Oct. 27, 1964 S. J. RUDY 3,154,010

EMBOSSING DEVICE

Filed April 16, 1962

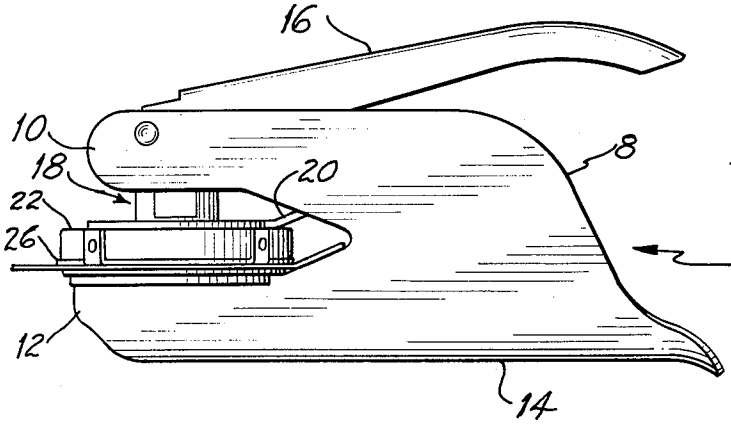


Fig. 1.

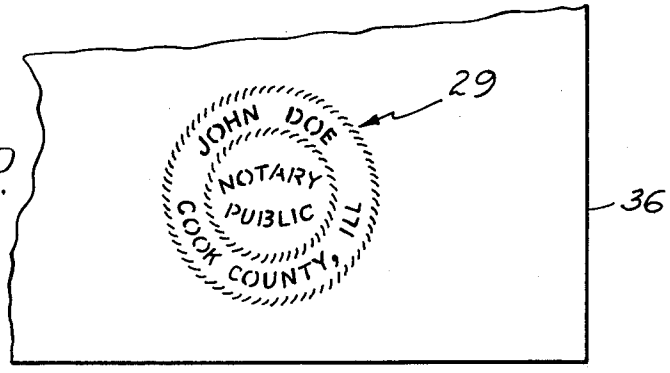


Fig. 2.

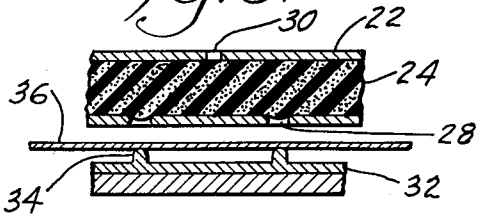


Fig. 3.

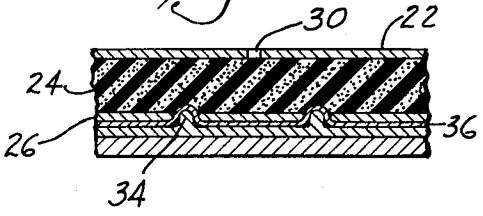


Fig. 4.

Inventor

Stephen J. Rudy

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EMBOSSING DEVICE

Stephen J. Rudy, 2627 Broadway Ave., Evanston, Ill.

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This invention relates to a hand-operated embossing device of the type for embossing designs in paper, and more particularly, to such a device which will color the raised surface of the embossed indicia simultaneously with embossing action.

The device of the invention is especially well suited for use as a hand-operated embossing seal, of the notarial, or corporate type.

It has become a common practice to copy, as by photostating, certain legal papers for record keeping, public or otherwise. If an embossed seal is on a paper to be so recorded, a dark smudge is often made on the embossment to darken the raised indicia thereof, so that the seal will be discernible in the photostat.

The device of the invention may be used not only for embossing a seal upon a paper, but will simultaneously color, as by contact inking, the raised surface of the seal indicia. The subject device will thus provide an embossed seal suitable for recording, as by photostating, and which will be made without the need for further operations after the embossing step. Furthermore, the embossed and colored seal thus produced, will present a neat appearance, which will enhance, rather than detract from the appearance of the document.

The main object of this invention is to provide a hand-operated embossing device for producing an embossed design upon paper, which design may be readily discernible when the paper is reproduced, as by photostating.

A more specific object of this invention is to provide a hand-operated embossing device which will color the raised surface of embossed indicia simultaneously with embossing action.

A further object is to provide a hand-operated embossing device for making a colored notarial or corporate seal on a document, which seal will present a neat appearance thus enhancing the appearance of the document.

These and further objects and features of the invention will become more apparent from the following description and accompanying drawing wherein:

FIG. 1 is an elevation view of a hand-operated embossing device embodying the principles of the invention;

FIG. 2 is an illustration of an embossed and colored seal as made by the device of FIG. 1;

FIG. 3 is an enlarged section view taken through a portion of the device of FIG. 1 and showing the position of various parts before embossing and inking of a piece of paper; and

FIG. 4 is the same but showing the position of said parts in final stage of embossing and inking.

