

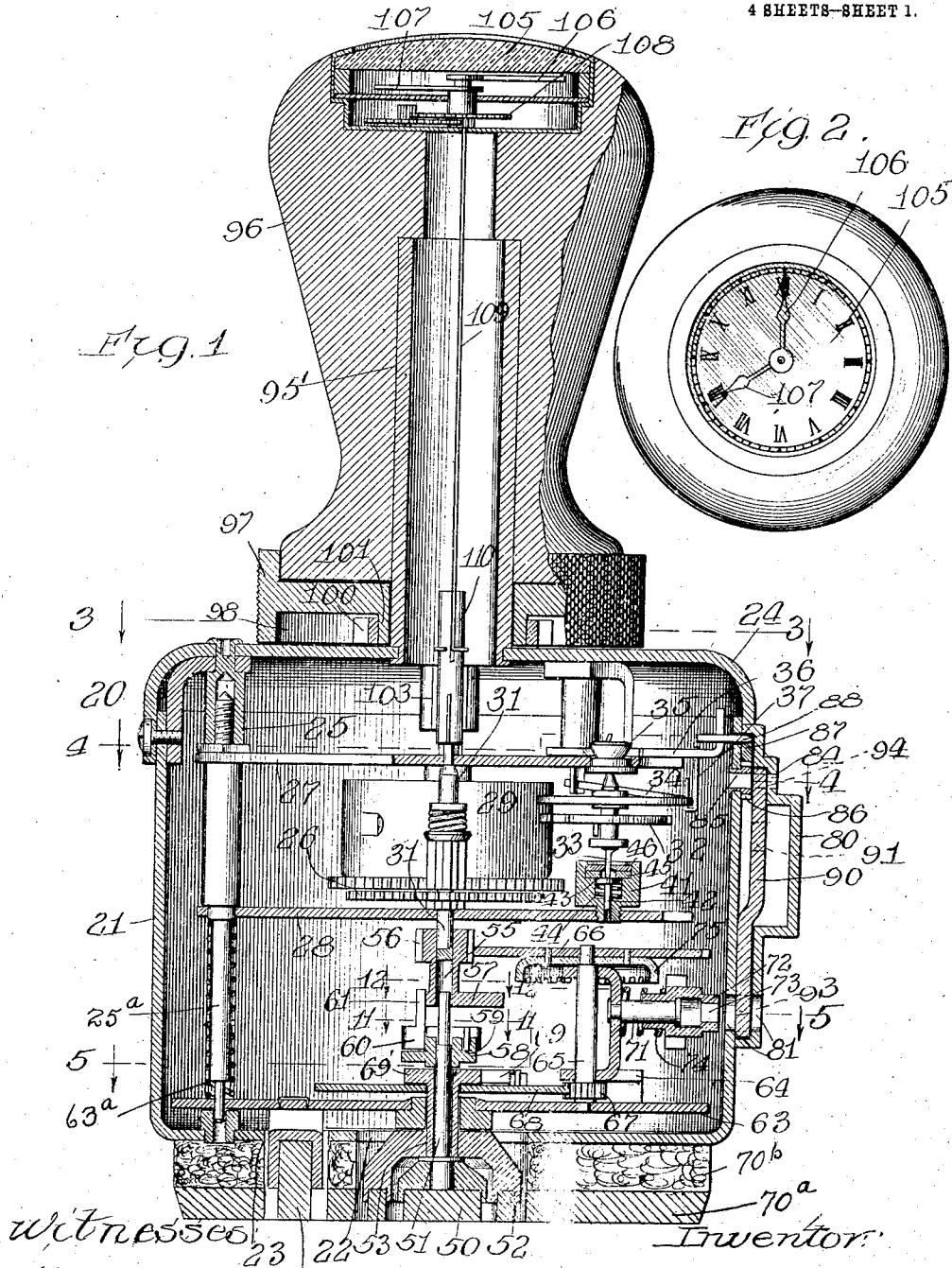
G. E. PERRY.
TIME STAMP.

APPLICATION FILED AUG. 28, 1908.

1,059,755.

Patented Apr. 22, 1913.

