

No. 882,166.

PATENTED MAR. 17, 1908.

F. PURDY.

AUTOMATIC TIME STAMP.

APPLICATION FILED JUNE 14, 1902. RENEWED APR. 24, 1903.

2 SHEETS—SHEET 1.

Fig. 1.

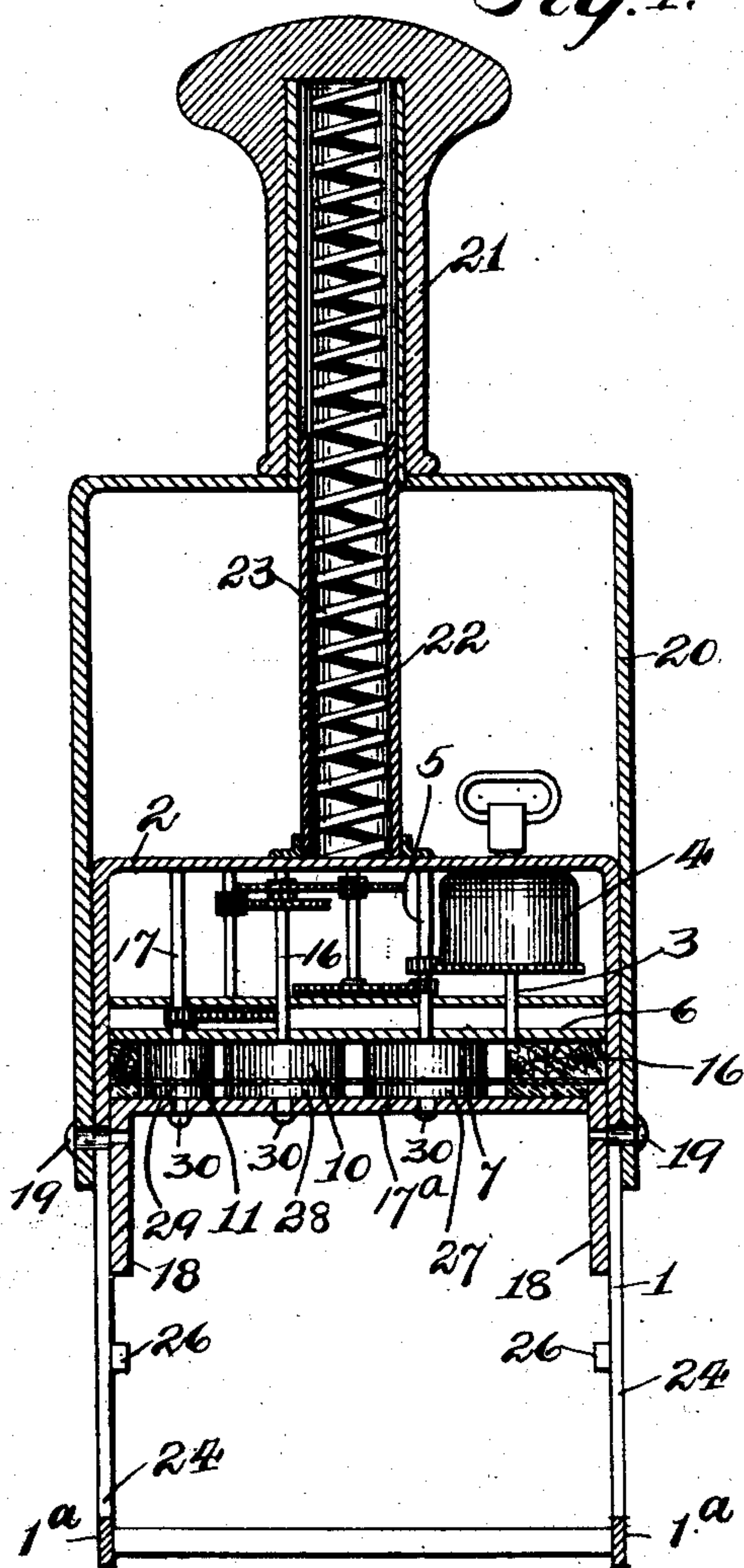


Fig. 2.

