(No Model.)

2 Sheets—Sheet 1.

B. B. HILL.

DATING STAMP.

No. 344,904. Patented July 6, 1886.

Fig. 1.

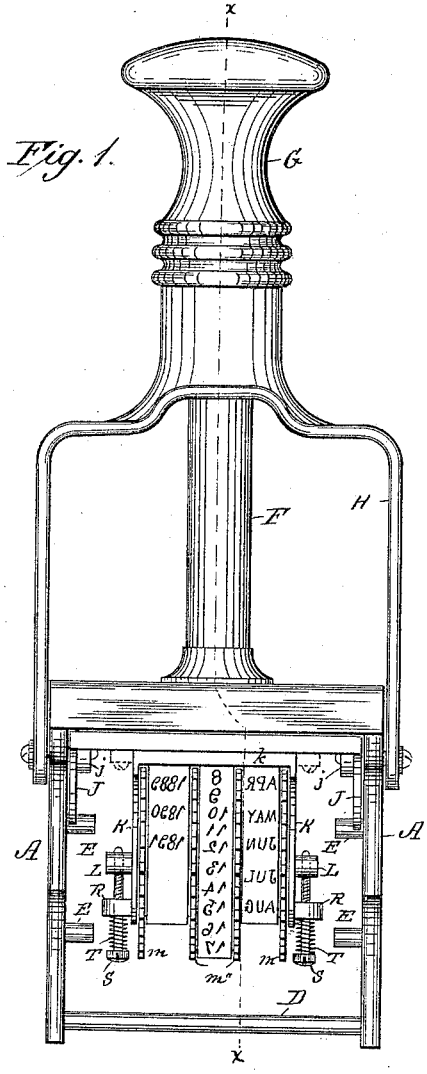


Fig. 2.

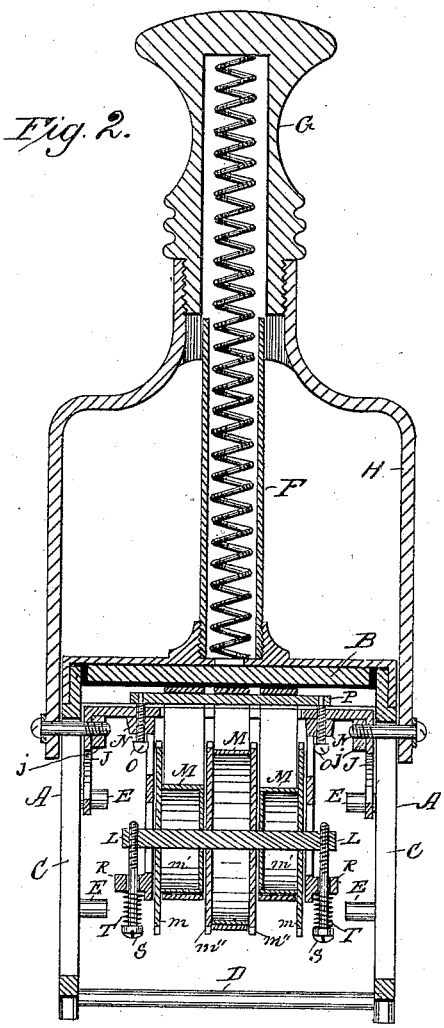


Fig. 3.

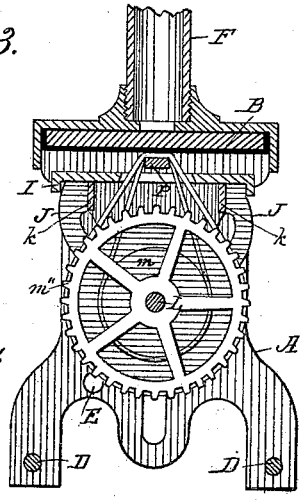
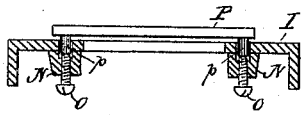


Fig. 4.



