



(11) **EP 3 241 685 B1**

(12) **EUROPEAN PATENT SPECIFICATION**

(45) Date of publication and mention
of the grant of the patent:
30.01.2019 Bulletin 2019/05

(51) Int Cl.:
B41K 1/40 (2006.01) **B41K 1/42 (2006.01)**
B41K 1/52 (2006.01)

(21) Application number: **17161256.7**

(22) Date of filing: **16.03.2017**

(54) **A PHOTSENSITIVE STAMP USED ON THE REVERSIBLE PRINTING DIAL BRACKET**

AUF DER UMKEHRBAREN DRUCKSCHEIBENHALTERUNG VERWENDBARER,
LICHTEMPFLINDLICHER STEMPEL

TIMBRE PHOTSENSIBLE UTILISÉ SUR LE SUPPORT D'UN CADRAN D'IMPRESSION
RÉVERSIBLE

(84) Designated Contracting States:
**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO
PL PT RO RS SE SI SK SM TR**

(30) Priority: **30.03.2016 CN 201620253255 U**

(43) Date of publication of application:
08.11.2017 Bulletin 2017/45

(73) Proprietor: **Shanghai Jipusheng Office Articles
Co., Ltd
Shanghai (CN)**

(72) Inventor: **CHEN, Gau
Shanghai (CN)**

(74) Representative: **Petruzzello, Aldo
Racheli S.r.l.
Viale San Michele del Carso, 4
20144 Milano (IT)**

(56) References cited:
**CN-U- 203 567 385 CN-U- 203 623 176
CN-Y- 201 427 444**

EP 3 241 685 B1

Note: Within nine months of the publication of the mention of the grant of the European patent in the European Patent Bulletin, any person may give notice to the European Patent Office of opposition to that patent, in accordance with the Implementing Regulations. Notice of opposition shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).

Description

Technical Field

[0001] The present invention relates to the technical field of stamp, and more particularly, a photosensitive stamp used on the reversible printing dial bracket.

Background Technology

[0002] At present, stamps can be basically divided into two series of products, i.e., self-inking stamps and photosensitive stamps. They have completely different structures. To be specific, self-inking stamps have a unique structure and a high stamping stability, and in the stamping process, they can transmit different magnitudes of force uniformly to the printing dial to achieve the optimum stamping effect. A characteristic of photosensitive stamps is embodied in a considerably high flatness on the printing dial, however, to achieve the optimum stamping effect, the force exerted must be uniform. The printing dial of photosensitive stamps is made of a special chemically synthesized material that can instantly send out strong light radiation, and it has a relatively high accuracy and no need for a stamp pad and can be subject to repeated ink filling. On that account, the protection of the printing dial constitutes the key to extending the service life of stamps, and, on the basis of protection, convenience must also be made for ink filling. Document US-A-2017/001429 discloses a stamp according to the preamble of claim 1.

Contents of the Invention

[0003] The invention is a photosensitive stamp used on the reversible printing dial bracket against the defects of the existing technology, which integrates the characteristics of self-inking stamps with those of photosensitive stamps, so as to not only effectively protect the printing dial of photosensitive stamps and make convenience for ink filling, but also to retain the user-friendliness of self-inking stamps.

[0004] The invention is realized by the specific technical program as follows:

The invention discloses a photosensitive stamp used on the reversible printing dial bracket, which includes a tag cover, an upper bracket, a clamping lock, a spring and a lower bracket, wherein, it also includes a movable printing dial, a reversible seat, an ink storage pad, a printing dial and a dust cover; the said movable printing dial is a box part provided with a dented printing dial groove in the front, with an ink duct in the back and with clamping boards on both sides, as well as several ink grooves between the printing dial groove and the ink duct; the said reversible seat is a frame plate provided with a central location hole, with a spindle on both end edges and with a clamping slot on the both sides; the said printing dial is set in the printing dial groove of the movable printing

dial; the said ink storage pad is set in the ink duct of the movable printing dial; the said ink duct of the movable printing dial is set in the central location hole of the reversible seat; the said clamping boards are connected through clamping with the clamping slots.

[0005] The said tag cover is placed at the top of the lower bracket; the said lower bracket is placed in the upper bracket; the said spring is placed between the lower bracket and the upper bracket; the said clamping lock is placed on the upper bracket; the said reversible seat is placed in the lower bracket; the said spindles are hinged with the upper bracket; the said dust cover is placed at the port of the lower bracket.

