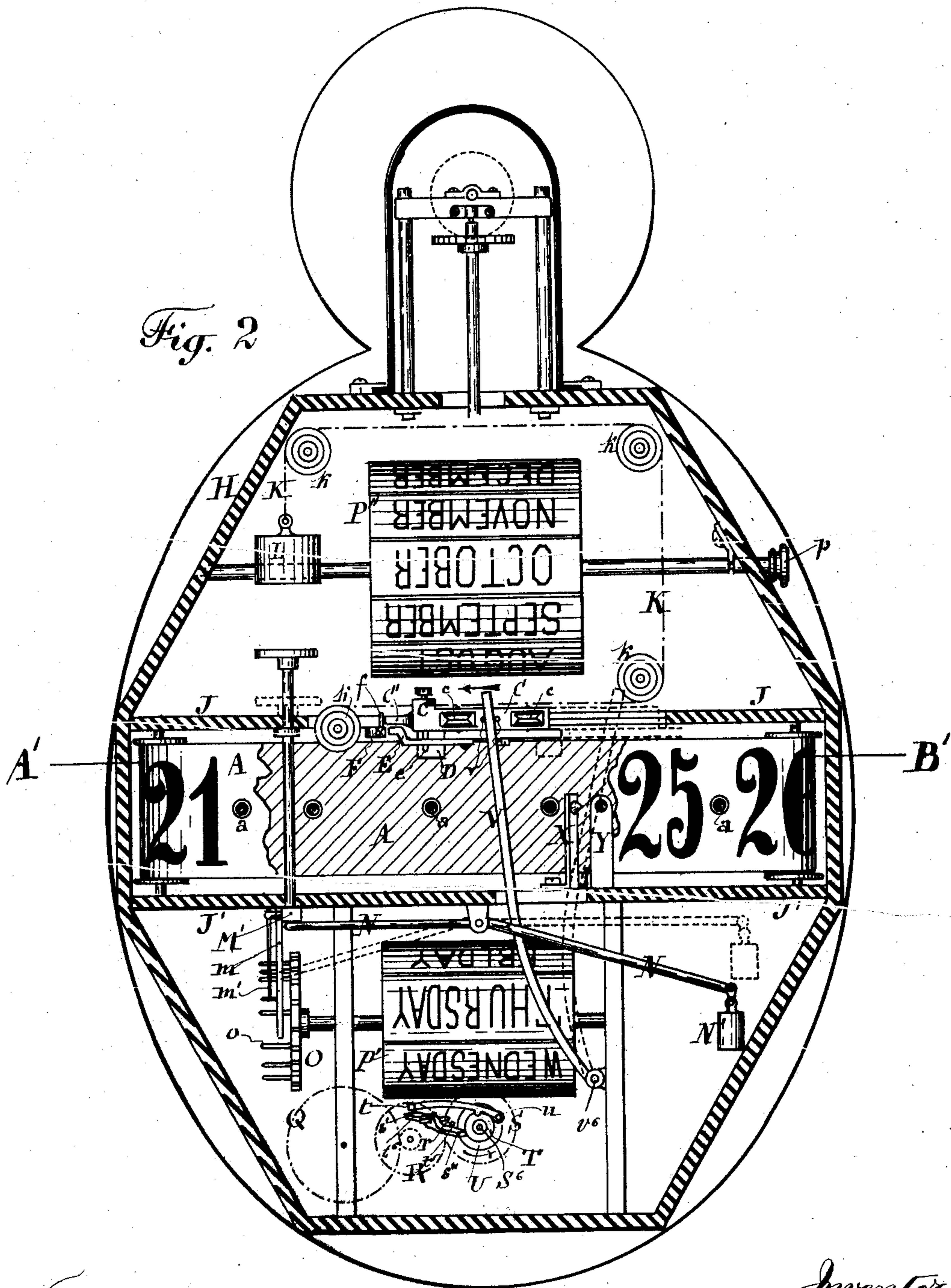
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Fig. 3

