

No. 816,202.

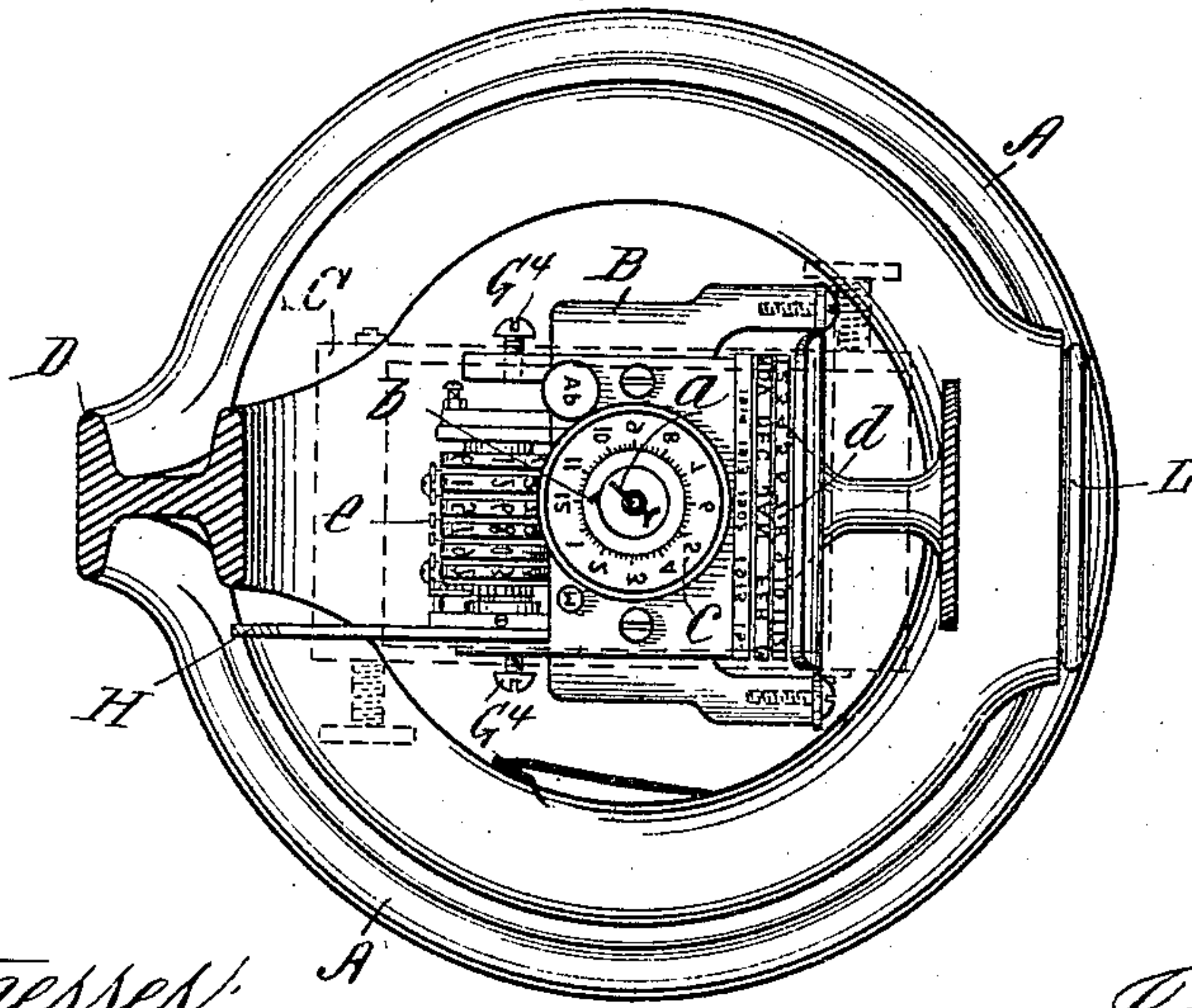
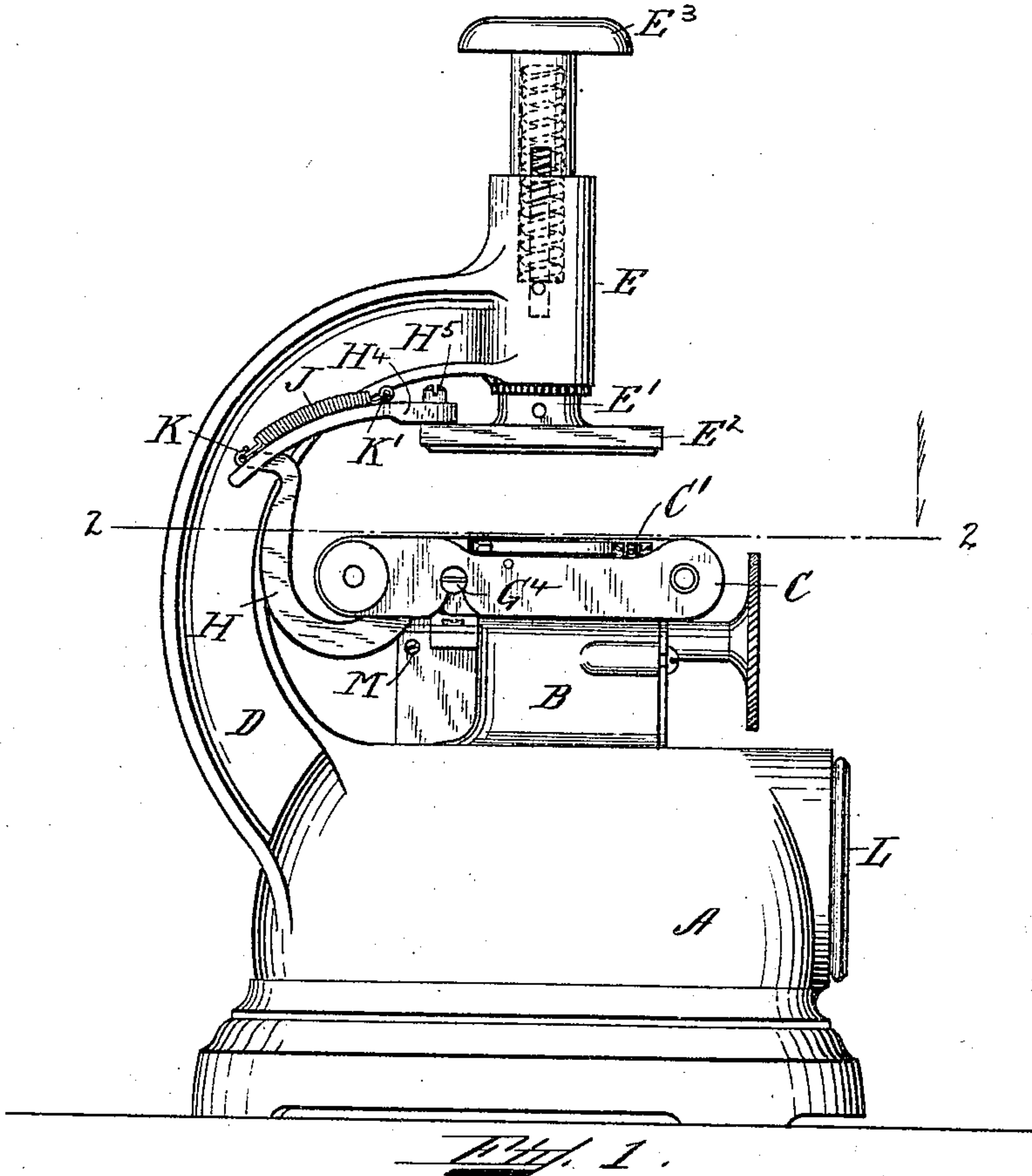
PATENTED MAR. 27, 1906.