[0006] The invention integrates the characteristics of self-inking stamps with those of photosensitive stamps, so as to not only effectively protect the printing dial of photosensitive stamps and make convenience for ink filling, but also to retain the user-friendliness of self-inking stamps.

Description of Figures

[0007]

Figure 1 is an exploded perspective view of the structure of the photosensitive stamp according to the invention;

Figure 2 is the structure schematic of the movable printing dial (front side) and the printing dial;

Figure 3 is the structure schematic of the movable printing dial (back side) and the ink storage pad;

Figure 4 is the structure schematic of the reversible seat.

Implementation Mode

[0008] Refer to Figure 1, Figure 2, Figure 3 and Figure 4. The invention includes a tag cover 1, an upper bracket 2, a clamping lock 3, a spring 4 and a lower bracket 5, as well as a movable printing dial 6, a reversible seat 7, an ink storage pad 8, a printing dial 10 and a dust cover 9; the said movable printing dial 6 is a box part provided with a dented printing dial groove 64 in the front, with an ink duct 62 in the back and with clamping boards 63 on both sides, as well as several ink grooves 61 between the printing dial groove 64 and the ink duct 62; the said reversible seat 7 is a frame plate provided with a central location hole 71, with a spindle 73 on both end edges and with a clamping slot 72 on the both sides; the said printing dial 10 is set in the printing dial groove 64 of the movable printing dial 6; the said ink storage pad 8 is set in the ink duct 62 of the movable printing dial 6; the said ink duct 62 of the movable printing dial 6 is set in the central location hole 71 of the reversible seat 7; the said clamping boards 63 are connected through clamping with the clamping slots 72.

The said tag cover 1 is placed at the top of the **upper bracket 2**; the said lower bracket 5 is placed in the upper

bracket 2; the said spring 4 is placed between the lower bracket 5 and the upper bracket 2; the said clamping lock 3 is placed on the upper bracket 2; the said reversible seat 7 is placed in the lower bracket 5; the said spindles 73 are hinged with the upper bracket 2; the said dust cover 9 is placed at the port of the lower bracket 5.

[0009] The invention is used in this way:

Refer to Figure 1, Figure 2, Figure 3 and Figure 4. The invention is designed on the basis of existing self-inking stamps and in combination with the characteristics of photosensitive stamps. The invention designs the movable printing dial 6 and the reversible seat 7, sets the ink storage pad 8 and the printing dial 10 on the **movable** printing dial 6, and hinges via its spindle 73 equipped in the reversible seat 7 with the axle seat in the upper bracket 2. After finishing the preparation of the photosensitive stamp, print the name of the stamp on the tag cover 1.

[0010] The specific service process of the invention is as follows:

Stamping: Refer to Figure 1, Figure 2, Figure 3 and Figure 4. Open the dust cover 9, place the invention on the object to be stamped, and due to a downward force exerted by the upper bracket 2, when the lower bracket 5 withdraws into the upper bracket 2, the reversible seat 7 will turn over at the same time, driving the printing dial 10 stuck on the movable printing dial 6 to turn over downward. With the continuous downward movement of the upper bracket 2, the printing dial 10 touches the object to be stamped, and stamping is thus finished.

[0011] Release the force exerted on the upper bracket 2, and the lower bracket 5 returns to its initial state under the action of the spring 4; the reversible seat 7 will turn over again, and then the printing dial 10 and the movable printing dial 6 both withdraw into the lower bracket 5; lock the clamping lock 3, and cover the port of the lower bracket 5 with the dust cover 9.

[0012] When the invention is not in use, the printing dial 10 and the movable printing dial 6 both withdraw into the lower bracket 5; combined with the dust cover 9 provided, the printing dial 10 can be effectively protected against both contamination and damage. Benefited from the clamping lock 3 provided, the relative movement between the upper bracket 2 and the lower bracket 5 can be locked, so that, even when a downward force has been exerted on the upper bracket 2 by mistake, the reversible seat 7 still will not turn over or cover the port accidentally.

[0013] Ink filling: Refer to Figure 1, Figure 2 and Figure 3. When it's time to fill ink into the invention, open the dust cover 9, use a syringe to inject the stamp-pad ink into the ink duct (62) of the movable printing dial 6 and the ink is then adsorbed by the ink storage pad 8. When in use, the ink is released by the ink storage pad 8, and penetrates onto the printing dial 10 through the several ink grooves (61) between the ink duct (62) and the printing dial groove (64).

[0014] The invention combines the movable printing dial 6, the reversible seat 7, the ink storage pad 8 and

the printing dial 10 with self-inking stamps, thus to not only effectively protect the printing dial of photosensitive stamps and make convenience for use and inking, but also to embody the perfect combination of self-inking stamps and photosensitive stamps.

