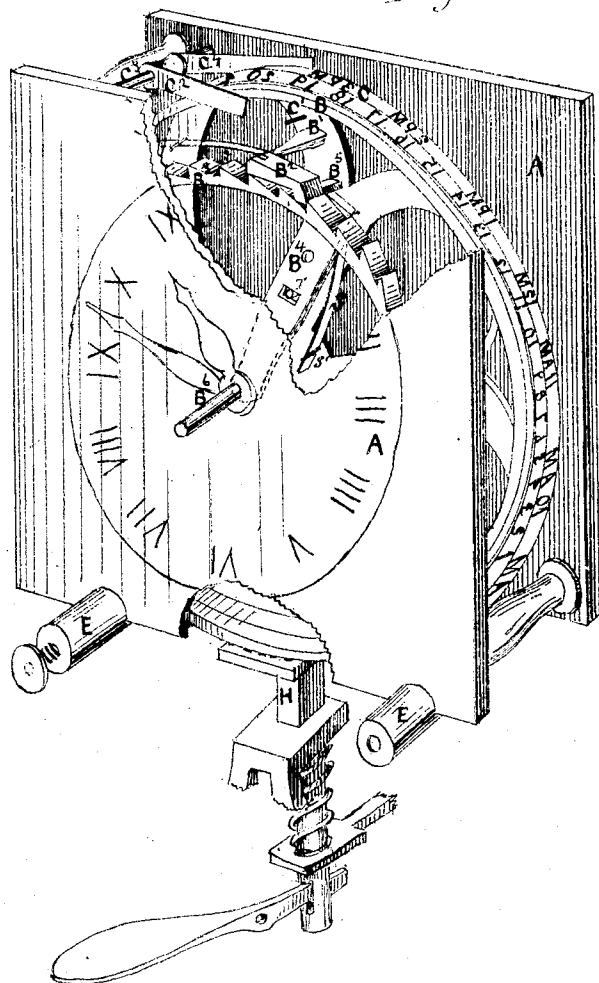


Turner, Stevens & Stevens Automatic Stamp

117832

PATENTED AUG 8 1871

Fig. 1.



Witnesses

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Inventors

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Turner, Stevens & Stevens' Automatic Stamp

117832

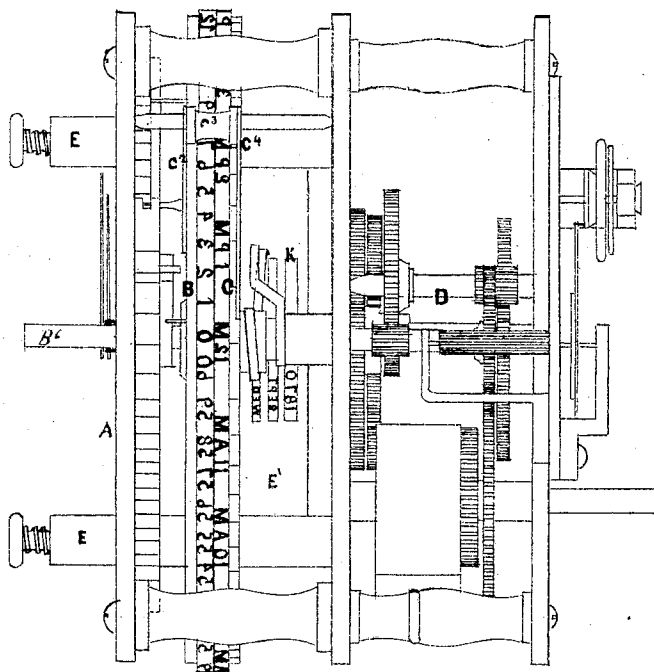


Fig. 2

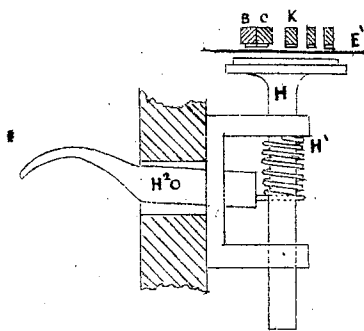
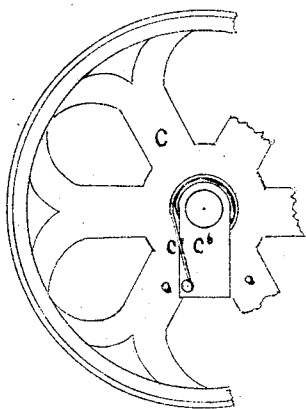
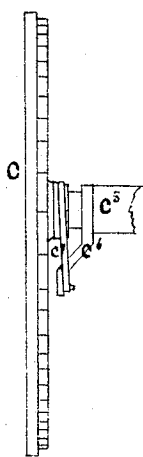


Fig. 4

Fig. 3

Witnesses

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UNITED STATES PATENT OFFICE.