Witnesses
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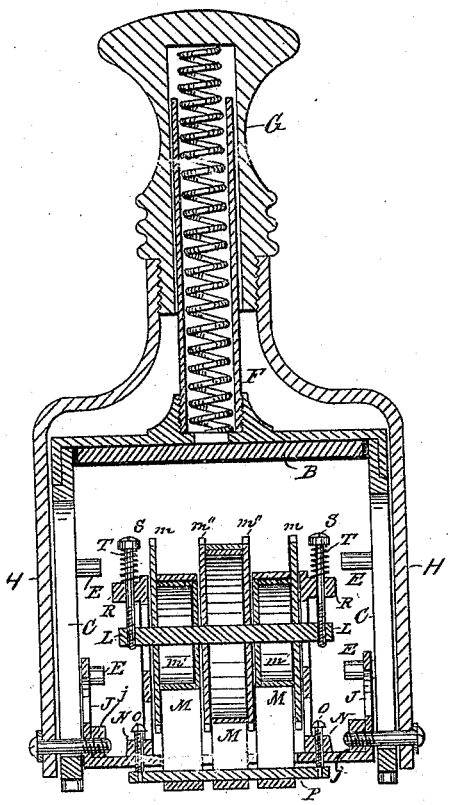
(No Model.) 2 Sheets—Sheet 2.

B. B. HILL.

DATING STAMP.

No. 344,904. Patented July 6, 1886.

Fig. 5.



Witnesses;
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E. A. Bond.

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UNITED STATES PATENT OFFICE.

BENJAMIN B. HILL, OF PHILADELPHIA, PENNSYLVANIA.

DATING-STAMP.

SPECIFICATION forming part of Letters Patent No. 344,904, dated July 6, 1886.

Application filed January 5, 1886. Serial No. 187,721. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN B. HILL, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Self-Inking Band-Dating Stamps, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 represents a front elevation of a stamp constructed according to my improvement in its normal position. Fig. 2 is a vertical central section in the same position. Fig. 3 is a section through the line *x x* in Fig. 1. Fig. 4 shows a sectional detail of a modification, and Fig. 5 is a vertical section showing the parts in the printing position.

One of the main objects of this invention is to combine type-bands with a self-inking stamp in such a manner as to overcome the trouble due to the inertia of the parts, while at the same time it shall be durable and easy to adjust and operate, and unlikely to get out of order.

Previous to my invention self-inking band-daters had been made, but they were either inconvenient to adjust, or so heavy that the inertia of the parts, when rapidly and continuously operated, caused the turning devices to rapidly wear away, so that although they did good work for a time, yet after a short period they became badly worn from the shocks caused by the inertia of the parts.

A second object is a convenient adjustment of the bands, both as regards their relative position to the fixed inscription-plates and as regards the tension of the same on their bearings.

Referring to the drawings, A represents the main frame, having the ink-pad B, slots C, stays D, turning-pins E, and tube F, upon which works the handle G, carrying the operating arms or yoke H, all of which may be of the form shown in my Patent No. 315,286, except the turning-pins E, which should be short, so as to allow of the movement of the bands and their supporting devices. The yoke H is pivoted to the fixed matter-plate I, at each end of which is a cam-plate, J, such as is shown in my aforesaid patent, in which, however, it is shown in the center of the plate. This fixed matter-plate and the cam-plate may be made in separate pieces and fastened together in any suitable way; but I prefer for the sake of lightness to make the same of one piece of sheet metal, which may be done by stamping out a piece of a suitable form and turning up the ends to form the cam-plates, which may either have the slots or guides stamped out at the same time the plate is cut, or they may be made after the plate is bent to its shape, which is the preferable way. By this construction the cam-plates stiffen the ends of the fixed matter-plate, which would be necessary when made of thin metal. They would also serve the same purpose if made separately and secured to the fixed matter-plate. I prefer to turn up the edges of the fixed matter-plate to stiffen it in that direction also, or, if made of cast metal, a ridge may be formed on each side for the same purpose.

If the plates are made of sheet metal, nuts may be used on the end of the screws, securing the plates to the arms; or pieces *j* may be soldered to the plates I and cam-plates J, which may be threaded to receive the screws.

