

G. E. PERRY.
TIME STAMP.

920,175.

APPLICATION FILED APR. 22, 1905.

Patented May 4, 1909.

3 SHEETS—SHEET 1.

Fig. 2.

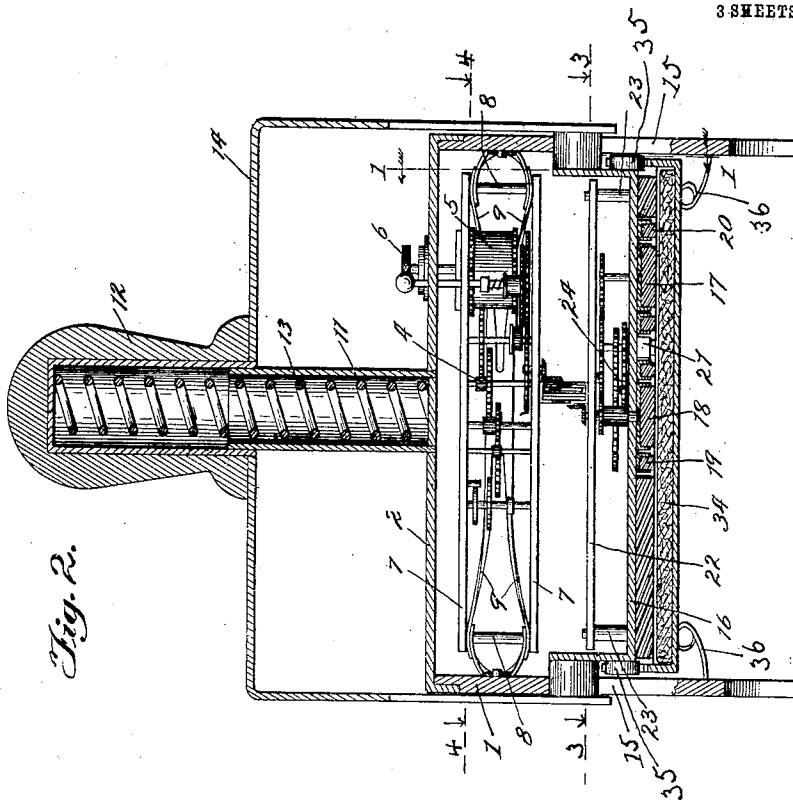
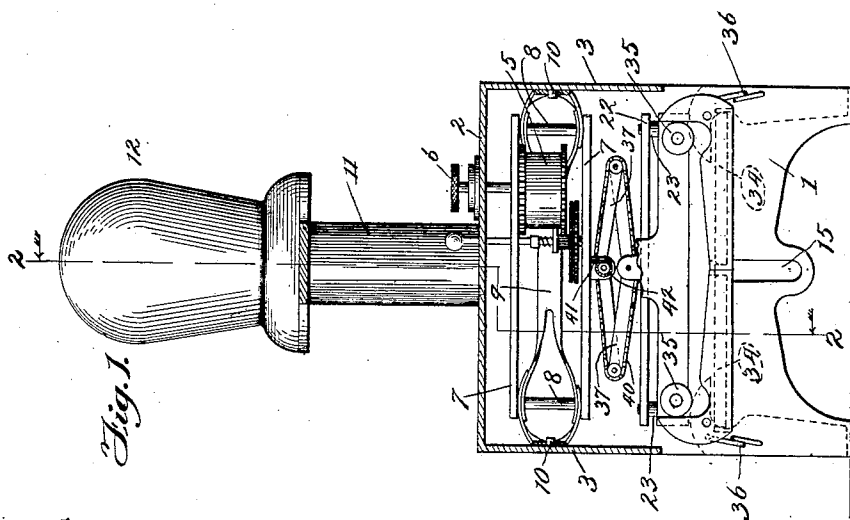


Fig. 1.



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3 SHEETS—SHEET 2.

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Fig. 5.

