Aug. 1, 1961 E. E. SPARROW 2,994,266

HAND STAMPS

Filed March 9, 1959

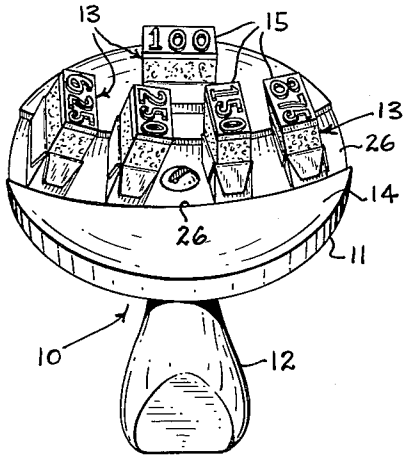


Fig. 1

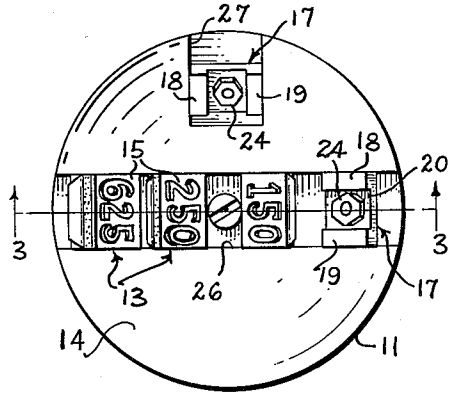


Fig. 2

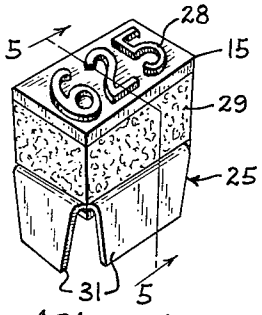


Fig. 4

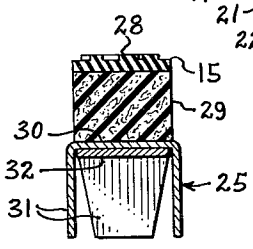


Fig. 5

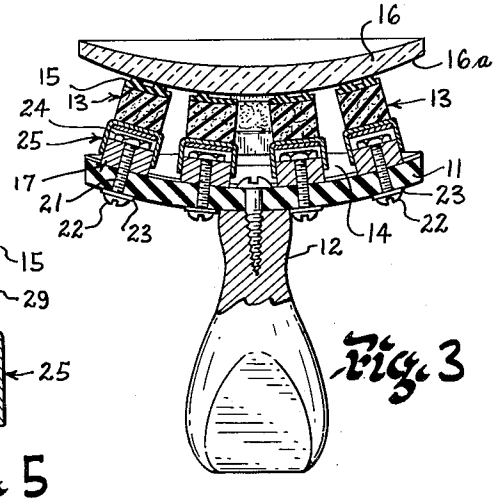


Fig. 3

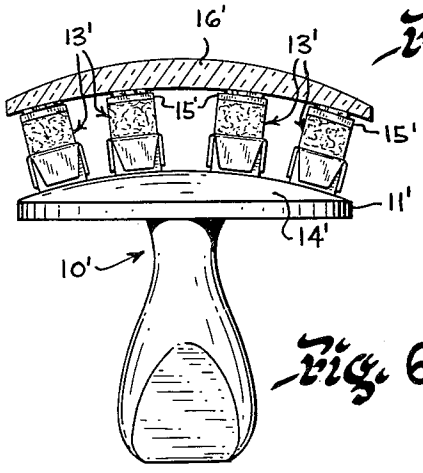


Fig. 6

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United States Patent Office 2,994,266 Patented Aug. 1, 1961

2,994,266

HAND STAMPS

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Filed Mar. 9, 1959, Ser. No. 798,051
4 Claims. (Cl. 101—380)

This invention relates to hand stamps for applying identification markings to the surfaces of articles and has particular reference to an improved stamp holder having an interchangeable flexible stamp element supported thereon with means permitting the effective stamping face portion of said element to conform substantially to the surface shape of an article to be marked when said element is pressed against said article.

The principal object of the present invention is to provide in combination with an improved stamp holder, novel means to detachably support one or more flexible stamp elements in a position of use on said holder along with resilient means functioning to permit said element or elements to assume substantially the shape of the surface of an article to be stamped when said element or elements are pressed against said surface.