4 SHEETS—SHEET 1.



Witnesses

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Inventor

George Elliot Perry

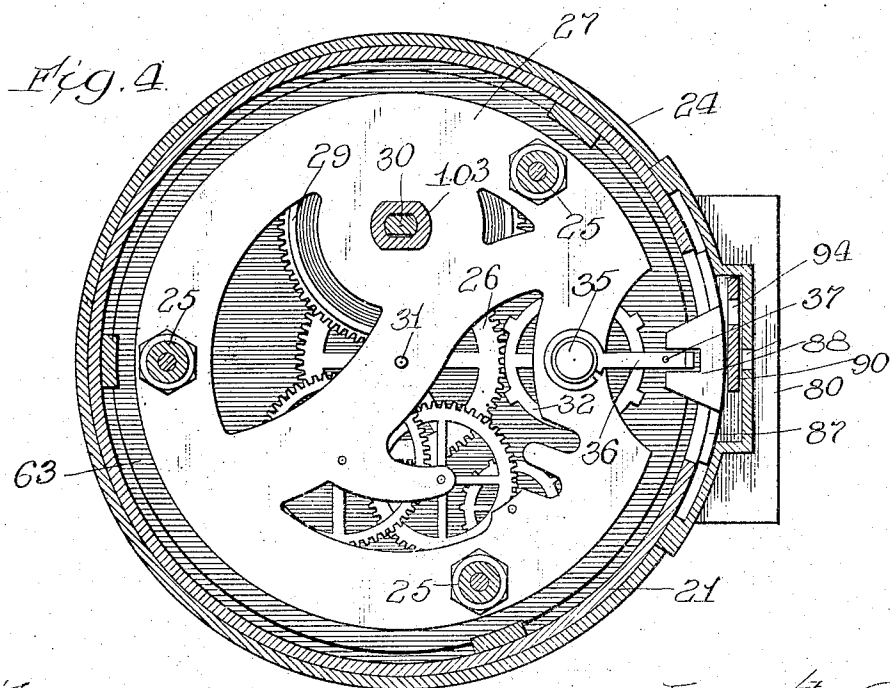
Forrain and May
Atty's.

By

TIME STAMP.

Patented Apr. 22, 1913.

4 SHEETS—SHEET 2.



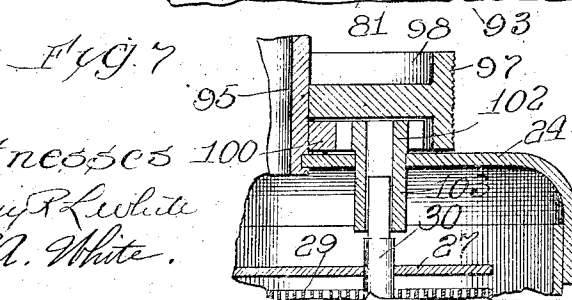
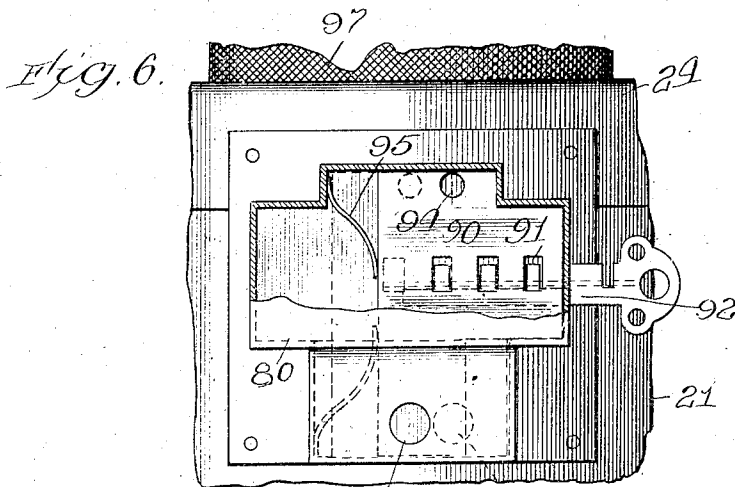
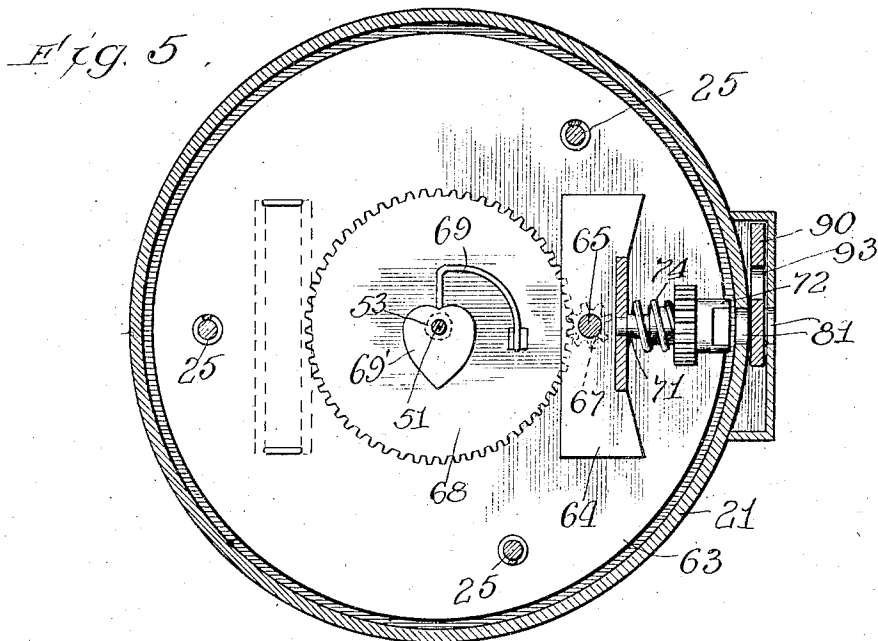
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4 SHEETS—SHEET 3.



