Aug. 14, 1928. 1,680,819

U. F. L. STEINDORFF

PRINTING DEVICE

Filed March 5, 1924

Fig. 1.

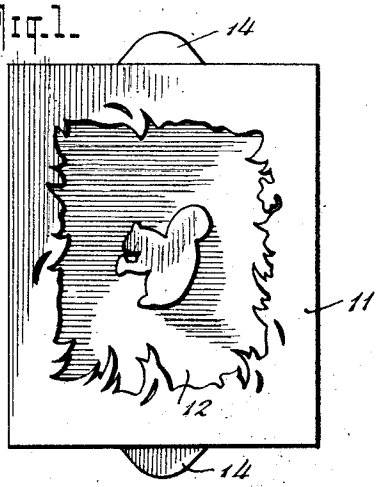


Fig. 2.

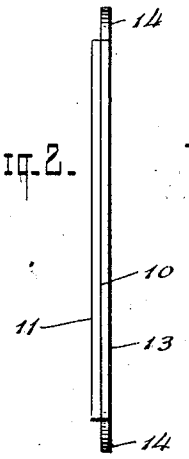


Fig. 3.

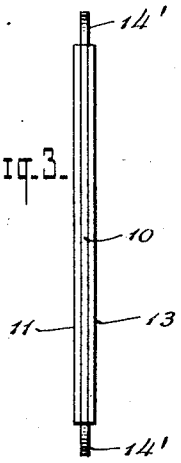


Fig. 4.

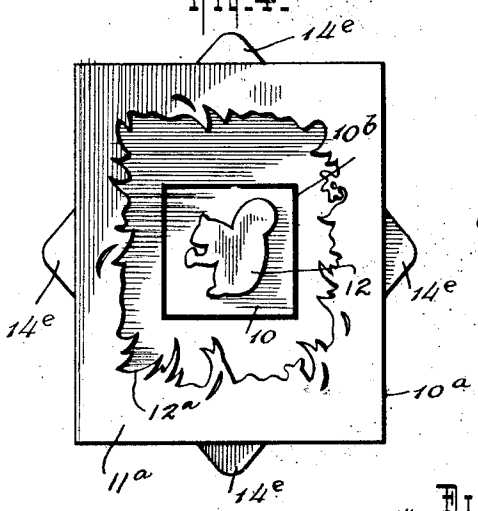


Fig. 5.

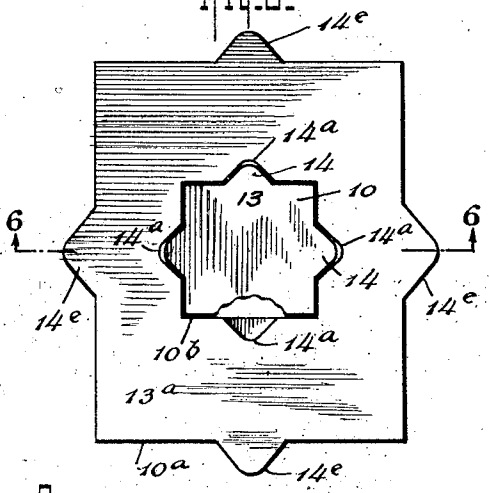


Fig. 6.

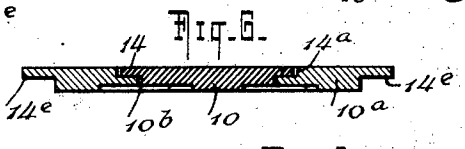


Fig. 7.

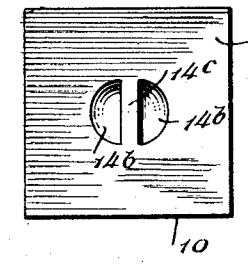
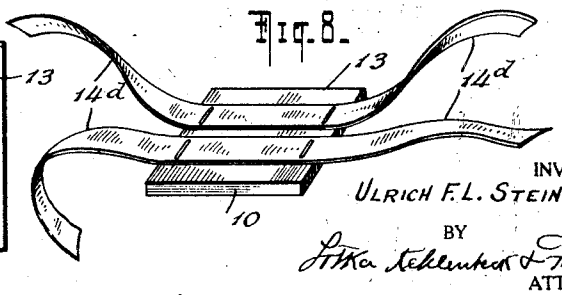


Fig. 8.



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UNITED STATES PATENT OFFICE.

ULRICH F. L. STEINDORFF, OF NEW YORK, N. Y.

PRINTING DEVICE.

Application filed March 5, 1924. Serial No. 696,938.

