(No Model.) 2 Sheets—Sheet 1.

C. H. SHAW.

TIME STAMP.

No. 421,623. Patented Feb. 18, 1890.

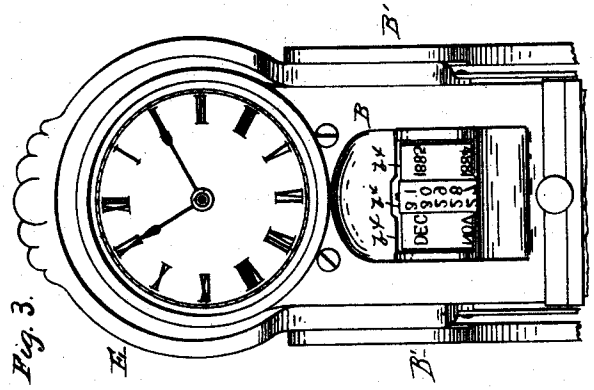


Fig. 3.

Fig. 4.

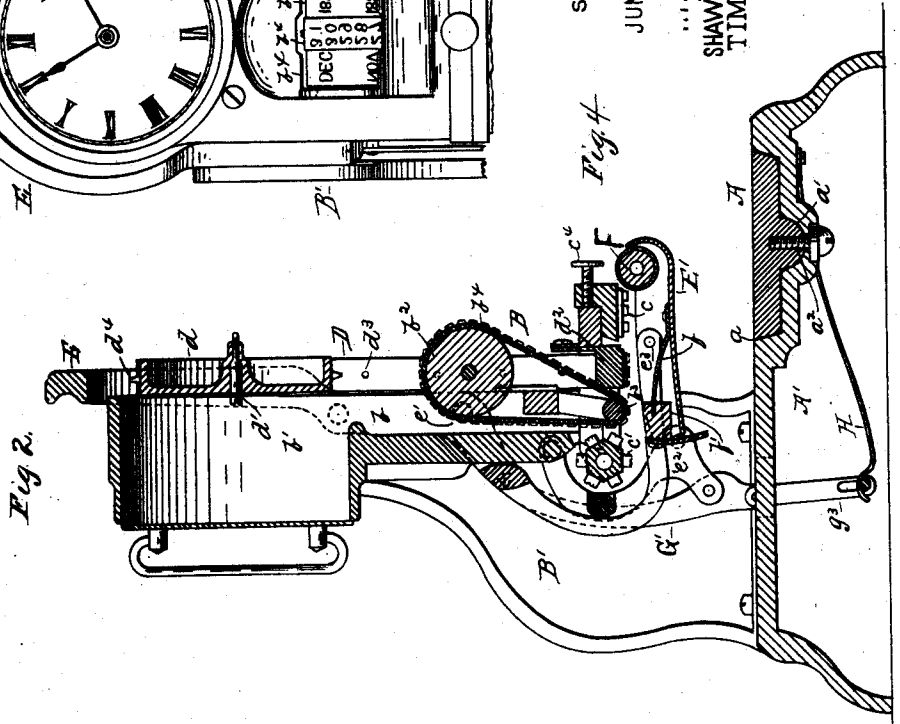


Fig 2.

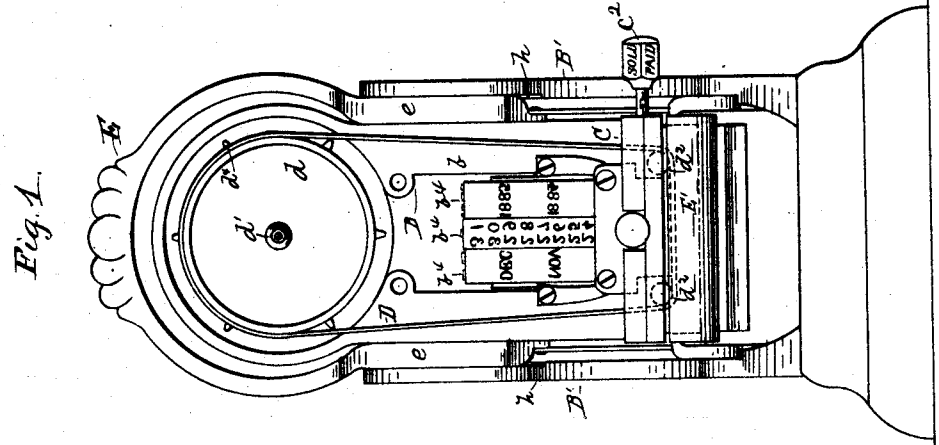


Fig. 1.