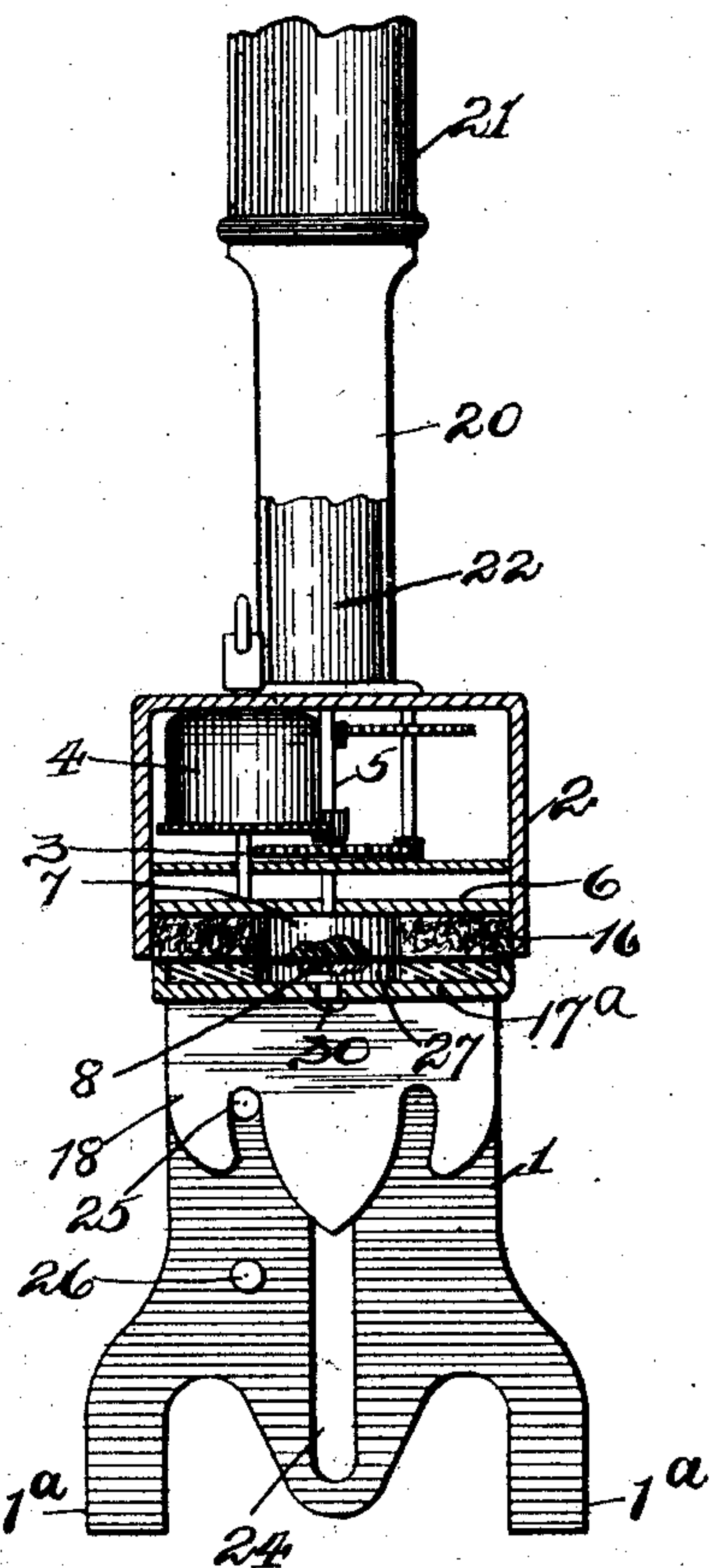
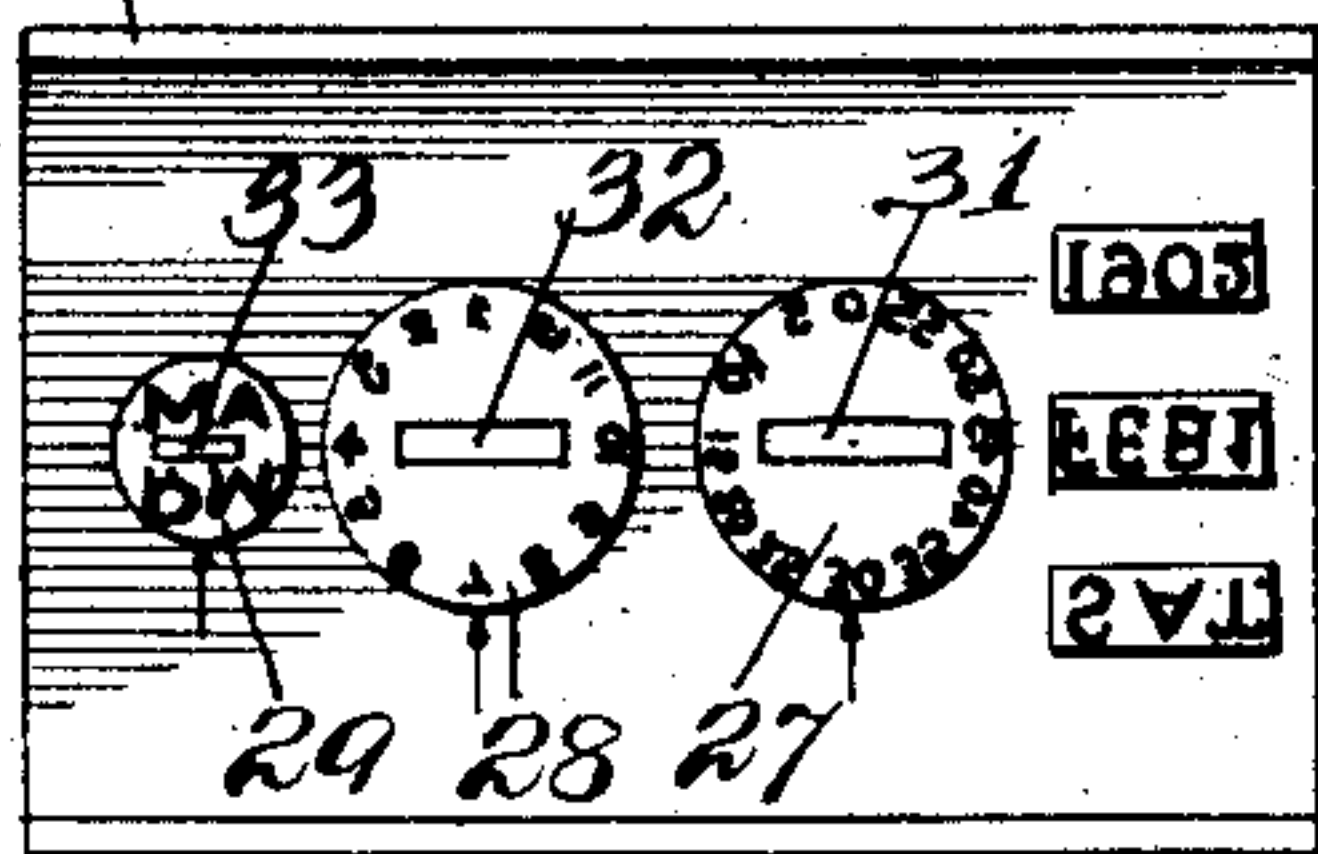
