B. B. HILL.

Hand-Stamp.

No. 163,197. Patented May 11, 1875.

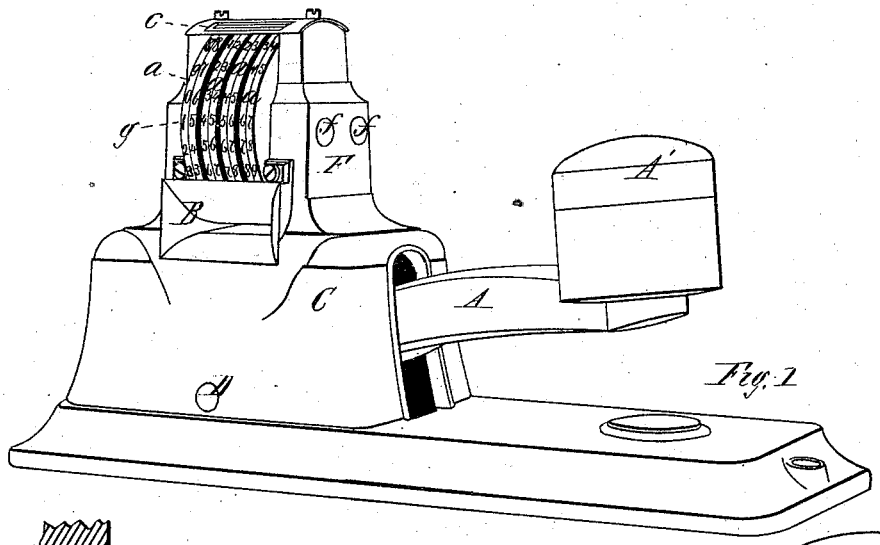

Fig. 1

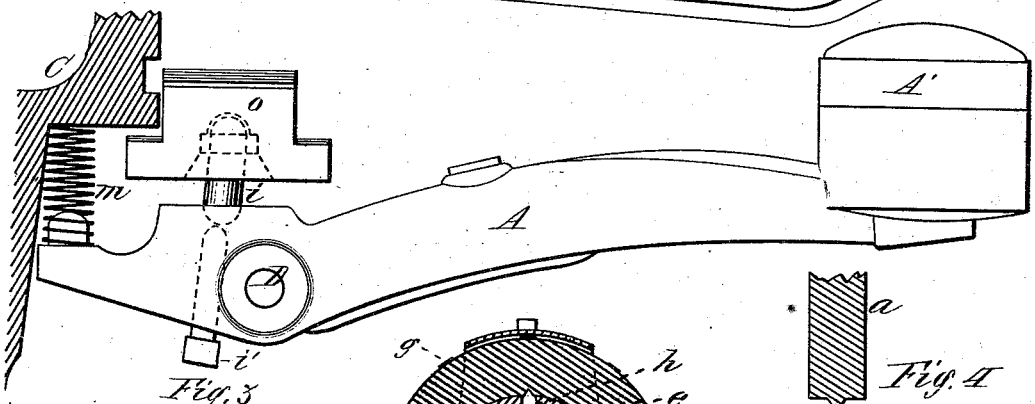

Fig. 3

Fig. 4

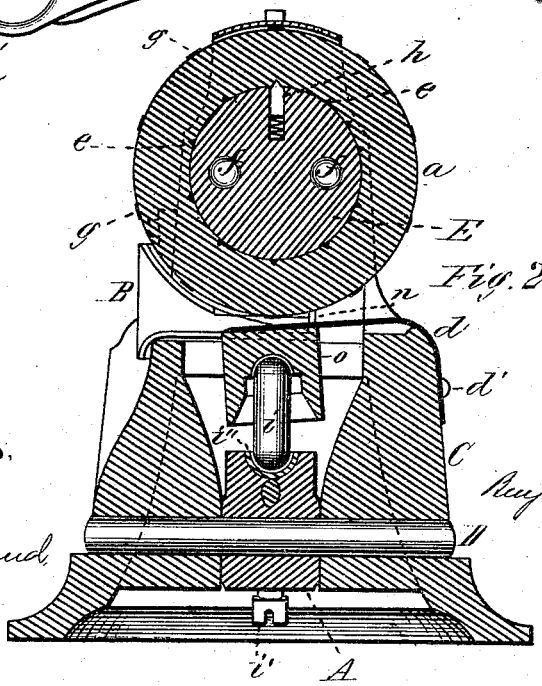

Fig. 2

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THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

UNITED STATES PATENT OFFICE.

BENJAMIN B. HILL, OF SPRINGFIELD, MASSACHUSETTS.

IMPROVEMENT IN HAND-STAMPS.

Specification forming part of Letters Patent No. **163,197**, dated May 11, 1875; application filed March 17, 1875.

To all whom it may concern:

Be it known that I, BENJAMIN B. HILL, of Springfield, State of Massachusetts, have invented a new and useful Improvement in Hand-Stamps; and that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, and to the letters of reference marked thereon.

Figure 1 is a perspective view of my invention. Fig. 2 is a transverse vertical section through the pivot of the lever. Fig. 3 is a side view of the operating mechanism; and Fig. 4 is an enlarged section of one of the type-wheels at the printing figure, showing the cutting form of the figures.

