Feb. 19, 1946. B. G. COCHRANE 2,395,215

BRACKET AND METHOD OF MAKING SAME

Filed Sept. 3, 1941

Fig. 1

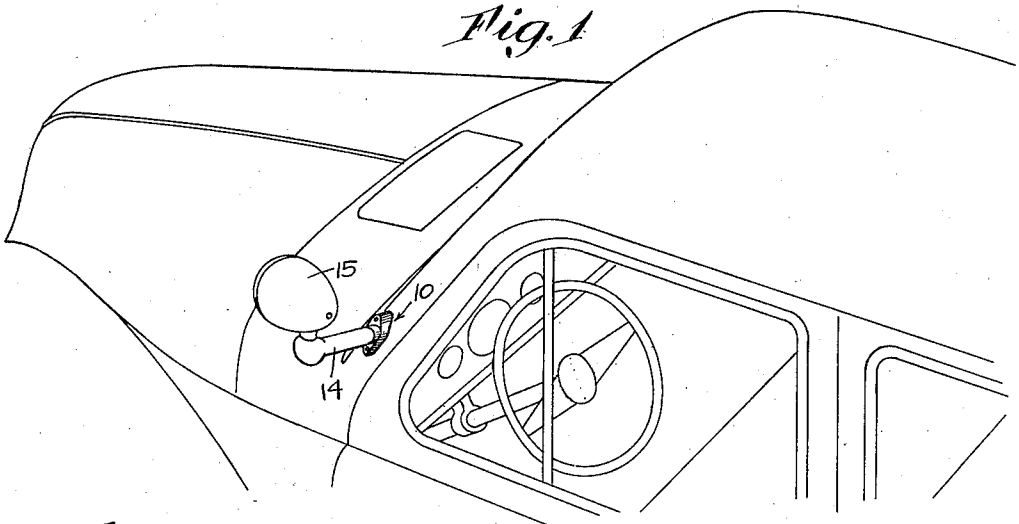


Fig. 2

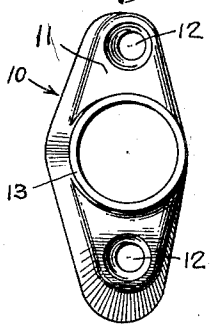


Fig. 3

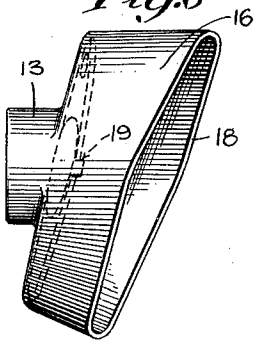


Fig. 4

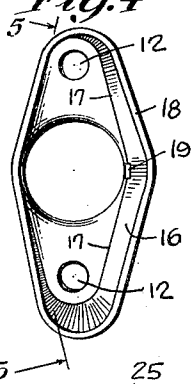


Fig. 5

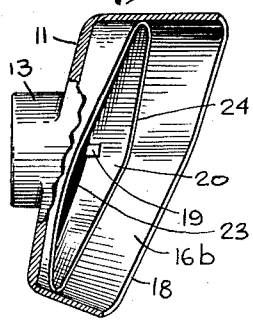


Fig. 7

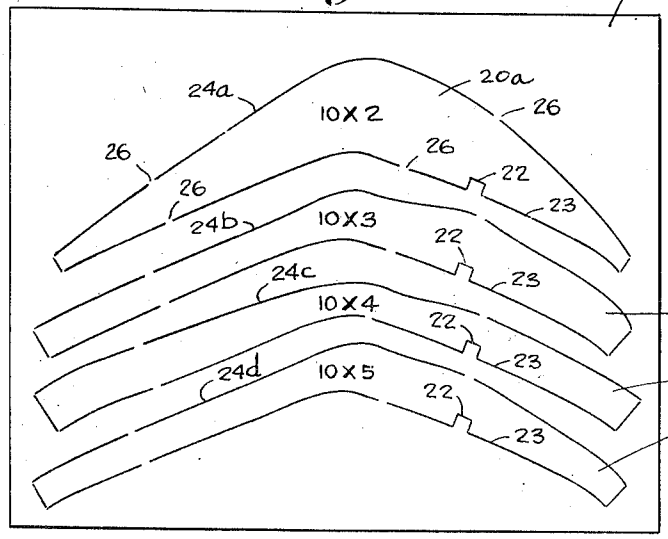
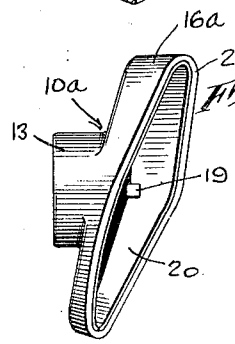