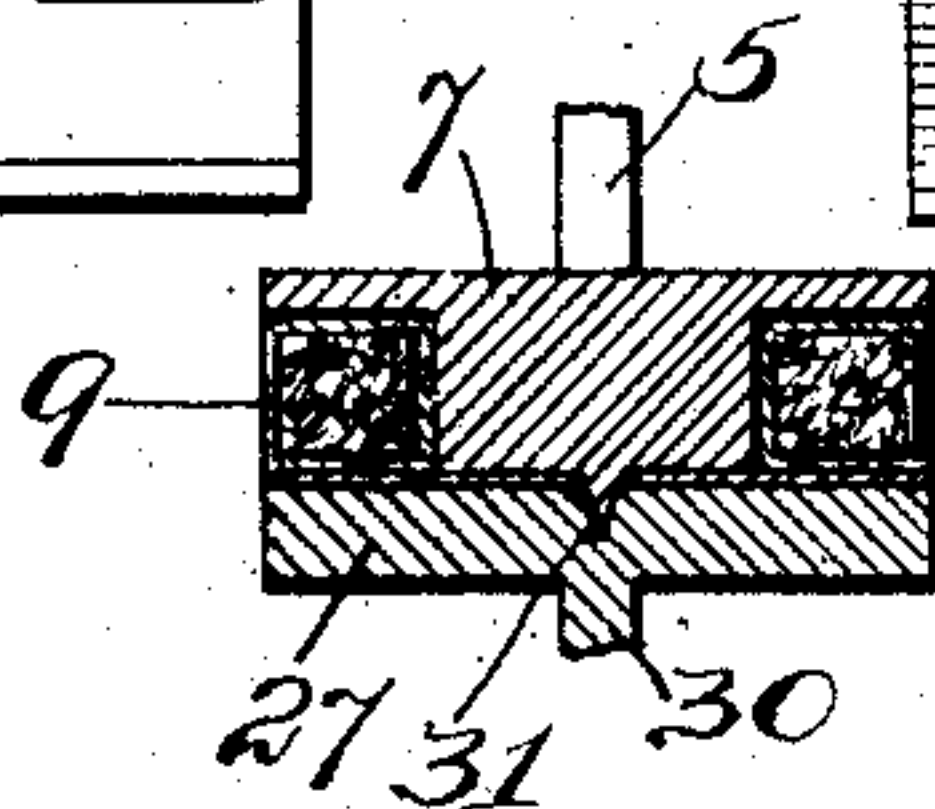
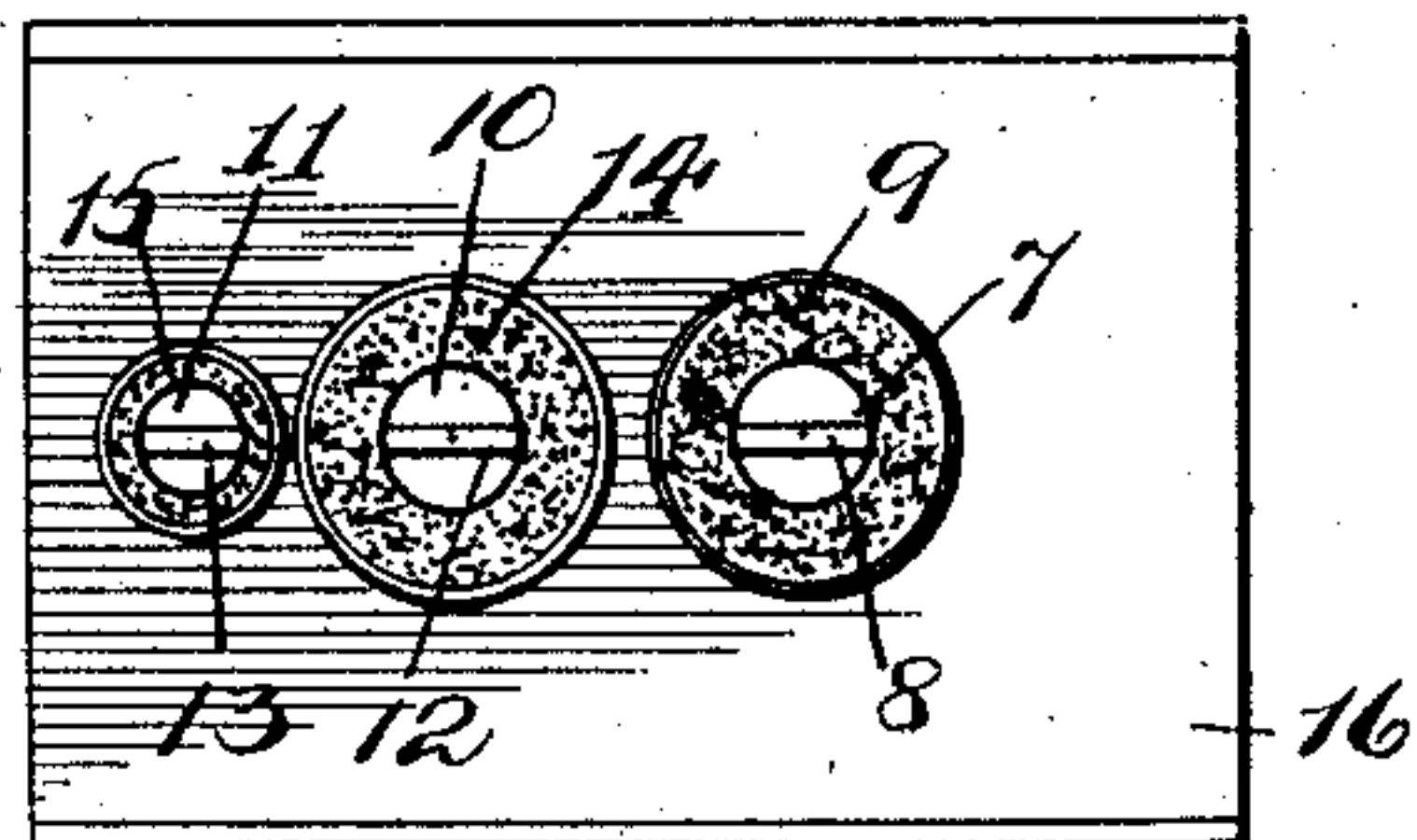


