(No Model.)

W. W. SAWYER.

HAND STAMP.

No. 287,177. Patented Oct. 23, 1883.

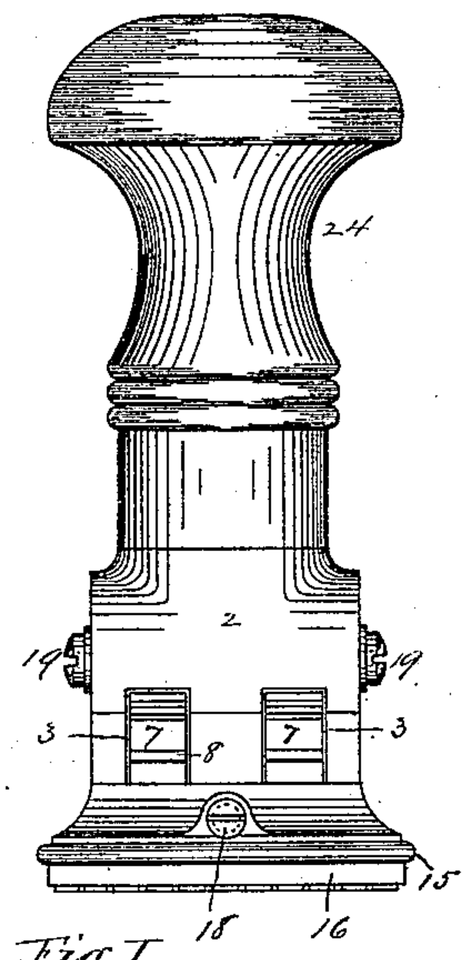

Fig. I

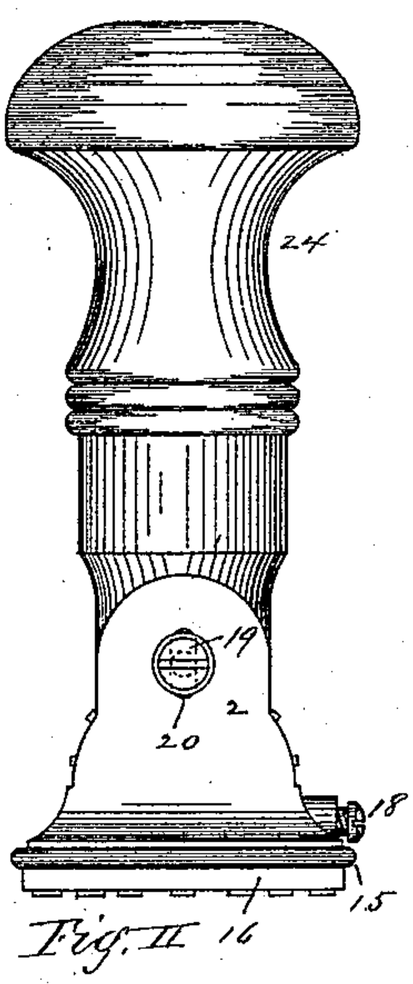

Fig. II

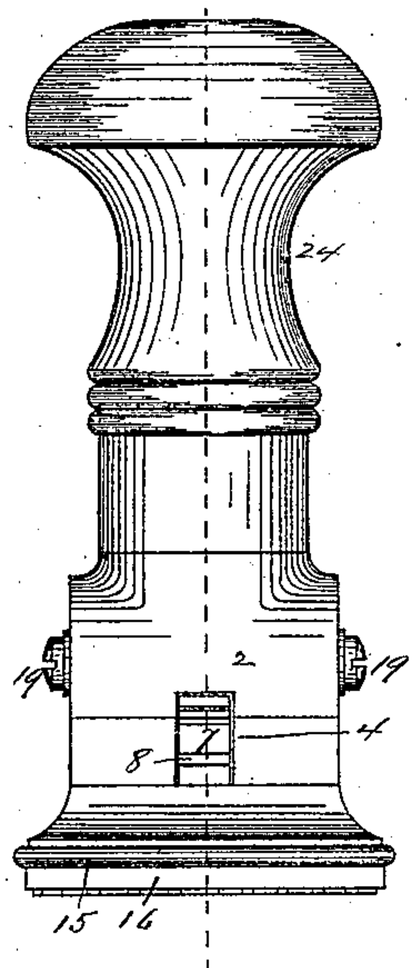

Fig. III

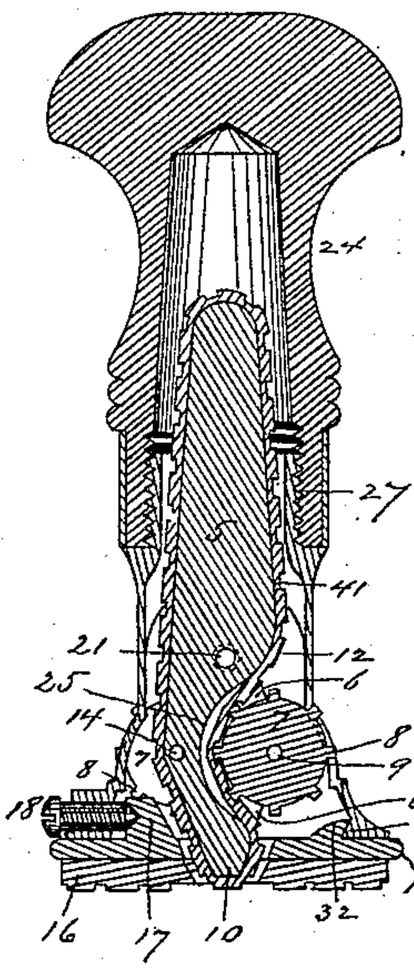

Fig. IV

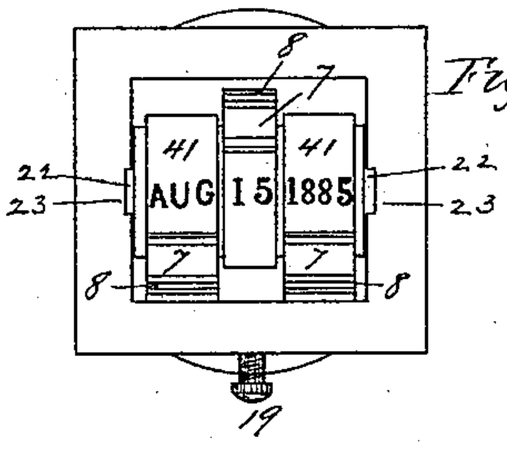

Fig. V

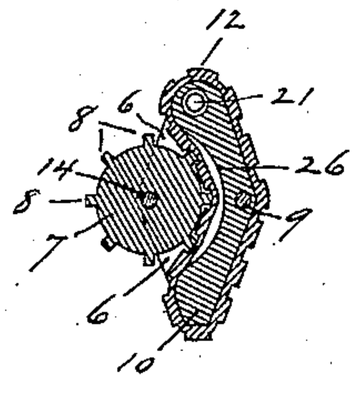

Fig. VIII

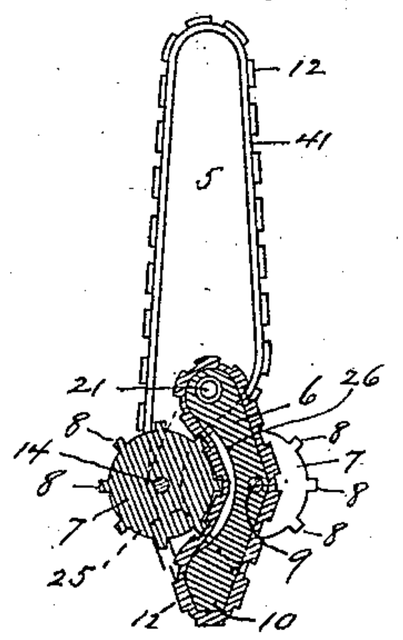

Fig. VII

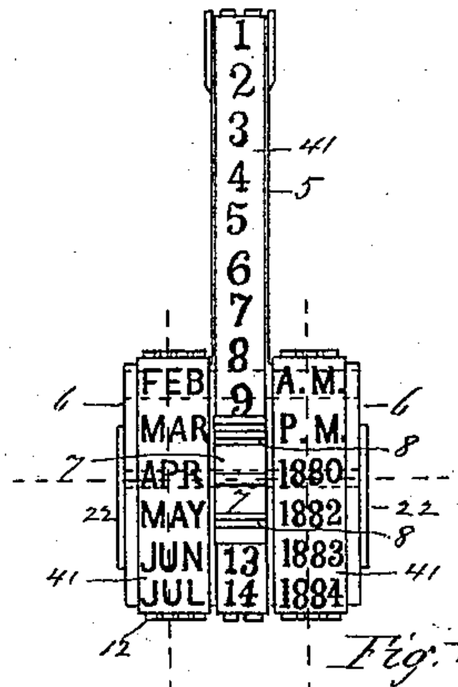

Fig. VI

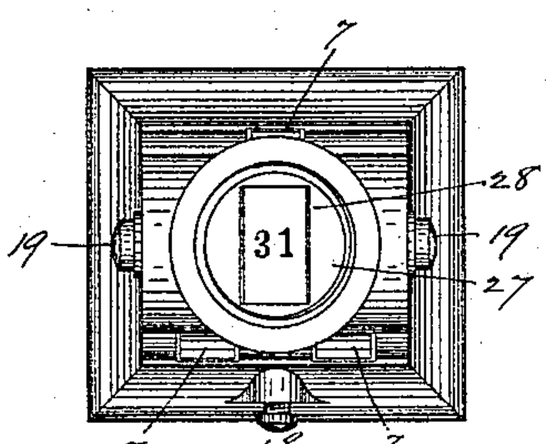

Fig. IX

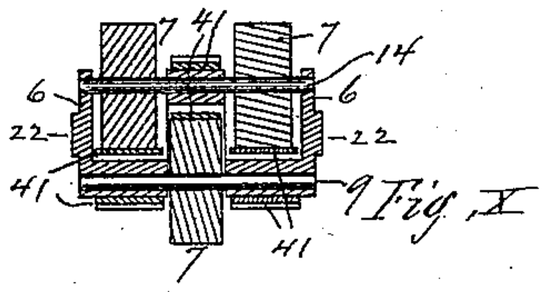

Fig. X

Witnesses.
T. A. Curtis.
Chas. H. Wood.

Inventor.
Willard W. Sawyer

UNITED STATES PATENT OFFICE.

WILLARD W. SAWYER, OF SPRINGFIELD, MASSACHUSETTS.

HAND-STAMP.

SPECIFICATION forming part of Letters Patent No. 287,177, dated October 23, 1883.

Application filed April 30, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLARD W. SAWYER, of Springfield, in the county of Hampden and State of Massachusetts, have invented a new and useful Improvement in Hand-Stamps, of which the following is a specification and description.

My invention relates more particularly to that class of hand-stamps which are designed for dating purposes, and in which movable rubber bands having raised printed characters made thereon are moved around and upon a supporting block or frame, to bring any desired printing-character into position beneath said frame to make an imprint; and the object of the invention is to provide a hand-stamp in which the rubber printing-bands are properly and efficiently supported, and are positively actuated without undue strain upon any one portion of the printing-bands or of the printing-characters, and to cause the characters to move promptly and easily into position to make the imprint; and I accomplish this by the mechanism substantially as hereinafter described, and illustrated in the accompanying drawings, in which—