J. C. WILSON.

TIME PRINTING AND NUMBERING MACHINE.

APPLICATION FILED MAY 23, 1903.

2 SHEETS—SHEET 1.



Witnesses: A
A. Q. Lanake
A. L. Wesser

Fig. 2. Inventor:
John C. Wilson
By J. S. Rusk
att'y

No. 816,202.

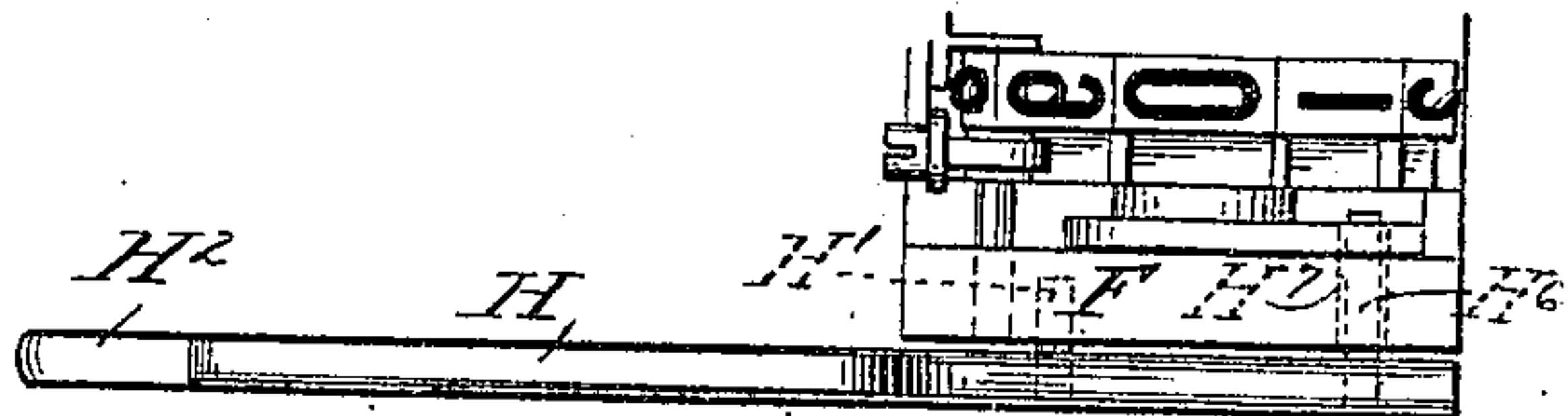
