

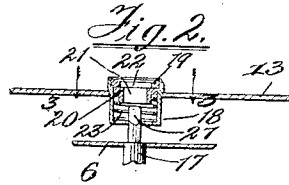
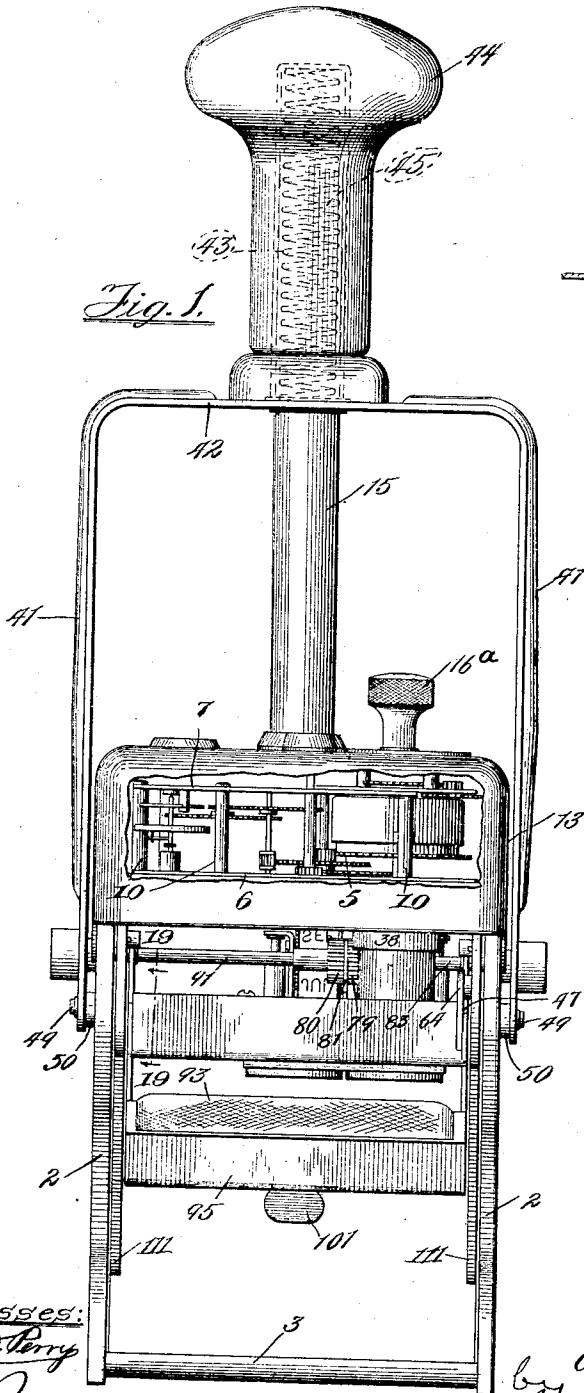
C. M. CROOK.
TIME STAMP.

APPLICATION FILED NOV. 10, 1905.

966,384.

Patented Aug. 2, 1910.

6 SHEETS—SHEET 1.



Witnesses:

Ed. D. Perry

M. Perry Helm

Inventor:

Charles M. Crook
by James A. Addington
His Attorney

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6 SHEETS—SHEET 2.

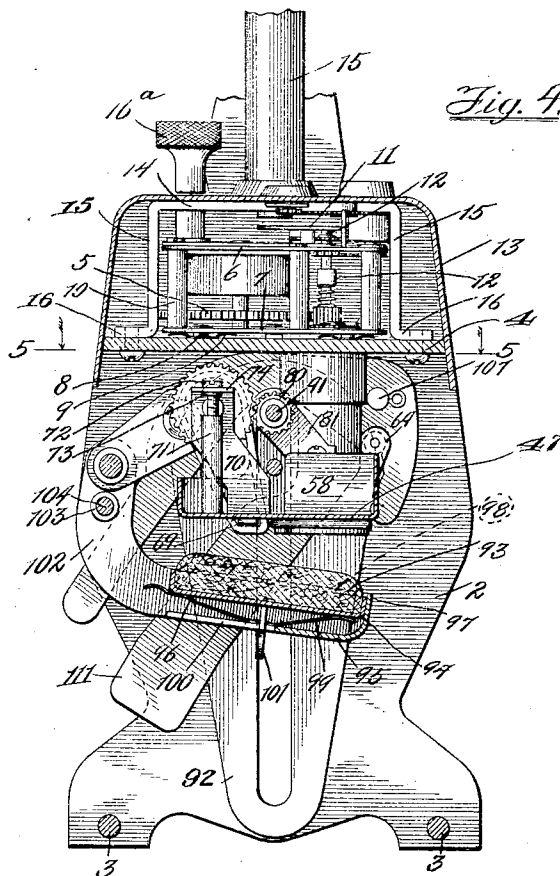


Fig. 4.

