

C. C. SIBLEY.
TIME STAMP.
APPLICATION FILED JAN. 9, 1906.

951,224.

Patented Mar. 8, 1910.

2 SHEETS—SHEET 1.

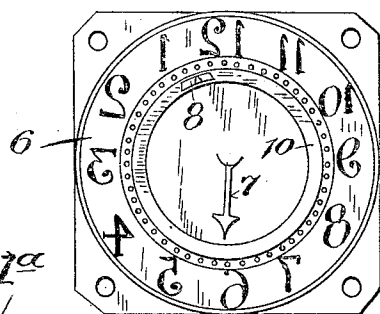
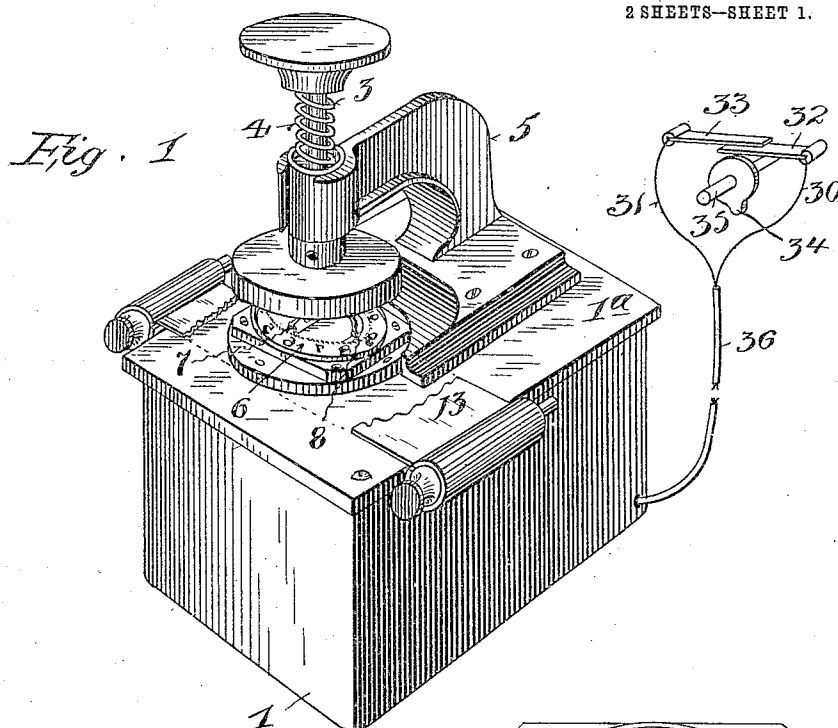
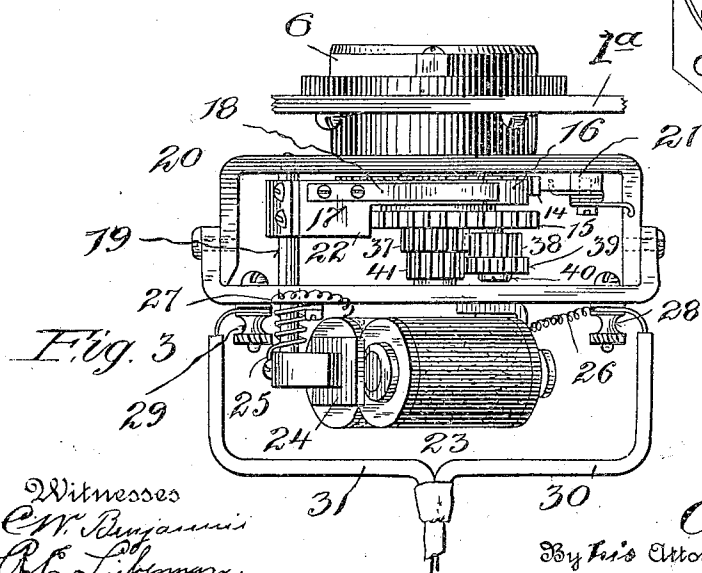


