

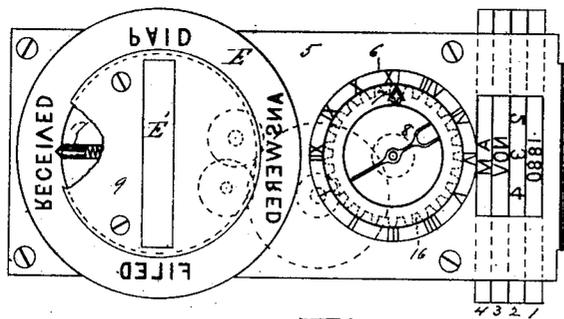
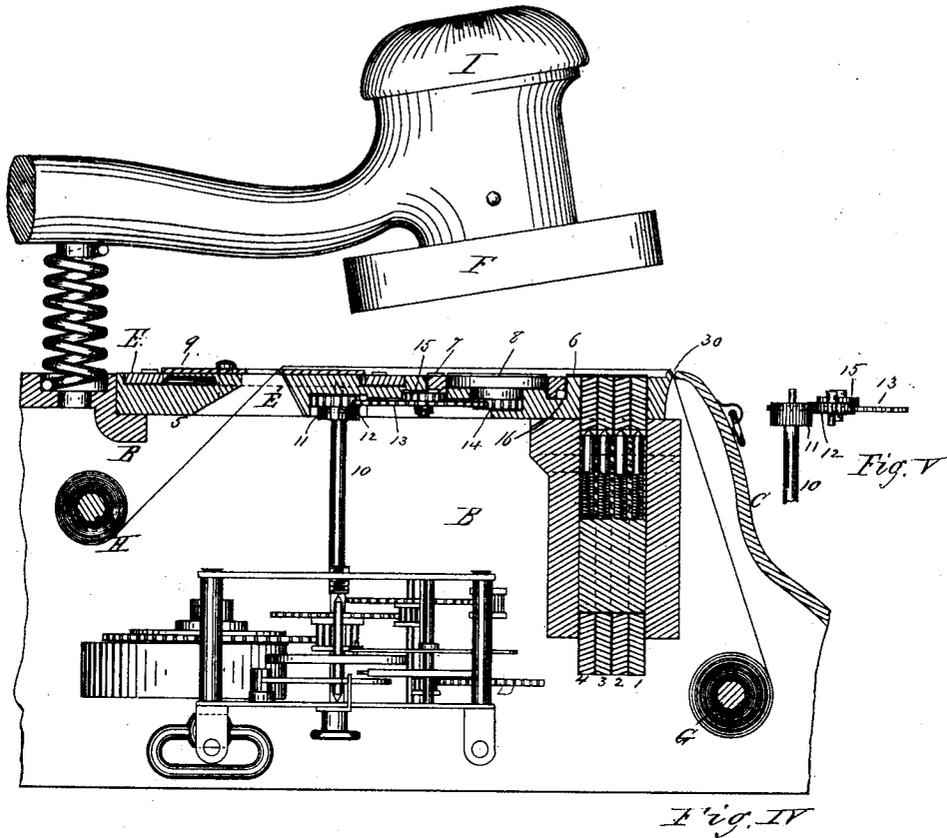
(No Model.)

2 Sheets—Sheet 2.

B. B. HILL.
HAND STAMP.

No. 266,624.

Patented Oct. 31, 1882.



Witnesses
 C. S. Hurlbut
 C. H. Wood

Inventor:
 Benjamin B. Hill,
 By T. A. Curtis,
 his atty.

UNITED STATES PATENT OFFICE.

BENJAMIN B. HILL, OF SPRINGFIELD, MASSACHUSETTS.

HAND-STAMP.

SPECIFICATION forming part of Letters Patent No. 266,624, dated October 31, 1882.

Application filed December 4, 1880. Renewed April 14, 1882. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN B. HILL, of Springfield, in the county of Hampden and State of Massachusetts, have invented a new and useful Improvement in Chronometric Stamps, (which has not been patented to any person in any foreign country with my knowledge and consent,) of which the following is a specification.