Fig. 3.



Witnesses:
J. M. Weir.
H. M. Krueger

Fig. 4.



Inventor
Frederick Purdy,
By David W. Fletcher
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2 SHEETS—SHEET 2.

Fig. 6.

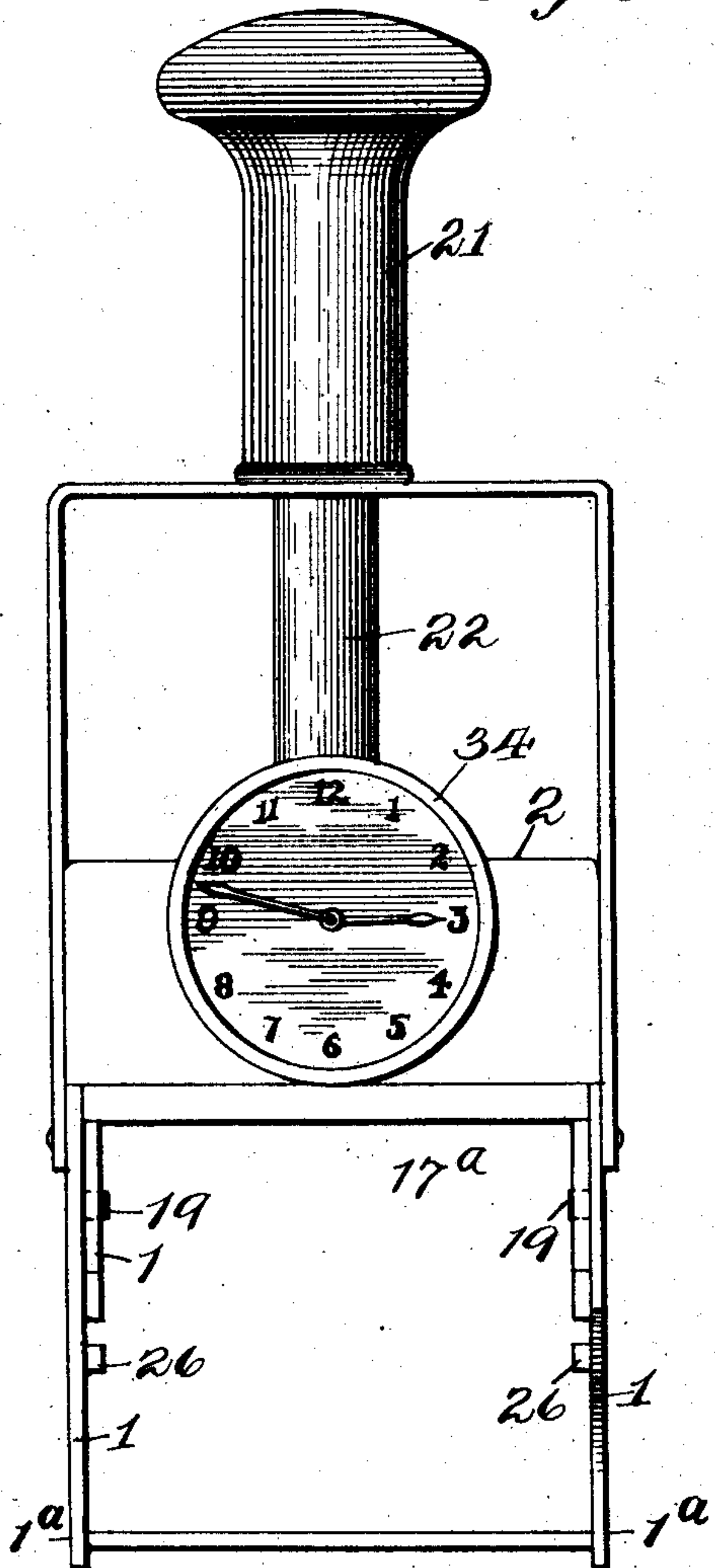


Fig. 7.

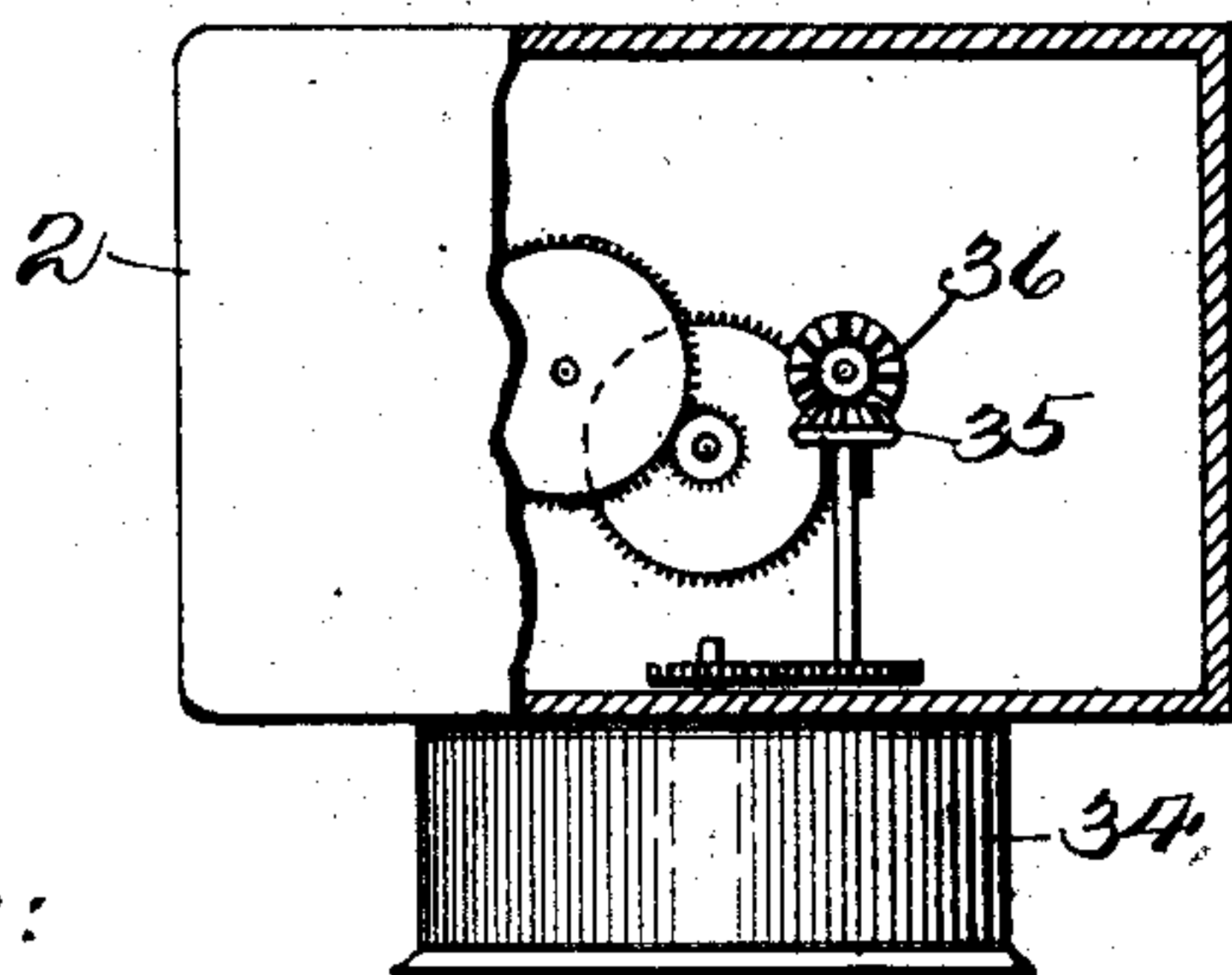
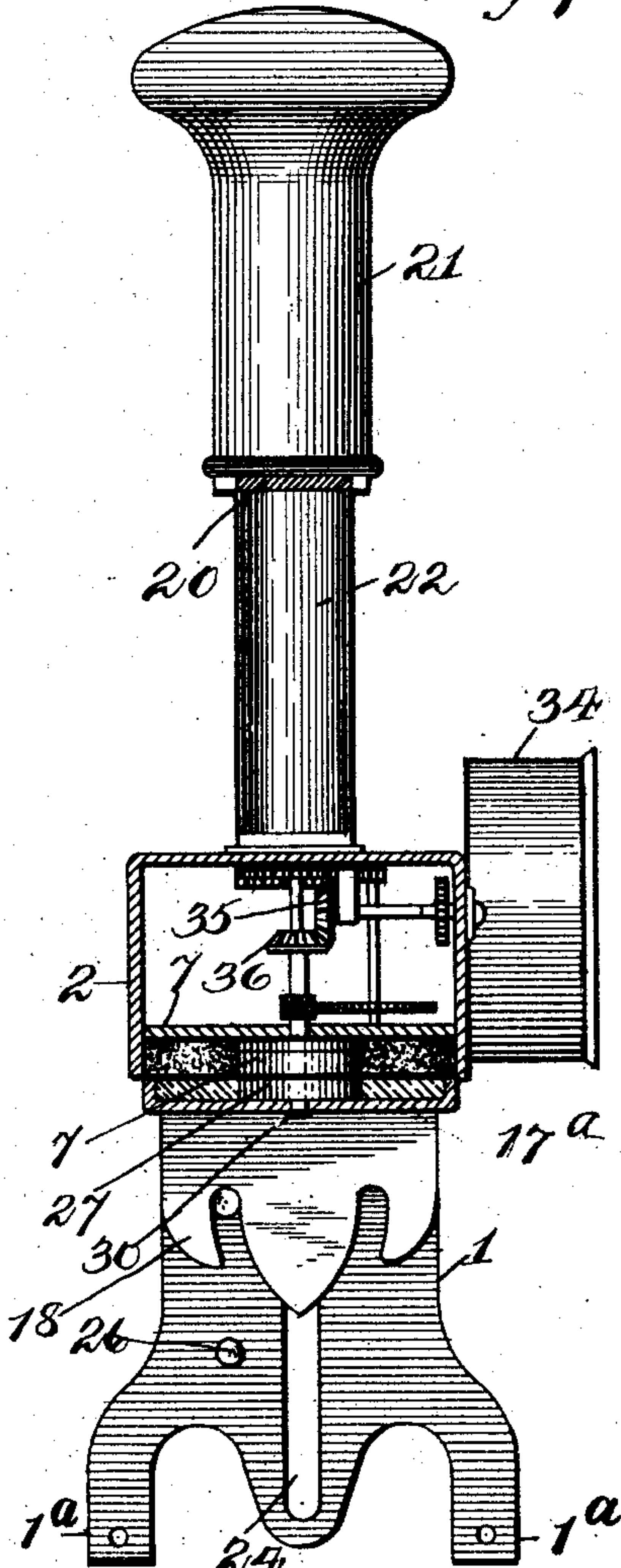


