March 28, 1950 V. H. BODLE ET AL 2,501,839

SPRAYED RUBBER SURFACING

Filed Aug. 24, 1944 2 Sheets-Sheet 1

Fig. 1.

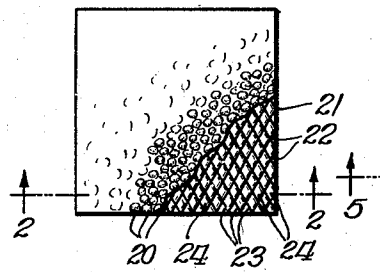


Fig. 4

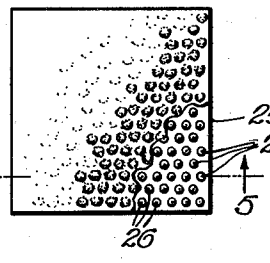


Fig. 7.

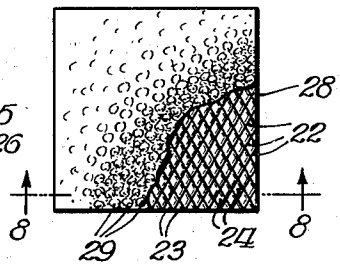


Fig. 2.

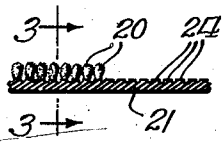


Fig. 5.

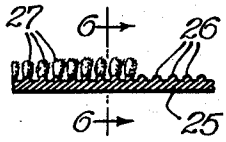


Fig. 8.

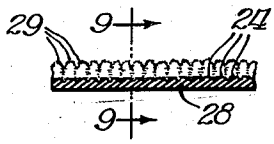


Fig. 3.

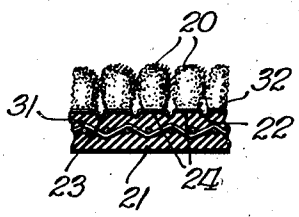


Fig. 6.

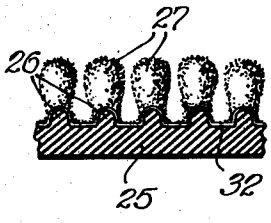


Fig. 9.

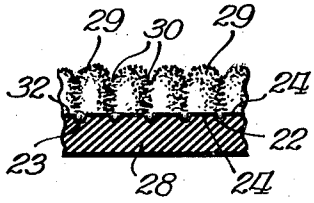


Fig. 13.

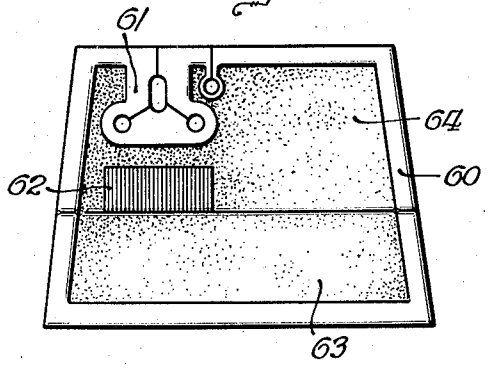


Fig. 14.

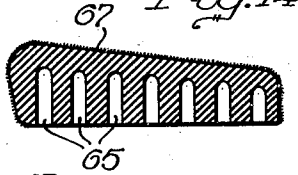




Fig. 15.

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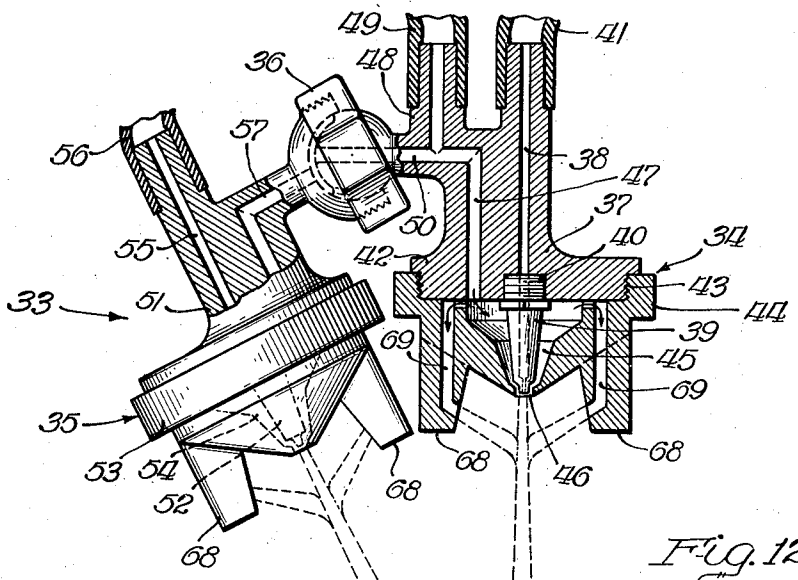


Fig. 12.