Witnesses
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4 SHEETS-SHEET 4.

Fig. 8.

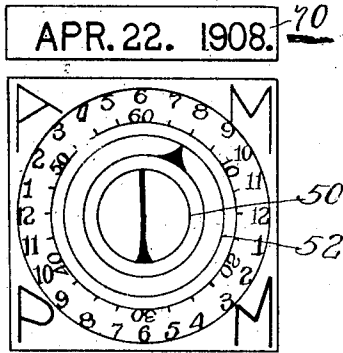


Fig. 9.

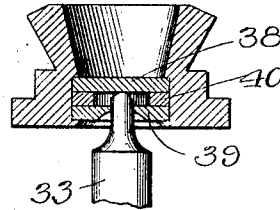


Fig. 11.

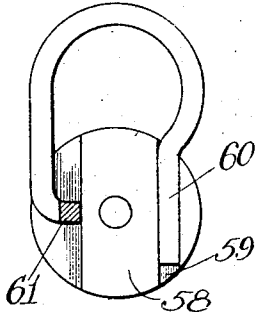


Fig. 10.

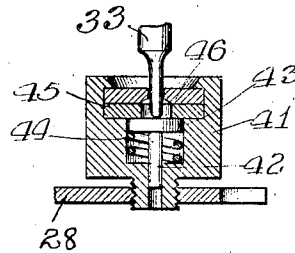


Fig. 12.

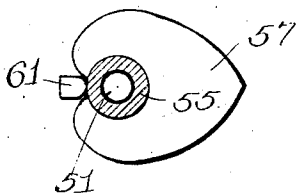


Fig. 13.

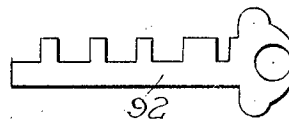
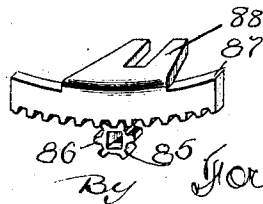


Fig. 14.



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UNITED STATES PATENT OFFICE.

GEORGE ELLIOT PERRY, OF CHICAGO, ILLINOIS.

TIME-STAMP.

1,059,755.

Specification of Letters Patent.

Patented Apr. 22, 1913.

Application filed August 28, 1908. Serial No. 450,670.

To all whom it may concern:

Be it known that I, GEORGE ELLIOT PERRY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Time-Stamp, of which the following is a specification.

My invention relates to improvements in time stamps, and has for its general object to produce a small, compact hand time stamp, which may, if desired, be made in such small size as to be readily held by three fingers of the operator, leaving the thumb and fore-finger free for sorting of mail and the like.

