Sept. 15, 1936. A. C. JOHNSON ET AL 2,054,127

TIME STAMP

Filed April 30, 1934 3 Sheets-Sheet 1

Fig. 1.

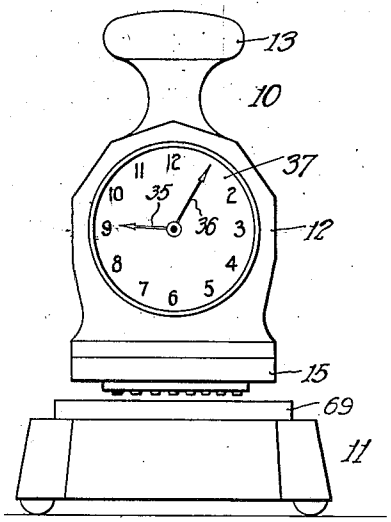


Fig. 2.

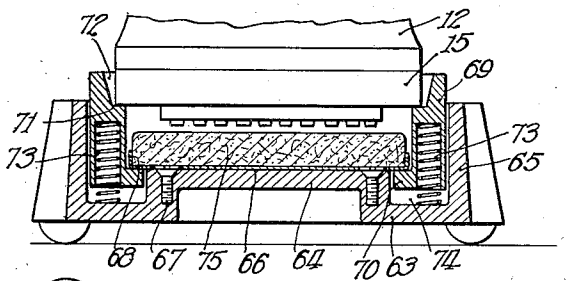
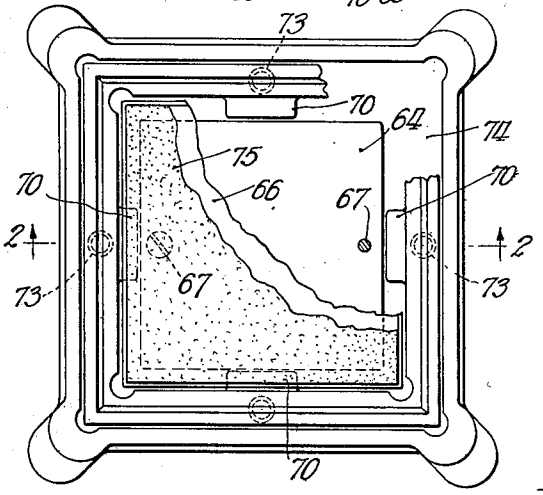


Fig. 3.



Witness:
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TIME STAMP

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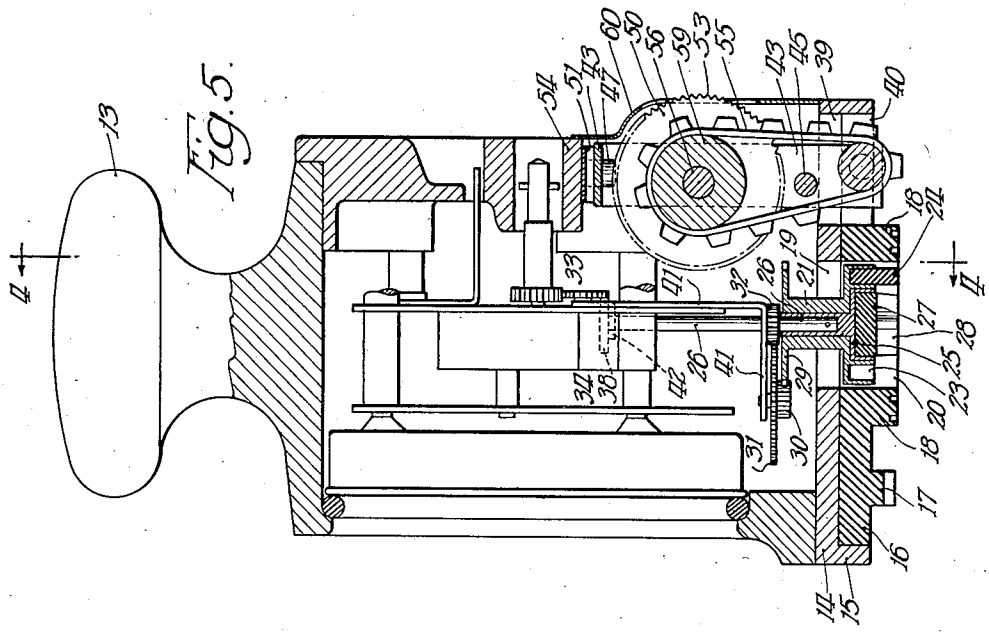


Fig. 5.