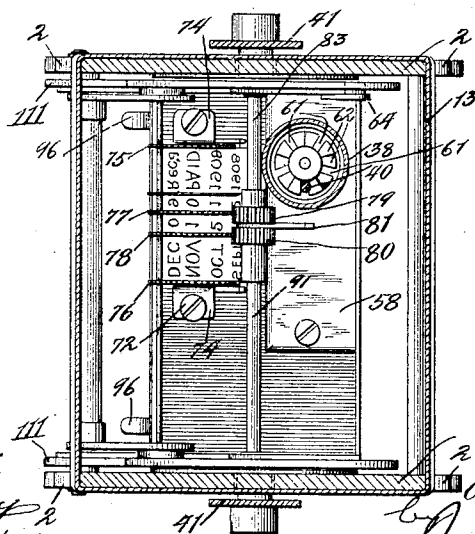


Fig. 5.

Witnesses:

Chas. D. Terry
M. Perry Hale

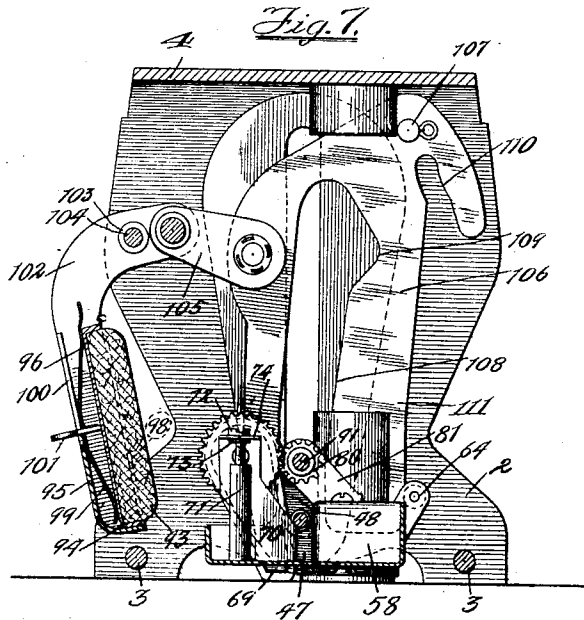
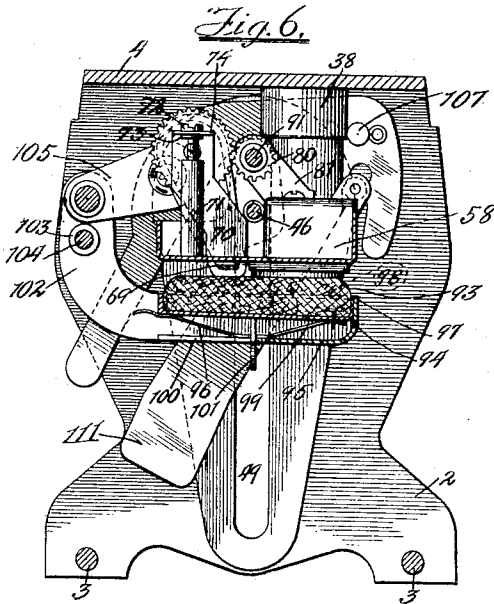
Inventor:

Charles M. Crook
James A. Addington
His Atty

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TIME STAMP.
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966,384.

Patented Aug. 2, 1910.
5 SHEETS—SHEET 3.



Witnesses:

Ira D. Perry
W. Perry Halm

Inventor:

Charles M. Crook
by *James Addington*
His Atty

C. M. CROOK.
TIME STAMP.

APPLICATION FILED NOV. 10, 1905.

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5 SHEETS—SHEET 4.

Fig. 8.

