METHOD FOR DECORATING STRAW HATS AND THE LIKE

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This invention relates to new and useful improvements in a method for decorating straw hats and the like.

In the manufacture of hats it is customary that a hat body be pressed between two metal heated dies to block the body. This invention proposes an arrangement to be used in conjunction with the two dies whereby numerous decorative effects may be produced upon the hat without materially adding to the cost of manufacture.

More particularly the invention proposes the teaching of a method wherein metal mesh material of a predetermined design is attached upon the operating surfaces of the dies, and thereafter the dies operated in a conventional fashion to block the hats, and simultaneously impressing the designs of the mesh material upon the hats. The method adapts for a large selection of the positions of the metal mesh on the dies so that the design may be imparted upon any portion or all portions of the hat as desired, for example, the design may be imparted upon the brim only, the crown only, the under side of the brim only, the under side of the crown only, or any combination of these parts.

The use of matrices constructed of sea grass or other similar material which are associated with the blocking dies of a hat to impart designs upon the hat is generally known, but the instant invention differs from such matrices in the fact that its operation is uniform, and inexpensive, matrices of sea grass and similar material cannot produce uniform results in that they become pressed during use and so the effect is continuously changing. More than this they are not durable. The provision of metal mesh is entirely different in the fact that irrespective of the number of times the dies are used with the mesh, the mesh cannot become burnt or compressed and will always deliver a uniform design.

Still further the invention proposes the teaching of a novel arrangement for attaching the metal mesh upon the dies so as to be readily detachable when desired.

Another one of the object of this invention is the teaching of the construction of the metal mesh so as to conform with the shape of the die and efficiently perform its function.

Still further the invention also contemplates the teaching of steps wherein the several metal meshes may be used at one time upon the forming dies so as to superimpose their impressions and form relief designs.

Still further the invention also contemplates teaching steps wherein several meshes may be used in succession upon the same hat and thus produce varied designs.

Another one of the objects of this invention is the teaching of methods for decorating hats and the like which may be carried out at exceptionally low costs.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawing, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawing forming a material part of this disclosure:

Fig. 1 is a side elevational view of a straw hat treated according to this method.

Fig. 2 is a side elevational view of a die used in the carrying out of decorating of hats according to this invention.

Fig. 3 is a perspective view of a mesh material piece for association with the die illustrated in Fig. 1 to engage upon the crown portions thereof.

Fig. 4 is a perspective view of another piece of mesh material for location upon the brim portions of the die.

Fig. 5 is an elevational view of various samples of mesh material so that the method taught by this invention may be better understood.

Fig. 6 is a blank of a piece of mesh material before it is formed into the form illustrated in Fig. 3 for engagement with the die.

Fig. 7 is fragmentary view of different mesh material superimposed so that another step of the process may be understood.

In Fig. 1 a straw hat is illustrated having a crown portion 18 and a brim portion 11. The invention relates to decorating this straw hat so as to have impressed designs upon either the crown or brim portions, on their outer or inner sides, or any combinations of these places. As illustrated in Fig. 1 the crown portion is formed with a large space mesh impression and the brim portion is formed with a smaller spaced mesh impression, according to this invention.

The method of ornamenting the hat is carried out in conjunction with a male die 12 and a female die 13 of conventional construction used in blocking hats. These dies are generally used in association with a press, not shown on the drawing, and a heating device, also not shown on the drawing since these general uses are well known in the trade. It is believed that the in-
vention can be understood without a more detailed explanation.

The dies 11 and 12 are formed with a plurality of pairs of apertures 14 through which small thin wires of copper or brass may be passed for the purpose of attaching mesh material upon the dies as hereinafter further explained. Various designs of mesh material, such as illustrated in Fig. 5, reference numeral 16, 18, and 11 may be shaped for coaction with the dies 11 and 12 according to this invention. While these samples show diamond shaped mesh of various sizes it should be borne in mind that other designs may be used, for example, squares, ovals, flowers, birds, butterflies, and the like.

