

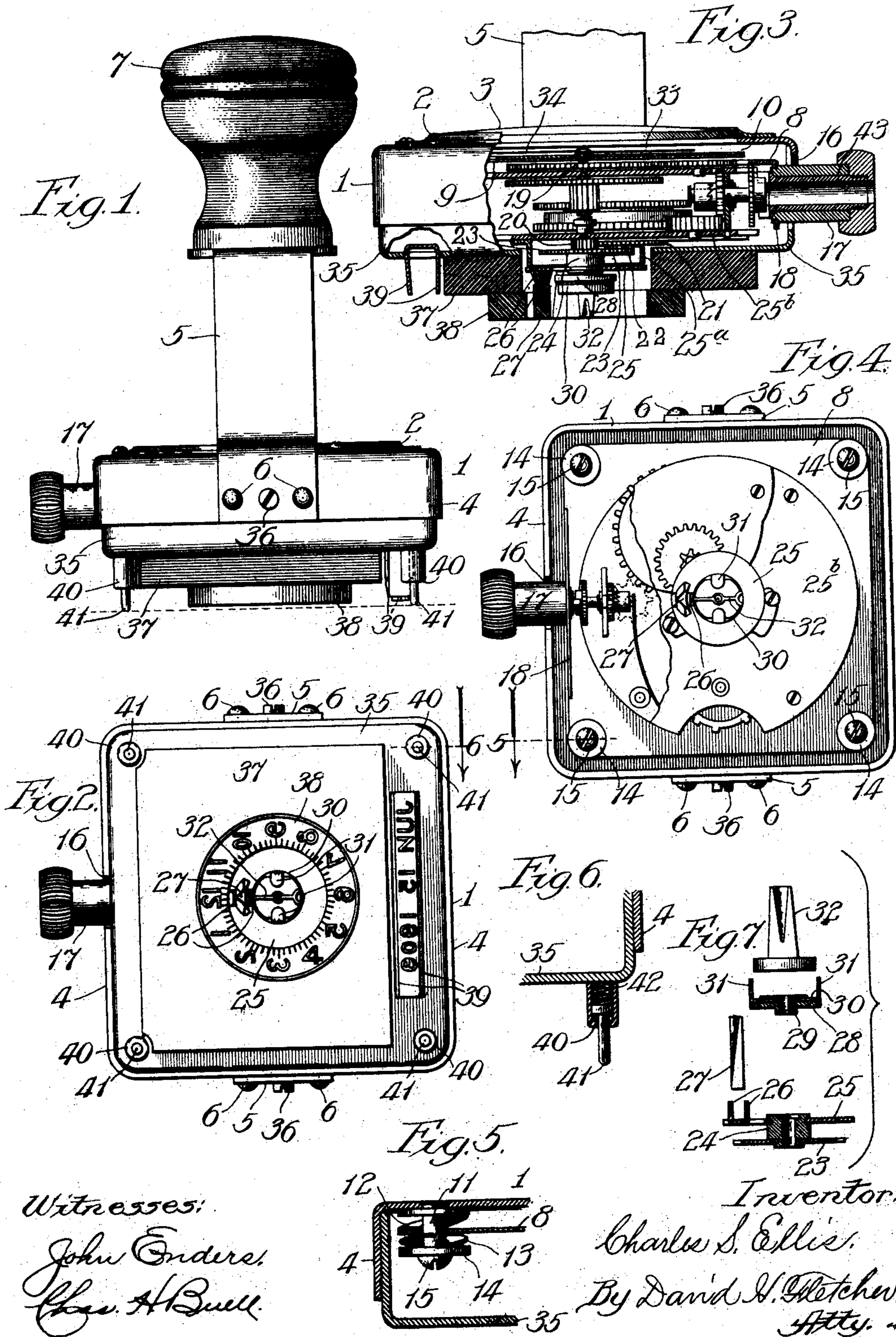
C. S. ELLIS.

TIME STAMP.

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982,203.

Patented Jan. 17, 1911.



Witnesses:

John Enders.
Chas. A. Buell.

Inventor:

Charles S. Ellis.
By David H. Gletcher,
Atty.

UNITED STATES PATENT OFFICE.

CHARLES S. ELLIS, OF CHICAGO, ILLINOIS, ASSIGNOR TO ELLIS TIME STAMP COMPANY,
A CORPORATION OF ILLINOIS.

TIME-STAMP.

982,203.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES S. ELLIS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Time-Stamp, of which the following is a description, reference being had to the accompanying drawings, forming a part of this specification, in which corresponding letters of reference in the different figures indicate like parts.