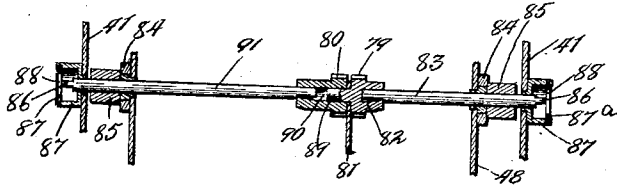


Fig. 15.

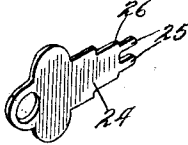


Fig. 9.

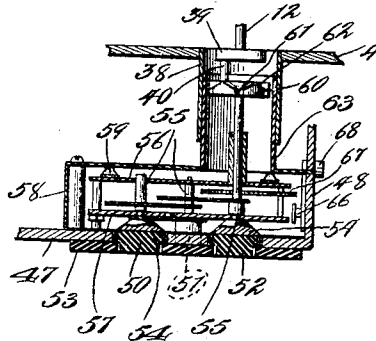


Fig. 10.

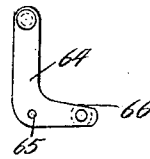


Fig. 11.

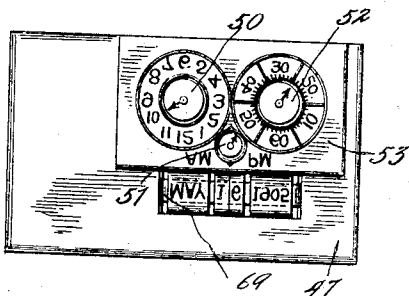


Fig. 12.

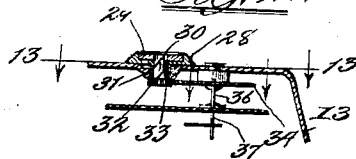


Fig. 13.

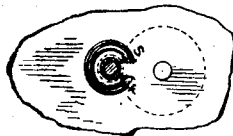
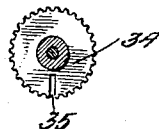


Fig. 14.



Witnesses:

W. D. Perry
W. Perry & Son

Inventor:

by Charles M. Crook
James & Addington
His Atty.

966,384.

Patented Aug. 2, 1910.

5 SHEETS—SHEET 5.

Fig. 16.

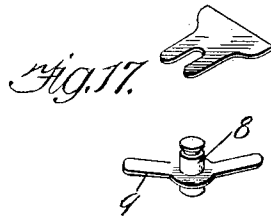
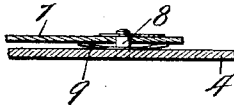


Fig. 18.

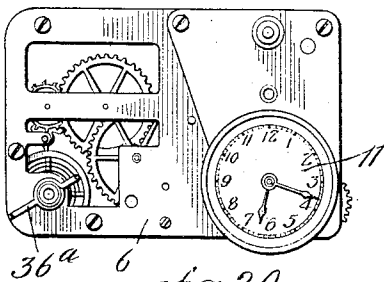


Fig. 20.

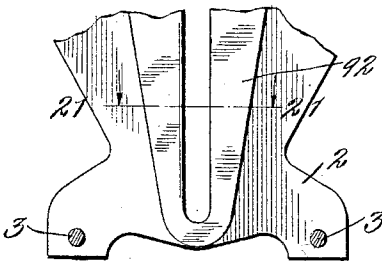
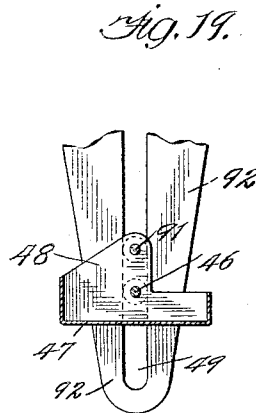


Fig. 22.

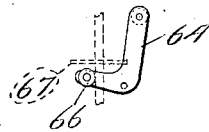


Fig. 23.

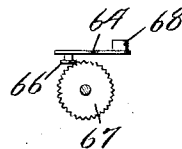
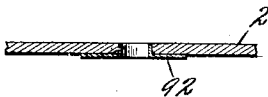


Fig. 27.



Witnesses:

W. Perry Halpin

Inventor:

Charles M. Crook
By James Addington
Attys

UNITED STATES PATENT OFFICE.

CHARLES M. CROOK, OF CHICAGO, ILLINOIS.