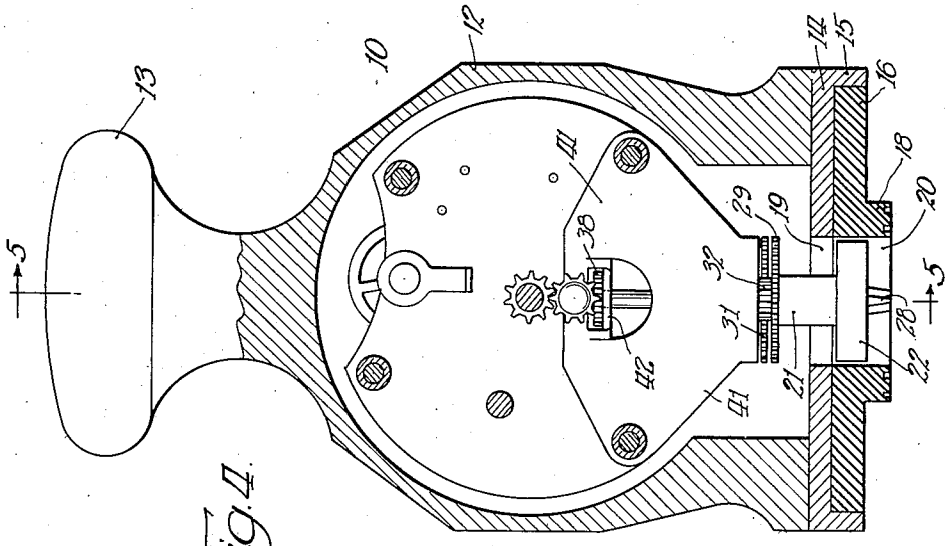


Fig. 4.

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TIME STAMP

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Fig. 6.

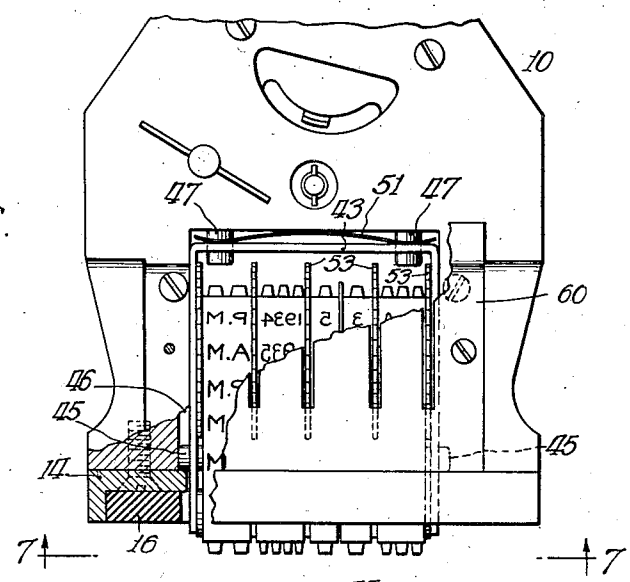


Fig. 7.

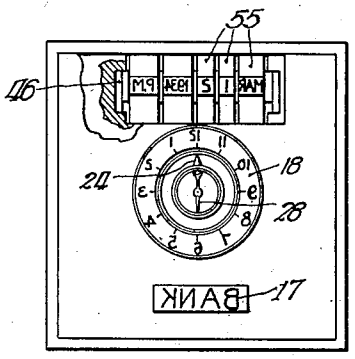
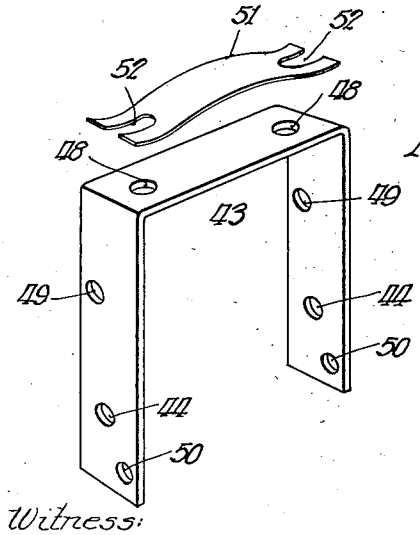


Fig. 8.