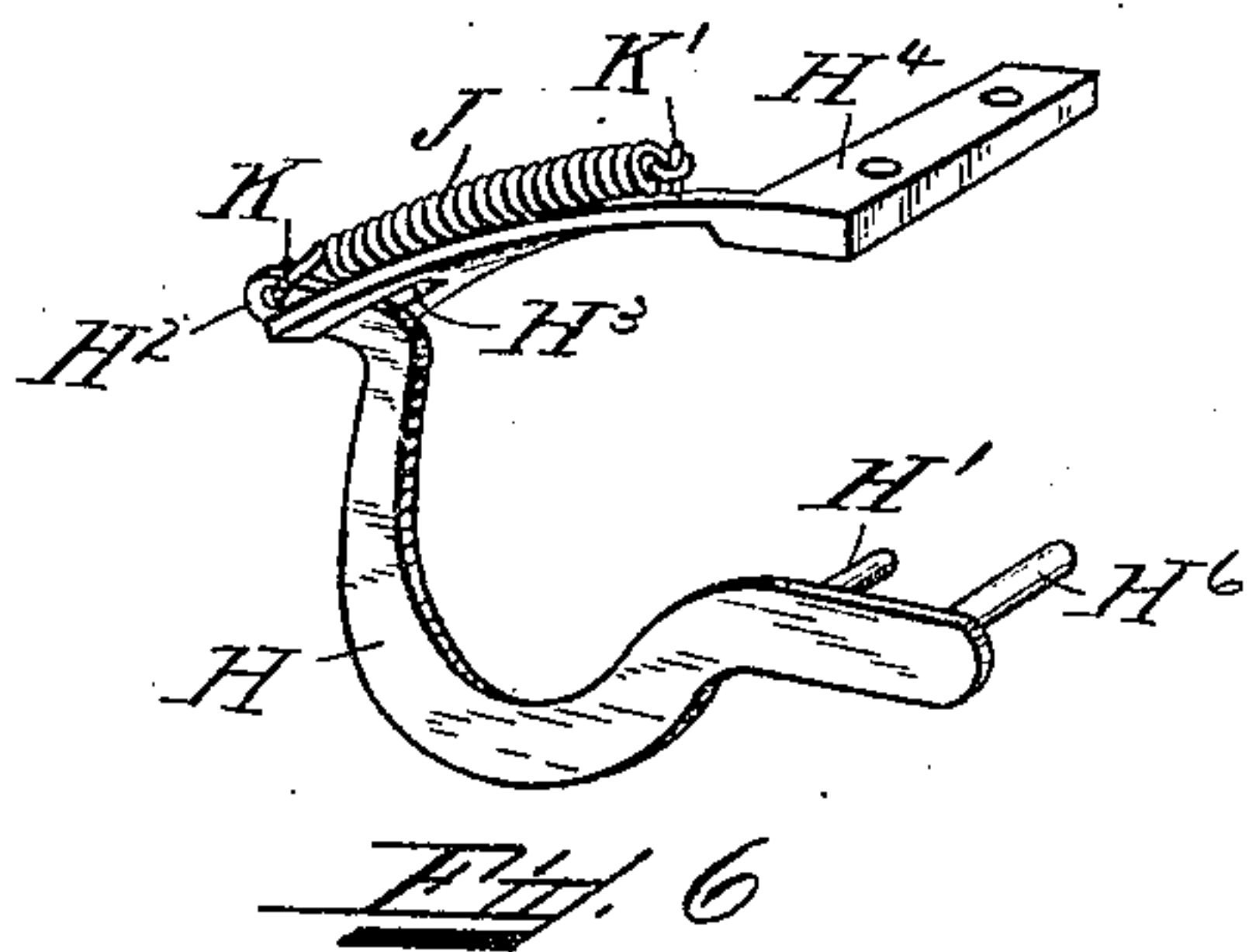
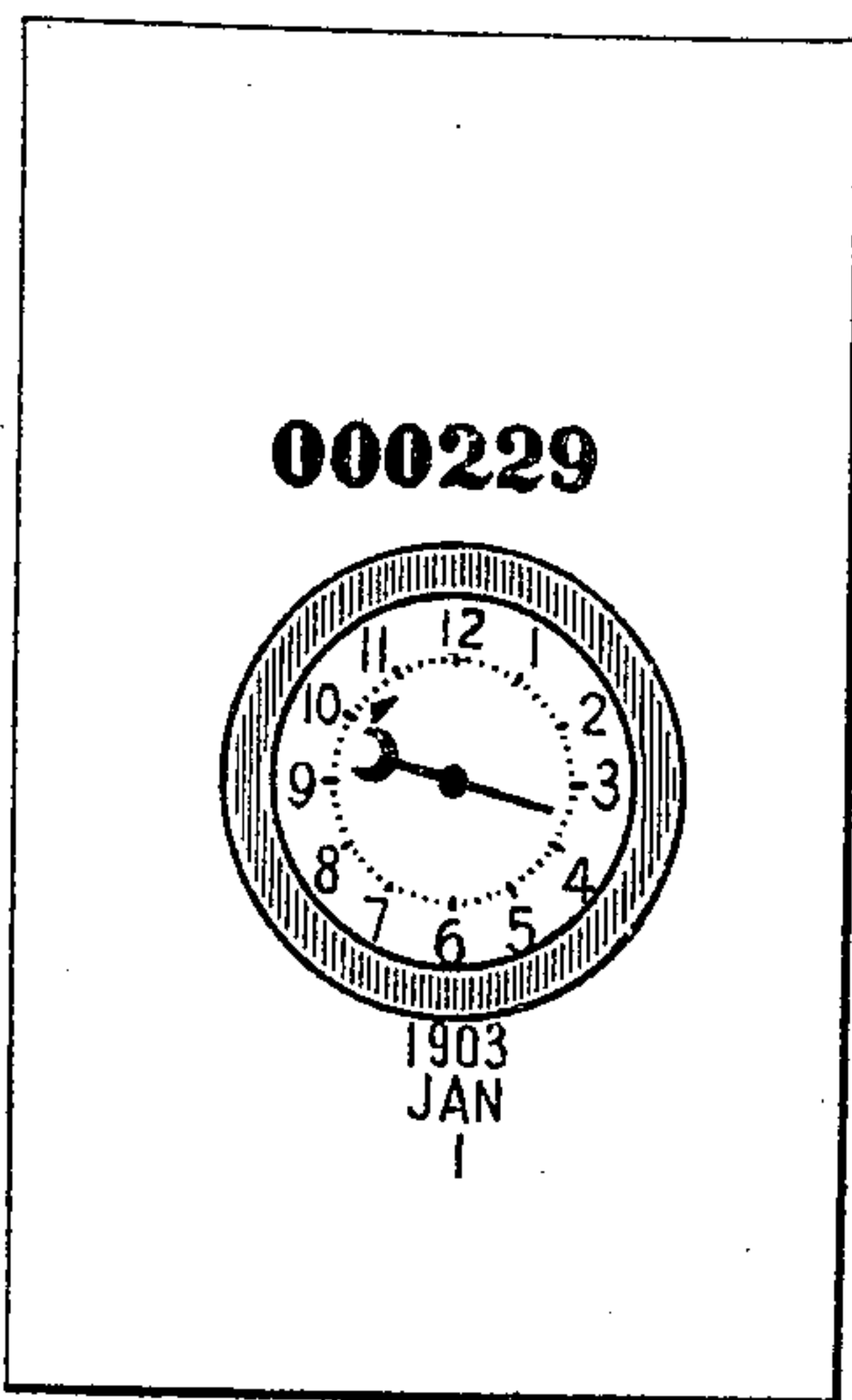
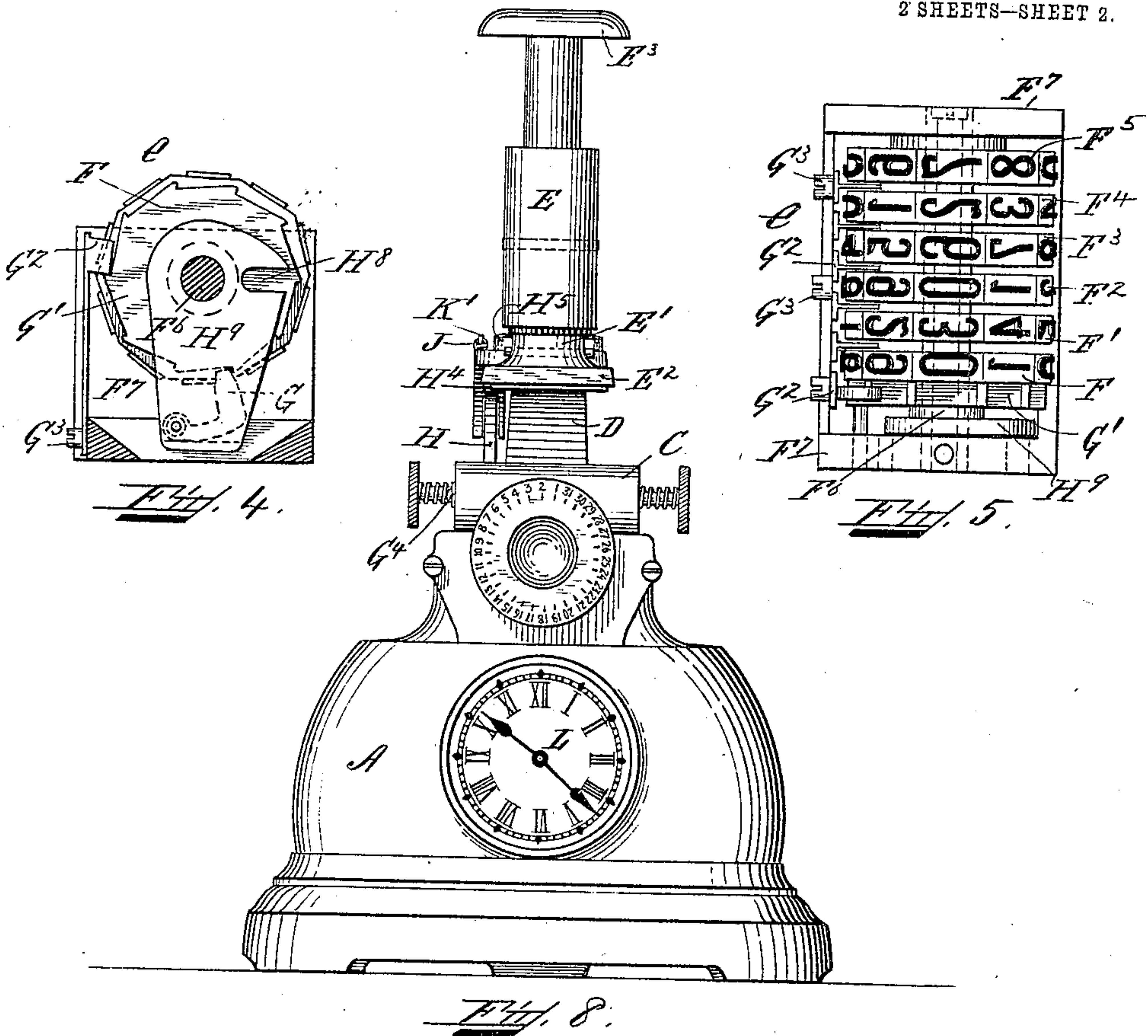
PATENTED MAR. 27, 1906.