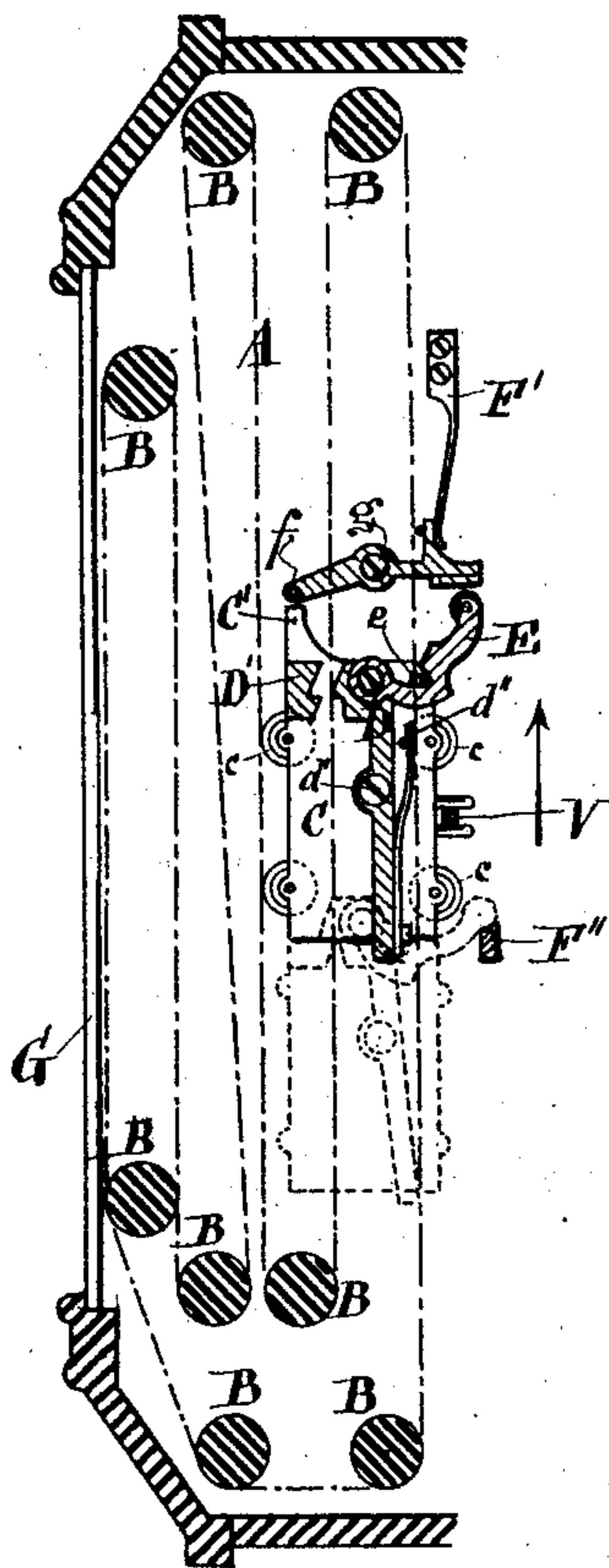
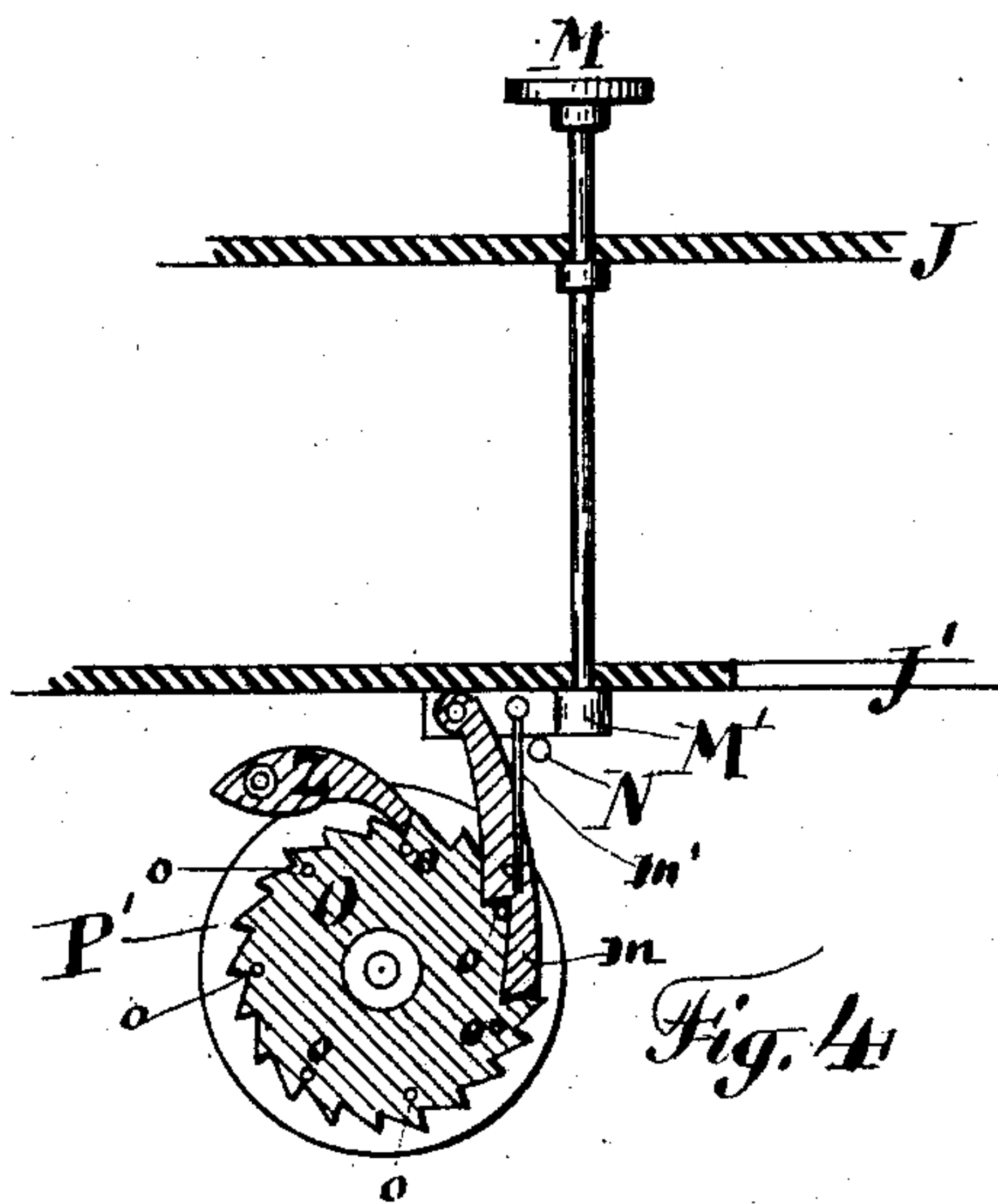