Among the salient objects of my invention are to provide a hand time stamp, in which indicating means are provided in the handle for showing at all times the relation of the movable stamping parts or time indicators; to provide an arrangement wherein the movable stamping devices are rotarily yielding relative to their positively moved clock or motor part, in such manner that while they may readily be moved out of proper relation to their clock parts they yet will be instantly returned to proper relation to such clock parts as soon as the distributing force is removed; to provide a generally improved mounting of the printing surfaces relative to their associated clock parts whereby they may move vertically; to provide an improved mounting of the balance wheel of the clock, such that the jars of operation of the stamp may not break, disturb or unduly wear the balance shaft or bearings; to provide improved means for winding the clock, and means for the prevention or tampering with the clock setting and regulating mechanism.

Other and further objects of my invention will become apparent to those skilled in the art from the following description taken in conjunction with the accompanying drawings, wherein;

Figure 1 is an enlarged vertical section, taken on line 1—1 of Fig. 3, of a hand stamp embodying my invention; Fig. 2 is a plan view of the handle thereof; Fig. 3 is a horizontal section on line 3—3 of Fig. 1; Fig. 4 is a similar section on line 4—4 of Fig. 1; Fig. 5 is a section on line 5—5 of Fig. 1; Fig. 6 is an elevation with parts of the casing broken away; Fig. 7 is a vertical section on line 7—7 of Fig. 3; Fig. 8 is a detail of the impression surface; Figs. 9 and 10 are

details of the upper and lower bearings for the balance wheel; Fig. 11 is a section on line 11—11 of Fig. 1; Fig. 12 is a section on line 12—12 of Fig. 1; Fig. 13 is a detail of a locking key; and, Fig. 14 is a detail of part of the regulator moving mechanism.

Referring to the drawings, 20 indicates in general a casing whereof 21 is a base cup, provided with a suitable central aperture 22, for the rotary printing parts, and an aperture 23 for the date-type; said cup being provided with a cover 24, suitably secured thereto, and suitably carrying, as on the depending posts 25, a clock movement, or horologic motor, generally indicated at 26. The details of the clock construction are not necessary here to be described or shown further than that 27 and 28 are the upper and lower frames, 29 the spring barrel surrounding a winding stem 30, and 31 the minute arbor, extending through both the top and bottom frames. As the balance wheel of such a clock movement, when used in a time stamp, is ordinarily subjected to severe strain due to jarring of the mechanism in stamping, and tending to break the wheel and its arbor, I preferably provide a yielding mounting for the balance wheel, which I will now describe.

32 indicates the balance wheel, and 33 its arbor, having suitably connected thereto the customary spring 34.

The upper jewel bezel 35, mounted in the frame member 27, and engaged in customary manner by the regulating arm 36, (the finger 37 of which engages spring 34,) is preferably made hollow and provided with a table jewel 38, below which is arranged a centrally bored centering jewel 39, spaced apart from the table jewel 38 as by a washer 40. The reduced, rounded end of the arbor 33 projects through the apertured part 39 and normally bears against the table jewel 38. For the lower bearing I provide a bezel 41, threaded into or otherwise vertically adjustable on the frame 28, said bezel being counterbored and axially perforated to receive a guiding stem 42 carrying a table jewel 43, arranged within the counterbore, and pressed upward by a spring 44 therebeneath, into contact with the washer 45, seated upon a shoulder of the bezel 41, and acting to space apart from the table jewel a perforated centering jewel 46, through which the reduced rounded lower end of arbor 33 projects to bear centrally on the lower table

jewel 43. It will be observed that this mounting is such that the shocks caused by the use of the stamp has minimum breaking and wearing effect upon the balance wheel and arbor, as the downward pressure on the lower bearing caused by the jarring of the stamp may be taken up by the spring 44, so saving wear on both the jewel 43 and the rounded bearing end of the wheel arbor, and guarding the arbor against breakage.

The impression mechanism driven by the clock or motor, comprises preferably a minute impression disk 50 mounted on a central shaft 51 and an hour impression ring or annulus 52 mounted on a sleeve 53. The minute shaft 51 has connection for synchronous rotation with the minute arbor 31, of the clock, but in a novel elastic manner which I will now describe. Fixed upon the arbor 31 is a sleeve 55, carrying at its upper end a pinion 56 for a purpose to be described, and at its lower end a heart-shaped cam 57, as illustrated in detail in Fig. 12, each side (in plan) of the cam being a scroll, gradually increasing in distance from the diameter of the sleeve 55 so that the two side scrolls meet at a point at their greatest distance from the sleeve.