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(No Model.) 2 Sheets—Sheet 2.

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Fig. 6.

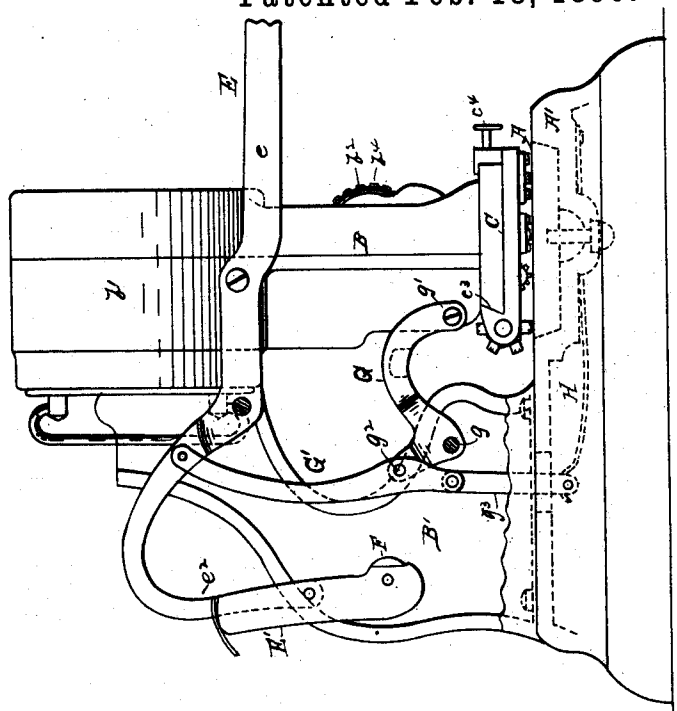
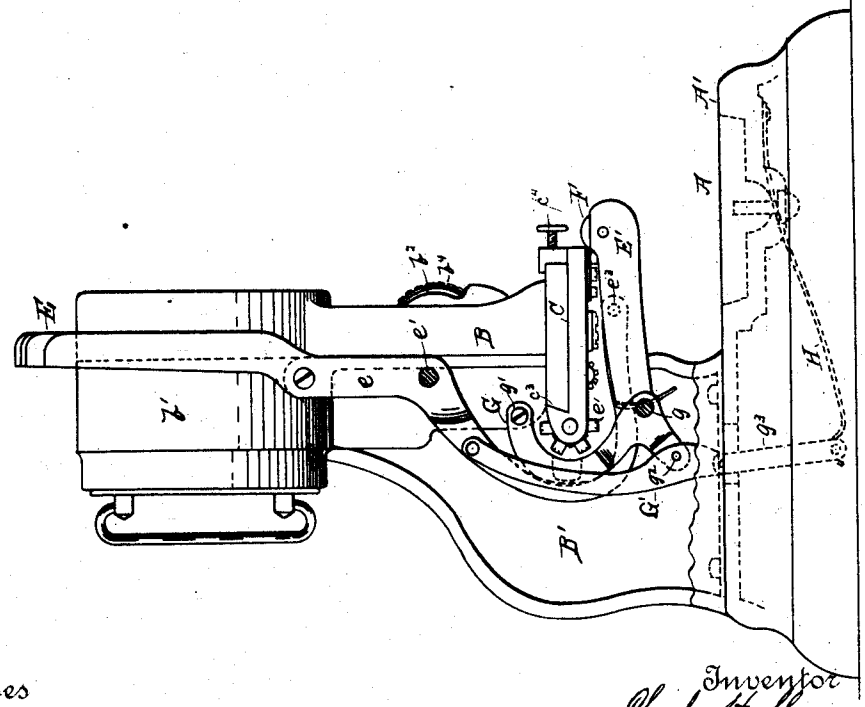


Fig. 5.