Another object is to provide an improved hand stamp having interchangeable and separately detachable indicia carrying stamp elements so resiliently mounted thereon as to permit the stamping faces of said elements to individually conform substantially to the surface shape of an article to be stamped thereby when said faces are inked and thereafter pressed against the surface of said article whereby clean cut and accurate ink reproductions of said indicia will be produced on the surface of said article with substantially no smearing of the ink forming said reproductions.

Another object is to provide a stamp holder of the above character wherein the means to support said stamp elements embodies individual magnetic members each adapted to releasably receive and hold a selected one of said stamp elements in a desired position of use on said stamp holder.

Another object is to provide on a hand stamp of the above character, novel attachment means for adapting an individual stamp element to a magnetic receiving member wherein said attachment means will mate with and be magnetically attracted to said receiving member to provide a secure but readily releasable connection between said stamp element and magnetic receiving member.

A further object is to provide a simple and relatively inexpensive hand stamp adapted to simultaneously accurately produce a desired number of individual preselected identification markings upon a curved or irregular surface with a single stamping operation.

A still further object is to provide improved, economical and highly efficient means for applying identification markings to the curved surfaces of lens blanks or the like.

Other objects and advantages of the invention will become apparent from the following description when taken in conjunction with the accompanying drawings in which:

FIG. 1 is a perspective view of the device of the invention;

FIG. 2 is a top plan view of the device shown in FIG. 1 with some of the detachable elements thereof removed for illustrative purposes;

FIG. 3 is a longitudinal fragmentary cross-sectional view of the device illustrated in FIGS. 1 and 2 taken substantially on line 2—2 of FIG. 1 and looking in the direction of the arrows;

FIG. 4 is a perspective view of one of the detachable elements of the device of the invention;

FIG. 5 is a cross-sectional view taken substantially on

line 5—5 of FIG. 4 and looking in the direction of the arrows; and

FIG. 6 is a side elevational view of a modification of the invention.

Referring more particularly to the drawings wherein like characters of reference designate like parts throughout the several views thereof, the hand stamp 10 of the invention embodies, broadly, a main body part 11 having a handle 12 attached to one side thereof and a plurality of individual stamp elements 13 attached to its opposite side.

The body part 11 is preferably formed of a semi-rigid material such as hard rubber or the like and in the case illustrated in the drawings, it is provided with a meniscus shape having a concave surface curvature 14 as shown in FIGS. 1, 2, and 3 controlled to cause the planes of the outer faces 15 of the stamp elements 13 to assume such positions relative to each other as to each be approximately tangent to the respective portion of a convex curved surface of a lens blank 16 or the like (FIG. 3) which is to be stamped by said faces 15.

It is pointed out that for purposes of illustrating the invention, the hand stamp 10 has been shown as being designed more specifically for use as means to mark the curved surfaces of lens blanks or the like. However, it will become apparent as the description progresses that by simply modifying the shape of the body part 11 so as to cause its surface 14 to be flat or differently shaped than shown in the drawing, the hand stamp 10 can be readily adapted to mark articles having flat or other differently contoured surfaces.

Each of the stamp elements 13 is detachably held in position of use on the body part 11 by individual permanent magnets 17 having north and south pole sections 18 and 19 spaced from each other by a recessed area 20 (see FIG. 2). The magnets 17 are preferably rectangular in shape and are each secured to the body part 11 of the hand stamp by a threaded bolt or the like 21 which is passed through the body part 11 and a suitable opening extending centrally through the respective magnets. The bolts 21 are preferably formed of a nonmagnetic material such as bronze, copper or the like, so as to avoid interference with the magnetic fields passing between the pole sections of the respective magnets. Each of the bolts 21 is provided with an enlarged head part 22 backed up by a washer 23 and a nonmagnetic nut 24 is fitted within the recessed areas 20 of each of the respective magnets to threadingly receive the opposite ends of the screws and provide means for tightening the magnets in place. The lengths of the bolts 21 and the thickness of the nuts are so controlled as to cause the upper ends of the bolts and the respective adjacent side surfaces of the nuts to be located below the upper surfaces of the pole sections 18 and 19 of the magnets so as to avoid engaging clip-on adaptors 25 provided on the stamp elements 13 and which will be described in detail hereinafter. If should be understood that the bolts 21 may be reversed with their head parts 22 placed in the recessed areas of the magnets if desired or the head and washer parts of the bolts 21 may be concealed as by being imbedded or molded within the body part 11. Furthermore, if it is so desired, the openings through the magnets may be tapped to threadingly receive screws similar to the bolts 21 and thereby eliminate the requirement for the nuts 24.