Figure I is a side view of a hand dating-stamp made according to my invention. Fig. II is an end view of the same. Fig. III is a reverse side view of the same. Fig. IV is a vertical section of the same at line A of Fig. III. Fig. V is a plan view of the lower face of the stamp with the die-plate removed. Fig. VI is a side view of the frame which carries or supports the rubber printing-bands, with the latter in place thereon and the frame removed from its position in the stamp-case. Fig. VII is a vertical section of the same at line B of Fig. VI, showing one of the side actuating-wheels as engaged with its printing-band. Fig. VIII is a vertical section at line C of Fig. VI, showing the other side operating or actuating wheel as engaged with its printing-band. Fig. IX is a plan view of the stamp-case, and Fig. X is a horizontal transverse section at line E of Fig. VI.

In the drawings, 2 represents the stamp-case, made of rectangular shape, in each end of which, inside, I make a vertical groove, 23, and whose upper end is provided with a cylindrical shank, 27, having an external screw-thread made thereon, and in the top of which I make an opening, 28, preferably of rectangular form, as shown in Fig. IX.

6 represents a block or frame made of any suitable metal—preferably of soft metal or composition—and the middle portion, 5, of the frame is made longer than the end portions, 6, according as the printing-band used thereon is longer than the bands used on the end portions, as shown clearly in Fig. VI; and I make a cavity, 25, in the