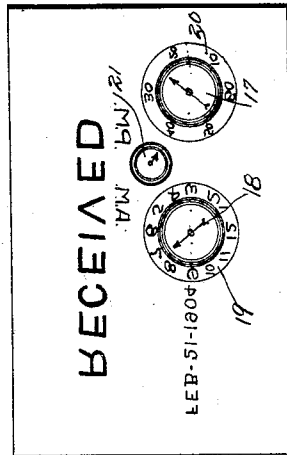


Fig. 3.

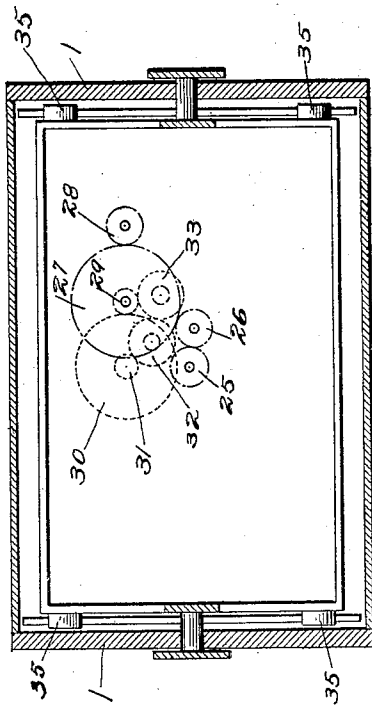
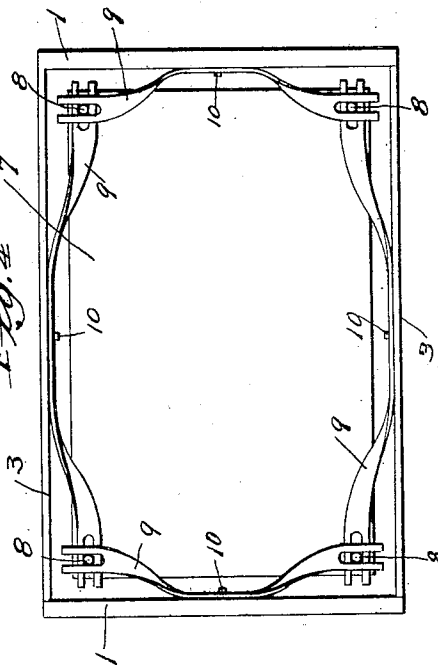


Fig. 4.



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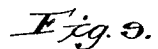
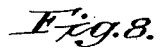
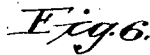
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

GEORGE ELLIOT PERRY, OF CHICAGO, ILLINOIS, ASSIGNOR TO STROMBERG ELECTRIC MFG. CO..

TIME-STAMP.

No. 920,175.

Specification of Letters Patent.

Patented May 4, 1909.

Application filed April 22, 1905. Serial No. 256,914.

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 new and useful Improvements in Time-Stamp, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawing, forming a part of this specification.

My invention relates to time stamps, and has for one of its objects novel means for continuously maintaining the time controlled parts of the impression mechanism in operative relation with the motor mechanism.

The other novel features of my invention will more clearly appear from the following description of the drawings, in which I have illustrated one embodiment of my invention, and in which—

Figure 1 is a sectional view of a time stamp embodying my invention, taken on the line 1—1 of Fig. 2; Fig. 2 is a sectional view taken on the line 2—2 of Fig. 1; Fig. 3 is a view on the line 3—3 of Fig. 2; Fig. 4 is a view on the line 4—4 of Fig. 2, showing the resilient mounting for the motor; Fig. 5 is a view of the face of the time controlled elements and impression mechanism; Figs. 6 and 7 are detailed views of the continuous connection between the motor and the time controlled elements of the impression mechanism; and, Figs. 8, 9 and 10 are views of a modification of said continuous connection.