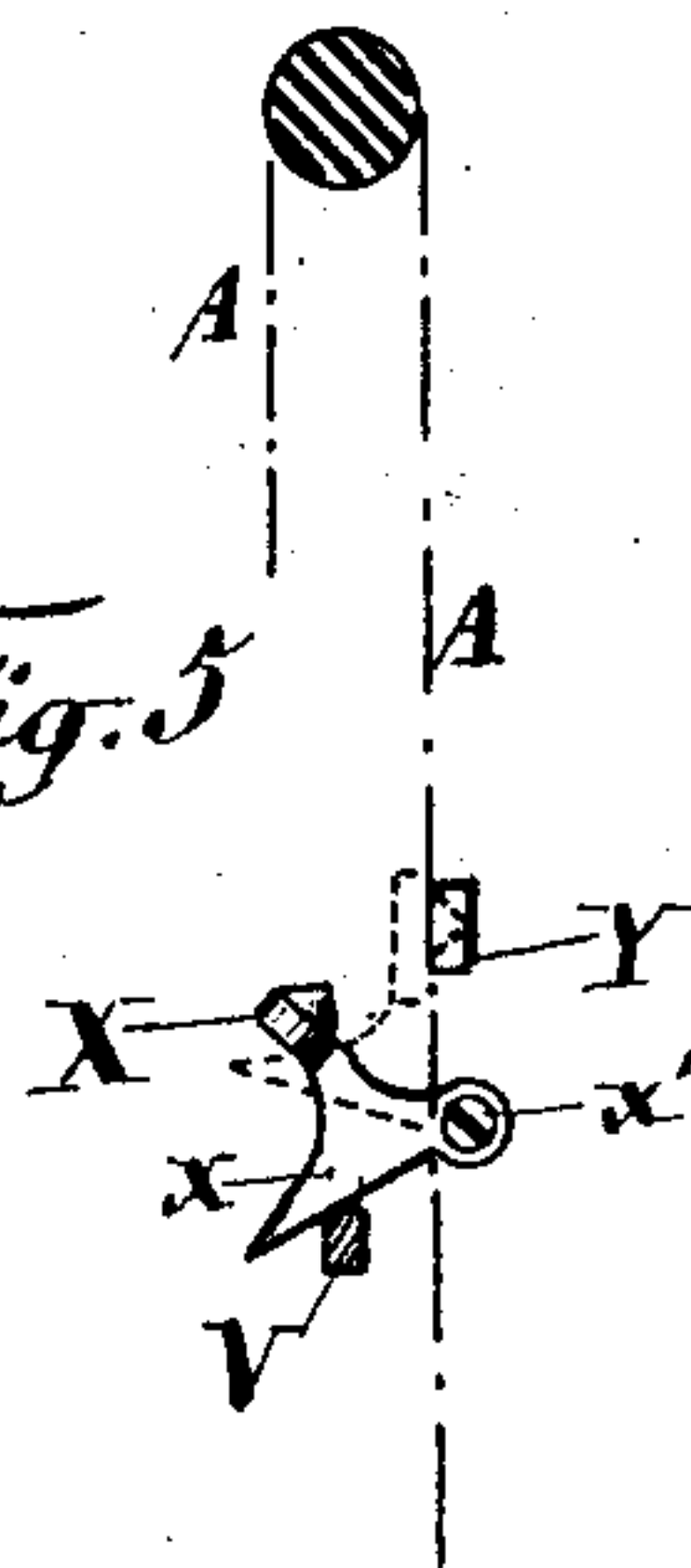