Fig. 6



INVENTOR
Bert G. Cochrane
BY
ATTORNEYS

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BRACKET AND METHOD OF MAKING SAME

Bert G. Cochrane, Fairfield, Conn.

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10 Claims. (Cl. 29—150)

This invention relates to mounting brackets and escutcheons, and to the method of preparing a preformed bracket or escutcheon so as to fit one of several irregularly curved or multiplanar surfaces.

In the manufacture of attachments for various things, for example, automobiles where the surface against which the attachment is to be placed varies substantially between the different kinds or makes of such things, it has been customary to provide a separate and distinct bracket for each different surface.

More specifically, in providing brackets for mounting dirigible spotlights on the front corner posts of automobiles, each make of automobile has the front post differently shaped, with the result that it has been necessary to provide many different brackets, or to restrict the use of the spotlight to only those automobiles for which brackets have been provided.

In some cases, where it is desired to mount a spotlight on an automobile where the bracket does not quite fit, it has been customary to shim or fill up the spaces between the bracket and the part of the car with which it should engage. The steadiness of the attachment, of course, depends upon the amount of looseness between the escutcheon and the body, and, unless the escutcheon closely fits the body, it is likely to rock and permit the attachment to shake or vibrate.

To solve this problem, the present invention provides an escutcheon or bracket plate with a skirt around its periphery, and makes the length of the skirt so that for each automobile with which it is intended to be used (all the automobiles currently being used), the length of the skirt from the escutcheon plate to the outer edge of the skirt is such as to reach the lowest point on the curved or irregular supporting surface while the highest point on the curved surface still fits below the surface of the escutcheon plate. With this blank, the skirt can be filed or otherwise cut away, more or less depending upon the height of the higher points until all points along the edge of the escutcheon fit snugly against all points of the supporting structure.

To facilitate this operation of fitting the escutcheon to any particular one of many differently curved surfaces, the present invention provides a template for each of the known curved surfaces with which the escutcheon is to be used. The template preferably has one side shaped as a development in one plane of the contour of the escutcheon plate, and on the other side has a development in one plane of a shape to match the contour of the curved surface with which the escutcheon is to be used. This template is made of flexible material, preferably paper, and preferably provided with an adhesive on one side so that it may be secured by adhesion to the inner surface of the skirt and act as a guide along which the skirt is cut, preferably by filing, to bring it to the desired shape.

According to the present invention, the template may be provided with a locating notch to be engaged by a lug on the escutcheon blank so that the template may be placed within the skirt in the proper position circumferentially thereof.

According to the present invention, a series of templates may be furnished as a sheet with the templates being partially cut out, so that, when it is desired to use a designated template, it is merely necessary to tear the template from the sheet, moisten the back of it and apply it to the inside of the skirt of the escutcheon blank, and then cut the skirt down to the line indicated by the template and secure the escutcheon to the supporting surface.

Other features and advantages will hereinafter appear.

In the accompanying drawing which illustrates one form of the invention,

Figure 1 is a perspective view of an escutcheon made according to the present invention secured to the left-hand front post of an automobile and carrying a spotlight.

Fig. 2 is a plan elevation of an escutcheon blank according to the present invention.

Fig. 3 is a side view of the escutcheon blank of Fig. 2.

Fig. 4 is a rear view of the escutcheon blank of Fig. 2.

Fig. 5 is a side view in partial cross-section of the escutcheon blank taken along the line 5—5 in Fig. 4, showing a template applied to the blank.

Fig. 6 is a view in side elevation of the escutcheon made according to the template shown in Fig. 5.

Fig. 7 is a plan view of a sheet having various templates removably attached thereto for use with the escutcheon blank of Figs. 2 to 5.