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Patented Sept. 15, 1936

2,054,127

UNITED STATES PATENT OFFICE

2,054,127

TIME STAMP

Austin C. Johnson and Theodore M. Wroble,
Chicago, Ill.

Application April 30, 1934, Serial No. 723,026

2 Claims. (Cl. 101—109)

Our invention relates to time stamps for imprinting the date and exact time on papers, and has as one of its objects the provision of a simple and strongly built time and date imprinting stamp and a cooperating ink pad which will be more durable and satisfactory than those now in common use.

In addition to permanent imprinting characters the stamp provides both shiftable date characters and fixed and movable time characters all of which are formed as projections on cushion pads preferably constructed of rubber, which, as is well known, soon softens and disintegrates if maintained in contact with an ink pad. The movable time characters include rotating hour and minute hands which must be normally maintained clear of the ink pad when rotated. The maintenance of the characters out of contact with the pad, except when it is desired to ink the same, may be accomplished by providing a separate or detached pad, but this involves the possibility of misplacing the pad and requires time and attention in moving the stamp into operative contact with the pad.

Another object of the invention is the provision of an improved time stamp, also adapted as a desk clock, and a base member providing a fixed support for an ink pad and a seat for the stamp, said seat normally maintaining the stamp with its imprinting characters positioned immediately above and out of contact with the pad and yieldable to permit the stamp under downward pressure to bring the characters into equal and uniform contact with the pad.

In order that all of the imprinting characters be similarly inked upon contact with the pad, and that impressions of uniform weight be imprinted on documents, it is essential that the impression surfaces of the characters be in a common plane under all conditions of pressure applied to the stamp. The dater characters are formed as projections from thin endless bands of flexible material which are manually movable about rollers to shift the dater characters as desired, to provide the day, month and year. Since all of the characters other than the dater characters are formed as projections on relatively thick cushion bases they yield more under a given pressure than do the dater characters, with the result that the characters impressed upon a paper are of uneven weight and are frequently dim or indistinct. It is another object of the invention to provide a mounting for the dater characters which yields under pressure sufficiently to permit the impression surfaces of the dater characters to remain in a common plane with that of the other characters under all conditions of pressure applied to the stamp, whereby uniformity of inking of the characters and impressions of equal weight are formed upon a printing surface.

Still another object of the invention is the provision of improved means connecting the movable time characters with the actuating clock mechanism.

Many other objects and advantages of the construction herein shown and described will be obvious to those skilled in the art from the disclosure herein given.

To this end our invention consists in the novel construction, arrangement and combination of parts herein shown and described and more particularly pointed out in the claims.

In the drawings wherein like reference characters indicate like or corresponding parts,

Fig. 1 is an elevational view of a time stamp showing a clock face, with the stamp in slightly elevated spaced relation above a member providing a support therefor;

Fig. 2 is a sectional view along the line 2—2 of Fig. 3 showing the stamp seated on the supporting member;

Fig. 3 is a plan view of the supporting member with a portion broken away to show the construction;

Fig. 4 is a view along the line 4—4 of Fig. 5;

Fig. 5 is a view along the line 5—5 of Fig. 4;

Fig. 6 is a rear elevational view of the lower end of the stamp with a portion of the casing removed to show certain details of construction;

Fig. 7 is a view along the line 7—7 of Fig. 8 with a portion of the stamp broken away to better illustrate the construction and mounting of the dater device; and

Fig. 8 is a perspective view of a pair of members forming a movable mounting for the dater device.