The mesh materials are cut and formed so as to produce crown portions 16 and brim portions 19. The brim portion 19 may be cut from a disc of the material. After being cut to proper size the brim portion 19 should be engaged into the die and the die operated so as to properly shape the material so as to fit the brim portion of the die. This may be accomplished by engaging the brim portion 19 upon the brim portion of the male die 12 engaging the male die with the female die. The crown portion 16 is then formed by first cutting a disc of material as illustrated in Fig. 6, then making a radial cut 21 in the disc so that the adjacent material on the sides of the cut may overlap. Then the disc is engaged to the dies 12 and 13 and the dies pressed together so as to shape the material into the shape of the crown of the hat. The overlapping portions of the material are then cut off and the adjacent ends produced by these overlapping materials are soldered together or attached together or in any other manner secured. In Fig. 3 the connecting ends are illustrated by reference numerals 22.

If it is desired to decorate the outside of the brim 11 of the hat only, then one of the meshes 18 are attached to the operating brim surface of the female die 13. In Fig. 2 the mesh 19 is shown thus attached. Small pieces of copper or brass wire 23 are engaged through the openings 14 and engage the mesh material 19 for the purposes of detachably holding the mesh material in position. The die is then operated in the conventional manner and it will be found that the design of the mesh material 19 is impressed upon the outer side of the brim portion 11.

If it is desired to ornament the outer side of the crown portion 12, then the mesh material 18 is attached upon the operating surface of the crown portion of the female die 13. In Fig. 2 this is indicated by reference numeral 18 denoting a portion of the mesh material. This mesh material is held in position by small pieces of copper or brass wire 23 engaging through the apertures 14. Once the mesh material 18 is secured in position upon the die, the die may be operated in conventional manner and it will be found that the design is impressed upon the outer face of the crown.

The under faces of the brim and crown may also be decorated in a similar fashion, that is, similar patterns 16 are attached upon the brim portion of the male die 12 by the copper or brass wire 23 and a similar mesh material 18 is attached upon the operating surface of the crown portion of the male die 12 also by wires 23 engaging through the openings 14. It should be noted that any combination may be used, that is, the hat decorated on the crown only, the crown only, or any of these combinations, on one or both sides.

It is a feature of this invention that regardless of whether the design is impressed on the outer brim alone, the lower brim alone, the upper crown alone, or the lower crown alone, or any combination thereof, only one operation of the die is necessary, therefore, there is positively no increase in the manufacturing cost of the hat except for the metal mesh and the time concerned in the attachment of the mesh in position upon the dies. Once the meshes are attached there is no additional cost in operation of the dies.

Heretofore it was customary to manufacture dies which were engraved with designs for impressing these designs upon the hat during the blocking operation. This invention is superior to that arrangement in that it was necessary to have six entirely different dies to accomplish the same effect possible according to this invention. It would take three dies for decorating either the outer side of the brim, or the outer side of the crown, or the outsides of the brim and crowns, and it would take three additional dies for decorating the under sides of the brim and crown or either one of these selectively. Furthermore the six dies will have one design only which would be operated to decorate the hat with that particular design only. According to this invention since the mesh is formed by the mesh material an unlimited variation of designs of meshes can be attached upon one die, and further variations are possible wherein the mesh can be attached to only portions of the die, so that any portion or combination of portions may be ornamented as desired. For plain pressed hat is desired with no design then all of the meshes can be quickly removed from the die. The small openings 14 will not interfere with the plain pressed hat because they are so small that such variations will not be noticed upon the hat.

A die for plain pressing averages approximately $60.00 depending upon the size and weight. A die engraved would increase the cost considerably because generally such designs must be engraved. Furthermore when the design signs wear off the die would be useless and it would be necessary that a complete new die be purchased. Whereas according to this invention the mesh is merely replaced which is relatively inexpensive.