Claims

1. A photosensitive stamp which includes a tag cover (1), an upper bracket (2), a lock (3), a spring (4) and a lower bracket (5), wherein, it also includes a movable printing dial (6), a reversible seat (7), an ink storage pad (8), one printing dial (10) of photosensitive stamps to touch the object to be stamped, the said movable printing dial (6) is a box part provided with a dented printing dial groove (64) in the front, with an ink duct (62) in the back and with clamping boards (63) on both sides, as well as several ink grooves (61) between the printing dial groove (64) and the ink duct (62);
the said reversible seat (7) is a frame plate provided with a central location hole (71), with a spindle (73) on both end edges and with a clamping slot (72) on the both sides;
the said printing dial (10) is set in the printing dial groove (64) of the movable printing dial (6);
the said ink storage pad (8) is set in the ink duct (62) of the movable printing dial (6);
the said ink duct (62) of the movable printing dial (6) is set in the central location hole (71) of the reversible seat (7);
the said clamping boards (63) are connected through clamping with the clamping slots (72),
characterized in that it further comprises a dust cover (9) to protect said printing dial (10) of photosensitive stamps, and
in that said lock (3) which is placed on the upper bracket is a clamping lock to lock the accidental relative movement between the upper bracket (2) and the lower bracket (5) when a downward force is exerted on the upper bracket (2) by mistake.
2. A photosensitive stamp according to claim 1, wherein the said tag cover (1) is placed at the top of the lower bracket (5);
the said lower bracket (5) is placed in the upper bracket (2);
the said spring (4) is placed between the lower bracket (5) and the upper bracket (2);
the said reversible seat (7) is placed in the lower bracket (5);
the said spindle (73) are hinged with the upper bracket (2);
the said dust cover (9) is placed at the port of the lower bracket (5).

Patentansprüche

1. Lichtempfindlicher Stempel, welcher eine Etikettenabdeckung (1), eine obere Halterung (2), eine Verriegelung (3), eine Feder (4) und eine untere Halterung (5) beinhaltet, wobei er auch eine bewegliche Druckscheibe (6), einen umkehrbaren Sitz (7), ein Tintenspeicherkissen (8), eine Druckscheibe (10) von lichtempfindlichen Stempeln zum Berühren des zu stempelnden Gegenstands beinhaltet, wobei die bewegliche Druckscheibe (6) ein Kasten-
 5 teil ist, der mit einer gezahnten Druckscheibennut (64) auf der Vorderseite, mit einem Tintenkanal (62) auf der Rückseite und mit Klemmplatten (63) auf beiden Seiten sowie mehreren Tintennuten (61) zwischen der Druckscheibennut (64) und dem Tintenkanal (62) versehen ist;
 10 wobei der umkehrbare Sitz (7) eine Rahmenplatte ist, die mit einem zentral gelegenen Loch (71), mit einer Spindel (73) auf beiden Endrändern und mit einem Klemmschlitz (72) auf den beiden Seiten versehen ist;
 15 wobei die Druckscheibe (10) in der Druckscheibennut (64) der beweglichen Druckscheibe (6) festgelegt ist;
 20 wobei das Tintenspeicherkissen (8) in dem Tintenkanal (62) der beweglichen Druckscheibe (6) festgelegt ist;
 25 wobei der Tintenkanal (62) der beweglichen Druckscheibe (6) in dem zentral gelegenen Loch (71) des umkehrbaren Sitzes (7) festgelegt ist;
 30 wobei die Klemmplatten (63) durch Klemmen mit den Klemmschlitz (72) verbunden sind,
dadurch gekennzeichnet, dass er ferner eine Staubabdeckung (9) zum Schützen der Druckplatte (10) von lichtempfindlichen Stempeln umfasst, und dass die Verriegelung (3), welche auf der oberen Halterung platziert ist, eine Klemmverriegelung zum Verriegeln einer unbeabsichtigten relativen Bewegung zwischen der oberen Halterung (2) und der unteren Halterung (5) ist, wenn eine Abwärtskraft versehentlich auf die obere Halterung (2) ausgeübt wird.
 35
2. Lichtempfindlicher Stempel nach Anspruch 1, wobei die Etikettenabdeckung (1) auf der Oberseite der unteren Halterung (5) platziert ist;
 40 wobei die untere Halterung (5) in der oberen Halterung (2) platziert ist;
 45 wobei die Feder (4) zwischen der unteren Halterung (5) und der oberen Halterung (2) platziert ist;
 50 wobei der umkehrbare Sitz (7) in der unteren Halterung (5) platziert ist;
 die Spindel (73) an der oberen Halterung (2) angelenkt ist;
 die Staubabdeckung (9) an dem Anschluss der unteren Halterung (5) platziert ist.
 55