As illustrated in the drawing, the escutcheon blank 10 comprises a face portion 11, constituting the escutcheon plate, with a pair of holes 12 therein for receiving screws or bolts to fasten an escutcheon made therefrom to a front post of an automobile or any other irregular surface. A collar 13 is provided, extending outwardly from the front of the face 11 to receive, for instance, the support 14 of a spotlight 15, or other support

means for devices to be secured to an irregular surface. A flange or skirt 16 extends rearwardly from the face 11. According to the present invention, the length of the skirt from its junction with the face or escutcheon plate 11 to its rearward edge 18 is at all points at least sufficient to extend to the lowest part of the various irregular surfaces upon which an escutcheon made from the blank 10 is destined to be mounted.

The blank 10, as illustrated, is unsymmetrical about the axis of collar 13 and is adapted for making escutcheons to be mounted on the left-hand front post of an automobile as illustrated in Fig. 1. If it is desired to provide a similar escutcheon on the right-hand post, a blank is used which is the mirror image of that shown in Figs. 2 to 4. If desired, the blank may be formed symmetrically about at least one plane of symmetry including the axis of the collar 13, so that the same blank may be used for escutcheons to be attached either on the right or left-hand front post of an automobile.

For the purpose of the present invention, in the blank illustrated in Figs. 2 to 4, the interior surface of the skirt 16 is substantially a surface generated by a straight line, so that its development can be constructed in a single plane. By this means, a template adapted to engage this surface can be cut from a plane sheet of flexible material such as paper.

The junction of the skirt 16 with the face 11 in the interior of the skirt preferably serves as reference means for positioning a template of pliable material. To this end, the inner surfaces of the skirt 16 and face 11 are constructed to form a well-defined angle at their intersection, whereby the junction line 17 at the apex of this angle may serve as such reference means. Since three spaced points of reference are all that is required to locate the template relative to the lower edge of the skirt, the line 17 need not be continuous if at least three spaced portions thereof are well defined.

It is also necessary to provide reference means for locating the template circumferentially of the skirt 16. Accordingly, in the illustrated escutcheon blank 10, a projecting lug 19 is formed on the inner surface of the skirt or flange, preferably along the junction line 17 at the root of the flange. The said lug is adapted to engage a corresponding alteration or notch in the template to position the latter circumferentially of the skirt.

According to the present invention, a template 20 is provided of thin pliable material, such as paper, having a shape corresponding to the development of the inner surface of the skirt portion 16*a* of a desired escutcheon. The said development is bounded by the developed junction line 17 and the developed outer edge 21 of the skirt portion 16*a* of the escutcheon 10*a*. A notch 22 is provided in the edge 23 of the template, which corresponds to junction line 17, conforming in shape to lug 19 and adapted to engage the latter for positioning the template circumferentially of the skirt 16. The ends of the template may be formed at any point in the development of the interior surface of the skirt 16*a* relative to said notch, and it is illustrated as formed to lie at one end of the escutcheon blank 10.

In order to make the escutcheon 10*a* from the blank 10, the designated template 20 is placed by the mechanic in the interior of the skirt 16 with its edge 23 engaging the junction line 17 and its notch 22 engaging lug 19 as illustrated in Fig. 5. It may be conveniently secured in this position by a suitable adhesive. The latter may be applied in any manner, but for convenience, it can be provided as a coating on the rear surface of the template—that is, the surface which is destined to engage the skirt of the blank. The adhesive also serves to identify the template surface which is to be applied against the surface of the skirt 16.

When the template 20 is secured in position, portion 16*b* of the skirt 16 which extends beyond the template 20 is cut away, for instance by filing or milling down to the edge 24 of the template.

The resulting escutcheon 10*a* may then be fastened, for instance by means of bolts or screws, inserted through holes 12, to the irregular surface for which it is destined. The edges 21 of the skirt 16*a* fit snugly against the irregular surface, substantially at all points, and provide a firm support for the escutcheon plate, and the device to be supported thereby, such as the spotlight 15, may be mounted thereon with its support 14 engaging collar 13. The template may be removed or allowed to remain in the finished article as desired.