Referring to the drawings by reference characters in which I have used the same reference numerals to designate like parts in the several figures, a casing for the stamp mechanism is provided, consisting of end-pieces or legs 1, 1, and a table 2, having extended side walls 3, 3. The motor mechanism consists of any suitable clock train 4, or other horologic motor, having a main spring 5, and a winding stem 6, for winding the same. The motor mechanism is preferably disposed within a frame, consisting of plates 7, 7, between which arbors of the clock train are suitably journaled, said plates being secured together by pins 8, 8. I prefer to resiliently mount the motor mechanism in position by means of springs 9, 9, said springs having divided ends, said ends being slotted and being adapted to engage the pins 8, 8, as shown in Fig. 4, said pins having suitable apertures therein and being adapted

to be sprung over pins 10, 10, carried upon the inner face of the casing of the stamp. It will be seen that said springs effectually cushion the motor mechanism in such a way as to relieve any impact or jar to the motor upon all sides thereof.

Mounted upon the table 2 is a tube 11, adapted to telescope with a suitable handle 12, a coiled spring 13 being disposed within said tube and handle, said spring being adapted to return the movable parts of the stamp to their normal positions after an impression has been made. The handle 12 is preferably mounted upon a yoke 14, the free ends of said yoke being adapted to reciprocate within slots 15, 15, and to carry a suitable supporting plate 16, upon which is mounted the impression mechanism of the stamp. The time controlled impression mechanism consists of revoluble dies 17 and 18, said dies carrying hands or pointers and being adapted to indicate the time upon stationary dials 19 and 20, as shown in Fig. 5. The dials 19 and 20 are preferably stationarily mounted upon the plate 16 and any additional information or impression characters may be stationarily mounted therein, said stationarily mounted impression characters being adapted to aline with the impression face of the revoluble dies 17 and 18. The revoluble die 17 and its cooperating stationarily mounted dial 20 are adapted to indicate the minute of the hour and the revoluble die 18 and its cooperating dial 19 are adapted to indicate the hour of the day, a third and smaller revoluble die 21 being adapted to indicate the forenoon and afternoon of the day.

A sub-plate 22 is mounted upon the supporting plate 16, by means of pins 23, 23, or in any suitable manner. One of the revoluble dies is adapted to be directly driven by the horologic motor mechanism 4, the other revoluble dies being suitably geared to move relative to said directly driven die, so as to have said dies in proper relative positions for correctly recording the time. This relative movement of the revoluble dies is accomplished by a train of gearing 24, disposed between the plates 16 and 22, said gearing being shown in Fig. 3. In the gearing, as shown, the pinion 25 is directly driven by the motor mechanism, said pinion meshing with an idler 26, said idler meshing with a large pinion 27, said pinion 27 being adapted

to mesh with the pinion 28, upon the arbor of which is secured the revoluble die for indicating the minute of the hour. Upon the arbor of the large pinion 27 is secured a small pinion 29, said pinion being adapted to mesh with a large pinion 30, upon the arbor of which is carried the revoluble die for indicating the hour. Carried upon the arbor of the pinion 30, is a small pinion 31, adapted to mesh with an idler 32, said idler meshing with a pinion 33, upon the arbor of which is carried the small revoluble die for indicating the forenoon and afternoon of the day. It will be understood that any suitable gearing for relatively moving the time controlled elements of the impression mechanism, may be adopted in lieu of the train of gearing above described.

Inking pads 34, 34, are adapted to ink the operative face of the impression mechanism, said pads being pivoted to the end-pieces 1, 1, and are adapted to rest slightly out of engagement with the impression mechanism, as shown in Fig. 2, so as not to interfere with the free movement of the revoluble dies. When the stamp is operated to make an impression, the impression mechanism is carried into engagement with the inking pads 34, 34, and is inked, said pads immediately thereafter being engaged by the rollers 35, 35, carried by the plate 16, said rollers being adapted to carry said pads out of the path of the impression mechanism, as shown in dotted lines in Fig. 1. Springs 36, 36, one end of said springs being secured to the end plates 1, the other end of said plates being secured to the inking pads 34, are adapted to return said pads to their normal positions after an impression has been made.