My invention relates to the art of printing and more particularly to that branch which is commonly referred to as stamping. In this branch of the printing art the printing or stamping of figures, designs and the like in repeated sequence upon material such as fabric, paper and the like is ofttimes accomplished by means of printing devices in the form of plates upon one surface of which the design to be stamped is produced and which is impressed upon the material by subjecting the plate to manual pressure for instance by passing a suitable hand roller over the back of the device under the pressure of the hand. The printing plates, after having been used each time for stamping purposes are shifted about to repeat the design or other ornamentation upon the material in the desired arrangement. Because of the physical characteristics of the plates and due to the fact that the impression surface thereof is covered with moist printing ink or color, while at the same time each impression made thereby is still wet, this handling of said plates requires great care and at best is a mussy process which very often results in soiling the fingers and ofttimes causes the impressions to be smudged. The particular object of the invention is to overcome these objectionable features by providing printing plates of the indicated character constructed in a novel manner so as to be capable of being easily handled and shifted about without soiling any part of the person using the same and without danger of injuring the impressions. A further object of the invention is the provision of a novel arrangement whereby multi-colored impressions may be stamped upon the material with the differently colored sections of the design or ornamentation in perfect registry and in the intended relation to each other.

In the accompanying drawings, which show examples of the invention without defining its limits, Fig. 1 is a front view of a printing device showing the impression face thereof; Fig. 2 is an edge view of said device; Fig. 3 is a similar view of said device showing a slightly different structure; Fig. 4 is a front view of a second printing device for use in multi-colored stamping; Fig. 5 is a rear view thereof; Fig. 6 is a sectional view on the line 6—6 of Fig. 5 showing the two printing devices combined for multi-colored stamping; Fig. 7 is a rear view and Fig. 8 is a perspective view showing two additional forms of the invention.

As shown in the illustrated example the printing devices comprise an impression member 10 which is constructed in the form of a plate and is preferably made of a more or less flexible material such as hard rubber, linoleum or the like. The impression surface 11 of this member is provided with the matter 12 to be stamped, which may be a design, a figure or a system of ornamentation and which for the purposes of illustration and description, will hereinafter be referred to as the image. The latter may be produced upon the member 10 in any conventional manner as by moulding, engraving, burning or the like and in any case constitutes the impression which is made by the printing member 10 when the latter is used.

In utilizing the device for its intended purpose the image 12 is covered with printing ink or color of the desired hue, this being accomplished in any convenient way and with the aid of any suitable instrumentalities. After having been inked the member 10 is placed in the initial position upon the fabric or other material to be stamped, with the impression surface 11 in contact with fabric or other material. Pressure is then applied upon the rear face 13 of said member 10 in any desired manner as by passing a suitable roller over said face under the pressure of the hand to create a rolling pressure thereon sufficient to impress the image 12 upon said fabric or other material. After an impression has thus been made, the member 10 is freshly inked and then shifted to a new position on said fabric or other material and again subjected to pressure upon its rear face to produce a second impression of the image 12; this operation is repeated as often as required to produce the desired number and arrangement of impressions.

For the purpose of enabling the shifting about of the printing device 10 and even its complete removal from the material being stamped, to be accomplished in a cleanly manner and without soiling the hand or fingers and without danger of smudging or otherwise injuring the impressions made upon the fabric or other material, the printing device 10 is provided with manipulating means which are arranged so as not to interfere with either the stamping function of the device or the subjecting thereof to a

rolling or other pressure, or to the inking of the impression surface.

In the form shown in Figs. 1 and 2 this manipulating means comprises projections 14 which extend outwardly from the peripheral edge of the member 10 at diametrically opposite points; if the member 10 is of rectangular form, as shown in the drawings, these projections 14 may be provided in a plurality of pairs located at opposite edges of said member. In any case, the projections 14 in this form of the device are flush with the rear face 13 or at least do not project outwardly beyond the surface plane thereof; as shown in Fig. 3 the projections 14 are of lesser thickness than the member 10 so that the front faces of said projectors are located in planes which are spaced from the plane of the impression surface 11 of the member.

In the form shown in Fig. 3 the projections 14′ which correspond to the projections 14 are located midway between the planes of the impression face 11 and rear face 13 of the member 10; with this arrangement the opposite surfaces of said projections are spaced respectively from the planes of the two surfaces previously mentioned, and consequently do not interfere either with the application of pressure to the face 13 or with the stamping of the impression upon the material.

The projections 14 and 14′ may be formed either by cutting the material of which the member 10 is constructed away at the proper points or by constructing said member of a plurality of independent layers, one of which extends beyond the next adjacent layer to provide the projections. If the printing member 10 is of rectangular form, this result may be accomplished by arranging the layers out of registry with each other so that one projects beyond the peripheral edge of the other or by making one layer of different shape than the other to bring about the same result.

With the arrangements so far described, when the plates are in printing position upon the material to be stamped, the projections are spaced from said material so as to be capable of being subjected to a lifting action without bringing the fingers into contact with the impression or with the inked impression surface of the printing member.

In Fig. 7, the manipulating means is in the form of spaced recesses 14^b produced upon the rear face 13 of the member 10 and creating between them a projection 14^c which corresponds in function to the projections 14 and 14′ previously mentioned. The projection 14^c is also of such nature as to present no interference either to the application of pressure to the member 10 or to the production of the impression thereby.