The primary object of my invention is to provide a simple and compact time-stamp in which the works of an ordinary watch may be utilized for controlling the movable time marking elements,—my purpose being to so construct and combine said elements with the minute-hand arbor at the back of the watch and with a printing dial forming a main base, that the structure may be permitted to rest upon said base with the movable marking elements in contact with the supporting surface, without interfering with the action of the time piece.

A further object is to provide yielding means for supporting the works of the watch in the main frame with the faces of the movable printing elements normally in the same plane with that of the dial.

Moreover, it is my purpose to provide removable means for setting the hands of the watch and movable printing elements so as to prevent a change thereof except by one having proper authority.

To these ends my invention consists in the combination of elements hereinafter more particularly described and definitely pointed out in the claims.

In the drawings, Figure 1 is a side elevation of a stamp embodying the features of my invention, Fig. 2 is a bottom view, Fig. 3 is an enlarged view partly in central vertical section through the winding stem, the supplemental yielding supports being omitted. Fig. 4 is a bottom view showing the main frame-plate of the watch and watch movement as they would appear when the under outer casing is removed. Fig. 5 is a vertical sectional view taken upon the line 5, Fig. 4, Fig. 6 is a like sectional view taken upon the line 6, Fig. 2, and Fig. 7 is a view showing the detached movable printing elements and sectional views of the parts to which they are attached, said views being

intended to indicate the means employed for securing the flexible markers to the movable elements upon which they are mounted.

Referring to the drawings 1 represents generally the upper portion of the outer protecting case which is formed from sheet-metal of rectangular shape with rounded corners and provided with a circular opening in the top surrounded by a bezel 2, Figs. 1 and 3, in which is secured the usual crystal 3, for the display of the watch face. Said case-member is cupped to form side-walls 4, which are intended to partially inclose a watch-movement. A sheet-metal handle support 5 is arranged to straddle the casing, the lower ends thereof being secured by means of rivets 6 to the walls 4, while a handle 7 is attached to the upper portion.

A watch movement of any well known construction, is provided with a rectangular sheet-metal plate 8, Figs. 3, 4 and 5, interposed between the pillar-plate 9, Fig. 3, and the dial-plate 10. Studs 11, Fig 5, are located in the corners and rigidly attached to the inner face of the case 1, which studs project loosely through perforations in the corners of the plate 8. Spiral springs 12 and 13 respectively, are placed upon opposite sides of the plate 8, the one being interposed between said plate and the casing 1 and the other between said plate and a washer 14, upon the end of the stud. The washers are held rigidly in place by means of screws 15, which are tapped into the studs 11. One of the walls 4 of the case is notched, as shown at 16, Figs. 2, 3 and 4, to receive the stem 17, of the watch, said notch being of sufficient depth to provide for a limited vertical movement of the stem without being brought into contact with the case. The stem is rigidly attached to a flange 18, Figs. 3 and 4, which is integral with the plate 8.

Mounted upon the minute-hand arbor 19, is a pinion 20 in engagement with a gear-wheel 21 corresponding to the usual minute-wheel at the front of the watch. Upon the hub of the wheel 21 is a pinion 22 in engagement with a wheel 23 also shown in Fig. 7 upon a hub 24, mounted loosely upon the minute-hand arbor. The wheel 23 corresponds to the usual hour-wheel at the front of the watch. A disk 25, is rigidly attached to the hub, said disk being provided with

prongs 26, cut from the body thereof and bent outwardly therefrom to serve as a means for securing thereto an elongated marking element 27 formed from rubber or other yielding material and intended to indicate an hour mark. A smaller circular disk 28 is provided with a hub 29, Fig. 7, a central bore in which is adapted to fit upon the minute hand arbor 19 and to be rotated thereby. Interposed between the disk 28 and a flange upon the hub 29, is a thin metal disk 30, having prongs 31, which are bent over the circular base of and serve as fasteners for a minute marking hand 32. The markers 27 and 32 are adapted to move independently of each other and the train with which they are connected is adapted to cause them to move in harmony with the hour-hand 33 and minute hand 34 respectively; the part 27 being intended to represent the former and the part 32 the latter.

In order to support the disk 25 when pressure is applied to the marker 27 in the act of printing I provide an annular ring 25^a, Fig. 3, which is attached to the back pillar-plate 25^b of the watch, also shown in Fig. 4, said ring being concentric with the minute-hand arbor, and directly beneath the outer edge of the disk 25.