Any suitable inking means may be adopted in lieu of the drop pads above described, without departing from the spirit of my invention and any suitable form of time recording elements may be adopted in lieu of said revoluble dies and stationarily mounted dials.

It will be seen that the impression mechanism is movable relative to the motor mechanism when an impression is made, and in order to have the time controlled parts of the impression mechanism continuously in operative relation with the horologic motor, so that said moving parts may be continuously driven by the motor, while the stamp is at rest, and while an impression is being made, I preferably provide a set of lazy tongs 37, as shown in Figs. 6 and 7. The lazy tongs are disposed between the motor mechanism and the sub-plate 22, and are mounted in U-shaped brackets 38, 38, secured to said plates. Carried upon the idle tongs 37 and mounted in alinement thereon, are four ratchet wheels 39, 39, over which an endless chain or other suitable conductor 40

is adapted to convey motion from the horologic motor mechanism to the time controlled elements of the impression mechanism, by means of suitable beveled gears. One of said beveled gear wheels 41 is carried by one of the arbors of the horologic motor and is adapted to mesh with the beveled gear wheel 42, secured to the arbor or pin 43, said pin being also adapted to secure the gear wheel 39 and the idle tongs 37 within the supporting bracket 38. A similar beveled gear 44 is secured to one of the arbors of the train of gearing 24 for relatively moving the revoluble dies of the impression mechanism, said beveled gear being adapted to mesh with a beveled gear 45, carried upon the pin or arbor 46, said pin being also adapted to secure one of the ratchet wheels 39 and the idle tongs within the bracket 38. It will be seen that as the idle tongs are loosely pivoted upon the pins 43, 46 and 47, they will readily permit the impression mechanism to be moved relative to the motor mechanism to make an impression, the chain 40, at all times keeping the moving parts of the impression mechanism in operative relation with the motor mechanism.

In Figs. 8, 9 and 10, I have illustrated a modification of the continuous connection between the motor and impression mechanism, in which a plurality of gear wheels 48, 48, are used for conveying motion from the beveled gears 41 and 42, to the set of beveled gears 44 and 45. Said gear wheels are loosely mounted upon bars 49, 49, two of the ends of said bars being mounted upon the pins or arbors 43 and 46, upon which one of the beveled gears is mounted, said pins or arbors securing said beveled gears and said bars to the supporting brackets or plates 38, 38. The opposite adjacent ends of the bars 49, 49, are peripherally toothed to correspond with the toothed periphery of the gear wheels carried upon the ends of said bars, the toothed ends of said bars being connected by links 50, 50, as shown in Figs. 9 and 10, said links being held in position upon either side of said bars and gear wheels, by means of the pins or arbors upon which said wheels are adapted to rotate. The toothed peripheral ends of the bars 49, 49, are adapted to keep said bars and the axis of the gear wheels mounted thereon in alinement when the impression mechanism is moved relative to the motor mechanism to make an impression.

The operation of my improved time stamp is obvious. The impression mechanism is moved into contact with the surface to be impressed, as above described, the idle tongs 37, 37, or the bars 49, 49, reciprocating between the motor mechanism and the impression mechanism, and the endless chain 40 or the gear wheels 48, 48, maintaining the

connection between the impression mechanism and the motor mechanism at all times, while the stamp is at rest, and while an impression is being made.

5 Having described my invention with particular reference to the details of construction, and not regarding said details as essential, I claim the benefit to make such changes therein as fairly fall within the scope of my invention.

10 Having described my invention what I claim as new and desire to secure by Letters Patent is:

1. A portable time stamp comprising in a self contained unitary structure, the combination with a supporting frame, of a spring actuated motor mounted thereon, an impression mechanism movable relatively to said motor and carried by said frame, and a belt extending between said motor and said impression mechanism which permits said impression mechanism to be moved relatively to said motor in making an impression without being disconnected therefrom.