In order to prevent rotation of the magnets 17 on the body part 11 said magnets are set into slightly recessed areas or channels 26 and 27 which are formed in the upper surface 14 of the body part 11. The channels 26 and 27 are of a width substantially equal to the length or longest dimension of the magnets so as to cause the side edge parts of the channels to fit against only the low-

ermost part of two opposite sides of the respective magnets mounted therein and thus prevent rotation of said magnets on the body part **11**. If desired, the channels **26** and **27** may be replaced by individual recessed areas each adapted to intimately receive and fit about the lowermost side edges of each respective one of the magnets **17**.

The stamp elements **13** which are detachably fitted on the magnets **17** each embody a conventional stamping face **15** which is formed of a relatively flexible material such as yieldable solid rubber, plastic or the like having embossed indicia on its exposed side which, when inked and pressed against the surface of an article to be marked, will produce an ink reproduction of said indicia on said article in the usual manner. The opposite side of the stamp face **15** is cemented or otherwise attached to a more readily yieldable member **29** formed of sponge or foam rubber or the like which is preferably of the same outer edge contour size and shape as that of the stamp face **15** but considerably thicker as shown more particularly in FIGS. 4 and 5. The member **29** is, in turn, cemented or otherwise attached to an adaptor **25**. The adaptor **25** embodies a first initially flat piece of nonmagnetic material such as copper, bronze or a rigid plastic or the like which is provided with a rectangularly-shaped flat upper or base portion **30** to which the member **29** is cemented or otherwise secured and which is cut and bent to form four integrally related depending side portions **31** so arranged in box-like fashion as to fit rather intimately over the side parts of the magnets **17**. In order to provide means for detachably clamping the adaptors to the magnets so as to hold the same in place during a stamping operation while permitting easy removal for replacement purposes, a second piece **32** of steel or the like is soldered, cemented or otherwise rigidly bonded to the under surface of the flat upper part **30** of the adaptor **25**. With an adaptor **25** of a stamp element **13** fitted over one of the magnets **17**, the piece **32** will be magnetically attracted to and held by the magnet **17** while the side parts **31** of the adaptor **25** will prevent lateral slipping or misalignment of said stamp element. It has been found that by constructing the adaptor **25** as described above with nonmagnetic side parts **31**, no tendency for the magnet to repel the adaptor by action on the elongated overlapping side parts **31** will take place and the full gripping force of the magnetic field is applied directly to the piece **32** of the adaptor to pull the same downwardly onto the magnet.

While a firm gripping of the stamp elements **13** by the magnets **17** is provided with the above-described construction, it should be understood that one may remove the stamp elements for replacement purposes by simply lifting the same away from the magnets with the fingers. The magnets, however, are selected to be of such character or power as to require a far greater pulling force to remove the stamp elements than would normally ever be applied to said elements during a stamping operation.

In order to provide for complete interchangeability of the stamp elements **13** so that stamp elements having differently characterized embossing thereon may be placed on any desired one of the receiving magnets **17** of the body part **11**, the dimensional characteristics of both the magnets and adaptors are preferably standardized. The stamp faces **15**, however, may differ in size or shape.

In a stamping operation with the device of the invention, the handle **12** is gripped with the hand and embossed portions **28** of the stamp faces **15** are provided with an ink or the like as by being pressed against an inking pad or brushed with the ink. The stamp faces **15** are next pressed lightly against the surface of an article to be marked such as, for example, the convex surface **16*a*** of a lens blank or the like **16** (FIG. 3). In so doing, the resilient sponge-like members **29** supporting each of the flexible stamp faces **15** will permit the faces **15** to conform to the shape of the surface being stamped thus causing the complete surface area of the embossing on the stamp faces to engage the surface **16*a*** without producing slippage of said stamp faces on said surface **16*a***. In this manner, a substantial portion of the ink will be deposited on the surface **16*a*** to form a clean cut reproduction of the embossing without smearing. Upon withdrawing the stamp **10** the sponge-like members **29** will function in reverse order to that just described to return the stamp faces to their initial shape, again without causing slippage of said faces on the surface **16*a***.

It is pointed out that with the device of the invention, a plurality of identifying marks can be simultaneously applied to the surface of an article in one stamping operation, thereby eliminating the usual necessity of separately using a plurality of individual stamps to ultimately produce the end result of a single stamping operation performed with the device of the invention. It should also be understood that the particular geometrical arrangement and number of the magnets **17** and stamp elements **13** shown on the body part **11** of the stamp **10** may be changed to fit the particular needs of the user.