Fig. 5



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UNITED STATES PATENT OFFICE.

JULES ALFRED GUYOT, OF GENEVA, SWITZERLAND.

CALENDAR.

SPECIFICATION forming part of Letters Patent No. 369,054, dated August 30, 1887.

Application filed February 23, 1887. Serial No. 229,184. (No model.)

To all whom it may concern:

Be it known that I, JULES ALFRED GUYOT, of Geneva, Switzerland, have invented an Improvement in Calendars, of which the following is a specification.

In my calendar I make use of an endless band, upon which the numbers 1 to 31, inclusive, are printed, painted, or otherwise marked in consecutive order, to indicate the date of the month, and this band is moved automatically the required distance once in every twenty-four hours, at midnight, so as to bring to view the number following the one which had been visible the preceding twenty-four hours, and at the same time that the endless band is moved a cylinder bearing the names of the days of the week is turned automatically one-seventh of a revolution and exposes to view the day of the week corresponding to the date of the month.

The names of the months are upon a cylinder that is operated by hand.

In the drawings, Figure 1 is a face view of the calendar. Fig. 2 is a rear elevation with the case in section and a portion of the endless band removed. Fig. 3 is a section at the line A' B', Fig. 2. Fig. 4 is an elevation of the drum containing the names of the days of the week and the devices for turning said drum. Fig. 5 is a plan view of the device for stopping and holding the endless band.

H is a frame to inclose the mechanism of the calendar. At the front there is a plate of glass, G, that is painted or otherwise rendered opaque, except at three places, where the glass is left transparent, so that the month, date of the month, and day of the week are visible at these transparent places.

A is an endless band or ribbon passing around the rollers B B, as indicated in Fig. 2, and these rollers are supported in the plates J J', that extend horizontally from one side of the frame H to the other.