middle portion of this frame, as shown clearly in Fig. IV, and place a rubber band, 41, having raised numerals or characters, as 12, made thereon, equaling in number and representing the days of the month. I then place a toothed wheel, 7, to revolve on its axis in the frame at 9, the teeth 8 of said wheel being of such distances apart as to enter the spaces between the raised figures or characters on the printing-band, as shown clearly in Fig. IV, and when the said wheel is turned on its axis its teeth 8 actuate or move the rubber band 41 around the frame, the raised characters 12 on the band serving the purpose of teeth, with which the teeth of the wheel engage to move the band. The frame 6, on each side of its middle portion, 5, has also a cavity, 26, made in each said portion, on the opposite side of the frame from that containing the cavity 25, and around one of these portions I place a shorter rubber printing-band having raised characters made thereon corresponding with and representing the months in the year, and around the other end portion, 6, I place a similar rubber printing-band, 41, having raised printing-characters made thereon representing any desired series of years, and also any other characters desired, as shown clearly in Fig. VI. In front of each cavity 26, in each end portion, 6, of the frame, at 14, I place a similar toothed wheel, 7, to revolve on its axis, whose teeth 8, when the rubber printing-bands are in place, enter the spaces between the raised characters 12 on the said bands, so that when the wheel in front of the month-band is turned its teeth actuate or move the month-band, and the toothed wheel in front of the year-band also actuates that in the same way. The wheels 7 would be opera-