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UNITED STATES PATENT OFFICE.

CHARLES H. SHAW, OF BROOKLYN, NEW YORK.

TIME-STAMP.

SPECIFICATION forming part of Letters Patent No. 421,623, dated February 18, 1890.

Application filed July 13, 1889. Serial No. 317,380. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. SHAW, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Time-Stamps, of which the following is a specification.

The invention consists in the combination and novel arrangement of parts, as hereinafter specified; and the object is to provide a stamp whereby the time of day may be recorded in connection with other record, and, further, to provide a simple automatic inking device for the printing characters.

In the drawings, Figure 1 is a front view of the device with certain parts removed. Fig. 2 is a vertical section through the center of Fig. 1. Fig. 3 is a partial front view showing the clock-dial in place. Fig. 4 is the representation of an imprint made from the stamp. Fig. 5 is a side elevation of the stamp in its normal position with one support broken away, and Fig. 6 shows the mechanism in position for printing or recording.

Similar letters of reference indicate like parts in all the figures.

Referring by letter to the drawings, A indicates the bed-plate, here shown as arranged in a depression or recess a in the hollow base A'. I prefer this bed A to have a slight rocking motion, and therefore provide it with a hemispherical projection a', which extends into a recess of corresponding shape in the base, and a screw a^2 passes loosely through an opening in the base into the projection a'.

B indicates the stamping-head having pivotal connection with the supports B', upstanding from the base A' in the rear of the bed-plate A.

The stamping-head B comprises a boxing b, extending downward from a casing b', within which time mechanism (not shown) is arranged. Within the boxing b is a roller b^2 and a smaller roller b^3, over which endless bands b^4 are adjustable. The bands b^4 are provided with printing characters to indicate the month, the date of the month, and the year. A frame C is provided at one end with fixed type c and at its other end with a rotary or adjustable printing-stamp c', having a handle portion c^2 extended through the frame, and by means of which the proper character or characters on the stamp c' may be adjusted into position for stamping. This frame C is removably secured to the lower end of the boxing by means of its hooked surfaces c^3, extending over the back of the boxing, and the thumb-screw c^4, extending through a tapped hole in the frame and impinging against the front of the boxing.

D is an endless belt, provided on its outer surface with printing characters indicating the hours and fractions thereof and the meridian-marks, as indicated in Fig. 4. This belt D is constantly rotated by time mechanism; and with this end in view it is extended over a sprocket-wheel d, which is connected to the hour-hand post d' of time mechanism (not shown) and is driven thereby. The lower portion of the endless belt extends around rollers d^2 journaled in the lower portion of the boxing b, and the belt is provided with holes d^3, through which the sprockets d^4 on the wheel d extend and prevent the belt from slipping, and therefore render the rotation of the belt positive with relation to the movement of the clock mechanism.

It will be observed that the rollers d^2 are some distance apart, so that there is an extended flat surface of the belt between the rollers, from which an impression is made to indicate the time of day in connection with a fixed pointer, as plainly shown in Fig. 4.

To move the stamping-head forwardly and downwardly, I pivotally connect it to a lever E, which is here shown as bifurcated or provided with the two arms e, which are fulcrumed at e' to the supports B'. Below the fulcrum-points e' the arms e are curved and have portions e^2 turned outwardly at nearly right angles to the main portions, and between these portions e^2 a yielding lever E' is fulcrumed by means of pins e^3 extending from the lever into openings in the arms.

An inking-roller F is journaled within the lever E', near its front end, as shown, and to provide a yielding pressure of this inking-

roller over the type a spring f is secured at one end to the lever E′, and has its opposite end projected into a cross-bar f' between the portions e^2.

It is evident that as the stamping-head is moved forwardly and downwardly by means of the bifurcated lever the inking-roller will be carried rearwardly over the printing characters, which are all in one plane and beyond the same, as shown in Fig. 6.

It is necessary that the stamping-head be held in a vertical position at all times, and for this purpose I provide the angle-links G, which are fulcrumed to the supports at g and have one end pivoted at g' to the boxing and the opposite end pivoted at g^2 to the links G′, which I have shown as pivoted at one end to the lever E and having pivoted connections g^3, which extend through slots in the base and engage with springs H, which serve to automatically return the stamping-head to its normal position after the stamping operation.