In Fig. 8, the member 10 is provided with one or more flexible tapes 14^d secured to the rear face 13 in any convenient manner as by pasting, or cementing. These tapes correspond in function to the projections previously mentioned and also do not interfere with the application of pressure to the member 10 or with the production of an impression thereby.

In all of the forms of the invention so far described the manipulating means, that is, the projections 14, 14′ and 14^c and the tapes 14^d permit the member 10 to be shifted about or completely removed without danger of soiling the hand or fingers of the user and without danger of smudging or otherwise injuring the impressions made by said printing member. The character of the manipulating means in all of its forms is such as to present no interference to the application of pressure upon the surface 13 of the printing members or to the production of impressions thereby. The projections and tapes may also be utilized for the purpose of holding the printing members during the application of printing ink or color to the impression surface 11 thereof.

For multi-colored stamping a second member 10^a is provided which may be of the same general construction as the printing member 10 and similarly provided with manipulating means in the form of projections 14^c or other equivalent devices for enabling said member to be shifted about or removed in the manner previously described with respect to the member 10. The second member 10^a is constructed and arranged so as to be capable of combination with a member corresponding to the member 10 and includes an impression surface 11^a upon which an image 12^a is produced, for instance, in the manner previously described. The image 12^a is always of such a character as to carry out the motif of the image 12 in accordance with the multi-colored scheme of the complete design. Thus as shown in Fig. 4 the complete image of Fig. 1 has been divided into two parts comprising the central portion indicated as 12 and the border indicated as 12^a in Fig. 4; it will be understood that this is merely an example chosen at random for the purposes of description. In the illustraed example the second member 10^a is constructed in the form of a rectangular frame having an aperture 10^b adapted to receive and accommodate the first member 10. Upon its rear face 13^a the second member 10^a includes a plurality of recesses 14^a so dimensioned and located as to receive the projections 14 of the member 10 or their equivalent. Thus when the two members 10 and 10^a are combined to present the complete image for stamping upon fabrics or other materials, the projections 14 in cooperation with the recesses 14^a will main-

tain said members in proper operative combination with each other.

In utlizing this form of the invention the impression surfaces of the members 10 and 10ª are independently covered with printing ink or colors of the desired hues, after which the member 10 is placed in the aperture of the member 10ª with the projections 14 positioned in the recesses 14ª thereof. The unit consisting of the combined members 10 and 10ª may then be manipulated by means of the projections 14ᵉ and placed upon the surface to be stamped after which pressure is applied, for instance, by means of a hand roller, to the rear faces 13 and 13ª of said unit in the manner previously set forth. Or the member 10ª is first independently placed upon the surface to be printed and thereafter the member 10 is placed in position in the aperture thereof; the combined members are then subjected to pressure in the manner previously described. In either case the resulting impression will be a combination of the two images located respectively upon the members 10 and 10ª and stamped in the two colors with which the impression surfaces were previously covered. By independently inking the two members and combining them in the form of a unit prior to the stamping operation and then utilizing the combined members, as a unit, to effect the impressions upon the material, a perfect registration and combination of the colors is secured without any of the undesirable misalignments or overlapping of colors which ofttimes occurs in multicolored stamping by means of independent, differently colored units, particularly in that class commonly referred to as hand stamping.

The devices in all forms are particularly useful for the hand stamping of fabrics and other materials and permit a person to create his or her own fabric and other designs in a novel and efficient manner. The construction and arrangement of the manipulating devices are such that the printing members may be shifted about and removed in a cleanly manner without danger of soiling the hand or fingers or smudging the stamped impressions.

Various changes in the specific form shown and described may be made within the scope of the claims without departing from the spirit of the invention.

I claim:

1. A manually operated stamping device of the kind described comprising a flat stamping plate adapted to be manually shifted about to different stamping positions having an impression surface and a plurality of manipulating projections extending outwardly from the peripheral edge of said plate for lifting the latter from the impression receiving surface and shifting it to different stamping positions, said projections being of less thickness than the plate and being accessibly disposed above and at a distance from said impression receiving surface when the device is in use.

2. A printing device of the kind described comprising an outer printing member having an impression surface and provided with an aperture, said outer member being provided in its rear face with a plurality of surface recesses, an inner printing member having an impression surface and adapted to fit into the aperture of the outer printing member, a plurality of projections on said inner member fitting the recesses of the outer printing member for detachably fixing said printing members together as a unit and means for manipulating said combined printing members as a unit.

3. A printing device of the kind described comprising an outer printing member having an impression surface and provided with an aperture, said outer member being provided in its rear face with a plurality of surface recesses, an inner printing member having an impression surface and adapted to fit into the aperture of the outer printing member, a plurality of projections extending outwardly from the peripheral edge of said inner member and fitting the recesses of the outer printing member for detachably fixing said printing members together as a unit and projections extending outwardly from the peripheral edge of said outer printing member for manipulating said two printing members as a unit.

In testimony whereof I have hereunto set my hand.

ULRICH F. L. STEINDORFF.