This invention relates to a mobile attachment for spray guns and has particular reference to a device for concentrating the spray deposit within a confined area and preventing the particles from escaping into the surrounding atmosphere.

Spray guns are used in conjunction with numerous materials for diverse purposes. In paint shops dissipation into the atmosphere of the material sprayed, with consequent waste of material and danger to the operator through contact with such material, is avoided by spray booths embodying means for drawing off material which is not deposited and adhered upon the surface sprayed.

With the development of improved spray guns and the appearance of certain asphaltum compounds for use as roofing materials, etc., it has become rather common practice to spray roofing compounds upon roof surfaces. In this process the operator simply carries a mobile spray gun fed from a source quite remote and large areas may be sprayed in a very short time in this manner.

More recently the use of asphaltum material having embodied therein metallic particles such as aluminum, copper, etc., has been found to possess very desirable attributes when used as a roofing compound. In some instances the metallic particles are mixed with the asphaltum prior to spraying and in other instances the metallic particles in a carrier of some sort are sprayed upon an asphaltum surface which has already been deposited. In either case, and particularly the latter, some of the particles tend to float through the surrounding atmosphere and have caused considerable difficulty.

Not only do the metallic particles, with or without the asphaltum which possesses distinct adhesive characteristics, find their way to articles quite remote from the surface being sprayed and thus in many instances deface such articles, but the metallic particles are dangerous because when drawn into the lungs they may cause quite serious damage. This is true of numerous spray materials devoid of any metallic content.

This invention seeks to confine the deposit of material sprayed under such circumstances to the specific area desired and at the same time permit maximum efficient operation of the spray gun by permitting the passage of air into the surrounding atmosphere while confining the material sprayed.

My invention may be more readily understood from the following description taken in conjunction with the drawings, wherein like numerals refer to like parts throughout the several figures, and wherein:

Figure 1 is a side elevation of my improved device;
Fig. 2 is a plan view;
Fig. 3 is an end elevation;
Figs. 4 and 5 illustrate modified arrangements for securing a filter to the marginal portion of the hood, and
Figs. 6 and 7 illustrate modified arrangements for supporting the hood.

Referring now particularly to Figs. 1–3, a conventional spray gun assembly is designated broadly by the numeral 10. My improved attachment or hood is indicated broadly by the numeral 12. This hood is preferably fashioned of a single aluminum sheet to provide a small opening at the upper end of the hood and a large opening at the lower end. While it is in material insofar as the inventive concept is concerned how the hood is fabricated, for purposes of illustration I have disclosed an arrangement embodying oppositely disposed wide walls 14 and 16 and oppositely disposed relatively narrow walls 18 and 20.

A seam may be formed along any edge of the hood delineating the juncture of two adjacent sides by overlapping to form a flange 22 which may be secured to the wall 16 by suitable means such as are indicated by the rivets 24.

In this particular form, which is generally pyramidal, the apices of each side wall may be turned back as indicated by the numeral 26 in conjunction with end wall 20. To the horizontally disposed flanges 26 so formed, and which provide a relatively small square opening in the upper end of the hood, plate 28 having a circular central opening registering with said square opening is secured as by means of rivets 30, and in superimposed relation to plate 28 is a similarly shaped plate 32 provided with a circular opening concentric with the opening in the plate 28 below and of somewhat smaller diameter. The plates 32 and 28 are bolted together as indicated at 34, thus forming a laminated marginal flange surrounding the opening at the upper end of the hood.

The upper plate 32 may be provided with oppositely disposed radial slots 36, thus forming what is tantamount to a bayonet slot arrangement adapted to receive pins associated with the spray gun which may be rotated after insertion of the pins in the slots to thereby detachably secure the gun to the hood. The particular means utilized for detachably securing the gun to the hood is not important.

The large opening at the base of the hood is preferably provided with a flange 38 extending around the entire margin of the opening. To the inner faces of marginal flange 38 metal straps 40 are secured as by means of the riveting indicated at 42 in such manner that they extend diagonally across the corners of the inner portion of the flange.
Secured to the underside of the straps 40 as by
means of riveting or otherwise are casters 44 which, it will be noted, constitute means lying wholly within the margin of the large opening of the hood adapted to support the same upon a supporting surface.

Detachably secured to the outer face of the marginal flange 38 as by means of bolts 45 are filter elements which form an apron around the entire margin of the large hood opening. In the form illustrated these filter elements are brush units 46.

In Figs. 4 and 5 I have illustrated two forms of brush filter elements. In Fig. 4 the bristle-supporting base 50 is detachably held in a spring clip 52 which is permanently secured to the marginal flange 38. In Fig. 5 the spring clip 54 and bristle-supporting base 56 are of somewhat different configuration and are more adapted for permanent installations.

While I have described the use of brush or bristle filter elements to form the apron extending around the margin of the large opening in the hood, it will be understood that this particular type of filter is for illustrative purposes only and that any form of filter element suitable for a particular purpose may be substituted for the bristle filter.

The casters 44 are so arranged within the margin of the hood opening as to support the hood in a position where the lower margins or edges of the filter elements lie closely adjacent the supporting surface, and preferably contact the same. While, as hitherto suggested, the particular form of filter element is not of paramount importance, its function in closing the gap between the elevated marginal flange 38 and the supporting surface is of distinct importance. By virtue of the fact that the filter material is perforate to the extent that air may pass through it, the effective operation of the spray gun will be in no way impaired by back pressure built up within the hood while at the same time the solid or semi-solid particles which constitute the spray material per se will be prevented from passing outside the hood into the surrounding atmosphere.

By reason of the fact that the roller supports or casters 44 lie wholly within the margin of the large opening in the hood, the latter may be moved about over the supporting surface by pivoted handle 55 during the spraying operation and any undesirable markings or tare left by the supporting element will be effaced as the margin of the filter elements pass over them. This results in a smooth and uniform application of the material sprayed despite the tare necessarily left by the movement of the roller supports.

In Fig. 6 I have illustrated a somewhat modified embodiment of hood-supporting means in the form of a stainless steel ball 58 secured in a claw mounting 60 which is secured as by means of riveting to the under face of each strap 40.

Fig. 7 illustrates still another embodiment of supporting means. Round-headed screws 62 are passed through openings provided therefor in straps 40 and secured in any adjusted position by means of lock nuts 64 and 66. Thus the elevation at which the marginal flange 38 which delineates the large opening in the hood is supported with reference to the supporting surface may be readily adjusted.

The particular embodiments illustrated and described herein are only suggestive of various forms in which the inventive concept may be embodied and it should be understood for that reason that I wish to limit myself only within the scope of the appended claims.

What I claim is:

1. An attachment for spray guns comprising an imperforate hood open at each end, means associated with one opening for detachably securing a spray gun, and an apron of filtering material secured to the margin of the other opening and extending around its entire periphery substantially normal to its plane, said apron forming a continuation of the wall of said hood.

2. An attachment for spray guns comprising an imperforate hood open at each end, means associated with one opening for detachably securing a spray gun, and an apron of filtering material detachably secured to the margin of the other opening and extending around its entire periphery substantially normal to its plane, said apron forming a continuation of the wall of said hood.

3. An attachment for spray guns comprising an imperforate hood open at each end, means associated with one opening for detachably securing a spray gun, an apron of filtering material secured to the margin of the other opening and extending around its entire periphery substantially normal to its plane, said apron forming a continuation of the wall of said hood, and means disposed within the margin of said other opening and projecting beyond the plane thereof for supporting the hood upon a surface.

HARLAND M. TALLMAN.

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