Feb. 5, 1952 W. F. OBLINGER 2,584,908

HAND STAMP PRINTING DEVICE

Filed May 5, 1949

FIG. 2

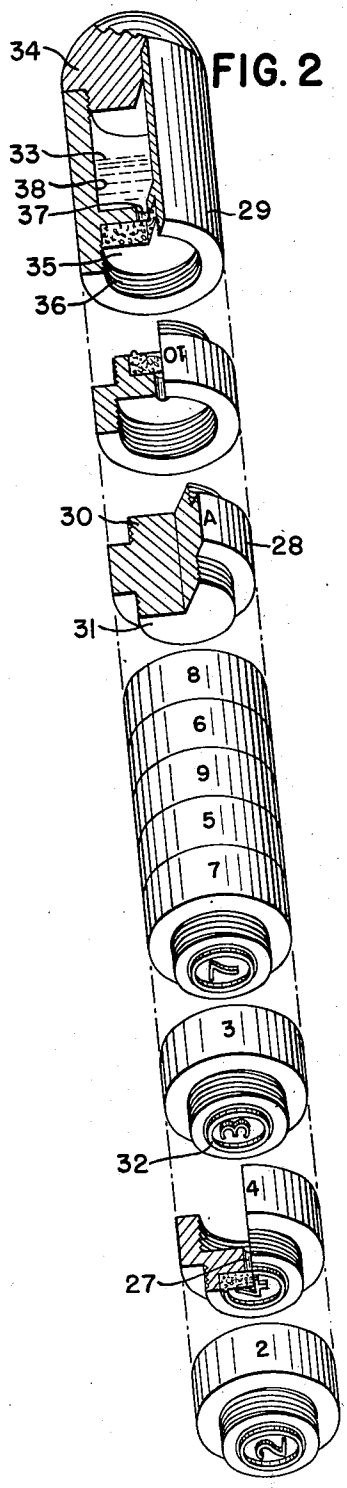


FIG. 1

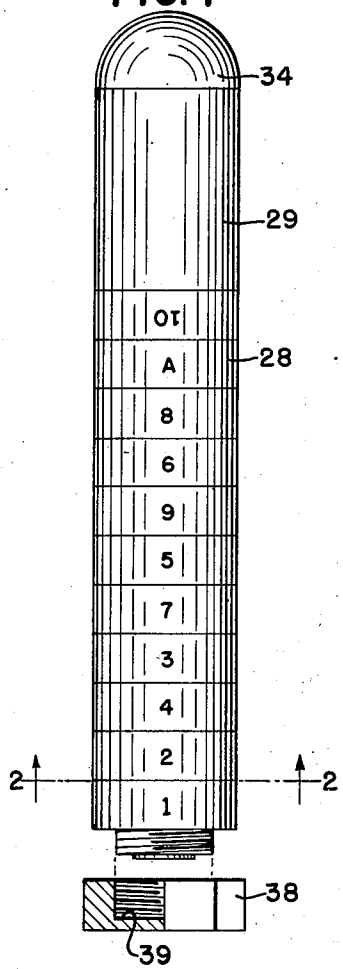
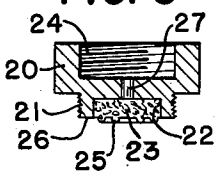


FIG. 3



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HAND STAMP PRINTING DEVICE

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2 Claims. (Cl. 101—333)

1

This invention relates to a hand stamp printing device, and more particularly pertains to one made up of a plurality of printing units releasably assembled into a stick-like structure with a selected printing unit on the end thereof, the side surfaces of the assembly forming a handle by which to grasp it for stamping purposes. When it is desired to print with another unit, the structure is reassembled with the desired unit on the end, and to render this possible the couplings are such as to allow the units to be assembled in any order.

The printing elements may be of hard type material such as type metal or resilient type material such as rubber, but the best embodiment of the invention utilizes porous type material which prints with self-contained ink, porous rubber being preferred because its resilience results in better printing and eliminates the need for an inking device such as a stamp pad. Porous metal printing members are disclosed in United States Patent No. 2,199,265, issued on the application of Carl N. Lohrey, and porous rubber printing members are disclosed in United States Patent No. 2,353,877, issued on the application of Robert G. Chollar.

Inasmuch as there is a large field of use for the printing device of this invention in marking prices on packages of food in self-serve grocery stores, where customers may come in contact with the ink marks, it is desirable to use a volatile drying ink that is dry to touch in a short time. The novel printing device is designed for such ink and protects such ink from evaporating from the printing members not in use, by having the printing members of the intermediate units of the assembly enclosed by a nesting action of units as they are coupled together.

In marking packages of food as described, from one to several thousand impressions may be made by a single selected unit before it is taken from the printing end of the assembly. As the unit in printing position is removed after use, it is placed on the other end of the assembly with the printing member pointing outwardly, such being made possible by use of an adapter. A cap piece is provided to be attached to this used unit to re-ink it, the cap piece being provided with a well of ink which is conveyed, by means to be described, to the exhausted printing member.

Therefore, it is an object of this invention to provide a printing device comprising a plurality of printing units selectively and releasably coupled together in a stick-like assembly, the unit selected as the end being used for printing.

2

Another object of the invention is to provide such a printing device in which the units may be disassembled and reassembled so another unit is in printing position on the end.

Another object of the invention is to provide such a printing device containing porous printing elements saturated with ink.

A further object of the invention is to provide such a printing device wherein the printing elements not in position for use are sealed off so the ink thereon or therein will not evaporate or become contaminated.

A still further object of the invention is to provide a unit of the assembly which acts as a cap piece and which, when used in conjunction with an adapter, will act to re-ink an exhausted printing member positioned on the top end of the assembly.