TIME-STAMP.

966,384.

Specification of Letters Patent.

Patented Aug. 2, 1910.

Application filed November 10, 1905. Serial No. 286,735.

To all whom it may concern:

Be it known that I, CHARLES M. CROOK, 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 improvements in time stamps, and particularly that class of stamps which are portable.

The object of my invention is to provide a time stamp which shall be easy to construct, cheap to manufacture, and which shall be durable in use.

Other objects of my invention will appear more fully in the detailed description of the invention and in the claims.

I have illustrated my invention in the accompanying drawings, in which—

Figure 1 is a side elevation of my stamp, a portion of the same being broken away to show the motor mechanism for operating the same; Fig. 2 is a detailed view in section of the mechanism for setting the stamp; Fig. 3 is a section taken on the line 3—3 of Fig. 2; Fig. 4 is a longitudinal section of my stamp; Fig. 5 is a transverse section taken on the line 5—5 of Fig. 4; Fig. 6 is a longitudinal section of the impression mechanism and inking pad of my stamp; Fig. 7 is a similar view to Fig. 6, showing the impression mechanism in position when making an impression; Fig. 8 is a detailed view of the setting mechanism for setting the dating ribbon carrying the day of the month; Fig. 9 is a detailed sectional view of the time controlled impression mechanism; Fig. 10 is a detailed view of the locking lever for locking the impression mechanism against movement when the same is separated from the operating motor of the stamp; Fig. 11 is a face view of the time controlled impression mechanism; Fig. 12 is a detailed sectional view of the regulating mechanism for the operating motor; Fig. 13 is a sectional view taken on the line 13—13 of Fig. 12; Fig. 14 is a detailed view of the gear for transmitting motion from the regulating key to the gear spring of the operating motor; and, Fig. 15 is a detailed view of the special formed instrument for setting the operating motor. Figs. 16 and 17 are detail views showing the manner of securing the clock

mechanism to the frame; Fig. 18 is a plan view of the clock mechanism; Fig. 19 is a detail view showing more particularly the means for mounting the support for the impression mechanism; Figs. 20 and 21 are detail views of the supporting legs showing the wearing plate in the guide slot; and Figs. 22 and 23 are detail views showing the manner in which the impression mechanism is locked against movement during the making of an impression.

In accordance with the preferred construction of my invention, I provide a frame, the downwardly extending legs 2 of which form gaged parts which at their lower end are adapted to bear upon the surface to be stamped, and which support the frame in a stationary position when the impression is being made. The lower ends of these legs are preferably connected together by means of cross rods 3 to give the frame strength and rigidity. At the top of the legs is formed a table or support 4 which is generally formed of the same piece of metal as the legs 2.

The table or support 4 carries on its upper side, a clock mechanism which consists of the usual clock train 5, mounted between the upper and lower plates 6 and 7. The clock mechanism is preferably resiliently mounted on the table 4 and to attain this resilient mounting, the lower plate 7 is provided with a plurality of openings through which are adapted to pass pins 8, rigidly secured to the table 4, the upper ends of which are grooved and adapted to receive wedges which fit into said grooves and bear upon the upper face of the plate 7 to prevent the clock frame from being displaced. Between the clock frame and the table 4, I mount small flat springs 9 which take up any jar or shock resulting in the transportation of the stamp or in the making of an impression. The top and bottom plates 6 and 7 are held apart as is usual in clock mechanisms by corner posts 10, which are of the usual construction. Mounted above the top plate 6 of the clock train is a clock face 11 through which projects post 12 which carries on its upper end the hands of a clock.

A cover or casing 13 is adapted to inclose the clock mechanism and is secured in position to a bridge 14 having downwardly extending legs 15 which are provided at their lower ends with flanges 16 adapted to be secured to the table 4, by means of screws or

otherwise. The bridge or support 14 carries an upwardly extending stem 15, the purpose of which will appear more fully hereinafter. This bridge is preferably made of heavy metal and prevents strain upon the cover when pressure is applied above the post 15. The cap or casing 13 is preferably formed or stamped from a single piece of sheet metal, the sides and ends being drawn down to present a perfectly smooth exterior without seam or joint.

A winding stem 16^a projects through the cover and is connected with the winding mechanism of the clock whereby the same may be wound without removing the cover.