My invention relates to a device for making impressions of figures or characters, representing any given date, into tickets, by indenting the figures or characters therein without the use of color, and in such manner that the impression of the figures or characters will be permanent, without possibility of erasure, and so that the reverse side of the ticket will remain smooth and free from any imprint; and to this end my invention consists of a series of rotating stamp-wheels arranged in a case or stand, and provided on their peripheries with figures having a sharp or cutting edge, and operated by pressure against a platen, with a ticket placed between, by which said figures or characters are forced or indented into the ticket, and the date and the number of the train for which the ticket was sold are stamped into the ticket without the use of color, so that the date and number cannot be erased or changed.

In the drawings, C′ represents a base, having thereon the case C, within which is pivoted, at D, the lever A, projecting from the case, and having upon its end the pad A′. A platen, *o*, is attached to a spring, *d*, which is secured to the case by screws *d′*, or in any other suitable manner, and is held tilted down by said spring, in a position shown in Fig. 2. A rod or bar, *i*, has a bearing at its upper end in the lower side of the platen, and at its lower end in the lever A, a little to one side of its pivot D, on a part of the short arm of the lever, as shown in Fig. 3, and the long arm may be kept elevated by a spring, *m*, bearing down on the short arm, or by a spring under the long arm, or in any other convenient manner.

If, in the use of the machine, it should be found that the platen did not force the ticket against the type-wheel with quite sufficient force to make a good imprint, the set-screw *i′*, being turned up against the lower end of the rod *i*, or against the steel shoe *i″*, set in the lever to receive the lower end of the rod, will remedy the defect to any desired degree.

The platen *o* is made perfectly plane or smooth on its upper side, so that the ticket placed thereon to receive the imprint may have a perfectly hard and smooth bearing or support. A cylindrical hub, E, is secured in the upper part F of the case by the pins *f*, so as to be firm and stationary, and upon this hub are fitted to revolve freely the type-wheels *a*. Each type-wheel *a* is provided on the inside with a series of indents or beveled recesses, *e*, equal in number to the printing numbers on the periphery, and the hub E is provided with a series of detents or pins, *h*, one inside of each printing type-wheel *a*, said pin having its outer end made conical, and each being placed in a hole in the hub, with a small spring behind it to force it outward against the type-wheel. The numbers or printing characters *g′* on the periphery of each wheel *a* are made with a somewhat broad base and a narrow cutting-edge, so that the latter shall be sufficiently sharp to readily cut into the ticket when it is pressed against the figure. This is shown more fully in Fig. 4, in which *a* is a section of a part of the type-wheel, and *g′* the cutting figure made thereon. As there are eight wheels represented in the drawing, the first two on the left hand, which are placed together, are provided upon the periphery with the numbers from 0 to 9, inclusive, at equal distances apart, to represent the several months of the year. The second two wheels are provided with the numbers from 0 to 9, inclusive, to represent the days of the month, and the third two are provided with numbers to represent the year, generally the last two numbers being quite sufficient—as 75 for the year 1875, or 76 for the year 1876; and the last two wheels are provided with figures by which the number of the train for which the ticket was sold may be cut into the

latter. Between these figures, on the periphery of each wheel, are indented or made another series of the same figures, and in such relative position to the others that when any certain cutting figure on either wheel is in a position to stamp, the corresponding indented figure on that wheel is exposed to view through the opening *c* at the top, so that to place any desired cutting figure on any wheel in a position to stamp, it is only necessary to turn that wheel with the finger so that the corresponding indented figure is seen through the opening *c*. It is better that the orifice B should be somewhat open at its entrance, and decrease in thickness toward the wheels, and of the proper width to receive the ticket; and when the ticket is inserted to be stamped, it is pushed in at the opening B until the inner end of the ticket strikes against the stop *n*. If the hand piece or pad A′ be then struck down with pressure, the ticket is forced up by the smooth platen *o*, upon which the ticket rests, against the figures *g′*, then in position to stamp, and the figures cut the impression into the ticket, so that it cannot be erased, while the back of the ticket retains its original plane surface and smoothness. After the impression is taken, the lever A and the platen *o* spring back to their original positions. The bearing, at either one or both ends of the bar *i*, may be provided with a steel shoe, *i″*, to prevent rapid wear, and the shoe at the lower end in the lever A will be raised or lowered by the set-screw *i′*, to regulate the depth of the impression in the ticket.

In the use of railway-ticket stamps, a colored or printing ribbon, or other inking device, has been employed, in connection with type-wheels or type having a flat or printing face, in dating a ticket; but when the stamps are in such constant use, it is quite a large item of expense to keep the inking device in proper order, and at the best very many poor impressions are made, and even when well made the colored impressions may be changed and tampered with by evil-disposed persons.

It is the object of this invention to do away with all color-printing in dating tickets, and to make an indented impression in the tickets without color, which cannot by any possibility be changed, and obviate all trouble and expense of taking care of and adjusting any inking device.

I am aware that printing-machines for making impressions depressed on one side of the paper and raised on the other, styled "embossed work," have hitherto been used, and I do not claim any device for printing such embossed work, nor for any surface-printing, either in colors or without; but

What I claim as new is—

In a dating-stamp, a series of revolving type-wheels provided with characters or figures upon the periphery having such a sharp cutting-edge as to readily pierce the ticket, and leave an indent of the said characters or figures in the ticket, in combination with a platen to support the ticket while being stamped, substantially as described.

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