The upper extremity of the shaft 51 fits loosely within the lower end of sleeve 55 for free rotary and vertical movement therein, but below such connection there is fixed to the shaft 51 a plate 58 having in its upper surface a slot 59 in which is seated and secured a spring 60 of horse-shoe shape, the free extremity of which projects upward in the form of a post or finger 61, as best shown in Figs. 1 and 11. This post or finger 61 engages the cam 57 and when the parts are in normal position rests in the crotch of the heart-shaped cam where the side surfaces of the cam most closely approach the diameter of the sleeve 55. It will be obvious now that this spring connection of the arbor 31 and shaft 51 will normally cause their rotation together, as the spring, bearing on the cam, resists yielding any tendency of the shaft 51 to move rotarily relative to the arbor 31. If force be applied for the purpose the minute impression member 50 and shaft 51 may be rotated relative to the arbor 31, the horse shoe spring 60 yielding as its post 61 follows the contour of the cam, but the moment the disturbing force is released, the spring action wedging the post 61 back along the cam, restores the parts to normal position, so that any effort to falsely set the minute hand in any position not that imposed by the position of the minute arbor of the motor is frustrated, but through a means which permits the minute impression member to yield so readily as not to impose any undue strain on the clock parts when an attempt at falsification is made.

The hour impression ring 52 is driven from the arbor 31 through a reduction gear and a yielding connection of general character similar to that above described. Specifically 63 is a floating plate yieldingly mounted on posts 25^a connected with the clock frame, and pressed downward by springs 63^a, said plate carrying a yoke 64 in which is arranged the vertical arbor 65, carrying at its upper end a gear 66, which has connection with the pinion 56 on the sleeve 55, and at its lower extremity carrying a pinion 67 in mesh with a gear 68 loose on the sleeve 53 but carrying a spring 69 engaging a heart-shaped cam 69^a preferably integral with said sleeve 53 and operating through the yielding spring connection to normally maintain the hour printing ring in proper relation to its clock mechanism, substantially as above described. It will be understood, of course, that the back gearing connecting the hour printing ring with the minute arbor 31 may be a 24 to 1 gear to correspond with the printing impression shown in Fig. 8.

The date printing monotype 70 may be mounted directly upon the floating plate 63 as shown, and any suitable advertising impression may be provided on surface 70^a, backed up by sponge rubber 70^b. It will be apparent that when pressure is applied to the stamp the surface 70^a may yield on its backing 70^b and the impression members 50-52 may yield vertically, carrying upward the floating plate 63 and its connected parts.

For setting the clock any convenient mechanism may be employed, preferably having a prime mover in the form of a rotatable part extending radially into close proximity to the casing, and such construction is illustrated in Fig. 1, wherein 71 indicates a stud on which is slidably mounted a pinion 72 having a key receiving head 73 normally held by a spring 74 out of operative engagement with a crown gear 75, mounted on the under side of the gear 66, the arrangement being such that when a key is inserted in the head 73 and the gear 72 is pushed backward into engagement with the crown 75, the latter may be rotated to impart rotation to the interconnected hour and minute indicating means. Preferably the setting mechanism is arranged practically in line with the regulating mechanism of the clock, and I preferably provide means whereby the regulation can be accomplished only by use of a male key and both the regulating means and the setting means may be protected against tampering by the provision of a locking part operable to permit access to be had to the regulating and setting mechanism only by the use of a proper lock-key.

In the specific construction shown 80 indi-

cates a lock casing upon the exterior of the cup 21, provided with a receiving aperture 81 for the setting key, alining with a similar aperture in the cup 21 and with the apertured head 73 of the setting mechanism. An upper aperture 84 is also provided for the regulating key, alining with a key receiving socket 85 in a pinion 86 mounted for rotation on the casing 21, and engaging a segmental crown gear 87, sliding between the cup 21 and the lock casing 80, which has projecting radially inward therefrom two fingers 88, extending through a horizontal slot in the casing to engage the regulator lever 36, so that as the pinion 86 is rotated it moves the rack 87 and thereby oscillates the regulator lever 36.