Referring now more particularly to the drawings, the numerals 10 and 11, respectively, generally designate a time stamp and a base member providing a support for the stamp. The stamp 10 includes a casing 12, a handle 13, and a plate 14 forming the bottom wall of the casing. The plate 14 has an outer flange 15 within which a cushion pad 16 of rubber, or the like, is fixedly mounted. A plurality of projections forming any suitable characters may be provided on the pad 16. The characters 17 form the word "Bank" and the characters 18 form a graduated dial. The pad 16 is of substantial

thickness and the impression faces of the characters 17 and 18 lie in a common plane.

The member 14 and the pad 16, respectively, are provided with apertures 19 and 20 concentric with the dial characters 18. A rotatable sleeve 21, positioned within the apertures 19 and 20, terminates at its lower end in an integrally formed centrally apertured collar 22, providing an annular recess 23 concentric with the central aperture. A cushion member 24, preferably of the same material as the pad 16, provides a character adapted as an hour hand, the impression face of which lies in the same plane as the impression faces of the characters 17 and 18. The sleeve 21 rests upon a drum 25 which is open at its lower end and is carried by a shaft 26 extending upwardly through the sleeve. The drum 25 provides a mounting for a cushion pad 27 from which projects a character 28 having its impression face forming a minute hand lying in the same plane as the impression faces of the characters 17, 18 and 24.

The shaft 26 is operatively connected with a horological motor and gears, hereinafter more particularly described, in a manner such that the shaft makes a complete revolution every hour. The sleeve 21 is provided on its upper end with an integral gear 29, operatively connected with the shaft 26 by a pinion 30, a gear 31 and a pinion 32, in a manner such that the sleeve 21 and the hour hand 24 carried thereby makes a complete revolution every twelve hours. A bracket 41 rigidly mounted in the casing 12, as shown, provides a support for the pinion 30 and the gear 31 and also for the shaft 26.

The shaft 26 is operatively connected with a horological motor, generally designated by the numeral 34, by means of a set of gears generally designated by the numeral 33. The gears 33, motor 34, hour and minute hands 35 and 36 and an exposed dial face 37, together form a clock mechanism adapting the stamp for a time piece as well as an actuator of the pointer characters 24 and 28. Further description of the clock mechanism is omitted as being well known and not forming any portion of the invention.

The shaft 26 is held against longitudinal movement by contact of the pinion 32 with a lower face of the bracket 41 and by contact of the gear 38 with the upper surface of a lip 42 projecting from the bracket. The total depth of the characters 17, 18 and 24, including their cushion pads being substantially equal, will compress equally under the same pressure and the impression faces of such characters will remain in a common plane for all pressures to which they may be subjected in using the stamp.

The plate 14 and the pad 16 are provided with aligned apertures 34 and 40, respectively, through which projects the lower end of a dater device mounted on a U-shaped frame 43, best shown in Fig. 8, and an important feature of the invention is the provision of a mounting permitting the dater device to yield as a unit under pressure on the stamp so that the compression faces of the operative dater characters are maintained in the same plane as the impression faces of the characters 17, 18 and 24 and for this purpose the frame 43 is supported by pins 45, mounted in frame apertures 44 and adapted to normally rest upon the bottom plate 14. The frame 43 is positioned in recesses 46 formed on the plate 14 which serve as guides permitting vertical movement of the dater device relative to the casing 12 in which it is mounted. The upper end of the frame 43 is held against lateral movement by means of a pair of pins 47 projecting downwardly through apertures 48 provided in the top of the frame. The pins 47 are mounted on a boss 54, forming part of the casing 12, and extend through recesses 52 in the ends of a spring plate 51 so positioned between the frame 43 and the boss 54 that the plate tends to hold the dater device with the pins 45 in contact with the plate 14.