Convenient means for making a series of different templates adapted to be used for making various escutcheons, all from the same blank, for instance, for application to the front posts of different models and makes of automobiles, is illustrated in Fig. 7. This means comprises a sheet 25 of pliable or flexible material, such as paper having a series of different templates 20*a*, *b*, *c*, and *d* removably attached to the sheet, for instance by cutting the template almost entirely from the sheet, but allowing it to remain attached at a few readily severable spaced points 26. When it is desired to use a particular template, the attached portions are merely severed and the template removed. The templates are identified by suitable markings (10 x 2, 10 x 3, etc.) which may be correlated by means of a table with various makes and models of automobiles or the like.

Each of the said templates corresponds in shape to the development of the inner surface of the skirt or flange of a particular escutcheon. The edge 23 of each template is the same, and corresponds to the development of the junction line 17 of the blank 10, the notch 22 being provided therein for locating the template circumferentially within the skirt 16 of the blank. The opposite edges 24*a*, *b*, *c*, and *d* of the various templates are different, and correspond to the development of the outer edge of the skirt of a desired escutcheon plate.

The rear surface of the sheet may be advantageously coated with an adhesive suitable for securing the templates to the blank, this adhesive also serving as above stated, to identify the correct blank-engaging surface.

In marketing the blanks 10, and the templates, a sheet, as illustrated, having templates for all common models and makes of automobiles, may be sold with each blank together with the table or key correlating the templates, identified as above stated, with various automobile models. When it is desired to make an escutcheon for any given automobile, a mechanic has only to identify the required template therefor, remove it by severing from the sheet, apply it in the above-described manner to a blank, and cut away the portion of the skirt 16 extending beyond the edge 24 of the template, by milling, filing or the like.

When unsymmetrical blanks of the type herein described are used, different blanks are provided for the right and left-hand post of any automobile, while symmetrical blanks could be used for either side. In either case, separate templates

are ordinarily provided on the sheet 25 for right and left-hand escutcheons.

Variations and modifications may be made within the scope of this invention and portions of the improvements may be used without others.

I claim:

1. The method of making escutcheons for mounting upon irregular surfaces which includes the steps of forming an escutcheon blank with a projecting skirt of such length all around the periphery as to reach to the lowest points of all irregular surfaces to which the blank is intended for use and forming thereon a template engaging locating means; forming a particular preformed template outlining the shape of the outer edge of the skirt to fit a particular irregular surface and having a locating means; applying the template to the flange of the escutcheon with the locating means on the template interengaging the locating means on the escutcheon to hold the template in predetermined position with respect to the escutcheon; and removing parts of the escutcheon skirt along the outline of the template.

2. A blank for an escutcheon comprising a plate having screw-receiving holes, said plate having an attachment-supporting collar projecting from one side thereof; and on the other side thereof having a skirt-like flange projecting from the periphery of the plate, said flange having a length from the edge of the plate to the outer edge of the flange, at all points around the periphery of the plate, at least sufficient to permit the outer edge of the flange to engage the lowest places of all the different irregular surfaces upon which the escutcheon is to be mounted, so that, by removing more or less of the parts of the flange lying over higher places on the particular surface to which the escutcheon is to be attached, all parts of the outer edge of the flange may be made to fit against and be drawn tightly to said irregular supporting surface by screws passing through said screw-receiving holes into said supporting surface; and means on the interior of the flange for locating thereon a template for facilitating the removal of portions of the flange to make it fit a particular irregular surface to which the escutcheon is to be attached.

3. A template for use in shaping escutcheons to be mounted upon irregularly curved surfaces comprising a strip of flexible material, the contour of one longitudinal edge being the uniplanar development of the shape of the edge of the escutcheon plate, and the contour of the opposite edge being the uniplanar development of the portion of the irregularly curved surface upon which the escutcheon is to be mounted, said template being adapted to be secured to the interior of a skirt portion on the escutcheon and acting as a guide for the shaping of the outer edge of said skirt so that the same will fit closely against the particular irregular surface for which the template is designed.

4. The invention as defined in claim 3, in which the template has a locating notch, in the edge thereof which conforms to the periphery of the escutcheon plate, adapted to engage a lug on the plate to locate the template in predetermined position circumferentially of the skirt.