SIDNEY S. TURNER, OF WESTBOROUGH, AND COLLINS STEVENS AND GEORGE M. STEVENS, OF BOSTON, MASSACHUSETTS, ASSIGNORS TO THEMSELVES AND EDWARD B. PENDLETON, OF WESTERLY, RHODE ISLAND.

IMPROVEMENT IN HAND-STAMPS.

Specification forming part of Letters Patent No. 117,832, dated August 8, 1871; antedated July 27, 1871.

To all whom it may concern:

Be it known that we, SIDNEY S. TURNER, of Westborough, in the county of Worcester, and COLLINS STEVENS and GEORGE M. STEVENS, of Boston, in the county of Suffolk and State of Massachusetts, have invented a certain new and useful Improvement in Automatic Stamps, of which the following is a complete specification:

The nature of my invention consists in combining a series of wheels, said wheels having upon their peripheries letters and figures to indicate minutes, hours, days, months, &c., with clock-work, so that at all times the proper date will be presented for stamping.

Figure 1 is a perspective view of the mechanical part of my invention. Fig. 2 is a view of the movement. Fig. 3 shows in detail a device for imparting motion to the hour stamp-wheel. Fig. 4 shows the stamping device.

A, Fig. 1, is the face of an ordinary clock, with hands, &c., of which D in Fig. 2 represents the usual movement. This movement may be driven by weights or springs, and may be varied in strength and proportion to suit the style of stamp to be made. B, Figs. 1 and 2, is a large wheel, upon the periphery of which are affixed figures indicating numbers, from 1 to 60, and are intended to denote minutes of the hour. Upon the wheel C are affixed letters and figures to denote the hours of the day. The wheels K, Fig. 2, have upon their peripheries letters and figures to indicate the day of the month, the month, and the year.

An intermittent motion is given to the wheel B by the following device: B⁴ is an arm attached to the minute-spindle B⁶. This spindle B⁶ makes a complete revolution in one hour, and carries with it the arm B⁴. The arm B⁴ is connected with the wheel B by the pin T, Fig. 1, in such a manner that it may have a limited motion independent of the wheel—the amount of this motion being governed by the slot at T in the arm, and amounts to a sixtieth of a revolution. S is a spring attached to the arm B⁴, and pressing against the pin S' in the wheel B so that as the arm B⁴ advances, it, acting through the spring S, will bring a pressure on the pin S' and have

a tendency to revolve the wheel B. The wheel B is prevented from turning by the pawl B² which is attached by the standard B¹, and comes in contact with the fixed ratchet B³, Fig. 1. This pawl B² has a lifting-pin, B⁵, projecting from its outer end. This lifting-pin B⁵ rests upon the cam end of the arm B⁴, the end of the arm being so shaped as to form a segment of a cam of such character that when the pin B⁵ is acting upon one part of it, it will allow the pawl B² to catch on the teeth of the fixed ratchet B³, but as the arm advances, sliding under the pin B⁵, it will cause it to rise, and, lifting the pawl B² out of contact with the ratchet B³, allow the wheel B to be advanced by the spring S until the pawl B² falls into the next tooth. This action causes the pin B⁵ to advance to the forward or lower edge of the cam end of the arm B⁴, and then to await the repetition of the action above described. This intermittent motion of the wheel B takes place once per minute. Thus at each minute a different number is presented to the action of stamp. The wheel C, having upon its periphery the hour-marks, is moved forward once an hour by the arm C⁶, Fig. 3, which is attached to the common or hour-pinion C⁵. This arm C⁶ acts on the wheel C through the spring C⁷. The let-off for the hour-wheel C consists in the pawl C⁴, Fig. 1, which acts upon a ratchet on the wheel C, shown in Fig. 2. The pawl C⁴ is raised by the arm C², Fig. 1, which is acted upon by the pin C¹ in the wheel C. As the wheel C revolves but once in an hour the pin C¹ will only act upon the arm C² and pawl C⁴ once per hour. Thus the wheel C can move but one notch per hour—that is, at each hour a new number, representing the hour of the day, will be presented to the stamp. The wheels K, carrying numbers and letters to indicate days of the month, month, and years, are not automatic, but may be made so by applying to them similar mechanism to that applied to the wheels C and B.

Fig. 4 represents the stamping device, and consists of a color-ribbon, E', which is placed, as shown, immediately under the wheels B, C, and K, and above the stamping-table H.

The table H is operated by the lever H², and serves to press the paper to be stamped against

the ribbon E through which the number and figures on the peripheries of the wheel B, C, and K print, as in the ordinary hand-stamp.

The advantage of my stamp over the ordinary one is that the dates are brought into position automatically and that the exact time to a minute is stamped. A stamp of this kind can readily be made so that it need be adjusted but once a month, or even, if desirable, but once in a year.

We claim as our invention—

The printing-wheels B and C, carrying upon their peripheries characters indicating time, when the same are connected to and operated by clock-work, as and for the purpose set forth.

SIDNEY S. TURNER.

COLLINS STEVENS.

GEORGE M. STEVENS.

Witnesses:

FRANK G. PARKER,

WILLIAM EDSON.