May 13, 1941. A. R. HOUK 2,242,032

MASK

Original Filed Oct. 30, 1937

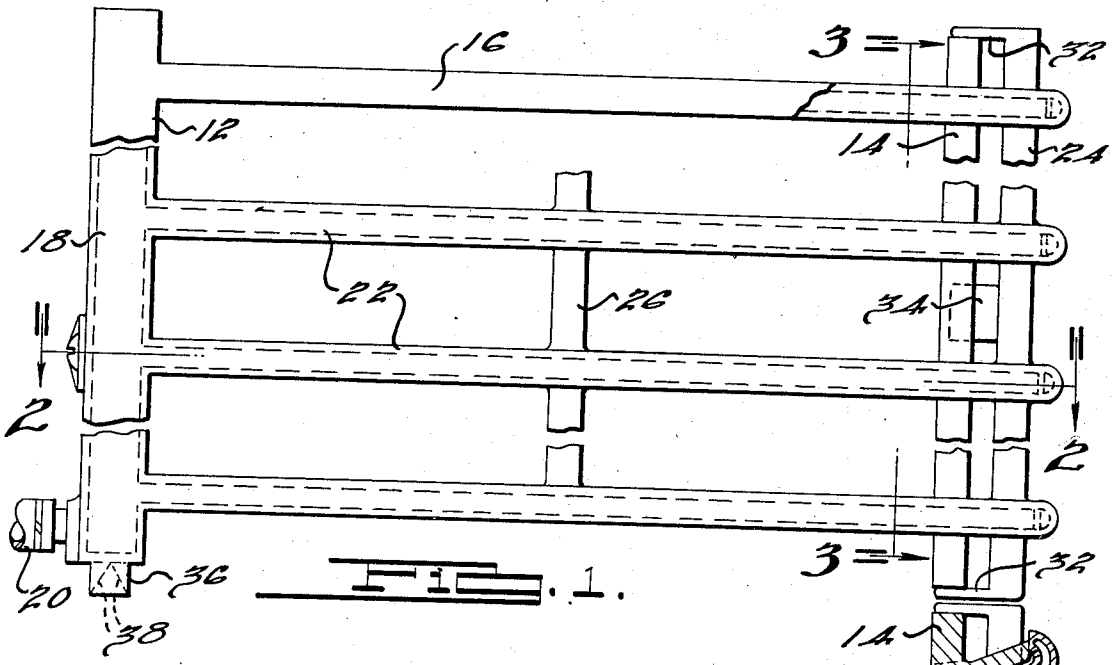


FIG. 1.

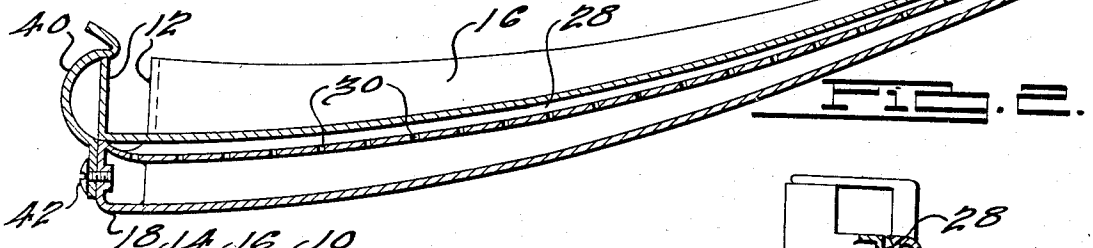


FIG. 2.

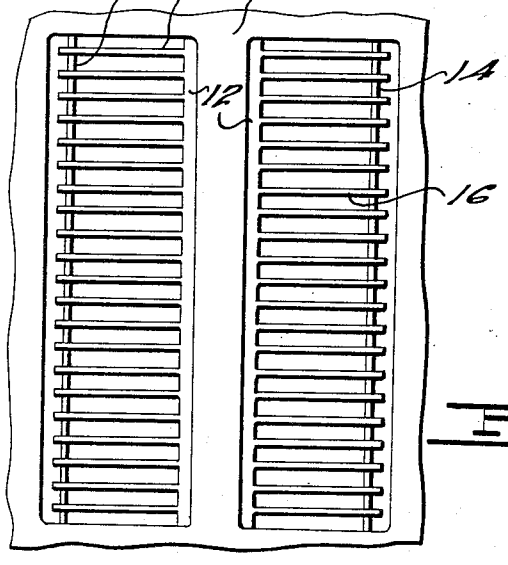


FIG. 4.

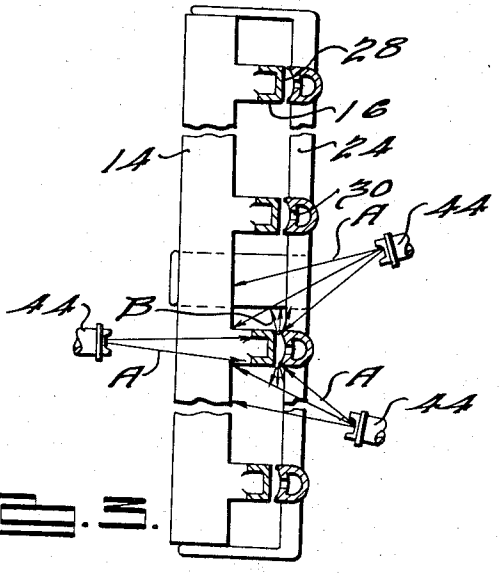


FIG. 3.

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MASK

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Original application October 30, 1937, Serial No. 171,830. Divided and this application November 5, 1938, Serial No. 238,996

2 Claims. (Cl. 91—68)

This is a division of my copending application, Serial No. 171,830, filed October 30, 1937, now Patent No. 2,151,427 issued March 21, 1939, and is directed particularly to the method disclosed in said application.