5. A blank for an escutcheon, comprising a plate having screw-receiving holes having an attachment-supporting collar projecting from one side thereof, and on the other side having a skirt-like flange projecting from the periphery of the plate, said flange having a length from the edge of the plate to the outer edge of the flange at least sufficient at all points around the periphery of the plate to permit the outer edge of the flange to engage the lowest points of all the different irregular surfaces upon which the escutcheon is to be mounted, so that by removing more or less of the parts of the flange lying over higher places on the particular supporting surface to which the escutcheon is to be attached, all parts of the outer edge of the flange may be made to fit against and be drawn tightly to said irregular supporting surface by screws passing through said screw-receiving holes into the supporting surface; said flange having an inner surface generated by a straight line, whereby its development may be constructed in a single plane; the inner surface of said skirt forming a well-defined junction line with the inner surface of the escutcheon plate, said line serving as a reference means for locating a template inwardly of the flange; and means on said surface for engaging and locating the template circumferentially of said flange, said template being adapted to facilitate the removal of portions of the flange to make it fit a particular irregular surface to which the escutcheon is to be attached.

6. A blank for an escutchon, comprising a plate having screw-receiving holes, having an attachment-supporting collar projecting from one side thereof, and on the other side having a skirt-like flange projecting from the periphery of the plate, said flange having a length from the edge of the plate to the outer edge of the flange at least sufficient at all points around the periphery of the plate to permit the outer edge of the flange to engage the lowest points of all the different irregular surfaces with which the escutcheon is to be used, so that by removing more or less of the parts of the flange lying over higher places on the particular supporting surface to which the escutcheon is to be attached, all parts of the outer edge of the flange may be made to fit against and be drawn tightly to said irregular supporting surface by screws passing through said screw-receiving holes into the supporting surface; said flange having an inner surface generated by a straight line, whereby its development may be constructed in a single plane, said inner flange surface forming a well-defined junction line with the inner surface of the escutcheon plate, said line serving as a reference means for locating a template inwardly of the flange; and a projection on said inner surface of the flange along said junction line adapted to engage a corresponding notch in the template for locating the latter circumferentially of the flange; said template being adapted to facilitate the removal of portions of the flange to make it fit a particular irregular surface to which the escutcheon is to be attached.

7. The method of making escutcheons for mounting upon irregular surfaces, which includes: making an escutcheon blank having a projecting skirt of such length all around its periphery as to reach the lowest points of all irregular surfaces upon which the blank is intended to be mounted, said skirt having an inner surface substantially generated by a straight line, and having template engaging and locating means on said surface for locating a template of pliable material inwardly from the edge of the skirt and circumferentially thereof; applying to the interior surface of the flange of the escutcheon blank a template outlining the shape of the outer edge of the skirt to fit it to a particular irregular sur-

face and having locating means for interengaging with said template engaging and locating means to position the template; and removing those parts of the skirt which extend beyond the outline of the template.

8. The method of making escutcheons for mounting upon irregular surfaces, which includes making an escutcheon blank having a projecting skirt of such length all around its periphery as to reach the lowest points of all irregularly curved surfaces upon which the blank is intended to be mounted; said skirt having an inner surface generated by a straight line, the inner surface of said skirt forming a well-defined junction line with the interior surface of the face of the escutcheon blank, and having a projection along said line; applying to the flange of the escutcheon blank a template having one edge shaped like the development of said junction line with a notch along said edge for engaging said projection, and having its opposite edge outlining the shape of the outer edge of the skirt to fit a particularly irregular surface, said template being applied with its first-named edge engaging said junction line and the notch engaging said projection; and removing those parts of the skirt which extend beyond the outer edge of the template.

9. A template for use in shaping escutcheon plates to be mounted upon irregular surfaces comprising a strip of flexible material having one longitudinal edge, the contour of which is the uniplanar development of the shape of the edge of the escutcheon plate, and its opposite edge having a contour which is the uniplanar development of the intersection of the flange of the escutcheon with the irregularly curved surface upon which the escutcheon is to be mounted, said template being adapted to be secured to the interior of the skirt portion on the escutcheon and adapted to serve as a guide for the shaping of the outer edge of said flange, so that the latter will fit closely against the particular irregular surface for which the template is designed; and said template being coated, on the side adapted to engage the inner surface of an escutcheon blank, with an adhesive serving to identify said side and to secure the template to said surface.

10. The invention as defined in claim 3, in which the template has means thereon adapted to interengage with corresponding locating means on the inner surface of the escutcheon plate to locate the template in a predetermined position circumferentially and linearly of the skirt.

BERT G. COCHRANE.