25 2. A portable time stamp comprising in a self contained unitary structure, the combination with a supporting frame, of a spring actuated motor mounted thereon, an impression mechanism movable relatively to said motor and carried by said frame, an endless movement transmitting connection between said motor and said impression mechanism which permits said impression mechanism to be moved relatively to said motor in making an impression without being disconnected therefrom, and means associated with said endless movement transmitting connection for continually keeping the same in operative relation with said mechanism.

3. A portable time stamp comprising in a self contained unitary structure, the combination with a supporting frame, a spring actuated motor mounted thereon, an impression mechanism movable relatively to said motor and carried by said frame, movable arms extending between said motor and impression mechanism and an endless motion-transmitting conductor carried by said arms and connecting said motor and impression mechanism and which permits said impression mechanism to be moved relatively to said motor in making an impression without disconnection therefrom.

55 4. A portable time stamp comprising in a self contained unitary structure, the combination with a supporting frame, of an escapement, spring actuated motor, mounted thereon, an impression mechanism movable relatively to said motor and carried by said frame, movable arms extending between said motor and said impression mechanism, and means carried by said arms for operatively connecting said motor and said impression

mechanism which permits said impression mechanism to be moved relatively to said motor in making an impression without being disconnected therefrom.

5. In a portable time stamp, the combination with a supporting frame, of a spring actuated motor carried thereby, an impression mechanism movable relatively to said motor and carried by said frame, movable arms extending between said motor and impression mechanism and suitable power transmitting means carried by said arms which permits said impression mechanism to be moved relatively to said motor in making an impression without being disconnected therefrom, said arms being suitably pivoted so that as the distance between the arms in one direction increases, the distance between the arms in the opposite direction correspondingly decreases.

6. In a time stamp, the combination with impression mechanism having moving time controlled parts, of a horologic motor for driving said parts, said impression mechanism being movable relative to said motor to make an impression, a suitable resilient mounting for said motor adapted to relieve the impact or jar upon the motor mechanism when the stamp is operated to make an impression, and a suitable belt or chain associated with said motor mechanism and the moving time controlled parts of said impression mechanism, said belt or chain constituting a continuous connection between said motor and said parts, and being adapted to transmit motion from said motor to said parts when the impression mechanism is moved to make an impression.

7. In a time stamp, the combination with impression mechanism having moving time controlled parts, of a horologic motor for driving said parts, said impression mechanism being movable relative to said motor to make an impression, suitable springs associated with said motor mechanism, said springs being adapted to relieve the impact or jar upon the motor mechanism when the stamp is operated to make an impression, a belt or chain associated with said motor mechanism and the moving time controlled parts of said impression mechanism, said belt or chain being adapted to transmit motion from said motor mechanism to said parts, and constituting a continuous connection therefor, and means associated with said belt for continuously keeping said belt in operative relation with said mechanisms.

8. In a portable time stamp, the combination with a supporting frame, of an escapement, horologic motor mounted thereon, an impression mechanism movable relatively to said motor and carried by said frame, an endless motion transmitting connection ex-

tending between said motor and impression mechanism which permits said impression mechanism to be moved relatively to said motor in making an impression without being disconnected therefrom, and an inking pad for inking said impression mechanism between impressions normally out of engagement with the face thereof.

9. In a portable time stamp, the combination with a supporting frame, of an escapement spring actuated motor mounted thereon, an impression mechanism movable relatively to said motor and carried by said frame, pivoted arms extending between said motor and said impression mechanism and carrying an endless motion transmitting means which permits said impression mechanism to be moved relatively to said motor in making an impression without being disconnected therefrom, an inking pad for inking said impression mechanism between im-

pressions, normally out of engagement with the face thereof.

10. In a portable time stamp, the combination with a supporting frame, of an escapement spring actuated motor mounted thereon, an impression mechanism movable relatively to said motor and carried by said frame, and an endless driving means connected with said motor and impression mechanism, which permits said mechanism to be moved relatively to said motor in making an impression without being disconnected therefrom.

In witness whereof, I have hereunto subscribed my name in the presence of two witnesses.

GEORGE ELLIOT PERRY.

Witnesses:

C. B. CAMP,

W. PERRY HAHN.