In order that the clock may be properly set, from the outside, and to prevent tampering with the clock mechanism, I provide a special means for setting the clock which necessitates the use of a specially formed key. By this arrangement, unauthorized tampering with the clock to cause the stamp to register falsely, is prevented. This setting mechanism comprises the usual setting stem 17, see Fig. 2, of the clock mechanism which projects beyond the top plate 6 thereof, and into a small cylindrical casing 18 which extends through an opening in the top of the cover 13. This casing at its upper end is closed by a revoluble disk 19 which is set therein, and which cannot be removed therefrom. A second revoluble disk 20 is set in the top of the casing 18 beneath the disk 19 and is provided with a slot 21 which registers with a slot 22 in the disk 19. The slot 22 is somewhat shorter than the slot 21 and the disk 20 is held up into engagement with the disk 19 by means of a coiled spring 23 interposed between it and the bottom of the cylinder 18. The key 24 is provided at its lower end with a pair of prongs 25 which fit in the slot 21 and has formed above the prongs, shoulders 26. The upper end of the stem 17 has a flattened portion 27 which projects into the cylinder 18 to a point immediately beneath the disk 20 which disk is thicker than the length of the prongs 25 on the key. By this arrangement it is necessary when using the key to set the clock to cause the shoulders thereof to bear against the disk 20 and depress the same against the action of the spring 23 before the prongs 25 will engage on either side of the flattened portion 27 of the setting arbor. As soon as the pressure is relieved from the key the spring will react, causing the disk to move upwardly and disengage the prongs. This prevents the leaving of the key in its setting position and thereby affecting the running of the clock.

I have also provided means whereby the clock may be only regulated by a specially devised key, preferably the same key which is used for the setting of the clock, and the preferable construction of this regulating

mechanism comprises a rotating disk 28, see Fig. 12, arranged upon the top of the cover 13 over an opening therein. The disk 28 is provided with a central depression in which is mounted a second disk 29 provided with a slot 30 into which projects the flattened portion 31 of a stem 32 which carries on its lower end a small pinion 33. The small pinion 33 is adapted to mesh with a gear 34 which is journaled on the under side of the cover 13, and has formed therein a slot 35 in which fits an upwardly projecting prong 36 of a lever 36^a which is provided at its opposite end with a downwardly extending portion 37 arranged to fit over the hair spring of the clock as is usual, and by the movement of this portion 37 back and forth, the regulation of the clock is obtained. When the prongs 25 of the key are inserted in the slot 30 they will engage on either side of the flattened end 31 and the stem may be turned to adjust the portion 37 through the gear 34 and pinion 33.

Extending downwardly from the table 4, see Fig. 9, is a cylindrical casing 38 which is adapted to receive a disk 39 mounted upon the lower end of the arbor 12 of the clock mechanism. This disk 39 carries an eccentrically arranged pin 40 the purpose of which will appear more fully hereinafter.

Extending down on either side of the frame are two arms 41 of a yoke, the cross arm 42 thereof being adapted to carry a hollow spindle 43 over which is secured a handle 44. Arranged within the hollow spindle 43 is a coiled spring 45 which at its lower end bears upon the upright post 15, and when the yoke is depressed serves to return the yoke to its normal position. The lower end of this yoke carries the impression mechanism which is mounted upon a supporting plate 47. This plate is provided with upturned side arms 48 through which is adapted to extend a cross rod 46 which is secured in the lower ends of the arms 41 of the yoke. In the legs 2 suitable vertical slots 49 are provided to permit the rod to move up and down with the impression mechanism, and at the point where the rod 46 passes through this slot, rollers are provided to reduce the friction between the sides of the slot and the cross rod.