Referring now to the drawing, numeral **6** identifies a hand-operated embossing device which includes a frame means **8**, which most advantageously is made of a sheet metal stamping, bent to form a U-shape in end projection, with the joining portion being at the lower end. The frame means is further formed to provide a jaw portion having an upper jaw **10** and a lower jaw **12** in opposition thereto. A hand gripping portion **14** is provided along the lower portion of the frame means. A lever or handle means **16** is pivotally supported at one end in the upper jaw **10**, said handle having a cam means (not shown) arranged to cause vertical reciprocal movement of a pad holding assemblage **18**, which is supported by a spring lever **20** affixed at one end to the frame means **8**.

The pad holding assemblage **18** includes a disc-like cup **22** in which is arranged an ink holding pad **24**. The material of the ink holding pad, may be any of the types generally used in marking devices having so-called self-inking stamp pads, i.e., cloth, sponge rubber, or it may be a porous resilient plastic which is impregnated with a long lasting ink. The latter type of material has been more recently introduced upon the market for use in self-inking stamp pads. A complete disclosure of such a self-inking material will be found in the patent of H. R. Leeds, 2,777,824, issued on January 15, 1957. A female die plate **26** is affixed to the cup **22**, which die plate has an assortment of perforations or openings **28**, arranged to provide a given seal indicia pattern **29**, such as illustrated in FIG. 2. One or more holes **30** may be provided in the cup **22** for replenishing the ink supply of pad **24**.

A male die plate **32** is mounted upon the lower jaw **12**, which plate has an assortment of projections **34**, arranged to provide a raised indicia seal pattern similar to that made by the perforations of plate **26**, which raised indicia slidingly fit in comparable perforations **28**. The height of the raised indicia is at least equal to the thickness of the plate **26**.

It will be seen that when a sheet of paper **36** is placed between the die plates **26** and **32** and the pad holding assemblage is moved downwardly to clamp the paper between the plates, the raised indicia **34** will force paper into the perforations **28**, to create an embossed pattern in accordance with the design in the plates. The raised indicia **34**, being of a height at least equal to the thickness of the plate **26**, causes the upper extremity of the embossments on the paper, to contact the pad **24**, and to thus be inked thereby (FIG. 4). The resulting seal is as shown in FIG. 2, namely, an embossed pattern having the indicia accented by inking.

While the pad holding assemblage **18** having the female embossing die plate **26**, is shown as being movably mounted, it will be apparent that the assemblage **18** may be stationary, i.e., supported on the lower jaw **12**, while the male die plate **26** may be movably mounted in like manner to that shown for moving the assemblage **18**.

The foregoing description has been given in detail without thought of limitation since the inventive principles involved are capable of assuming other forms without departing from the spirit of the invention or the scope of the following claims.

What is claimed is:

1. In a hand operated embossing device including a frame means having opposed jaws and a lever means pivotally supported by said frame means, a combination of elements comprising a pad holding assemblage movable by said lever means, a pair of embossing plates arranged for cooperative embossing action when clamped upon a sheet of paper, a first of said plates mounted upon the pad holding assemblage and having openings defining a given indicia pattern, the second of said plates having projections defining a like indicia pattern adapted to fit within the openings of the first plate so that the clearance between any projection and the walls of an engaged opening is substantially equivalent to the thickness of the sheet of paper being embossed, and an inking pad arranged in the pad holding assemblage whereby the paper being embossed will be forced by the projections into engagement with the inking pad and be inked thereby.

2. In a hand operated embossing device according to claim 1, wherein said projections are of a height at least equal to the thickness of said first plate.

3. In a hand operated embossing device according to claim 1, wherein said paid is formed of a sponge rubber.

4. In a hand operated embossing device according to claim 1, wherein said pad is formed of a porous resilient plastic.

5. In a hand operated embossing device including a frame means having opposed jaws and a lever means op-

eratively supported by said frame means, a combination of elements comprising a pad holding assemblage, a pair of embossing plates arranged for cooperative embossing action when clamped upon a sheet of paper, a first of said plates mounted upon the pad holding assemblage and having openings defining a given indicia pattern, the second of said plates having projections defining a like indicia pattern adapted to fit within the openings of the first plate so that the clearance between any projection and the walls of the engaged opening will allow the paper to be embossed without rupture, and an inking pad arranged in the pad holding assemblage, said pad holding assemblage being arranged so that movement of the lever means will cause relative movement between said plates whereby the paper being embossed will be forced by the projections into engagement with the inking pad and be inked thereby.

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