The dater device comprises a plurality of thin, endless flexible bands 55, respectively providing characters indicating the year, month, days of the month, and A. M. and P. M. indicia, the bands being adapted to be manipulated in the usual manner to provide any desired date. The bands extend around an upper rod 56 and a lower rod 57, respectively fixedly mounted in apertures 49 and 50 provided in the opposite sides of the frame 43. The bands 55 are each operable by a disc 58 engaging a cylindrical collar 59 rotatably mounted on the rod 56 in frictional engagement with the respective bands. A removable plate 60, slotted to permit a limited portion of each disc 58 to project therethrough, forms a cover for the dater apparatus and permits the individual discs to be manually operated. Inasmuch as the bands 55 are relatively thin, the characters formed thereon yield less for any given pressure than do the characters 17, 18 and 24. The dater device is so constructed and mounted that the impression faces of its characters normally lie in the same plane as the impression faces of the characters 17, 18 and 24. The spring plate 51 is adapted to permit upward movement of the dater device to compensate for the difference in compression of its characters and of the other characters having a thicker cushion base thereby maintaining the impression faces of its characters constantly in alignment with the corresponding faces of the other characters.

The base member 11 comprises a bottom wall 63 having an upwardly projecting middle portion 64 and a flanged edge 65 of substantial depth. A plate 66 of larger dimensions than the bottom portion 64 is fastened to the latter by screws 67 with its projecting edges forming an upturned flange 68 to provide a receptacle in which an ink pad 75 is mounted and preferably fastened by any suitable adhesive material.

A member 69, extending around and in closely spaced relation to the inner surfaces of the flanged edge 65, provides a seat for the stamp 10. The lower edge of the member 69 is positioned in a recess 74 extending around the base member between the flanged edge 75 and the bottom plate portion 64 and has a plurality of inwardly projecting lugs 70 underlying the projecting portion of the plate 66. The upper edge of the member 69 provides a shoulder 71 surrounded by an inwardly tapering flanged edge 72 adapted as a guide in positioning the stamp upon the shoulder. The member 69 is supported by a plurality of springs 73 adapted to hold the member in elevated position with the lugs 70 in contact with the plate 66. The springs 73 are sufficiently resilient to maintain the member 69 in elevated position under the weight of the stamp, in which position the stamp characters are in closely spaced relation to the ink pad 75. Sufficient clearance space is provided between the member 69 and the bottom member 63 to permit movement of the member 69 downwardly under pressure exerted on the stamp and to thereby operatively engage the impression faces of the stamp characters with the ink pad 75.

The base member 11 has hemi-spherical supporting lugs 76 of non-abrasive cushioning material adapting the device to be mounted on a table top or other finished surface, whereby such surfaces are not marred or mutilated in manipulating the stamp.

Thus, it will be seen that we have provided an improved time stamp of the kind described, wherein the impression faces of all the characters both movable and immovable, lie in a common plane under all pressures applied to the stamp, and that we have provided an improved supporting member for the stamp including an inking pad normally in spaced apart relation to the stamp characters, including a seat for the stamp adapted to yield under pressure on the stamp to permit uniform inking of the characters.

Having thus described our invention, it is obvious that various immaterial modifications may be made in the same without departing from the spirit of our invention; hence we do not wish to be understood as limiting ourselves to the exact form, construction, arrangement and combination of parts herein shown and described or uses mentioned.

What we claim as new and desire to cover by Letters Patent is:

1. In a stamp of the kind described, a casing, a cushion pad carried by the casing having a plurality of equally compressible projections providing imprinting characters having their faces all lying in a common plane, a dater device comprising a frame and providing a plurality of imprinting characters selectively movable to position their impression faces in said common plane, the compressibility of said dater characters being substantially less than that of said pad characters, and means for compensating for the difference in compressibility of said pad and dater characters.

2. In a stamp of the kind described, a casing, a cushion pad carried by the casing having a plurality of equally compressible projections providing imprinting characters having their faces all lying in a common plane, a dater device comprising a frame and providing a plurality of imprinting characters selectively movable to position their impression faces in said common plane, the compressibility of said dater characters being substantially less than that of said pad characters, and means for compensating for the difference in compressibility of said pad and dater characters, said means comprising a resilient member adapted to normally hold said dater frame in a position wherein the selectively positioned dater characters lie in said common plane when the stamp is not in use and yieldable to permit compensating movement of the frame under pressure exerted on said characters when force is applied to said stamp to impress said characters upon a printing surface.

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THEODORE M. WROBLE.