The time controlled mechanism comprises suitable disks 50, 51 and 52 which have formed on the face thereof arrows or hands, and which project through openings formed in the bottom of the supporting plate 47. A preferable rubber pad 53 is secured upon the bottom face of the supporting plate 47 and has formed thereon, dials indicating the hour, minute and A. M., and P. M. The disks 50, 51 and 52 are mounted upon small metal disks 54 which are secured upon arbors 55, which are mounted between the upper and lower plates 56 and 57,

and are driven by a suitable train of gears. A covering 58 is adapted to be fastened over the train of gears and springs 59 are interposed between the covering and the top plate 56 to take up the jar resulting from the making of an impression. The arbor of the dial 52 is extended upwardly, and carries at its upper end a disk 60 having openings or slots 61 formed therein, into which is adapted to fit the pin 40 of the arbor 12. These openings or slots are beveled as at 62 whereby the pin will readily enter the slots and synchronize the train of gears with the clock. A casing or covering 63 for the disk 60 and its arbor extends upwardly from the casing 58 and telescopes within the downwardly extending casing 38 when the impression mechanism is in its normal position. Carried on one of the side portions 48 is a bell crank 64 which is pivoted as at 65, to the side of the frame and carries on its lower arms an inwardly projecting portion 66, which, when raised, is adapted to engage in the teeth of the small pinion 67, see Fig. 9, which intermeshes with the impression train to prevent the train operating when disengaged from the clock mechanism.

Also carried by the supporting plate 47 is a dating mechanism which comprises a frame having a bottom cross-piece 69 and upwardly extending supports 70, which are supported in position upon the posts 71. These posts are preferably rigidly set in the supporting plate 47 and at their upper end have adapted to be screwed therein set screws 72, which have small flanges 73 arranged immediately beneath their head and between which flanges and the heads are adapted to fit lugs 74 of the uprights. Extending horizontally between the uprights is a suitable shaft upon which are mounted rolls over which pass the upper portions of dating ribbons having suitable indicia, as the month and day and year thereon. The lower portions of the ribbons pass over the cross piece 69, see Fig. 11, which extends through an opening in the bottom of the plate 47 and lie in the same plane as the time dials. Small gear wheels 75 and 76, see Fig. 5, are connected with the rolls for the ribbons for the year and month which may be engaged by the finger for the purpose of turning these rolls to present the proper month and year upon the face of the impression mechanism. Small gear wheels 77 and 78, see Fig. 5, carried by the rolls over which pass the ribbons having the numerals thereon for indicating the day of the month are adapted to mesh with pinions 79 and 80 carried upon a support 81 extending upwardly from the covering or casing 58. The gear wheel 79 has at one end of its shaft an opening 82, see Fig. 8, into which is adapted to fit the flattened end of a shaft 83, the outer end of which extends through the upwardly extending portion 48 on the

supporting plate 47 and through the lower end of one of the arms 41 of the yoke. Suitable bearings 84 are formed on the upwardly extending portions of the plate 48 for the shaft and between this bearing and the arm of the yoke is a roller 85 which fits within the slot 49 of the legs 2 of the frame. The outer end of the shaft is flattened as at 86 and extends into a small cylindrical casing 87 secured upon the lower end of the arm of the yoke and having a covering 87^a therein, which is provided with a longitudinal slot 88 to permit the insertion of the key for setting the same. The opposite end of the shaft of the small gear 79 is provided with a projection 89 which is adapted to fit within a recess 90 in the gear 80, and form a bearing therefor. The opposite end of the recess 90 is adapted to receive the flattened end of a shaft 91, the opposite end of which is mounted in the opposite arm of the yoke substantially as is the shaft 83. By this means, the dating ribbons may be set independently of each other, by means of the same key used for setting the clock. As the two shafts 83 and 91 extend through the upright extensions 48 of the supporting plate 47 above the rod 46, it will be noted that the supporting plate is held rigidly in position and prevented from lateral movement.

On the inner side of the legs 2 of the frame immediately surrounding the slots 49 are mounted plates 92 which have a slot formed therein corresponding to the slot formed in the legs and outwardly extending walls fitting within the slots formed in the legs, to form a bearing surface for the rollers 85 whereby wear upon the sides of the slots is prevented. Usually the legs are formed of aluminum or other like metal, which has not great wearing properties and the plates 92 are formed of a harder metal such as steel to protect the same at their bearing surfaces.

The pad for inking the face of the impression mechanism lies immediately beneath the impression mechanism when the same is in its normal position, and comprises a pad 93 which is arranged within a metallic receptacle 94. This receptacle is supported within a frame comprising a bottom portion 95, two upturned side portions 96 and an upturned front portion 97. The side portions are provided with inturned flanges 98 and transversely arranged within the bottom of the frame near the ends thereof are a pair of springs 99 having their free ends extending upwardly and secured to the bottom of the frame by suitable screws or other means at an intermediate point. The bottom of the frame is slotted centrally as at 100 and the bottom of the pad carries a key 101 adapted to be slid therein. When the pad is placed in position the ends of its casing engage beneath the inturned flanges 98 and the springs 99 tend to press the same against

these flanges. In inserting the pad the key thereof is turned to a line with the opening 100 but after the same has been inserted in position, the key is turned transversely which prevents the removal of the pad from position. The springs also form a resilient support for the pad which permits the same to give slightly when moved into engagement with the impression mechanism.