J. C. WILSON.

TIME PRINTING AND NUMBERING MACHINE.

APPLICATION FILED MAY 23, 1903.

2 SHEETS—SHEET 2.



Witnesses: Feb. 7.
A. P. Larrabee
A. L. Wesson

Exh. 3. Inventor:
John C. Wilson
By J. S. Kusk
att.

UNITED STATES PATENT OFFICE.

JOHN C. WILSON, OF BOSTON, MASSACHUSETTS.

TIME-PRINTING AND NUMBERING MACHINE.

No. 816,202.

Specification of Letters Patent.

Patented March 27, 1906.

Application filed May 23, 1903. Serial No. 158,429.

To all whom it may concern:

Be it known that I, JOHN C. WILSON, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Time-Printing and Numbering Machines, of which the following is a specification.

My invention relates to an improved machine for printing the time of day, the date, and a consecutive number simultaneously upon letters, documents, or other printable materials.

My invention consists of certain novel features hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, which illustrate a construction embodying my invention, Figure 1 is a side elevation of the machine, showing the case or frame and the operating parts. Fig. 2 is a plan view in section on the line 2-2, Fig. 1. Fig. 3 is a fragmentary plan view of the consecutive-numbering device and the connected operating-lever. Fig. 4 is a sectional view of the consecutive-numbering device with the end of the inclosing and supporting frame removed to show the pawl and ratchet for operating the units-printing wheel. Fig. 5 is an enlarged plan view of the consecutive-numbering device. Fig. 6 is a perspective view in detail of the operating-lever of the consecutive-numbering device and the projecting finger or arm attached to the printing-platen which coöperates with it. Fig. 7 shows an imprint taken from the machine, giving the time of day, the date, and the consecutive number. Fig. 8 is a front elevation showing the case or frame, the hands and face of the clock, the date-printing-wheel index, and the operating parts as they appear when looked at from the front of the machine.

Like letters of reference refer to like parts throughout the several views.