In the lock casing 80 is arranged a sliding lock plate 90 having openings 91 adapted to be engaged by projections of a key 92, so that the plate may be slidably moved through the agency of the key, said plate being provided with apertures 93 and 94 arranged for register with the apertures 81 and 84, for the setting and regulating wrenches or keys, such plate being normally held by spring 95 in such position that its apertures are out of register with the openings in the casing, and so that its solid surface prevents the introduction of the setting and regulating wrenches or keys. To give access to the setting and regulating mechanism the lock-key 92 is inserted in a suitable key hole in the lock, passing between the plate 90 and the wall of cup 21, the key is then slightly turned to engage its projections in the apertures of the lock plate, and then when the key is pushed home it slides the lock plate backward bringing the apertures in the lock plate into register with the corresponding apertures in the lock casing, so giving access to the setting and regulating mechanism.

It will be understood, of course, that the particular form of lock may be widely varied, and that the simple construction herein illustrated is for purposes of full disclosure only.

The handle of my improved stamp is preferably adapted to be grasped in the heel of the hand, and I prefer in connection to arrange the winding mechanism on the handle and make provision for displaying in the end of the handle an indication of the time which the stamping parts register. In the specific construction shown I provide in the cover 24 a central opening in which is secured a tubular post 95' carrying the wooden handle proper 96, which is at its bottom separated somewhat from the top of the casing to allow for the interposition therebetween of a knurled winding wheel 97 loose on the tube 95', and providing an annular recess 98 in its under side. The winding wheel 97 carries an annular gear 100

suitably secured thereto as upon studs 101 and meshing with a pinion 102 carried by a sleeve 103 which extends down through the cap 24 and engages the winding stem 30 for the clock spring. Obviously by rotation of the knurled wheel 97 the clock may be wound.

For indicating in the handle of the stamp the time registered by the printing mechanism, I provide in the end of the handle a clock dial 105, with minute and hour hands 106 and 107, interconnected through a suitable gearing 108, the minute arbor of which is driven in synchronism with the minute arbor 31 of the clock by a suitable connection, herein shown as comprising a rod 109 extending centrally through the tube 95 into engagement with a clamp 110 clamped upon a minute arbor 31 of the clock. It will be apparent, therefore, that in order to determine the exact time which the device will stamp, or to set the clock, it is not necessary to invert the stamp and read the time from the inverted or negative impression surfaces.

While I have herein described in some detail a particular embodiment of my invention, which I believe to be new in many of its details, it will be apparent that the specific construction thereof might be varied in many particulars without departure from the spirit and scope of my invention, and I do not desire to be understood as limiting my invention to the particular construction shown and described further than as specified in the claims.

Having thus described my invention what I claim and desire to secure by Letters Patent is;

1. In a time stamp, an impression member, a motor part therefor, and yielding connection between said motor part and the impression member arranged to normally move and maintain the impression member in predetermined rotary relation to the motor part to permit unlimited rotary displacement of the impression member with respect to the motor part, and to automatically return the impression member to the predetermined relation to the motor part from an abnormal position to which the impression member may be forced.

2. In a time stamp, a clock movement, an impression member, and a connection between said impression member and a clock part, normally maintaining said parts in predetermined relation and yieldable to permit unlimited rotation of the impression member with respect to the clock part.

3. In a time stamp, a clock movement, an impression member, and a frictional connection for rotation between a clock part and said impression member, having constant tendency to maintain said parts in or restore them to predetermined rotary relation.