This invention relates to the method of decorating certain portions of a surface by applying a coating thereto such as by painting. While the coating may be applied by plating, dipping, brushing or the like, it is preferable to apply the coating by spraying paint on certain portions only of the surface.

In the manufacture of articles, such as grilles for automobile radiators, it is desirable for decorative purposes to paint certain portions of the grille and to chromium plate or to leave unpainted other portions of the grille. Masks or stencils have been used for this purpose which have been satisfactory when applying the paint directly over the mask on a single surface but are unsatisfactory when the paint is applied from other directions such as spraying directly against the edge of the mask when painting a side of the article which is at right angles to the surface of the article where the paint is not to be applied.

It is an object of this invention to provide a pressure between the mask and the surface of the article to be protected from the paint.

Another object of the invention is to provide a hollow mask so that a supply of fluid pressure may be supplied to the interior thereof and to conduct the pressure through openings in the surface of the mask adjacent the surface of the work to be protected from the paint.

A further object of the invention is to provide a depressed surface of the face of the mask which overlies the surface to be protected with only the edges of the mask in engagement with the surface to be protected so that there is a space between the two surfaces.

Other objects and advantages of the invention will more fully appear from the following description:

Fig. 1 is a view showing a portion of an automobile radiator grille with the mask applied thereto, portions of the mask being broken away.

Fig. 2 is a sectional view on line 2—2 of Fig. 1.

Fig. 3 is a sectional view on line 3—3 of Fig. 1; and

Fig. 4 is a view showing in side elevation an automobile grille for use on an automobile.

Referring to the drawing, I have illustrated in Fig. 4 a portion of a radiator grille for an automobile having a body portion 10, vertical ribs 12 and 14 and horizontal ribs 16, the ribs being detachably secured to the body portion 10.

Referring to Figs. 1 and 2 I have shown on a larger scale the ribs 12, 14 and 16. The ribs are integrally joined and the ribs 12 and 16 are substantially channel-shaped as shown in Fig. 2 while the rib 14 may be formed solid. In the form illustrated it is desirable to paint the inside of the channels and the back side of the grille, leaving the upper surface, that surface shown in Fig. 1, unpainted which may be chromium plated. It will be noted that the upper surface of the rib 14, which extends below the surface of the ribs 16 and 12, may be painted and is unprotected.

The improved mask is shown in Figs. 1, 2 and 3 overlying the surface of the grille to be protected. This improved mask comprises a header portion 18 which, as shown, is hollow and connected to a supply of fluid pressure through a connection 20. Extending transversely from the header 18 are a plurality of hollow ribs 22 which terminate in a vertical connecting member 24. If desired a central connecting member 26 may be formed to connect the ribs for accurate spacing. The under surface of the header 18 and ribs 22 is formed concave as shown at 28 in Figs. 2 and 3, thus providing a space between the upper surface of the ribs 12 and 16 and the under surface of the ribs 22 and header 18. The under surface of the rib 16 and headers 18 are provided with a plurality of spaced openings 30 forming a communication between the air space 28 and the hollow ribs 16 and header 18.

In order to properly position the mask on the grille inwardly extending flanges 32 have been provided on the ends of the vertical connecting member to be positioned against the ends of the vertical rib 14. A flange 34 is provided on the under surface of the connecting member to be received against the under surface of the rib 14. These ribs position one end of the mask both vertically and transversely on the grille. At the opposite side there has been provided a flange 36 at one end thereof for engagement with one end of the grille in order to provide a small amount of contact of the flange 36 with the grille. The contacting surface thereof may be formed pointed as illustrated by the dotted lines 38. Along one edge of the header 18 there has been provided a resilient clip 40 which engages the under side of the channel rib 12 to position the header end of the mask on the grille. This resilient member 40 may be detachably secured to the header by means of a screw 42.

When the mask is in position as shown in Figs. 1, 2 and 3 a fluid pressure, preferably compressed air, is supplied to the interior of the hollow ribs 18 and 22 through the connection 20. The fluid pressure then is forced through the openings 30 into direct contact with the surface of the grille which is to be protected from the paint.

Referring to Fig. 3, spray guns 44 have been illustrated as being directed upon the exposed surfaces of the ribs 16 and 14. The arrows A indicate the fluid pressure escaping through the sides of the concave lower surface of the ribs 22 from the space 28.

This fluid pressure, indicated by the arrows B, forces the paint spray, indicated by the arrows A, away from any opening which might be present adjacent the contact of the mask and the grille thus the spray guns 44 may be directed at any angle with reference to the mask or opening between the mask and the grille without any of the paint entering the opening.

While the invention has been illustrated in connection with spraying, it will be understood that when the mask is applied the parts may be dipped in a supply of paint and the fluid pressure within the mask will prevent the paint from flowing into any possible opening between the mask and the grille.

It will be understood that various changes including the size, shape and arrangement of parts may be made without departing from the spirit of my invention and it is not my intention to limit its scope other than by the terms of the appended claims.

I claim:

1. The method of decorating only a portion of an article which consists in covering that portion of the article to be protected from decoration by contacting a cover with the article only at its edges to provide a space between the main body of the cover and the article, spraying the article and cover with a coating material, and applying a fluid pressure above atmospheric in the space between the body of the cover and the article to prevent the coating material from entering the space between the cover and the article.

2. The method of decorating only a portion of an article which consists in applying a mask having open and covering portions to an article to be decorated, applying an air stream of a pressure greater than that of atmospheric pressure between the covering portions of the mask and the article, and applying a decorative material to the article through the open portions of said mask whereby the air stream prevents the decorative material from entering any space between the mask and the article.

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