In carrying out my invention I mount upon a case or frame A, inclosing a controlling clock-train (not shown) of suitable construction, the bed-plate B, to which the time-printing hands or disks *a* and *b*, the dial-printing die *c*, the date-printing wheels *d*, and the ink-ribbon holder C are attached. The case or frame A has a curved arm or extension D, provided with a tubular socket or bearings at its upper extremity through which passes the plunger E', having a printing-platen E² attached to its lower end and the striking knob or handle E³, attached to its upper end, the

whole comprising a "time-stamp" substantially the same in construction and operation as that shown and described in United States Letters Patent No. 576,644, issued to me February 9, 1897, to which reference may be had.

The consecutive-numbering device *e*, as far as the number-printing parts and their movements are concerned, is of the usual and well-known construction, consisting of a series of printing-wheels F F' F² F³ F⁴ F⁵, bearing numbers of figures from "0" to "9" in printing form upon their peripheries and being mounted upon a common axis F⁶, passing through their centers, the said axis being supported in the ends of the casing or frame F⁷. Each number-printing wheel is fitted with a ratchet-wheel G' and pawl G for moving or rotating them upon their axis from one printing position to another and with retaining pawls or detents G² (secured by suitable screws G³ back of the frame F⁷) for locking them in a fixed position after they have been moved by the pawls and ratchets. The movement of the first or units number-printing wheel through the operation of its pawl and ratchet controls the movements of the entire series of the number-printing wheels, one revolution of the units-wheel causing the pawl and ratchet of the second or "tens" printing-wheel to operate and advance the said wheel one step. When the tens-wheel has moved ten steps or one revolution, the "hundreds" wheel will in like manner be advanced one step, and so on up to the last wheel, which in this instance is the sixth or "hundred-thousands" wheel, each wheel being in turn controlled by the wheel preceding it. The mechanism of this consecutive-number device is so well known that a more detailed description of its construction and operation is unnecessary.

The consecutive-numbering device *e* is fastened to the supporting frame or case A by screws G⁴ in juxtaposition to the bed-plate and the time-printing devices.

It is desirable that the operation of the consecutive-numbering device should not require appreciably greater power than is ordinarily required to take an imprint and that the devices used to operate the units-wheel should not interfere with the placing in position of the matter to be printed or with the ink-ribbon C' or its holder C. To this end the pawl and ratchet of the units-wheel of the consecutive-numbering device are operated by means of a curved lever H, which curves

downward under the ink-ribbon C' and its holder C and backward far enough to allow sufficient room for the insertion of any matter to be printed. This curved lever, near its lower extremity, is provided with a pivot H', which is journaled in the end of the frame or casing F' of the consecutive-numbering device, and at its upper extremity it is provided with a projection H² in the end of the curved projecting finger or arm H⁴, attached by screws H⁵ to the printing-platen E², the sides of the said slot acting as guides to prevent the curved lever from moving sidewise. The curved lever is also fitted with a pin H⁶ at its lower extremity which extends through a slot H⁷ in the casing of the consecutive-numbering device and fits into the slot H⁸ of the slotted piece H⁹, which is attached to and controls the pawl G, Fig. 4, that operates the units-wheel F by engagement with the ratchet-wheel G'.

The curved lever H is at all times in contact with the projecting finger or arm H⁴ by a spiral spring J, one end being attached to an eye K on said lever and the other end to another eye K' on the projecting finger or arm H⁴ at a point near to where it is fastened to the printing-platen E². The curved lever H therefore has a short arm extending from the pivot-hole or fulcrum in the casing or frame F' of the consecutive-numbering device to the engaging pin H⁶ at the lower extremity and a long arm extending from the said pivot-hole or fulcrum to its upper extremity H², where it engages with the projecting finger or arm H⁴ at a point near to where it is fastened to the printing-platen E². The curved lever H therefore has a short arm extending from the pivot-hole or fulcrum in the casing or frame F' of the consecutive-numbering device to the engaging pin H⁶ at the lower extremity and a long arm extending from the said pivot-hole or fulcrum to its upper extremity H², where it engages with the projecting finger or arm H⁴, attached to the printing-platen E², Fig. 1, the result being that the required ease of operation is attained by the long end of the curved lever H being obliged to move with the printing-platen E² through a much greater radius than the shorter, where the work of operating the consecutive-numbering device is done.

In order to allow materials of greater or less thickness to be imprinted, as described, without interfering with the operation of the consecutive-numbering device or the full movement of the printing-platen or without putting a dangerous strain on the operating parts when the thinnest material is imprinted, the projection H² on the upper extremity of the curved lever H, which engages with the projecting finger or arm H⁴, is rounded off at the heel and is of such a length and outline that as soon as the printing-platen has been depressed far enough to cause the pin H⁶,

working in the slot H⁷ of the pawl-piece of the units-wheel, to turn the said wheel into and lock it in a new printing position the curved lever H moves out of operative engagement with the projecting finger or arm H⁴, and to prevent the number-printing wheels from being carried forward so far by a strong stamping blow that they might be thrown out of their proper printing position a stop-pin M is inserted against which the lower edge of the curved lever H abuts and positively limits its downward movement.