Fig. 2



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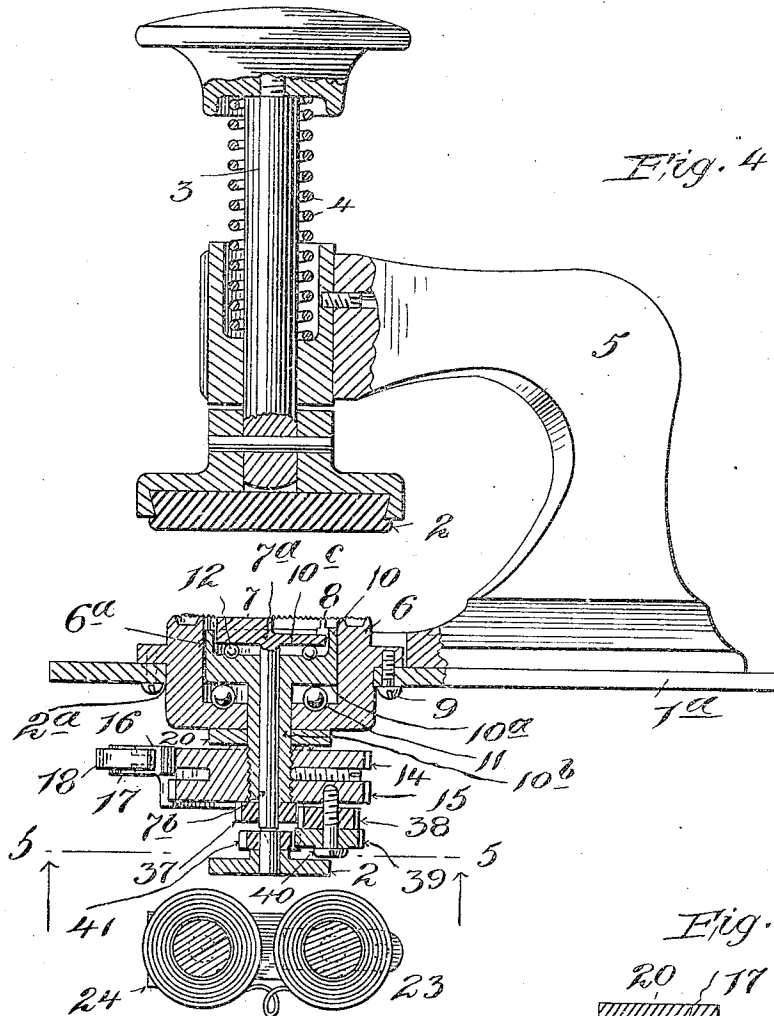


Fig. 4.

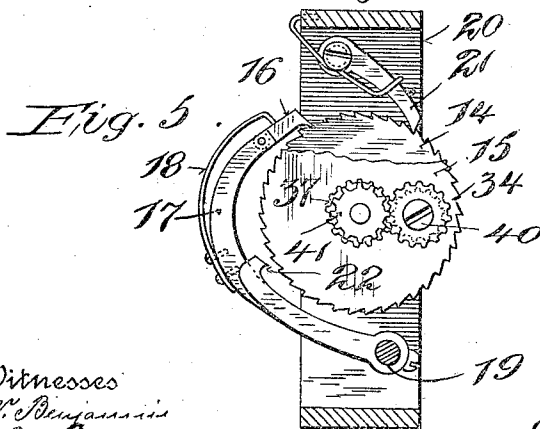


Fig. 5.

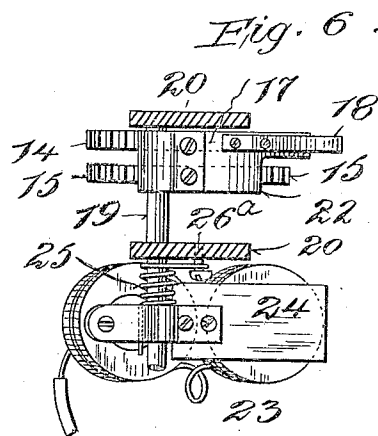


Fig. 6.

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UNITED STATES PATENT OFFICE.

CLARANCE C. SIBLEY, OF PERTH AMBOY, NEW JERSEY.

TIME-STAMP.

951,224.

Specification of Letters Patent.

Patented Mar. 8, 1910.

Application filed January 9, 1906. Serial No. 295,225.

To all whom it may concern:

Be it known that I, CLARANCE C. SIBLEY, a citizen of the United States, residing at Perth Amboy, Middlesex county, New Jersey, have invented certain new and useful Improvements in Time-Stamp, of which the following is a specification.