The frame supporting the pad is supported in position by means of a pair of rearwardly and upwardly extending arms 102, pivoted at 103 upon a rod 104 which extends between the two legs of the stamp. A portion of the arms 102 extends beyond the pivot and has pivotally connected thereto a link 105 which at its opposite end is connected to the upper end of the slotted toggle-cam 106. This cam is eccentrically pivoted near its upper end at 107 to the leg of the stamp, and has formed therein a peculiar shaped slot 108 which extends the entire length of the cam and is enlarged at its upper end as at 109. The slot 108 is adapted to fit over the roller 85 carried at one end of the rod 50, and when the impression mechanism is in its normal position, the enlarged portion 109 of this slot permits the cam to lie at an angle. When, however, an impression is made by depressing the impression mechanism the roller operating in the cam slot tends to move the same downward and inward. As the link 105 when the stamp is in its normal position extends upwardly beyond its center, the downward movement of the toggle-cam tends to cause said link to force the upper portion of the arm 102 outward thereby slightly raising the pad 93, and forcing the same into engagement with the impression mechanism. A continued downward movement, however, of the impression mechanism and the operation of the roller in the slot 108 causes the link 105 to draw inwardly upon the extension of the arm 102, thereby moving the pad downwardly and outwardly until the same finally assumes a vertical position, and is out of the way of the impression mechanism. The toggle-cam 106 is also provided with a slot 110 in which operates the projection 68 of the link 64 and when the impression mechanism is in its upper or normal position, the operation of this projection in the slot tends to hold the catch 66 out of engagement with the gear wheel of the train of gears of the impression mechanism and in the position shown in Figs. 9 and 22, thereby permitting the train of gears to be operated through the synchronizing mechanism by the clock. When, however, the impression mechanism is depressed, the operation of the projection 68 in the slot 110 moves the upper end of the link outwardly, thereby moving the catch 66 into engagement with the gear wheel of the clock train

as shown in Fig. 23 and preventing the same from revolving while it is disconnected from the clock mechanism. As the impression mechanism, see Fig. 9, is depressed this projection 68 engages the face of the cam 106 which prevents the catch 66 from, at any time, changing its position until the impression mechanism is permitted to assume its normal position. This maintains the train of gears of the impression mechanism completely locked against movement while the impression mechanism is disconnected from the clock.

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

1. In a device of the character described, the combination with a support having legs, of an impression mechanism movable between said legs and having time-controlled parts, a horologic motor carried by said support for actuating said parts, a resiliently mounted inking pad pivoted between said legs beneath the impression mechanism and normally out of engagement therewith, and automatic means for moving said pad on its pivot first upwardly and into engagement with said impression mechanism and then out of the path thereof when the impression mechanism is moved to make an impression.

2. In a device of the character described, the combination with a support having legs, of an impression mechanism movable between said legs and having time-controlled parts, a horologic motor carried by said support for actuating said parts, a detachable resiliently mounted inking pad pivoted between said legs beneath the impression mechanism and normally out of engagement therewith, and automatic means for moving said pad on its pivot first upwardly and into engagement with the impression mechanism and then out of the path of the same when the impression mechanism is moved to make an impression.

3. In a device of the character described, the combination with a support having legs, of an impression mechanism movable between said legs and having moving time-controlled parts, a horologic motor carried by said support for actuating said parts, an inking pad pivoted between said legs beneath the impression mechanism and normally out of engagement therewith, and means operated by the impression mechanism for moving said pad on its pivot first upwardly and into engagement with said impression mechanism and then out of the path of the same when the impression mechanism is moved to make an impression.

4. In a device of the character described, the combination with a support having legs, an impression mechanism movable between said legs and having time-controlled parts,

a horologic motor carried by said support for actuating said parts, a detachable inking pad pivoted between said legs beneath the impression mechanism and normally out of engagement therewith, and means operated by said impression mechanism for moving said pad on its pivot first upwardly and into engagement with the impression mechanism and then out of the path of the same when the impression mechanism is moved to make an impression.