The object of my invention is to provide a chronometric stamp, to be used for dating purposes, in which the hour and minute dies are made in the form of index-pointers, made movable and combined with a permanent clock-dial, and are connected with a clock train or movement contained within or attached to a stamp-base in such manner that an impression may be taken by the stamp indicating the year, month, day of the month, day of the week, hour and minute of the day, whether before or after noon, together with any matter of a permanent nature made as a die upon the die-plate, and this without any injury or displacement of the clock mechanism connected with the stamp.

To this end my invention consists of movable index-dies placed and operating in a recess made only partially through a die-plate in its upper side, instead of placing them in a hole in the die-plate, whereby the movable dies have a firm bearing on their lower side upon the die-plate, and I accomplish all this by the mechanism and in the manner hereinafter described, and illustrated in the accompanying drawings, in which—

Figure I is a perspective view of a stamp having my invention applied. Fig. II is a plan view of the die-plate and impression-dies. Fig. III is a reverse plan view of the die-plate, showing the position of the gear which operates the movable dial-dies. Fig. IV is a vertical section of the die-plate and a portion of the stamp, showing a portion of the clock train or movement connected therewith; and Fig. V is a front view of the toothed wheels connected with and which actuate the die mechanism of the stamp, and showing their connection with each other.

In the drawings, B represents the stamp-base, made of suitable size and shape to contain any ordinary and desirable size of marine-clock movement, and 5 is the die-plate firmly secured upon the base. An aperture, D, is made through

this die-plate, through which aperture the type-wheels 1 2 3 4 project upward to a plane a little above the upper surface of the die-plate, said type-wheels being arranged to revolve upon an arbor, and held in any desired position to print therefrom by suitable detents or stops. A ring, E, is fitted into a corresponding recess in the die-plate, so as to turn freely therein, said ring having any desired printing characters or words raised thereon—such as “Answered,” “Received,” “Paid,” “Filed,” &c.—and the ring is held within its recess by a plate, 9, certain portions of which, at the edge, slightly project over the upper surface of the ring, and the latter is held in any desired position to take an impression from any of the printing-characters thereon by a spring stop or detent at 17.

The die-plate 5 is recessed or counterbored on its lower side at 18, 19, 20, and 21 to receive the toothed wheels connected with the clock-work, and which operate to revolve the index or pointer dies; and the die-plate is also provided with an aperture, E', through which the inking-ribbon passes, the latter being wound at one end on a spindle or reel, H, inside the base, and also wound at the other end on a reel, G, the ribbon extending from one of said reels over those dies which are located beneath the pad F to the other reel. The upper side of the die-plate 5 is counterbored or recessed to receive the index or pointer dies 7 and 8, which may be in the form of a ring, with the index or pointer 7 raised thereon, and a ring or disk with the index or pointer 8 raised thereon, the index 7 representing the hour-pointer and the index 8 the minute-pointer. These indexes or pointers 7 and 8 have a toothed wheel attached to their lower sides, and are inserted into the recess made therefor, the minute-index inside the hour-index ring, so that both have a firm bearing in the bottom of the recess.

Any ordinary marine-clock movement is secured within the base of the stamp, and the main shaft or spindle 10, to which are ordinarily attached the hands, extends upward, with a small spur-wheel, 11, at its upper end and within the recess 18 on the under side of the die-plate. This small spur-wheel 11 engages with another similar wheel, 12, within the recess 19, and the wheel 12 engages with

a large toothed wheel, 13, secured on a stud in the recess 20, with a smaller toothed wheel, 15, also secured fast to the wheel 13 and in the recess 21 above the wheel 13, so that both the wheels 15 and 13, being secured fast together, revolve together.