Revendications

1. Timbre photosensible qui comprend un recouvrement de marquage (1), un support supérieur (2), un verrou (3), un ressort (4) et un support inférieur (5), sachant qu'il comprend aussi un cadran d'impression mobile (6), un siège réversible (7), un tampon de stockage d'encre (8), un cadran d'impression (10) de timbres photosensibles pour toucher l'objet à timbrer,
 5 ledit cadran d'impression mobile (6) étant un élément boîtier pourvu d'une gorge de cadran d'impression dentée (64) à l'avant, d'une conduite d'encre (62) à l'arrière des plaques de serrage (63) des deux côtés, de même que de plusieurs gorges à encre (61) entre la gorge de cadran d'impression (64) et la conduite d'encre (62) ;
 10 ledit siège réversible (7) étant une plaque à cadre pourvue d'un trou à emplacement central (71), d'une broche (73) sur les deux bords terminaux et d'une fente de serrage (72) des deux côtés ;
 ledit cadran d'impression (10) étant placé dans la gorge de cadran d'impression (64) du cadran d'impression mobile (6) ;
 15 ledit tampon de stockage d'encre (8) étant placé dans la conduite d'encre (62) du cadran d'impression mobile (6) ;
 20 ladite conduite d'encre (62) du cadran d'impression mobile (6) étant placée dans le trou à emplacement central (71) du siège réversible (7) ;
 25 lesdites plaques de serrage (63) étant connectées par serrage aux fentes de serrage (72),
caractérisé en ce qu'il comprend en outre un recouvrement antipoussière (9) pour protéger ledit cadran d'impression (10) des timbres photosensibles, et
en ce que ledit verrou (3) qui est placé sur le support supérieur est un verrou de serrage pour verrouiller le mouvement relatif accidentel entre le support supérieur (2) et le support inférieur (5) lorsqu'une force descendante est exercée sur le support supérieur (2) par mégarde.
 30
2. Timbre photosensible selon la revendication 1, dans lequel ledit recouvrement de marquage (1) est placé sur le dessus du support inférieur (5) ;
 35 ledit support inférieur (5) est placé dans le support supérieur (2) ;
 ledit ressort (4) est placé entre le support inférieur (5) et le support supérieur (2) ;
 40 ledit siège réversible (7) est placé dans le support inférieur (5) ;
 ladite broche (73) est articulée au support supérieur (2) ;
 45 ledit recouvrement antipoussière (9) est placé au port du support inférieur (5).
 50
 55