With these and incidental objects in view, the invention includes certain novel features, the essential elements of which are set forth in the preferred embodiment to be described in conjunction with the drawing and in appended claims.

In the drawing:

Fig. 1 is a view of the novel device in elevation, with a protective cap shown removed, with the "1" unit in printing position and with the "10" unit being re-inked.

Fig. 2 is an exploded perspective view, partly in section, of that portion of Fig. 1 extending in the direction of the arrows on the line 2—2.

Fig. 3 is a diametrical cross-section through one of the printing units.

Each printing unit comprises a cylindrical holder 20 (Fig. 3), made of some hard, ink impermeable material such as metal, hard rubber, dense synthetic resin, treated wood or the like, having a reduced externally threaded portion 21, containing a cavity 22 in which a printing member or slug 23, preferably of porous rubber, is secured by cementing, compression or otherwise. The other end of the unit contains an internally threaded cavity, or well, 24 into which the reduced externally threaded portion of a similar unit will be received. The cavity is deep enough so that another unit may be attached without the printing member thereof striking the bottom when the two units are fully secured together. The printing member in the well is thus protected against loss of ink by evaporation while not in use. The relief printing characters 25 extend slightly below the shoulder 26. The shoulder 26 will protect resilient printing members from too much compression. A hole 27 is provided for the

escape of air while the printing member is being inserted in the cavity during manufacture.

As seen in Fig. 2, an adapter 28 is provided as an intermediate unit, here shown next to the top unit, so that all units in the assembly on one side of it face in one direction and all of the units on the other side thereof face in the opposite direction.

As illustrated, the preferred embodiment is a numbering device containing the number characters 1 through 10 of the decimal system of numerical notation, arranged one character to a unit. It is obvious that there may be more or less printing units than ten in an assembly and that they may have any desired characters formed thereon.

As shown, the printing units are in random disposition in the assemblage which would naturally occur from selective use. If it is desired to change the assembly of Fig. 1 to print "7," the assemblage would be unscrewed at the joint between the "7" and "3" units, the re-inking unit 29, to be described, removed, and the "3" unit assembled to the "10" unit. Under these circumstances the "1" printing member would be exposed at the top of the assemblage ready to receive the re-inking device. The re-inking unit 29 is then replaced.

As shown in Fig. 2, the adapter 28, bearing the indicia "A" on its external grasping surface, has no printing members, but only the externally threaded reduced portions 30 and 31.

As best shown in Fig. 2, the printing members may be provided with collars, such as collar 32 on unit "3," which is in relief like the central character "3." Such collars aid in finding the proper perpendicular position of the printing member when the device is applied to the material to be marked, as in effect the printing base is widened. Moreover such collars aid in preventing undue pressure being applied to resilient printing members.

The re-inking unit 29 contains a well 33 adapted to hold fluid ink 33 introduced thereinto through screw cap 34, said ink saturating a porous rubber pad 35, inserted in threaded cavity 36, through a drip hole 37.

When the re-inker is screwed onto the top unit of the assembly, inking pad 35 makes contact with the printing member facing it, the parts being proportioned so a touch contact may be made therebetween.

As shown in Fig. 1, protecting cap 38 has a threaded cavity 39 deep enough to prevent contact of the printing member with the bottom thereof when screwed in place. This protective cap may be made of the hexagonal section shown, or of some other non-circular section to prevent the assemblage from rolling when not in use. With cap 38 in place, the printing member in printing position is protected against loss of ink by evaporation.

The device herein described may be used without the re-inker device, which would be the case in the event solid printing members were used in the units.

The invention is not to be deemed limited to screw-thread couplings between the units as any substitute therefor, such as snap couplings, bayonet couplings, or friction couplings, may be used.

While the forms of the invention herein shown and described are admirably adapted to fulfill the objects primarily stated, it is to be understood that it is not the intention to confine the invention to the forms or embodiment herein disclosed, for it is susceptible of embodiment in various forms all coming within the scope of the claims which follow.

What is claimed is:

1. A hand stamp printing device including, in combination, a plurality of like printing units each of which has a cylindrical body portion one end of the body portion containing an internally threaded cavity conventric with the cylinder axis and the other end having a section with reduced diameter which is externally threaded and which has a cavity for holding a printing element, said externally threaded portion and the printing element cavity being concentric with the cylindrical axis, and said units being proportioned so they may be assembled, in any order, by screwing the reduced end of one unit into the interally threaded cavity of another, to form a stick-like handle with one end unit having its printing element cavity exposed, each unit having a porous resilient printing element secured in the cavity provided therefor and extending beyond the rim thereof slightly so it may be used, said units being proportioned so that when assembled together the printing element of one does not touch the bottom of the unit into which it is screwed; and a re-inking unit adapted to be secured to an end unit having its printing element exposed, said re-inking unit containing an ink pad which, when the re-inking unit is so secured to an end unit, makes contact with the printing element thereof; and an adapter member of cylindrical form but with an externally threaded reduced portion on each end of a size to fit into the internally threaded cavity of any other unit, said adapter being used as an intermediate member of the stick-like assembly, all the printing units on one side thereof being oriented in one direction and all printing units on the other side thereof being oriented in the other direction, whereby the end printing units of such an assembly have the printing elements directed outwardly, one to be available for printing and the other available for having the re-inking unit secured thereto.

2. The device of claim 1 in which the re-inking unit is provided with threads so it can be screwed onto that end of the assembly not used for printing to re-ink the exposed printing element, and said re-inking unit including an internal cavity holding ink, separated from the ink pad by a web containing a drip hole connecting the ink holding cavity to the rear of the pad, the pad of said re-inker when screwed onto the end of the printing unit making contact with the printing element facing it.

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