The endless band A is marked with the numbers 1 to 31, inclusive, in consecutive order, for the dates of the month, and said band is moved once in every twenty-four hours, at midnight, to bring to view the number following the one which had been visible the preceding twenty-four hours. This periodical moving of the band is accomplished as follows:

C is a carriage fitted to move back and forth upon rollers *c c* in a slot in the plate J, and to this carriage a cord or chain, K, is connected at C'. This cord K is led in one direction from C' around the rollers *k k k*, and at this end of said cord is a weight, L. The other part of said cord is led from C' over the roller *k'* down to the drum U, upon which this end is wound.

Q is a spring-barrel adapted to run thirty-two days with one winding, and this spring-barrel gives motion to a wheel, S, and its shaft through the pinion *r* and wheel R. The drum U is loose upon the shaft of S; but upon said shaft there is secured a disk, T, having a notch therein, and upon the drum U is a lever, *t*, pivoted at *w*, having a projection, *t'*, to enter the notch in the disk *t*. There is a spring to press the lever *t* against the disk T; but it is not shown in the drawings.

When the projection *t'* is in the notch of T, as in Fig. 3, the drum U turns with the shaft of S. Thereby the cord K is wound upon the drum U and the carriage C is moved backward and the weight L is gradually raised. The carriage C is twenty-four hours in making its backward movement, and completes said movement at midnight, at which time the endless band A is gripped and moved along with the forward movement of the carriage C, as next described.

The endless band A is led so as to pass between the fixed finger D' and the movable finger D, both upon the carriage C, and during the backward movement of said carriage the finger D occupies the position shown in Fig. 3, and the band is unacted upon by said fingers; but when the carriage completes its backward movement a projection, C', on C strikes one end of a lever, *f*, pivoted at *g* to the plate J. At the same time a latch, E, pivoted to the finger D, strikes the other end of said lever *f*, and said latch is unhooked from a pin, *e*, on C, which releases the finger D, and the spring *d* swings said finger D on its pivot *d'*, and the endless band A is clamped between D and D', and is moved along the required distance with the forward movement of the carriage C.

To allow the forward movement of the carriage C, the drum U must be disconnected

from its shaft S just as the carriage completes its backward movement. This is accomplished as follows:

The disk T makes a complete revolution 5 once in every twenty-four hours, and upon this disk is a pin, t^5 , which at the moment the finger D is released comes in contact with a lever, t^6 , moving the latter, which in turn raises one end of the lever t , lifting its pro- 10 jection t' out of the notch in T, thereby disconnecting the drum U from the shaft S^6 of S. The weight L now descends, unwinding the cord K from the drum U, which latter now turns upon the shaft S^6 , and the carriage C re- 15 ceives its forward movement and moves the endless band A by the fingers D D' the necessary distance to bring to view beneath the transparent place in the glass G the number following the one previously visible.

The forward movement of the carriage oc- 20 cupies but a moment, and as said carriage completes said forward movement the latch E strikes a fixed stop, F, which hooks said latch E to e , moving the finger D away from D', re- 25 leasing the endless band A, and the carriage C again commences its backward movement as soon as the projection t' again drops into the notch of T and connects the drum U with the shaft S^6 .

P' is the drum having the names of the days 30 of the week upon its periphery, and upon the shaft of said drum is a ratchet-wheel, O, having seven pins, o , projecting from its face. z is a pawl to keep the wheel O and its shaft 35 from turning backward.

M is a rod guided in the plates J J', and se- cured to the lower end of the rod M is an arm, M', carrying a pawl, m' , which latter is kept in contact with one of the pins o .

The rod M is kept in the position shown in 40 Figs. 2 and 4 by a lever, N, having a weight, N', at one end, the other end of the lever being beneath the arm M'.

As before described, the forward movement 45 of the carriage C is given by the weight L, and said weight in falling strikes the top of the rod M and forces down said rod, and by the pawl m the drum P' is rotated one-seventh of a revolution, and the name of the day is ex- 50 posed to view, following the one previously visible for twenty-four hours.