Fig. 8.

Witnesses:
J. B. Weir.
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Inventor:
Frederick Purdy
By David H. Fletcher,
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UNITED STATES PATENT OFFICE.

FREDERICK PURDY, OF CHICAGO, ILLINOIS.

AUTOMATIC TIME-STAMP.

No. 882,166.

Specification of Letters Patent.

Patented March 17, 1908.

Application filed June 14, 1902, Serial No. 111,723. Renewed April 24, 1903. Serial No. 154,187.

To all whom it may concern:

Be it known that I, FREDERICK PURDY, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Automatic Time-
5 Stamps, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in which corresponding
10 letters of reference in the different figures indicate like parts.

My invention relates particularly to time stamp devices in which the character of the impression adapted to be made is automati-
15 cally varied.

It is the object of the present invention to provide a self inking time stamp adapted to print time in which proper contact of the impression device or mechanism with the
20 surface being stamped will be insured without the use of a platen, so that the size of the article which may be stamped thereby is unlimited.

One of the objects of the present invention is to connect the horologic motor with the impression mechanism in a portable time stamp device, in such a manner that said motor may remain in a stationary position while said impression mechanism is moved
25 into engagement with the surface to be stamped to make an impression.

Another object of the invention is to provide means for detachably connecting the motor with the impression mechanism, so
35 that said impression mechanism may be disconnected from the motor when it is moved to make an impression, and which will synchronize said impression mechanism with said motor after each impression has been
40 made.

A further object is to so combine the time train with the stamping mechanism and with the clock-dial and hands, that the device may not only be utilized as a clock for ordi-
45 nary time keeping purposes, but that errors may be avoided in stamping by first determining by a glance at the clock-dial, whether or not the time indicated is correct—thus insuring the accuracy of the registration be-
50 fore the impression is made.

I accomplish said objects through the instrumentalities hereinafter more particularly described and definitely pointed out in the claims.

55 In the drawings, Figure 1 is a central, longitudinal vertical sectional view of a

reversible hand-stamp embodying the features of my invention, Fig. 2 is a transverse vertical sectional view thereof; Fig. 3 is a face view of the stamping dies; Fig. 4 is a like
60 view of the inking-pads arranged to co-act therewith; Fig. 5 is a central vertical sectional view in detail through one of said inking-pads and dies as they are shown in normal contact; Fig. 6 is a front face view of a
65 stamp showing a modification of said invention; Fig. 7 is a side view thereof partly in vertical section, and, Fig. 8 is a plan view of a portion of said device in which a part of the case is broken away to show the clock
70 train.

Referring to the drawings, 1 represents the main frame of a hand stamp preferably of the reversible type, which frame is provided with a casing plate 6 and is also provided with
75 gage parts 1^a to bear upon the surface to be stamped and thereby support said frame in a stationary position when an impression is being made. Attached to or forming a part of the upper portion of said frame is a casing
80 2 within which is inclosed a clock train having vertical arbors, the main arbor 3 of which is driven by the usual coiled spring inclosed within a drum 4. A secondary arbor 5, is connected by means of gears with the arbor
85 3, and projects through the lower plate 6,—a disk or circular plate 7, shown in detail in Fig. 5, being attached to the lower end thereof, so as to rotate therewith. Said disk is adapted to rotate once per hour and is
90 provided with a V-shaped projection 8 upon its lower face, for the purpose hereinafter stated, which projection is preferably in the plane of its axis. The disk 7 is cut away as shown in Fig. 5, leaving an annular
95 peripheral space which is filled in by means of a ring 9 of absorbent material, to form an ink-pad. Like members, or elements 10 and 11, having like projections 12 and 13 respectively, Fig. 4, and like ink-pads 14, 15,
100 are mounted respectively upon the lower ends of the arbors 16 and 17, Fig. 1, the former of which makes one complete revolution in twelve hours, while the latter rotates once in twenty-four hours. Adjacent to the
105 pads 9, 14 and 15 is a stationary pad 16, Figs. 1 and 4, of corresponding thickness.