5. In a device of the character described, the combination with a support having legs, an impression mechanism movable between said legs and having moving time-controlled parts, a horologic motor carried by said support for actuating said parts, a resiliently mounted inking pad pivoted between said legs beneath the impression mechanism and normally out of engagement therewith, and means operated by said impression mechanism for moving said pad on its pivot first upwardly and into engagement with the impression mechanism and then out of the path of the same when the impression mechanism is moved to make an impression.

6. In a device of the character described, the combination with a support having legs, an impression mechanism movable between said legs and having moving time-controlled parts, a horologic motor carried by said support for actuating said parts, a resiliently mounted detachable inking pad pivoted between said legs beneath the impression mechanism and normally out of engagement therewith, and means operated by said impression mechanism for moving said pad on its pivot first upwardly and into engagement with the impression mechanism and then out of the path of the same when the impression mechanism is moved to make an impression.

7. In a device of the character described, the combination with a frame having legs, of an impression mechanism movable between said legs in making an impression, an inking pad pivoted between said legs beneath the impression mechanism and normally out of engagement therewith, and automatic means for moving said pad on its pivot first upwardly and into engagement with said impression mechanism and then out of the path of the same when the impression mechanism is moved to make an impression.

8. In a device of the character described, the combination with a frame having legs, of a time controlled impression mechanism movable between the same in making an impression, a pad pivoted between said legs beneath the impression mechanism and normally out of engagement therewith, and means operated by said impression mechanism for moving said pad on its pivot first into engagement with said impression

mechanism and then out of the path of the same when the impression mechanism is moved to make an impression.

9. In a device of the character described, the combination with a frame having legs, of a time controlled impression mechanism movable between said legs, a pad frame pivoted between said legs beneath said impression mechanism, a pad resiliently and detachably mounted on said frame, and means for automatically moving said pad frame on its pivot to first cause the pad to engage the impression mechanism and then move out of the path of the same when the impression mechanism is moved to make an impression.

10. In a time stamp, the combination with a horologic motor, of impression mechanism operated thereby, a setting device for said motor, a removable key for operating said setting device, and means comprising a disk slotted to receive said key and arranged to prevent said key from remaining in operative position except during the operation of the setting device.

11. In a time stamp, the combination with a horologic motor, of impression mechanism operated thereby, a setting device for said motor, a removable key for operating said setting device, a slotted disk covering said setting device, a spring tending to press said slotted disk outwardly whereby said key will be moved out of operative position except during the time the key is employed in setting the motor.

12. In a device of the character described, the combination with an impression mechanism, having moving time controlled parts, of a horologic motor for actuating said parts, a receptacle having inturned flanges on the side walls thereof and springs arranged in the bottom thereof, a pad for inking said impression mechanism having a portion arranged to engage beneath said flanges, and be held in position by engagement with said springs one of the side walls of said receptacle being cut away to permit the removal and insertion of the pad.

13. In a portable time stamp, the combination with a stationary frame having gage parts adapted to engage the surface to be stamped, a second frame carried upon supports extending through a slot formed in said stationary frame and wearing portions arranged within said slots to prevent the friction of said projections from wearing away said slots and time controlled impression mechanism carried by said second frame.

14. In a portable time stamp, the combination with a stationary frame having gage parts arranged to engage the surface to be stamped, of a horologic motor mechanism carried by said frame, a second frame, an impression mechanism carried by said frame

and movable to make an impression, a yoke, supports carried by the free ends of said yoke extending through slots in said gage parts and adapted to support in position
5 said second frame, and a wearing lining for said slots.

15. In a portable time stamp, the combination with an impression mechanism having moving time controlled parts, and an
10 impression mechanism having manually controlled impression parts of a horologic motor for controlling said time controlled parts, a setting device for said motor, means for preventing the operation of said setting

device except by a specially formed instru- 15
ment, a setting device for said manually controlled impression parts, means for preventing the operating of said setting device except by a specially formed implement, and an implement common to both setting 20
devices for operating the same.

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

CHARLES M. CROOK.

Witnesses:

M. R. ROCHFORD,
W. PERRY HAHN.