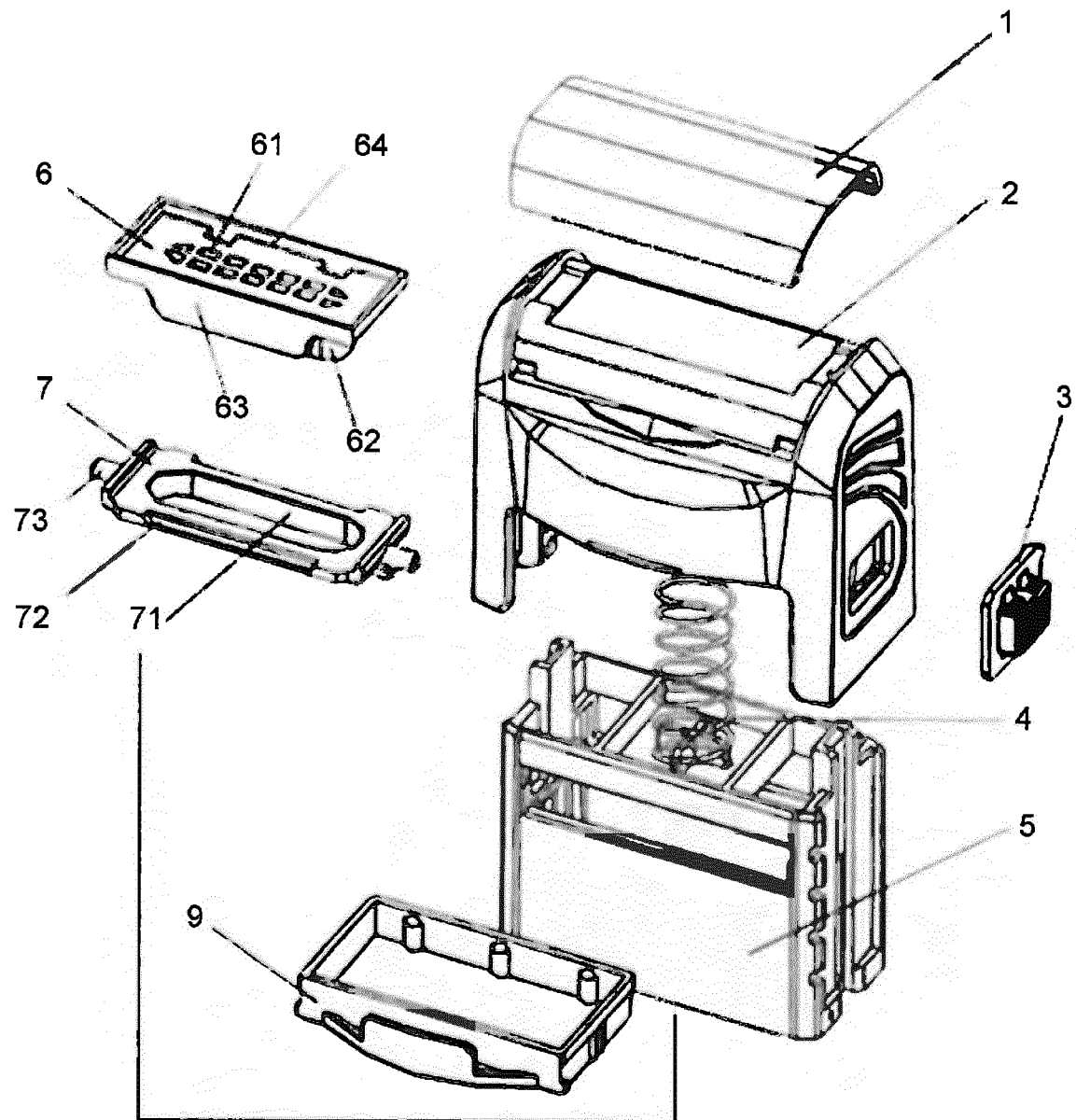


FIG. 1

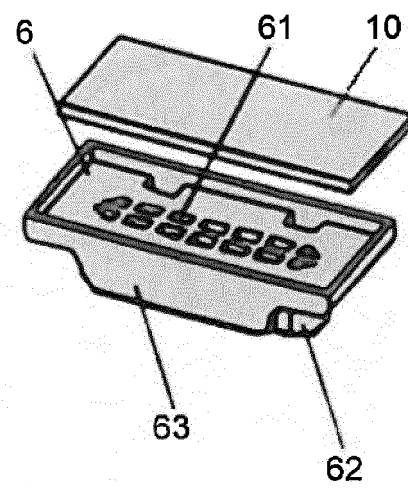


FIG. 2

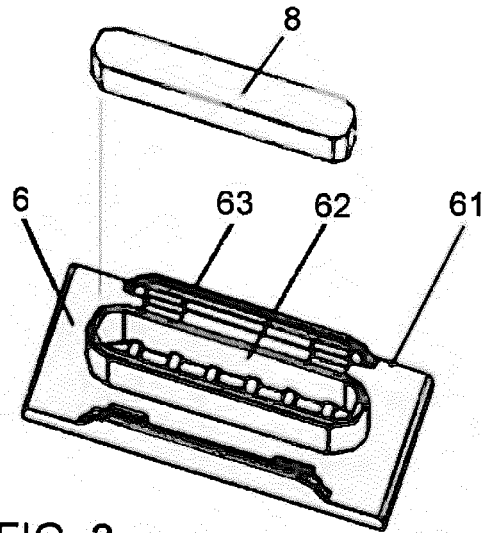


FIG. 3

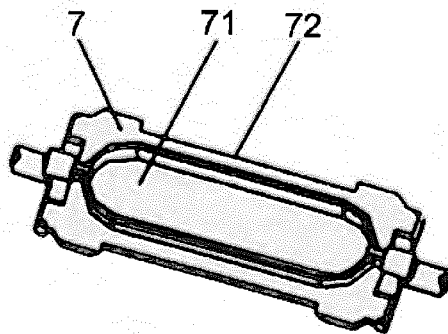


FIG. 4

REFERENCES CITED IN THE DESCRIPTION

This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.

Patent documents cited in the description

- US 2017001429 A [0002]