Beneath the casing 2 which holds the clock train, is a reversible plate 17^a, having cams 18, 18 depending from its ends. Said cams
110 are connected by means of wrist-pins 19, 19, Fig. 1, with a movable U-shaped bail 20,

having a tubular handle 21 at the top, which handle is adapted to telescope with a tube 22, having a spiral spring 23, Fig. 1, for holding the reversible plate in its normal raised position. Vertical slots 24 serve to guide the pins 19 while studs 25 and 26 serve, when the handle is depressed, to engage the cams 18, so as to cause the plate 17^a to be completely reversed; thereby enabling it to be impressed upon the printing surface. The revolving part carrying the printing surface which may be termed the "tumbler" completes its revolution in making an impression a short time before the printing surface engages the surface to be impressed, so that the impression mechanism partakes of a right line movement in approaching the surface to be impressed; in this manner a clear and clean cut impression results and the blurring of the impression is prevented.

Impression or printing dies 27, 28 and 29, are pivotally mounted upon the reversing plate 17^a, said dies being in the form of disks as shown, and provided with pivot stems 30, to retain them in place while leaving them free to rotate. The position of said several dies conforms respectively with those of the disks 7, 10 and 11, and said dies are provided with slots or indentations 31, 32 and 33 to receive the projections 8, 12 and 13 respectively upon the disks 7, 10 and 11, in the manner clearly shown in Fig. 5, when the plate 17 is in its normal position. The projections described upon the revoluble disks which are driven by the time train, are not only intended to engage with the printing disks to cause their rotation, but are designed to act as synchronizing elements as well. That is to say, when the printing dies are lowered to make the impression, they cease to rotate, while the parts by which they are driven go on. This stoppage of the dies during the interval required to make an ordinary impression, would be so slight as to be inappreciable; but should the time be excessive, the beveled projections upon the disks would, upon entering the depressions of the printing dies, cause them to at once rotate sufficiently to synchronize with the separate elements of the time train by which they are driven.

The printing dies 27 and 28, are marked with the minutes and hours respectively, in raised numbers, while the characters A. M. and P. M. are formed upon the die 29. Characters showing the day, month and year, with any other desired matter; may be placed upon that portion of the die outside of the revoluble dies.

Instead of printing dies, type wheels or other means may be arranged in the impression mechanism to vary the character of the impression adapted to be made thereby and such structures I consider equivalents so far as the generic claims herein are concerned.

In operating my improved device it will be seen that the dies and inking-pads are in normal contact, while the time train remains stationary and is not disturbed by the jar of the reversal nor by the impact of the impression.

In the device which I have described, the necessity of providing the stamp with a platen is obviated, as the gage parts insure properly setting the device in position for making an accurate impression, and therefore, the device is not limited as to the size of the article it may stamp. This stamp may be readily moved from place to place for use, and as it is automatically inked, the impressions may be produced in rapid succession. The danger of the horologic motor becoming deranged by the jar when the stamp is operated, is lessened in the present construction by mounting the motor upon the frame to remain in a stationary position. There are of course, other ways than those shown, in which the horologic motor may be connected with the impression mechanism so that the latter may be moved relative to the former and yet be operated thereby, and this invention, therefore, contemplates coupling the impression mechanism with the motor in any desired manner.

In my invention it is not essential that the printing dies be driven by the parts carrying the movable inking pads and the printing dies may be driven in any desired manner. Moreover, the inking pads need not be directly connected with the motor to be positively driven but may be caused to revolve in unison with the impression means in any other desired manner.

In Figs. 6 to 8 inclusive, I have shown a modification of said invention, which consists in placing the clock train in a separate case 34, upon the front side of the case 2, and connecting the same by means of beveled gears 35, 36 with the arbor adapted to drive the disk 7, the remaining disks being driven by suitable intermediate gears to cause them to rotate in the proper relative time. The advantage of this construction is that it enables the user of the stamp to determine at all times, by merely looking at the dial, whether the stamp will give the correct time impression, or not, thereby avoiding the making of an erroneous impression.

The device herein described is adapted to make the impression by printing, but, of course, it will be understood that the impression might be made in other ways, as for example by stamping, embossing or otherwise.

It will be noted that the casing of the time stamp normally incloses the horologic motor and the impression means, thus protecting the same against dust, dirt and injury.

The device shown and described herein is only one of the embodiments of which my

invention is susceptible, and, therefore, the various modifications which may be made in the details of construction, arrangement, and combination of parts herein set forth are intended to fall within the scope of the claims appended hereto.

In the application filed April 24, 1903, Serial No. 154,057, I have shown a modification of the present invention wherein the horologic motor is movable with the impression means in making an impression, the motor being thus carried upon the frame indirectly instead of being stationarily mounted thereon as illustrated in the present application. I have inserted in the present application generic claims covering the structure of the application above mentioned as well as the structure of the present invention and have claimed in said application Serial No. 154,157 the species of the broad invention wherein the horologic motor and the impression means are mounted to move together; and I have inserted in the present application claims drawn to the species illustrated herein wherein the horologic motor is mounted stationarily upon the frame and the impression means is separable therefrom or relatively movable with respect thereto in making an impression. It will be understood that the generic claims herein referring to the horologic motor being mounted, supported or carried upon the frame contemplate that the motor may be stationarily mounted thereon or may be indirectly carried thereon by being placed upon the part of the stamp which is moved in making the impression.

I have filed a number of applications embodying species of the generic invention claimed herein and I reserve for said applications the several species therein disclosed, and it will be understood that said applications are subsidiary to the present application; said applications are identified as follows: Serial Nos. 158,408, 158,409, 158,410, 158,411, filed May 23rd, 1903, Serial Nos. 159,309, 159,310, filed May 29th, 1903, and Serial No. 164,410, filed July 6th, 1903.