Attached to the plate I in any convenient manner are standards K, which are slotted to receive a shaft, L, for the drums M of the type-bands. If the fixed matter-plate is made of thin sheet metal, the standards K may be soldered fast thereto; but, if made of thicker or cast metal, they may be screwed on, as shown in dotted lines in Fig. 1. I prefer to connect and strengthen these standards by ribs *k*, thus making them both of one piece of metal, which not only strengthens them, but the ribs also act to stiffen the fixed matter-plate I. At the the feet of these standards (see Fig. 5) are cast lugs N, (or they may be formed integral with the plate I, if the latter is cast,) which are bored and threaded to receive screws O, whose ends have shoulders and pins, which latter project beyond the plate and take into holes in a cross-bar, P, which forms the lower bearing of the type-hands Q, the whole being so arranged that by turning the screws O the position of the faces or type of the bands may be adjusted with respect to the fixed matter to be secured to the fixed matter-plate I. On the upper part (see Fig. 5) of the standards are cast projections or lugs R, through which

loosely pass screws S, whose lower ends pass into threaded holes in the shaft L, and around whose upper ends are spiral springs T, by which construction an elastic tension is given to the bands, which tension can be regulated by turning the screws.

To make all the parts as light as possible, I make the drums M, that carry the type-bands hollow, as shown in Fig. 2. Each of the two outer drums has its outer side, *m*, extended beyond the surface of the band, for convenience in turning without soiling the fingers; but the other side, *m'*, is simply made flush with the outer circumference of the drum. The middle drum has both its sides *m''* extended slightly beyond the circumference, so as to always retain its band in the proper position. The sides of this drum also act to keep the outer bands from getting out of place. The sides or disks of the drums are shown perforated; but they may be made solid, in which case they may of course be made thinner than when perforated. The cylinders of the drums may be soldered or otherwise attached to the disks forming the sides.

By the construction above described, and shown in the drawings the oscillating part of the stamp is made very light yet quite strong, the relative position of the acting faces of the bands and the fixed matter-plate can be rigidly adjusted, and an adjustable and elastic tension can be maintained upon the bands, all of which are important points in this class of stamps. If the parts are made too heavy, they have so much inertia that when the stamp is rapidly operated the constant shock and concussion soon wear out the pins and cam-plates or their equivalents.

It will be observed that there are four pins, E E E E, instead of the two heretofore employed, where the turning devices are connected to the plate at the side. By this construction the plate is operated on both ends simultaneously, and thus there is no twisting strain. Another advantage is that there is double the bearing-surface, and thus the stamp is much more durable than where only one guide and pin is in operation at a time. This is especially valuable where the die and cam plates are made of sheet metal, as the latter will wear out where only one guide and pin is in use at a time.

The adjustments not only form a great convenience to the manufacturer, but are necessary for the proper working of the stamp, because when in use the bands stretch considerably, and hence become loose on the drums, and are thus liable to slip.

Instead of passing the screws O into the cross-bar P, the latter may be made with pins *p*, which enter the fixed matter-plate and bear against the ends of the screws O, as shown in Fig. 4.

In referring to the relative positions of the parts as "upper" and "lower" I wish to be understood as referring to them as shown in Fig. 5, in which the stamp is represented as in the act of printing.

What I claim as new is—

1. The combination, in a self-inking stamp, of the fixed matter-plate I, the type-bands Q, the upper bearing for the same, and the adjustable cross-bar P, substantially as described.

2. The combination, in a self-inking stamp, of the fixed matter-plate I, the type-bands Q, the upper bearing for the same, the cross-bar P, and adjusting-screws O, with the frame A, inking-pad B, handle G, and yoke H, substantially as described.

3. The combination, in a hand-stamp, of the fixed matter-plate I, the type-bands, and supports for the same, with the shaft L, the adjusting-screws S, and the springs T, substantially as described.

4. In a self-inking hand-stamp, a die-plate having a double-slotted cam-plate extending across each end of the die-plate, and a frame provided with the pins corresponding with said double-slotted cam-plates, whereby the acting surface of the cam-plates is increased, the die-plate strengthened, and torsional strain on the die-plate prevented, substantially as described.

In testimony whereof I affix my signature, in presence of two witnesses, this 30th day of December, 1885.

BENJAMIN B. HILL.

Witnesses:

WILLIAM S. TOLAND,

GEO. W. W. GRAY.