tive to actuate the printing-bands if the cavities 25 and 26 were not made in the frame; but I prefer to make the cavities, in order to give the band a longer bearing-surface on its wheel, and thereby cause a greater number of the teeth of each wheel to engage with the raised printing-characters of its band. This frame 6 may be cast or made solid or in one piece, and I make a straight flange, as 22, on each end of the frame, which projects outward a little distance therefrom, and with the bands and wheels all in place I insert the frame into the case 2 from its lower open face, the flanges 22 passing up into the grooves 23, made in the ends of the case, inside, as shown clearly in Fig. V, the middle part, 5, with its rubber printing-band thereon, projecting up through the hole 28, made in the upper end of the shank, as shown in Figs. IV and IX. When inserted up into place in the case, the frame is secured by a screw, 19, turned through a hole, or a vertical slot, 20, made through the case—I prefer the latter—and into a threaded hole in the frame. A die-plate, 15, having an elongated opening through it, is placed up against the lower end of the case, with one or more overhanging lugs, 32, forced against corresponding lugs, 33, made in the lower end of the case, and is secured by a screw, 18, turned in through the lower part of the case and against an upwardly-projecting lug, 17. I make the lower end, 10, of the frame 6 flat, so that the printing-characters of all the bands, when in position to make an imprint, are in a line below this flat lower end of the frame, and when the die 16 is fixed to the plate 15 the frame, with all its bands in place, may be raised or lowered in the case by loosening the screws 19 in the slots in the ends of the case and moving the frame either up or down until the printing-faces of the characters on the bands are in the same plane with the printing-faces of the characters on the die 16, and the screws 19 are then tightened.

When the frame 6, with all the printing rubber bands thereon, is secured in place in the case, the middle toothed wheel, 7, which actuates the day-printing band, projects slightly or is exposed through the opening 4, as shown in Fig. III, and by pressing against the teeth of said wheel through said opening the wheel is revolved to bring the desired printing-character beneath the flat end of the frame 6, to make the imprint. The other two wheels 7, which actuate or move the month and year printing bands, project or are exposed through the openings 3 in the opposite side of the case, as shown in Fig. I; and these wheels may be turned by pressing against the teeth to move their bands and bring the desired printing-characters into position to make an imprint.

The hand-piece 24 may be bored out, so that the long part 5 of the frame 6 may project up through the top of the case and into the hand-piece when the latter is screwed to the shank.

It will be seen that by making the cavities 25 and 26 in the frame I am enabled to give a long bearing of the rubber printing-bands against the actuating-wheels 7, and cause several of the teeth of each wheel to engage against the raised portions of the band and between the printing-characters at the same time, which feature obviates any undue strain upon any one part of the printing-band, and yet causes the band to move to its position promptly and quickly.

It is evident that a hand-stamp whose frame 6 is made to carry only a single rubber printing-band having thereon raised printing-characters other than dating matter may be used and the band be moved by its wheel in the same manner without departing from the invention in the least.

Of course each toothed actuating-wheel 7 might be pivoted in the case 2, but in the same relative position with its printing-band, when the frame is in place in the case; but I prefer to pivot the said wheels or place them on their axes in the frame, as hereinbefore described.

By casting the stamp-case solid I am enabled to make it compact, and introduce the frame, bands, and actuating-wheels at the lower open face, and construct the stamp very cheaply and with less liability of derangement of parts than when the case is made in separate portions and secured together.

Having thus described my invention, what I claim as new is—

1. In a hand-stamp, the combination of a frame, one or more rubber bands having raised printing-characters thereon and placed around said frame, and a toothed wheel adapted to be moved on its axis in front of each said band, and whose teeth engage with said raised portions of the band and between the printing-characters, to actuate or move said band and bring any one of said characters thereon into position to make an imprint, substantially as described.

2. In a hand-stamp, the combination of a frame, one or more rubber bands having raised printing-characters thereon and placed around said frame, a toothed wheel adapted to be moved on its axis in front of each said band, and whose teeth engage with said raised portions of the band and between the printing-characters, to actuate or move said band, and a case in which the said frame, rubber printing-bands, and wheels are secured, with openings in said case through which the said wheels are exposed to be turned, substantially as described.

WILLARD W. SAWYER.

Witnesses:
T. A. CURTIS,
CHAS. H. WOOD.