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

1. A platenless portable self inking time stamp, comprising a self contained unitary structure having an open frame with gage parts which engage the surface to be impressed, said open frame permitting an unobstructed view of said surface and permitting said gage parts to be readily disposed thereon at the desired place, impression mechanism having time controlled elements and adapted to directly engage the surface to be impressed in making an impression, said impression mechanism partaking of a right line movement in approaching said surface whereby the impression mechanism aids the

gage parts in smoothing out the surface to be impressed without blurring the impression made thereby, a spring actuated clock movement carried wholly upon the portable frame and mechanically connected with the time controlled elements of said impression mechanism to drive the same; automatic inking means by which said impression mechanism is automatically inked between successive impressions without interfering with the direct engagement of the impression mechanism with the impressed surface and without interfering with the progressive movement of said time controlled elements, and which is entirely disengaged from the impression mechanism after the same has been inked and is moved to make an impression, and a handle for readily handling and positioning the stamp and movable with the impression mechanism for making the impression.

2. A platenless portable self-inking time stamp, comprising a self-contained unitary structure having an open frame with gage parts which engage the surface to be impressed, said open frame permitting an unobstructed view of said surface and permitting said gage parts to be readily disposed thereon at the desired place, a spring-actuated clock movement for driving the time controlled elements of the impression mechanism wholly carried by and mounted stationarily, with respect to said frame, impression mechanism having time controlled elements and movable relatively to said clock movement in making an impression and adapted to directly engage the impressed surface, inking means by which said impression mechanism is automatically inked between successive impressions without interfering with the direct engagement of the impression mechanism with the impressed surface, without interfering with the movement of the impression mechanism relatively to the clock movement and without interfering with the progressive movement of said time controlled elements and which is entirely disengaged from the impression mechanism after the same has been inked and is moved to make an impression, and a handle for readily handling and positioning the stamp and movable with the impression mechanism for making the impression.

3. A platenless portable self-inking time stamp, comprising a self-contained unitary structure having an open frame with gage parts which engage the surface to be impressed, said open frame permitting an unobstructed view of said surface and permitting said gage parts to be readily disposed thereon at the desired place, impression mechanism having time controlled elements and adapted to directly engage the surface to be impressed in making an impression, said impression mechanism partaking of a right line movement in approaching said surface

whereby said impression mechanism aids said gage parts in smoothing out the surface to be impressed without blurring the impression made thereby, a spring actuated clock movement carried wholly upon the portable frame and mechanically connected with the time controlled elements of said mechanism, a flat faced inking pad by which said impression mechanism is automatically inked between successive impressions without interfering with the direct engagement of the impression mechanism with the impressed surface, and without interfering with the progressive movement of said time controlled elements, and which is entirely disengaged from the impression mechanism after the same has been inked and is moved to make an impression, and a handle for readily handling and positioning the stamp and movable with the impression mechanism for making the impression.

4. A platenless portable self-inking time stamp, comprising an open frame having gage parts which engage the surface to be impressed, said open frame permitting an unobstructed view of said surface and permitting said gage parts to be readily disposed thereon at the desired place, a spring-actuated clock movement for driving the time controlled elements of the impression mechanism wholly carried by and mounted stationarily with respect to said frame, impression mechanism having time controlled elements and movable relatively to said clock movement in making an impression and adapted to directly engage the impressed surface, a flat faced inking pad by which said impression mechanism is automatically inked between successive impressions without interfering with the direct engagement of the impression mechanism with the impressed surface, without interfering with the movement of the impression mechanism relatively to the clock movement, and without interfering with the progressive movement of said time controlled elements, and which is entirely disengaged from the impression mechanism after the same has been inked and is moved to make an impression, and a handle for readily handling and positioning the stamp and movable with the impression mechanism for making the impression.

5. A platenless portable self inking time stamp, comprising a self-contained unitary structure having an open frame provided with gage parts which engage the surface to be impressed, said open frame permitting an unobstructed view of said surface and enabling said gage parts to be readily disposed thereon at the desired place, a spring actuated clock movement mounted wholly upon said frame, a yoke having a handle above said frame and arms extending down beneath said clock movement, said yoke and frame being mechanically connected where-

by said handle serves as a means for handling and positioning the stamp, impression mechanism carried by said arms of the yoke beneath said clock movement, said impression mechanism having time controlled elements operatively connected with said clock movement and driven thereby, said impression mechanism being movable relatively to said clock movement and arranged to be depressed by said yoke and handle to make an impression, said impression mechanism partaking of a right line movement in approaching said surface whereby the impression mechanism assists the gage parts in smoothing out the surface to be impressed to prevent blurring the impression made thereby and inking means by which said impression mechanism is automatically inked between successive impressions without interfering with the direct engagement of the impression mechanism with the impressed surface and without interfering with the progressive movement of said time controlled elements, and which is entirely disengaged from the impression mechanism after the same has been inked and is moved to make an impression.

6. A portable self-inking time stamp adapted to print without a platen, comprising an open frame having gage parts which engage the surface to be impressed, said open frame permitting an unobstructed view of the surface to be impressed, and permitting said gage parts to be readily disposed thereon at the desired place, a spring-actuated clock movement for driving the time controlled elements of the impression mechanism and mounted stationarily with respect to said frame, impression mechanism having time controlled elements and movable relatively to and separable from said clock movement in making an impression and adapted to directly engage the surface to be impressed, suitable synchronizing means between said impression mechanism and said clock movement, and automatic inking means for inking said impression mechanism between successive impressions without interfering with the direct engagement of the impression mechanism with the impressed surface, without interfering with the movement of the impression mechanism relatively to the clock movement and without interfering with the progressive movement of said time controlled elements.

7. A portable time stamp having a frame and suitable gage parts for positioning the stamp, a horologic motor carried on said frame, a depressible impression mechanism operated by said motor and adapted to be moved bodily out of engagement therewith in making an impression, and separable connecting means between said motor and said impression mechanism permitting the said separation and adapted to synchronize the

impression mechanism with the motor when the same are brought into engagement, substantially as described.

8. A portable time stamp having a frame and suitable gage parts for positioning the stamp, a horologic motor carried on said frame, a depressible impression mechanism operated by said motor and adapted to be moved bodily out of engagement therewith in making an impression, separable connecting means between said motor and said impression mechanism permitting the said separation and adapted to synchronize the impression mechanism with the motor when the same are brought into engagement, and automatic inking means for said impression mechanism.