My invention has reference to stamps or devices for impressing the time of receipt etc., on paper and the like, such as the hour and minute, and the invention has for its object to provide simple and effective means for causing the hour and minute indicators to be regulated and operated by means of electric current controlled by a timepiece or clock.

My invention comprises the novel details of improvement and arrangements of parts that will be more fully hereinafter set forth and then pointed out in the claims.

Reference is to be had to the accompanying drawings forming part hereof, wherein,

Figure 1 is a perspective view of a time stamp embodying my invention. Fig. 2 is a plan view, enlarged, of the dial and time pointers. Fig. 3 is a side elevation of the operating devices of the stamp removed from the casing of Fig. 1. Fig. 4 is a central sectional view, enlarged, of the operating devices of the stamp. Fig. 5 is a cross section substantially on line 5, 5, Fig. 4, looking in the direction of the arrows, and Fig. 6 is a detail view of the magnet and controlling wheels of the stamp.

Similar numerals of reference indicate corresponding parts in the several views.

In the drawings the numeral 1 indicates a suitable casing shown provided with a detachable cover 1^a upon which is mounted a stamping pad 2 shown carried by a plunger 3, that is guided by a bracket 5, supported upon cover 1^a and raised by a spring 4, but it will be understood that any suitable means for controlling the stamping pad may be provided.

At 6 is a dial member carrying the numerals 1 to 12 to indicate the hours, which dial has a centrally disposed opening or socket 6^a in which are located the hour pointer or arrow 7 and the minute pointer 8. The casting for the dial number 6 is shown received in an opening 2^a in cover 1^a and held to the cover by screws 9. The minute pointer 8 is shown carried upon a flange

10 extending upwardly from a disk 10^a fitted to rotate within the socket 6^a of dial number 6, the disk 10^a having a hollow shaft or stem 10^b passing downwardly through a bearing or opening in the bottom of dial member 6, and by preference I interpose anti-friction balls 11 between the bottom of dial member 6 and disk 10^a to permit free revolution of said disk. Within the recess 10^c that is formed by the flanges 10 of disk 10^a is located the disk or support 7^a of the hour pointer 7, said disk having a shaft 7^b passing through the bore in shaft or stem 10^b so as to rotate therein, and by preference I provide anti-friction balls 12 between the disks 7^a and 10^a to permit free rotation of one with respect to the other. The arrangement of the parts is such that the upper or working surface of the numerals of the dial and of the pointers 7, 8 are substantially flush so that when an inking ribbon 13 lies over the dial and pointers and a paper is placed upon the ribbon under pad 2 and the latter is stamped down upon the paper the impression from the dial numerals and the pointers will be printed upon the paper, and the thrust of the pad is transmitted from the pointers through the balls 11, 12 to the bottom wall of the dial member 6.

The means I have shown for rotating the hour pointer 7 one revolution during 12 hours, and for rotating the minute pointer 8 one revolution during each hour are as follows:—To the shaft 10^b of the minute pointer disk 10^a are secured ratchet-wheels 14, 15 having an equal number of teeth, as sixty teeth each, facing in opposite directions, as illustrated in Fig. 5. Said ratchets may be formed on a single piece of metal or in separate pieces secured together. A dog 16 carried by an arm 17 engages ratchet 14, a spring 18 carried by arm 17 holding dog 16 against the ratchet, arm 17 being secured to a shaft 19 that is journaled in a frame 20 shown secured to and depending from the lower part of dial member 6. 21 indicates a spring-acting back-stop dog shown carried by frame 20 and acting with ratchet 14 to prevent reverse movement of the latter. In order to prevent ratchet 14 from over-running the proper distance that it is moved by dog 16 at each minute stroke, I provide a dog or finger 22 carried by arm 17 and