The dial 6 is permanent on the die-plate 5, and consists of the characters or numerals ordinarily used for a clock face or dial, and any matter of a permanent character, or which is desired to be printed in connection with the impression of the time without change, may be made either upon or firmly attached to the die-plate 5; either around the dial 6 or at one side thereof, as desired.

The gears 15 and 13 are respectively of such size, as are also the gears 16 and 14 on the hour and minute indexes, that when the clock-movement is in operation the minute-index 8 will make a complete revolution while the hour-index 7 is moving from one figure or character to the next, just as the movements of the hands of any ordinary clock are made.

It will thus be seen that, as thus arranged, the hour and minute indexes have a firm support on the die-plate, and the whole force of the blow in striking down the pad F to take an impression even from the characters on the ring E also is received by the die-plate, which rests firmly on the top of the base B, and none of the shock or force of the blow is communicated through any intermediate parts to the clock mechanism which operates the hour and minute indexes, as the main shaft, 10, to which the clock-hands or pointers are usually attached, is in this case carried up entirely to one side of the recess in the die-plate in which the hour and minute indexes operate and have their bearing, and not beneath said indexes, as in the case of other stamps of this character.

The operation of my invention is as follows: Suppose it is desired to take an impression upon any document of the present date, including the hour and minute. The printing-type wheel 4, having the anti-meridian letters a. m. or the post-meridian letters p. m. thereon, is set as desired, and the other printing-wheels, 1, 2, and 3, being set so as to present the desired figures and characters uppermost to take the impression, the ring E is turned so as to bring the desired word or characters into position beneath the pad F and near the dial-die 6, and the pointers 7 and 8, having been set with reference to the dial 6 by turning the button on the lower end of the shaft 10 to properly correspond to the right time of day, the ink-ribbon is passed from one reel, H, up through the aperture E' and over the dies and down through the other aperture, 30, or, opening the end door, C, is secured to the other reel, G. The paper or document to be stamped is then held between the pad and the ink-ribbon just above the dies, and, a blow be-

ing struck on the hand-piece I, the pad is forced down upon the paper or document, taking a perfect impression of the dial 6, and hour and minute indexes 7 and 8, and also of all the printing-characters beneath the ribbon and pad.

The die-plate 5 is of course firmly fixed upon the stamp-base B, and has a firm bearing thereon all around the sides and ends, and is therefore perfectly solid and immovable, and as the recess which receives the hour and minute index-dies 7 and 8, and their toothed wheels attached thereto, is made in the upper part of the die-plate only, with the die-plate solid beneath, said index-dies always have a firm and solid bearing also upon the die-plate, without any liability of downward pressure on any part of the clock mechanism. This is a very great advantage over all other stamps of this character, inasmuch as all others have a hole entirely through the die-plate, with only a very small narrow shoulder, upon which only one of the index-dies can have a bearing, in which case the shaft which ordinarily carries the pointers is made in two or more parts, which necessarily involves very much lost motion, and too much play in the mechanism to insure accuracy in the record of time kept by the moving index-dies, especially as in such case said dies are apt to be misplaced by the frequent jar in taking the impressions.

In my improvement the main shaft is made in one piece and extends up to the die-plate, and there is no play of the parts of the clock-movement required or necessary, except the ordinary freedom of movement of one toothed wheel with another.

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

1. The combination, in a chronometric stamp, of the die-plate provided with a recess made in the upper side thereof, movable pointer or index dies each provided with a toothed wheel, and each having a bearing in said recess and upon said die-plate, and actuated by toothed wheels connected with a clock-movement contained within said stamp, substantially as described.

2. The combination, in a chronometric stamp, with a die-plate having a recess in its upper side, of index or pointer dies each provided with a toothed wheel and resting in said recess and upon said die-plate, a clock-movement contained within said stamp beneath said die-plate and adapted to actuate said index or pointer dies, a clock-dial die, and an impression-pad, all for indicating and taking an impression of the time of day, substantially as set forth.

BENJAMIN B. HILL.

Witnesses:

SAMUEL D. ARNOLD,
W. B. HOMER.