The operation of the machine is as follows: The time and date printing devices *a*, *b*, *c*, and *d* and the consecutive-numbering device *e* being set to the desired printing position in the usual way to take an imprint, the material to be printed is put underneath the printing-platen E² and over the time, date, and numbering devices, and the knob or handle E³ is struck, which drives the printing-platen E² and its attached projecting finger or arm H⁴, together with the curved lever H, downward, the latter beginning to move the units-wheel of the consecutive-numbering device, through the agency described, into a new printing position, one step in advance as soon as the printing-platen begins its move downward and completing the movement when the projecting finger or arm H⁴ slips over the heel at the upper extremity of the curved lever H when it is thrown out of operative engagement therewith and abuts against the stop-pin M, as previously stated. The printing-platen continues its downward movement and imprints the material inserted by forcing it against the ink-ribbon C' and the time and date printing devices, and the number-printing wheel of the consecutive-numbering device producing an imprint, as shown in Fig. 7. When the hand is withdrawn from the knob or handle E³, the printing-platen E² returns to its original position, carrying the curved letter H back with it by means of the spiral spring J and causing the engaging pin H⁶ on the short end of the curved lever H to lift the pawl G of the units-wheel F of the consecutive-numbering device *e* into operative engagement with another tooth of the ratchet-wheel G', to be moved into a new printing position by the next downward movement of the printing-platen E². From this it will be seen that the time-printing devices are being continuously moved or rotated automatically in one plane by the clock-train, while the date-printing devices may be moved or rotated manually, and the number-printing wheels of the consecutive-numbering device are placed in a position to be moved or rotated by the movement of the printing-platen E² in one direction and are moved or rotated one step in advance by an opposite movement of said printing-platen. It will also be observed that the date-printing wheels and the num-

ber-printing wheels move or rotate in a different plane from the moving or rotating parts of the time-printing device and that the date-printing wheels and the number-printing wheel, although moving or rotating in the same plane, the directions of their respective movements or rotations are at right-angles to each other. As shown and described herein, the upward movement of the printing-platen places the number-printing wheels of the consecutive-numbering device in position to be moved or rotated by each downward movement of the printing-platen; but it is obvious that the reverse method of operation might be employed without departing essentially from the spirit of my invention. The visible clock face and hands are for the purpose of indicating the time and are connected with the clock-train controlling the time-printing devices by any suitable gearing.

I do not limit myself to the arrangement and construction shown, as the same may be varied without departing from the spirit of my invention.

Having thus described the nature of my invention and set forth a construction embodying the same, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a machine for simultaneously printing the time of day, and a consecutive number, a time-printing device actuated to predetermined rotation in a horizontal plane, mechanism whereby said time-printing device may be continuously rotated at a uniform velocity, a consecutive-numbering machine, the printing parts of which are adapted to be moved or rotated in a vertical plane combined with a movable platen adapted to move or rotate the printing parts of the consecutive-numbering device, and to take an imprint from the said time-printing device and the said consecutive-number-printing device simultaneously, the said time-printing device and the said consecutive-number-printing device being mounted and attached to a common supporting frame or base.

2. In a machine for simultaneously printing the time of day, the date and a consecutive number, a time-printing device actuated to predetermined rotation in a horizontal plane, mechanism whereby said time-printing device may be continuously rotated at a uniform velocity, a consecutive-numbering device, and a date-printing device, the printing parts of which are adapted to be rotated in a vertical plane combined with a movable platen adapted to move or rotate the printing parts of the consecutive-numbering device and to take an imprint from the said time-printing device, the said date-printing device and the said consecutive-number-printing devices simultaneously, the said time-printing device, the said consecutive-num-

ber-printing device and the said date-printing device being mounted upon and attached to a common supporting frame or base.

3. In a machine for simultaneously printing the time of day, the date and a consecutive number, a time-printing device actuated to predetermined rotation in a horizontal plane, mechanism whereby said time-printing device may be continuously rotated at a uniform velocity, a consecutive-numbering device, the printing parts of which are adapted to be moved or rotated in a vertical plane, a date-printing device, the printing parts of which are adapted to be rotated in a vertical plane at right angles to the said number-printing parts of the said consecutive-numbering device, combined with a movable platen adapted to move or rotate the printing parts of the consecutive-numbering device and to take an imprint from the said printing device, the said date-printing device and the said consecutive-number-printing device simultaneously, the said time-printing device, the said consecutive-number-printing device and the said date-printing device being mounted upon and attached to a common supporting frame or base.