Arranged to be inclosed by the case-member 1 is a counterpart case-member 35, Figs. 1, 2, 3, 5 and 6, having upturned peripheral flanges adapted to fit within the walls 4, the two parts of the case being rigidly attached to each other by means of screws 36. Attached to the lower casing 35 is a base portion 37 of india rubber or other elastic material, to which, in turn, is secured an annular marking dial 38, having thereon the figures from 1 to 12, as shown in Fig. 2. The lower casing 35 is provided with a central circular opening corresponding to the openings in the parts 37, 38, to provide for the projection therethrough of the hour and minute marking elements, the marking faces of which are intended to be in the same plane with the face of the dial 38. Depending parallel flanges 39 are provided for the support of removable type to indicate dates, the face of the type being in the same plane with that of the dial.

As previously stated, the movable time-marking elements are intended to stand normally in the plane of the dial face, but in order to guard against injury to the watch movement by placing excessive stress upon the minute hand arbor during the act of printing, as might frequently occur in the event of careless usage and especially in case the printing is done upon an uneven surface, I have provided the means described for permitting the entire watch movement to yield within the main case. The springs 12 are intended to be sufficiently stiff to cause the movable printing elements

to press against the surface to be printed with sufficient force to make a proper impression, and it is only when the stamp is used with excessive force or said elements are brought into contact with a raised surface, that the watch work is intended to yield.

I have found in practice that by making the marking elements 27 and 32 of soft rubber and elongating them as shown, so that they may yield laterally to slight contact, the stamp, when not in use, may be allowed to rest directly upon the surface of the dial 38 without interfering to an objectionable extent with the time-keeping performance of the watch.

In Figs. 1, 2 and 6, I have shown yielding means for normally supporting the printing dies above the printing surface when desired, which consists of tubular studs 40, rigidly attached to the corners of the lower case element 35. Within said studs are placed pins 41, the lower ends of which project through bores, while the upper ends are provided with heads which bear against light springs 42, Fig. 6, of a strength sufficient to support the weight of the stamp. Upon applying pressure to the handle the springs yield to permit the impression to be made.

Inasmuch as stamps of this kind are frequently used by careless and irresponsible persons, it is desirable that the setting thereof, or adjustment as to time, may be made only by authorized persons. This I am enabled to accomplish by making the stem-winding shaft 43 hollow, as shown in Fig. 3, to permit the insertion of a key to engage the movable setting-wheel and move it into engagement with the usual setting gear, the same action serving obviously to set both the hands and the movable marking dies.

Having thus described my invention, I claim—

1. In a time-stamp, the combination of a time-movement, hour and minute-marking dies mounted upon the minute hand arbor at the back thereof, a dial stamping die having hour and minute divisions, said several dies having their printing faces normally in a common plane, and means for cushioning the time-movement to avoid injury thereto as a result of excessive pressure upon the hour and minute marking dies.

2. In a time-stamp, the combination with an inclosing case having an annular marking dial upon the back surrounding an opening therein, of a time-piece movably mounted within the case, movable hour and minute marking dies mounted upon the minute-hand arbor of said time-piece, said dies projecting through said opening, and yielding means for holding said time-piece in a normal position with the faces of said

marking dies in the same plane with that of said marking dial.

3. In a time-stamp, the combination with a casing having a time-piece mounted therein, a marking dial upon the back of said case surrounding a central opening therein, a disk loosely mounted upon the minute-hand arbor, hour and minute gears for connecting the two, an hour marking die mounted upon said disk, means upon the time-piece frame for supporting the periphery of said disk when pressure is applied to said die, a disk mounted upon said minute hand arbor, the same being arranged to bear against said first named disk when pressure is applied to the former, and a minute marking die mounted upon said secondary disk, the faces of said hour and minute marking dies being normally in the same plane with that of said marking dial.

4. In a time-stamp, the combination with a time piece having a supporting base consisting of a marking dial, of elongated flexible hour and minute marking dies mounted upon the minute-hand arbor, the marking

surface of said dies being in the same plane with that of said dial whereby said hour and minute marking dies may yield laterally as said arbor is rotated to prevent retardation of the time-piece.

5. The combination with a time movement of a marking dial upon the back thereof, independently movable disks mounted upon the minute hand arbor at the back of said time movement, one of which is fitted to rotate therewith, intermediate gears for connecting the other of said disks with said minute-hand arbor to impart an hourly rotation to said disk, elongated flexible minute and hour marking dies mounted upon said disks respectively, and means for clamping said elongated marking dies to said disks.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses, this 25th day of June 1909.

CHARLES S. ELLIS.

Witnesses:

D. H. FLETCHER,
CARRIE E. JORDAN.