4. In a time stamp, a clock movement, an impression member, means connecting said impression member and a clock part for rotation in normal predetermined rotary relation, comprising a cam and a yielding member frictionally engaging the cam. 70
5. In a time stamp, a clock movement, comprising an actuating part, and an impression member for rotation in consonance with the rotation of said part, and a rotarily yielding connection between the actuating part of the clock movement and the impression part, comprising a heart-shaped cam and a spring bearing on said cam. 75
6. In a hand time stamp, a clock movement, a casing for the clock movement, a tube projecting above the casing, a handle and a winding means for the clock movement concentrically positioned on the tube, a time indicating means on the handle, and means for connecting the clock movement and the indicating means passing through said tube. 80
7. In a hand time stamp, a casing, impression parts at the base of the casing, a horologic motor for driving said impression parts, within the casing, and a structure projecting centrally from the top of the casing constituting a handle and a means for winding the motor. 85
8. In a hand time stamp, a casing, impression parts at the base of the casing, a horologic motor for driving said impression parts, within the casing, a handle upon the top of the casing, and winding means for said motor comprising as a prime mover a wheel concentric with the handle of the stamp, the entire exposed parts of said handle and wheel being at different levels. 90
9. In a hand time stamp, a casing, impression parts at the base of the casing, a horologic motor for driving said impression parts, within the casing, a handle upon the top of the casing symmetrical with respect to the casing axis, and winding means for said motor comprising as a prime mover a wheel concentric with the handle of the stamp, and arranged between the handle proper and the casing. 95
10. In a hand time stamp, a casing, impression parts on the casing, a horologic motor for driving said impression parts within the casing, a post projecting from the casing, a wheel rotatable about the post, a hand grasp part mounted on the post above the wheel, and winding connections between the wheel and motor. 100
11. In a hand time stamp, a casing, impression parts thereon, a horologic motor for driving said impression parts, a winding shaft for said motor, and winding means for said shaft, exterior to the casing, comprising a prime mover and gearing concealed within said prime mover. 105
12. In a time stamp, a casing, impression means below the casing, a clock within the casing for moving said impression means, means for setting the clock, means for regulating the clock arranged with respect to apertures in the casing to be operable from the exterior thereof, and a key controlled cover for said apertures in the casing having an aperture arranged to be brought into register with the casing aperture. 110
13. In a time stamp, a casing, impression means, a clock for driving the impression means, means for setting the clock arranged for access through an aperture in the casing, a key-controlled slide covering said casing, apertured and movable to bring a corresponding aperture into register with the casing aperture. 115
14. In a time stamp, a casing, a clock movement within the casing, a plate below the clock movement within the casing, impression devices all substantially fixed in vertical relation to the plate, extending out of the casing, yielding guiding connections between the plate and clock movement, and vertically yielding connections between an impression part and a synchronously moving clock part. 120
15. In a time stamp, a casing, a clock movement within the casing providing a minute arbor, a vertically yielding plate below said clock movement, minute and hour impression means mounted on said plate, and a reduction gear on said plate, connecting the minute arbor and the hour impression means, there being a connection between the minute arbor and minute impression means, and both connections of the minute arbor permitting the impression means to move vertically without disturbing such connections. 125
16. In a time stamp, a casing, a printing surface of resilient material mounted thereon, a clock movement carried by the casing, a plate vertically movable within the casing above and with respect to the resilient printing surface, chronological impression devices driven by the clock movement carried by and vertically movable with said plate, and having a vertically yieldable connection with the clock movement. 130
17. In a time stamp, the combination of a horological motor, a carrier part below the motor, yielding connections between the motor and carrier to permit relative vertical movement therebetween, time-indicating impression means carried by said carrier, and a connection between said impression means and a synchronously moving part of the motor arranged to permit relative vertical movement between said connected parts. 135
18. In a time stamp, the combination of a horological motor, a carrier part therebelow, yielding means between the motor and carrier to permit relative vertical movement therebetween, separate hour and minute im-

pression parts carried by the carrier, appropriate gearing therebetween including gears carried by the carrier, a connection for rotation between a motor part and one of said impression parts arranged to permit relative vertical displacement between said parts without disturbance of their rotative connection.

19. In a time stamp, a casing, a horological motor herein, a plate guidedly arranged in the casing, springs interposed between said plate and motor whereby said plate and motor have a relative vertical yielding relation, a time impression device carried by the plate, and a slip-joint connection between said impression device and a part of the motor.

20. In a time stamp, the combination of a

casing, a horological motor therein, a plate guidedly arranged within the casing below the motor, springs interposed between said plate and motor, separate hour and minute impression parts carried by the plate, a connection between one of said impression parts and a synchronously moving motor part, said connection arranged to yield vertically without disturbance of the rotative relation, and means appropriately to gear the two impression parts including a connected gear and pinion carried by said plate.

In testimony whereof I hereunto set my hand in the presence of two witnesses.

GEORGE ELLIOT PERRY. [L.S.]

In the presence of—

GEO. T. MAY, Jr.,

MARY F. ALLEN.