4. In a machine for simultaneously printing the time of day and a consecutive number, a time-printing device actuated to predetermined rotation on one plane, mechanism whereby said time-printing device may be continuously rotated at a uniform velocity, a consecutive-number-printing device adapted to be rotated in a different plane, combined with a movable platen adapted to move or rotate the printing parts of the consecutive-numbering device and to take an imprint from the said time-printing device and the said consecutive-number-printing device simultaneously, the said time-printing device and the said consecutive-number-printing device being mounted and attached to a common supporting frame or base.

5. In a machine for simultaneously printing the time of day, the date, and a consecutive number, a time-printing device actuated at predetermined rotation in one plane, mechanism whereby said time-printing device may be continuously rotated at a uniform velocity, a date-printing device and a consecutive-number-printing device adapted to be rotated in a different plane from the said time-printing device, combined with a movable platen adapted to move or rotate the printing parts of the consecutive-numbering device and to take an imprint from the said time-printing device, the said date-printing device and the said consecutive-number-printing device simultaneously, the said time-printing device, the said consecutive-number-printing device and the said date-printing device being mounted upon and attached to a common supporting frame or base.

6. In a machine for simultaneously print-

ing the time of day, and a consecutive number, a time-printing device and a consecutive-numbering device mounted upon and attached to a common supporting frame or base mechanism whereby said time-printing device may be rotated at a uniform velocity, a movable platen for simultaneously taking an imprint from both devices, combined with a pivoted lever cooperating with a projecting finger at one end attached to the said platen and cooperating at the other end with the said consecutive-numbering device to change the position of its printing parts by the movement of the said platen.

7. In a machine for simultaneously printing the time of day and a consecutive number, a time-printing device mechanism whereby said time-printing device may be rotated at a uniform velocity, and a consecutive-number-printing device mounted upon and attached to a common frame or base, a movable platen for simultaneously taking an imprint from both printing devices combined with a pivoted operating-lever with a short and a long arm from the said consecutive-number-printing device, the short arm engaging with the pawl-and-ratchet unit of the printing-wheel of the said number-printing device, and a long arm engaging with a projecting finger or arm on the said platen to change the position of the printing parts of the said consecutive-number-printing device by the movement of the said platen.

8. In a machine for simultaneously printing the time of day, and a consecutive number, a time-printing device and a consecutive-numbering device mounted upon and attached to a common supporting frame or base mechanism whereby said time-printing device may be rotated at a uniform velocity, a movable platen for simultaneously taking an imprint from both devices, combined with a pivoted lever cooperating with a projecting finger at one end attached to the said platen and cooperating at the other end with the said consecutive-numbering device to change the position of its printing parts by the movement of the said platen, and means for limiting downward movement of said pivoted lever.

9. In a machine for simultaneously printing the time of day and a consecutive number, a time-printing device, and a consecutive-number-printing device mounted upon and attached to a common frame or base mechanism whereby said time-printing device may be rotated at a uniform velocity, a movable platen for simultaneously taking an imprint

from both printing devices combined with a pivoted operating-lever with a short and a long arm from the said consecutive-number-printing device, the short arm engaging with the pawl-and-ratchet unit of the printing-wheel of the said number-printing device, a long arm engaging with a projecting finger or arm on the said platen to change the position of the printing parts of the said consecutive-number-printing device by the movement of said platen, and means for limiting the downward movement of said pivoted lever.

10. In a machine for simultaneously printing the time of day and a consecutive number, a time-printing device and a consecutive-numbering device mounted upon and attached to a common supporting frame or base mechanism whereby said time-printing device may be rotated at a uniform velocity, a movable platen for simultaneously taking an imprint from both devices, combined with a pivoted lever cooperating with a projecting finger at one end attached to the said platen and cooperating at the other end with the said consecutive-numbering device to change the position of its printing parts by the movement of the said platen, and a stop-pin for limiting the downward movement of said pivoted lever.

11. In a machine for simultaneously printing the time of day and a consecutive number, a time-printing device, and a consecutive-number-printing device mounted upon and attached to a common frame or base mechanism whereby said time-printing device may be rotated at a uniform velocity, a movable platen for simultaneously taking an imprint from both printing devices combined with a pivoted operating-lever with a short and a long arm from the said consecutive-number-printing device, the short arm engaging with the pawl-and-ratchet unit of the printing-wheel of the said number-printing device, a long arm engaging with a projecting finger or arm on the said platen to change the position of the printing parts of the said consecutive-number-printing device by the movement of the said platen, and a stop-pin for limiting the downward movement of said pivoted lever.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 21st day of May, A. D. 1903.

JOHN C. WILSON

Witnesses:

A. R. LARRABEE,
A. L. MESSER.