The hat may be either ladies' or men's, of any suitable shape or design and may be finished with enameling, painting and lacquering after the embossing of the combinations, is completed. It will be found that such application of material brings out the figures and designs more plainly. It is important that the enameling, painting or the lacquering be done after the embossing operation since the pressure and heat would affect most of the enamels, paints, and lacquers generally used.

Another feature of this invention resides in the fact that the wire mesh may be used in combinations to produce various combined designs. In Fig. 7 the open mesh 15 is shown engaged over the closed mesh 17. It will be readily understood that a hat pressed by a die provided with a double mesh, as shown in Fig. 7 will be formed with the result that the mesh 16 will extend much deeper inwards than the mesh 17. According to this embodiment of the invention the wire mesh materials are superimposed and attached upon the forming dies. These wire mesh materials may be attached to either or both dies and on only, or all of the opposing surfaces thereof. Once attached the dies may be operated in the conventional manner which does not add to the cost of manufacture of the block.
Another embodiment of this invention is the teaching of a method whereby the designs may be applied in succession so that two designs may be imparted upon one hat body. To accomplish this, provision is made wherein the hat body and the mesh materials may be properly aligned with each other so that the designs register as desired. For this reason the female die 13 is provided with a screw 24 threadedly engaged through the top. The male die 12 is formed with a removable threaded plug 25 aligned with the screw 25. Normally with the screw in its upward position and the plug in position as illustrated in Fig. 2, the die may be operated as if not equipped with these parts, but when desired the plug 25 may be removed, and the screw 25 turned inwards so as to form a small projection to guide the proper operation of the steps of the process.

According to the embodiment of the invention referred to in the previous paragraph first one mesh material 18 is attached upon the crown portion of either die, and properly positioned relative to the screw 25 or the plug opening 26. Then the die is operated in the regular fashion so as to impress the design upon the material of the hat. It is pointed out that the body of the hat will be embossed with a recessed portion formed by the screw 25 engaging into the opening within which the plug 26 is mounted. This guides the proper positioning of the hat body thereafter. When this operation has been completed then the mesh material 18 is removed and a coating mesh material substituted in position and properly aligned by guiding of the screw 25 or the plug opening in the male die. Thereafter the die is operated the second time guided by the recess but this second operation must be for a much shorter period of time so that most of the effect of the first operation remains upon the hat body. The second operation simply supplements and adds to the embossing effect. The recess produced by the screw must next be removed, which is possible by replacing the plug 25 and reoperating the die upon the hat.

While I have shown and described the preferred embodiment of my invention, it is to be understood that I do not limit myself to the precise construction herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:

1. A method for decorating a straw hat or the like, consisting of attaching metal mesh of predetermined designs upon the operating surfaces for a forming die, using said forming die in a conventional manner, and substituting other metal meshes of different designs adapted to contact with said original mesh material, and then operating the die again in a conventional manner, provision being made for relatively aligning the mesh materials and the hat body in correct positions for each operation, consisting in embossing a recessed portion upon the hat body serving as a guide, and subsequently flattening out the recessed portion.

2. A method for decorating a straw hat or the like, consisting of attaching metal mesh of predetermined designs upon the operating surfaces for a forming die, using said forming die in a conventional manner, and substituting other metal meshes of different designs adapted to contact with said original mesh material, and then operating the die again in a conventional manner, provision being made for relatively aligning the mesh materials and the hat body in correct positions for each operation, consisting in embossing a recessed portion upon the hat body serving as a guide, and subsequently flattening out the recessed portion, by reengagement of the hat in the die in another adjustment of the die.

3. A method for decorating a straw hat or the like, consisting in attaching metal mesh of predetermined designs on the operating surfaces of a forming die, using said forming die in a conventional manner, substituting other meshes of different designs adapted in design to contact with said original mesh material, aligning said latter-mentioned mesh on the forming die with relation to the original position of the first-mentioned mesh, and then operating the die again in a conventional manner, said aligning steps being accomplished by embossing a portion of the straw hat with the forming die, and realigning the straw hat with the forming die in relation to the embossed areas after the substitution of the metal meshes.

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