As the weight L is raised, the rod M is lifted by the weighted lever N and the pawl m brought into position to take the next pin o .

Arranging the parts, as before described, 55 so that the carriage requires twenty-four hours to make its backward journey, allows for an even and regular movement of the gearing of the time mechanism of the clock I, because 60 the resistance is uniform, and by the weight L dropping quickly the full force of said weight is utilized in giving the movement to the rod M and turning the drum P'.

To insure the endless band A being stopped 65 at the exact place each time that it is moved I provide holes a at regular distances apart in the band, and these holes may be protected by

metallic eyelets. The band A passes between a plate, Y, having a hole therein, and a con- 70 cal pin upon a lever, X, both X and Y being upon the plate J.

V is a lever pivoted at v^6 , and its upper end is between two pins, $v v$, upon the carriage C; hence said lever V is moved back and forth by 75 said carriage.

When the carriage C reaches its extreme for- 80 ward movement and strikes the fixed stop F'', at which time the band A is released by the fingers D D', the lever V strikes the end x of the lever X, moving the same, so that the con- 85 cal pin thereon passes into one of the holes in A and into the hole in Y, and securely holds said band A and prevents it being carried by momentum beyond the place at which it should stop.

A spring (not shown in the drawings) moves 90 back the lever X and releases the band A as soon as the lever V has been moved sufficiently by the movement of the carriage C during its backward travel.

P'' is the drum containing the names of the 95 months, and this is to be turned by hand, one end of the shaft of the drum projecting beyond the case H, and having a button, P, for rotating said drum.

The speed of the wheel S may be regulated 100 by any suitable escapement, and any desired arrangement of gearing may be used between the spring-barrel Q and the arbors of the hands of the clock I, Fig. 1.

I claim as my invention—

1. The combination, with the endless band A, rollers for supporting the same, the carriage 105 c, and means, substantially as specified, for giving it the forward and backward movement, of the fingers D D' and latch E upon said carriage, the lever-stop F, and fixed stop F'', substantially as and for the purposes specified.

2. The combination, in a calendar, of an 110 endless band bearing the dates of the month, rollers for supporting the band, a carriage fitted to move back and forth, fingers upon said carriage for gripping the band, a latch for keeping the fingers open during the back- 115 ward movement of the carriage, stops for acting upon the latch and opening and closing said fingers, a cord attached to said carriage, a spring-barrel, gearing, and drum for winding up one part of the cord and giving the back- 120 ward movement to the carriage, a weight at the end of the other part of said cord for giving the forward movement to the carriage, and means for disconnecting the winding-drum from its shaft once in every twenty-four hours, 125 substantially as set forth.

3. The combination, with the endless band and its rollers, the carriage and its fingers and latch, and means, substantially as specified, 130 for giving the forward and backward movement to the carriage and progressive movement to said band, of the rod M, pawl N, wheel O, pins o thereon, drum, weighted lever N, and a weight that is raised during the

backward movement of the carriage, and acts upon said rod M as the carriage nearly completes its forward movement, substantially as and for the purposes specified.

5 4. The combination, with the endless band A, having holes therein at regular intervals, of rollers for supporting said band, the carriage C, means, substantially as specified, for giving the forward and backward movement
10 to said carriage, the fingers D D' upon said carriage for gripping the band, the latch and stops for operating said latch, the lever X, plate Y, and lever V, the latter being operated by the carriage, substantially as and for the
15 purposes specified.

5. The combination, with the spring-barrel

Q and gearing r R S, of the shaft S⁶, making a complete revolution once in twenty-four hours, the notched disk T, fixed upon said shaft S⁶, the drum U, loose on said shaft, a lever, t, piv- 20
oted upon U and having a projection entering the notch in T, for connecting the drum U to the shaft S⁶, the pin t⁵ upon the drum U, and the lever t⁶, for lifting the lever t and disconnecting the drum U from the shaft S⁶ when 25
said lever t⁶ is moved by the pin t⁵, substantially as specified.

JULES ALFRED GUYOT. [L. s.]

Witnesses:

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