The springs H are here shown as flat springs, rigidly secured at one end within the hollow base; but it is evident that other forms of returning devices may be used without departing from the spirit of my invention.

Stops h on the supports coact with the lever E and arrest the rearward movement of the stamping-head.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a time-stamp, the combination, with time mechanism moving an endless type-belt, of a bed, a stamping-head, a support located in rear of the bed, and a connection between the stamping-head and the support, whereby the stamping-head may be moved forwardly and downwardly to reach the bed, substantially as specified.

2. In a time-stamp, the combination of a bed, a stamping-head provided with time mechanism and continuously-movable type, a support located in rear of the bed, and a connection between the stamping-head and the support, whereby the stamping-head may be moved forwardly and downwardly to reach the bed, substantially as specified.

3. In a time-stamp, the combination of a bed, a stamping-head, an endless belt furnished with type, time mechanism constantly driving said endless belt, a support located in rear of the bed, and a connection between the stamping-head and the support, whereby the stamping-head may be moved forwardly and downwardly to reach the bed, substantially as specified.

4. In a time-stamp, the combination, with time mechanism, of a stamping-head movable forwardly and downwardly and provided with type, an inking-roller having a flexible pressure over which the stamping-head moves when moving forward, substantially as specified.

5. In a time-stamp, the combination, with time mechanism, of a stamping-head provided with type and movable forwardly and downwardly, and an inking-roller moving rearwardly under the stamping-head as the latter moves forward, substantially as specified.

6. In a time-stamp, the combination, with time mechanism and a type-belt moved thereby, of a bed, a stamping-head, a support for the stamping-head located rearward of the bed, and a lever fulcrumed to the support and having the stamping-head pivotally connected to it, substantially as specified.

7. In a time-stamp, the combination, with time mechanism and an endless type-belt, of a bed, a stamping-head, a support for the stamping-head located rearward of the bed, and a bifurcated lever fulcrumed to the support having the stamping-head pivotally connected to it and constructed to extend over the stamping-head, substantially as specified.

8. In a time-stamp, the combination, with time mechanism and a type-belt, of a bed, a stamping-head, a support arranged rearwardly of the bed, a lever fulcrumed to the support and having the stamping-head pivotally connected to it, and a spring for moving the stamping-head into its normal position, substantially as specified.

9. In a time-stamp, the combination, with time mechanism and an endless type-belt moved thereby, of a bed, a stamping-head, a support for the stamping-head located rearward of the bed, a lever fulcrumed to the support and pivotally connected to the stamping-head, a spring for moving the stamping-head into its normal position, and stops on the support coacting with the lever to arrest the movement of the stamping-head, substantially as specified.

10. In a time-stamp, the combination, with time mechanism and an endless type-belt moved thereby, of a bed, a stamping-head, a support arranged rearwardly of the bed, a lever fulcrumed to the support and having the stamping-head pivotally connected to it, and a spring acting upon the lever to move the stamping-head into its normal position, substantially as specified.

11. In a time-stamp, the combination, with time mechanism and an endless type-belt, of a bed, a stamping-head, a support for the stamping-head located rearwardly of the bed, a lever fulcrumed to the support and having the stamping-head pivotally connected to it, an inking-roller, and a lever supporting the inking-roller and fulcrumed to the lever which has the stamping-head connected to it, substantially as specified.

12. In a time-stamp, the combination, with time mechanism and an endless type-belt moved thereby, of a bed, a stamping-head, a support for the stamping-head located rearward of the bed, a lever fulcrumed to the support and pivotally connected to the stamping-head, and links pivotally connected to the support and the stamping-head and coacting

with the said lever to maintain the stamping-head in a vertical position during its movements, substantially as specified.

13. In a time-stamp, the combination of a bed, a stamping-head, an endless belt provided with type running in the stamping-head, time mechanism for propelling the endless belt, and a sprocket-wheel driven by the time mechanism and engaging with the said belt, substantially as specified.

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Witnesses:
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