9. A portable time stamp having a frame and suitable gage parts for positioning the stamp, a horologic motor carried on said frame, a depressible impression mechanism operated by said motor and adapted to be moved bodily out of engagement therewith in making an impression, and separable connecting means between said motor and said impression mechanism permitting the said separation and adapted to synchronize the impression mechanism with the motor when the same are brought into engagement, said connecting means comprising a pair of plates, one of said plates having a depression formed on the face thereof and the sides of which are adapted to converge, and the other of said plates having a projection on the face thereof adapted to engage in said depression.

10. In a time stamp, a suitable frame, a horologic motor, impression mechanism having time controlled elements and detachable from said motor in making an impression, and a flat faced inking pad suitably arranged for automatically inking said impression mechanism, without interfering with the progressive movement of said time controlled elements.

11. A time stamp comprising a frame, a horologic motor carried thereby, impression mechanism operated by said motor and separable therefrom in making an impression, and an inking pad for said impression mechanism having a part or parts adapted to move in unison with the movable part or parts of said impression mechanism.

12. In a time stamp, a frame comprising a table and gage parts adapted to engage the surface to be impressed, a horologic motor mounted stationarily upon said table, impression mechanism detachably connected with said motor to be operated thereby and separable therefrom in making an impression and a yoke carrying a handle above said table and having arms extending down beneath said table and supporting between the same the impression mechanism.

13. In a device of the character described, the combination with an impression mechanism

having means for varying the character of the impression adapted to be made thereby, of mechanism for operating said means, an inking pad with which said impression mechanism is adapted to engage, said pad being movable with said means, substantially as described.

14. In a device of the character described, the combination with an impression mechanism having a plurality of means for varying the character of the impression adapted to be made thereby, of mechanism for automatically operating said means, and a plurality of pads one adapted to move in unison with each of said means to ink the same.

15. In a device of the character described, the combination with an impression mechanism having a plurality of revoluble means for varying the character of the impression adapted to be made thereby, of a time mechanism for operating said means, and an inking pad having movable parts for engaging said revoluble means to ink the same and movable coincident with the progressive movement thereof.

16. In a time stamp, the combination with a time operated impression mechanism having parts adapted to move relatively to other parts of the impression mechanism to vary the character of the impression adapted to be made thereby, of a pad for inking said impression mechanism, said pad being provided with one or more movable parts movable coincident with the progressive movement of the movable parts of said impression mechanism.

17. In a device of the character described, the combination with a movable section and a stationary section, an impression mechanism having time operated means for automatically varying the character of the impression adapted to be made thereby carried by said movable section, and an inking pad for said impression mechanism carried by said stationary section and adapted to normally engage and move coincident with the progressive movement of the movable part of said impression mechanism to ink the same, said inking pad being adapted to be separated from the impression mechanism when the movable section is operated to make an impression.

18. The combination in an automatically reversible self-inking hand stamp, of a stationary frame, a reversible frame mounted thereon, revoluble time printing elements located upon said reversible frame, a time train located upon the stationary frame, and revoluble inking pads actuated by said time train, said revoluble time printing elements being located to normally contact with said inking pads.

19. The combination in an automatically reversible self-inking hand stamp, of a stationary frame, a reversible frame mounted

thereon, a time train mounted in a stationary position upon said stationary frame, revoluble inking pads actuated thereby, one being timed to rotate once per hour, another once in twelve hours and another once in twenty-four hours, and revoluble time printing elements located upon the reversible portion of said stamp, and adjusted to contact with said inking pads respectively.

20. In a stamping device, in combination, an impression mechanism movable to make an impression and having means for varying the character of the impression adapted to be made thereby, a frame supporting said impression mechanism, a horologic motor mounted upon said frame to remain in a stationary position and detachably connected with said means, and means for revolving said impression mechanism when it is moved to make an impression so as to bring the face thereof into engagement with the surface to be stamped.

21. In a stamping device, in combination, an impression mechanism movable to make an impression and having means for varying the character of the impression adapted to be made thereby, a frame supporting said impression mechanism, a horologic motor mounted upon said frame to remain in a stationary position and detachably connected with said means to operate the same so that when said impression mechanism is moved to make an impression said means will be disconnected from said motor, means for synchronizing the first mentioned means with said motor after making each impression, and means for revolving said impression mechanism when the same is moved to make an impression so as to bring the face thereof into engagement with the surface to be stamped.

22. In a stamping device, in combination, an impression mechanism movable to make an impression and having means movable in a horizontal plane for varying the character of the impression adapted to be made thereby, a frame supporting said impression mechanism, a horologic motor mounted upon said frame to remain in a stationary position and connected with said means to operate the same, pads movable in horizontal planes for engaging said means to ink the same, and means for revolving said impression mechanism when it is operated to make an impression so as to bring the face thereof into engagement with the surface to be stamped.

23. A tumbler time stamp comprising a frame, a horologic motor carried thereby

stationarily, reversible tumbler mechanism, and impression means carried thereby and operated by said motor.

24. A tumbler time stamp comprising a frame, a horologic motor carried thereby, reversible tumbler mechanism, and impression mechanism normally in engagement with said motor adapted to be operated thereby and separable therefrom.

25. A tumbler time stamp comprising a frame, a horologic motor suitably supported thereby, reversible tumbler mechanism, impression means carried thereby and operated by said motor and an inking pad above said reversible impression means to ink the same without interfering with the progressive movement thereof.

26. A time stamp comprising a horizontal frame plate suitably supported, a horologic motor mounted on the upper side thereof, a casing fitted over said motor, a pad on the under face of said plate, and impression means operated by said motor and adapted to engage said pad.

27. The combination in an automatically reversible self-inking hand stamp, of a stationary frame, a reversible frame mounted thereon, revoluble time printing elements located upon said reversible frame, a time train located upon the stationary frame and means for automatically and detachably connecting said time train with said revoluble time printing elements.

28. A time stamp comprising a casing, a horologic motor inclosed thereby, and separable impression means normally resting against one face of said casing to shield said impression means.

29. The combination in an automatically reversible self-inking hand stamp, of a stationary frame, a reversible frame mounted thereon, revoluble time printing elements located upon said reversible frame, revoluble inking pads located upon said stationary frame, said printing and inking elements being in normal contact with each other, and a time train for actuating said inking pads at a predetermined rate, and a clock dial, whereby the relative positions of the time printing elements may be determined before making an impression.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses, this twelfth day of June, 1902.

FREDERICK PURDY.

Witnesses:

D. H. FLETCHER,

C. E. JORDAN.