In FIG. 6 there is shown a modification of the invention wherein a hand stamp **10'** is provided with a body part **11'** having a convexly curved surface **14'** upon which stamp elements **13'** are mounted so as to locate the faces **15'** of the elements **13'** accurately in approximately the general plane of a convex surface such as that of a lens blank **16'** or the like which is to be marked by the stamp **10'**. Other than having the convexly shaped surface **14'** upon which the stamp elements **13'** are mounted, the hand stamp **10'** is identical in function and construction to the above-described hand stamp **10**.

From the foregoing, it can be seen that simple, efficient and economical means have been provided for accomplishing all the objects and advantages of the invention. Nevertheless, it is to be understood that various changes in the details of construction or arrangement of parts may be made without departing from the spirit of the invention as expressed in the accompanying claims and the invention, therefore, is not to be limited to the exact matters shown and described as only the preferred matters have been given by way of illustration.

Having described my invention, I claim:

1. A device of the character described comprising a body part of non-metallic material having a handle secured to one side thereof and at least one rectangularly shaped magnetized receiving member secured to its opposite side which is adapted to detachably receive a stamp element, said stamp element embodying an adaptor comprising a flat rectangular base portion of non-metallic material having four integrally related non-metallic depending side portions arranged in box-like fashion shaped to mate relatively intimately with said receiving member by fitting over the same, a sponge-like part having one of its sides attached to the outer side of the base portion of said adaptor, an embossed flexible stamp face attached to the opposite side of said sponge-like part with its embossing exposed and means attached to the inner side of said base portion forming at least a part of said adaptor which is adapted to seat on said magnetized receiving member and being of a material magnetically attracted thereto and adapted to function cooperatively with the depending side portions of the base for releasably holding said stamp element in a position of use on said receiving member when said adaptor is fitted thereover.

2. A device of the character described comprising a body part of non-metallic material having a handle secured to one side thereof and a plurality of substantially identical magnetized receiving members secured to its opposite side each of which is adapted to detachably receive a separate stamp element, said stamp elements each embodying a substantially identical adaptor member comprising a flat base portion of non-metallic material and having depending portions of non-metallic material shaped

to mate with any one of said receiving members by fitting intimately over the same, a sponge-like part having one side attached to the outer side of the base portion of said adaptor member, an embossed flexible stamp face attached to the opposite side of said sponge-like part with its embossing exposed and means attached to the inner side of said base portion forming a part of each of said adaptor members which is adapted to seat on a respective one of said magnetized receiving members and being of a material magnetically attracted thereto and adapted to function cooperatively with the depending side portions of the base for releasably holding said stamp elements each in a position of use on a respective one of said magnetized receiving members.

3. A device of the character described comprising a body part of non-metallic material having a meniscus shape and having channel means in one side surface thereof, a handle secured to its opposite side surface and a plurality of substantially identical magnetized receiving members secured in said channel means each of which is adapted to detachably receive a separate stamp element, said stamp elements each embodying a substantially identical adaptor having non-magnetic side parts shaped to mate with any one of said receiving members by fitting relatively intimately over the same, sponge means having one of its sides secured to said adaptor, an embossed flexible stamp face secured to the opposite side of said sponge means with its embossing exposed and metallic means forming a part of each of said adaptors which is adapted to seat against a respective one of said magnetized receiving members and being of the type which will be magnetically attracted thereto and adapted to function cooperatively with said non-magnetic side parts for releasably holding said stamp elements each in a position of use on a respective one of said magnetized receiving members.

4. A device of the character described comprising a body part of non-metallic material having a handle secured to one of its sides and a plurality of substantially identical rectangularly shaped magnets secured to its opposite side with their pole sections exposed and divided by a groove, a plurality of separate stamp elements each embodying a rectangularly shaped box-like adaptor having a flat base portion and non-magnetic depending side parts adapted to be relatively intimately fitted over one of said magnets with said side parts straddling said magnets, a metallic holding member fixed to the inner side of the base portion of each of said adaptors which is adapted to seat against said pole sections of said magnets and being of the type which will be magnetically attracted thereto, to releasably hold said adaptors on said magnets when fitted thereover, a sponge member having one of its sides secured to the base portion of each of said adaptors at the side thereof opposite to said holding member and a flexible embossed stamp face secured to the opposite side of each of said sponge members with its embossing exposed.

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