adapted to engage the teeth of ratchet 15, the relation of said dog 22 to the teeth of ratchet 15 being such that as arm 17 causes dog 16 to move ratchet 14 the distance of a tooth the dog 22 will encounter a tooth of ratchet 15 and thus prevent the ratchet 14 from being pushed too far beyond the proper distance for each step or movement of the pointer 8 for the minutes to be indicated. Thus, as arm 17 is rocked the minute indicator 8 will be moved one step equal to a minute on the dial for each forward movement of dog 16. The means I have shown for oscillating arm 17 one step for each minute of time comprises a magnet 23, whose armature 24 is secured to shaft 19, a spring 25 connected at one end with said shaft and at the other end with frame 20, as by a screw 26^a, acting against the action of the magnet in well known manner. The terminals 26, 27 of the magnet are shown connected with binding posts 28, 29 on frame 20, from which line wires 30, 31 lead, as through a hole in box 1, to a make-and-break device of any suitable kind controlled by a timepiece (not shown) in well known manner. As shown in Fig. 1, the wires 30, 31 connect with contact-springs 32, 33, a finger 34 carried by an arbor 35 rotated by the timepiece causing said contact springs to make and break the circuit, a suitable battery (not shown), being provided for the circuit. In the arrangements shown it is designed that finger 34 be rotated once for each minute to make and break the circuit each minute of time.

In order to cause the hour pointer 7 to rotate once during twelve hours of time, or 1/12 as fast as the minute pointer 8, I provide the following arrangement:—To the shaft 7^b of the hour disk 7^a is secured a gear 37 that meshes with a gear 38 which is secured to or made integral with a gear 39, gears 38 and 39 being mounted to rotate on a shaft or screw 40 that is shown carried by ratchet 15, and gear 39 meshes with a gear 41 that is held from rotation, as by being secured to frame 20, whereby as ratchets 14 and 15 are rotated the gears 38 and 39 will be carried bodily around gears 37 and 41. The ratio of this gearing is such that for each revolution of ratchets 14 and 15 around the axis of shaft 7^b, the hour pointer 7 will be driven forwardly 1/12 of a revolution while the minute pointer 8 makes one complete revolution. The ratio of gears 37, 38, 39 and 41 to produce the above named results may be as follows:—gear 37 to have twenty-four teeth, gear 38 to have twenty-two teeth, gear 39 to have twenty-four teeth and gear 41 to have 22 teeth; and thus as gears 38 and 39 are carried bodily around gear 39 and roll on the stationary gear 41, they will

cause gear 37 to rotate, and by reason of the ratio of said gearing 37 will be advanced only 1/12 of a revolution for each complete revolution of gears 38, 39 bodily around gear 41. In accordance with the arrangements described the gearing etc., may hang suspended from cover 1^a within casing 1 when the cover is secured thereon, and as finger 34 closes the circuit of the magnet once each minute the armature 34 will oscillate shaft 19 and cause dog 16 to operate the ratchets and thereby move the minute pointer 8 one step forward each minute, and the gearing 37, 38, 39 and 41 will cause the hour pointer 7 to move forward 1/12 as fast as the minute pointer 8, and thus when an impression is made upon the paper the minute and the fraction of the hour will be indicated by the respective pointers.

I have shown a single time stamp electrically connected with a make-and-break device to be controlled by a timepiece, but it will be understood that while a single timepiece may be used to control a single time stamp, a plurality of time stamps can be connected with a single or master clock by arranging the circuit in any well known manner, so that all the time stamps so connected with the timepiece will have their respective minute and hour pointers adjusted synchronously as the minutes pass.

My invention is not limited to the particular details of construction shown and described as they may be varied without departing from the spirit thereof.

Having now described my invention what I claim is:—

1. A time stamp comprising a dial member having a socket, a minute indicator disk journaled therein, a plate having an opening receiving said member, an arm carried by said plate and extending over said member, a pad carried by said arm over said member, anti-friction balls between the dial member and said disk, the minute indicator disk having a recess, an hour indicator disk within said recess, anti-friction balls between the minute and hour indicator disks, a wheel connected with the minute indicator disk and suspended below said dial member, means to impart step-by-step movement to said wheel, a gear connected with the hour indicator disk below said wheel, a stationary gear below the first named gear, a pair of gears united and pivotally carried by said wheel and meshing with the indicator gear and with the stationary gear.

2. The combination of a support provided with an arm carrying a pad, a dial member carried by said support beneath said pad, hour and minute indicators concentrically disposed within the dial mem-

ber beneath said pad, a wheel connected with one indicator below the dial member, gearing connecting said wheel with the other indicator and located below said
5 wheel, a frame carried by the dial member, an arm carried by said frame, means to cause the arm to operate said wheel, a magnet and armature carried by said frame | below said dial member, said armature being connected with said arm for locking the 10 latter.

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