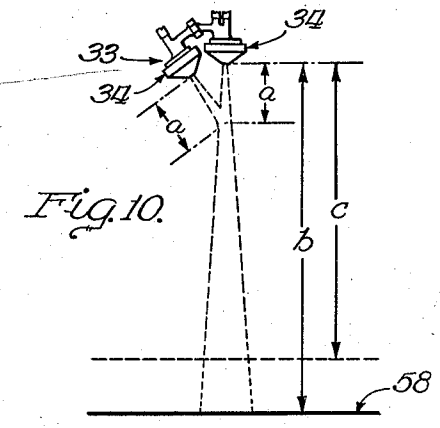


Fig. 10.

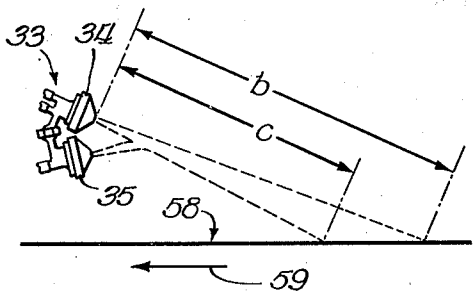


Fig. 11.

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2,501,839

UNITED STATES PATENT OFFICE

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SPRAYED RUBBER SURFACING

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Application August 24, 1944, Serial No. 550,964

10 Claims. (Cl. 117—9)

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Our invention relates to the surfacing of materials with a coagulable dispersion of rubber or the like and has reference more particularly to a method of, and the surfacing produced by, applying or depositing the dispersion in fine particle form and in a manner to pile up the particles in a form and texture to simulate tufted or pile fabrics such as pile carpeting and the like.

We have found that by properly controlling the manner of application of the rubber particles and the character and coagulation thereof, a dispersion of rubber may be deposited to a depth and with a texture and surface appearance to provide a substitute for pile carpeting and the like.

We have also found that the surface formation of the deposit may be controlled to produce elevational irregularities according to a selected pattern or design and that the deposit may be substantially localized at selected places, even to the extent of accumulating the deposit in upright individualized piles of substantial length corresponding to the pile elements of pile carpeting.

This material, with its localized formations of rubber particles, has very much the appearance and cushiony feel of pile carpeting and may be made with wear resisting properties so that it is suitable for use as carpeting, rugs, floor mats and the like. It is sanitary, easy to clean, unaffected by water, or even oil and grease if made of a dispersion of a synthetic rubber which is immune to oil and grease, has good heat insulating properties and is particularly advantageous for use in automobile floor mats, although it may be used for a variety of other purposes.

The principal objects of our invention are to provide a new and useful rubber surfacing of deposited rubber particles; to promote localized piling up of the particles in substantially individualized piles; to insure satisfactory wearing properties; and in general to provide a rubber surfaced material simulating a pile fabric and suitable for automobile mats and other floor coverings as well as for other purposes; these and other objects being accomplished as pointed out hereinafter and as shown in the accompanying drawings, in which:

Figs. 1, 4 and 7 are enlarged top views of three samples of materials made in accordance with our invention;

Figs. 2, 5 and 8 are sectional views taken respectively on the lines 2—2, 5—5 and 8—8 of Figs. 1, 4 and 7;

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Figs. 3, 6 and 9 are enlarged fragmentary sections taken respectively on the lines 3—3, 6—6 and 9—9 of Figs. 2, 5 and 8 showing the particular formation of the piled up rubber particles which constitute the tread or top surface of the material of each of the three illustrated samples;

Fig. 10 is a view, somewhat diagrammatic, showing the manner of applying the surfacing to the materials of Figs. 1, 4 and 7;

Fig. 11 is a view, also somewhat diagrammatic, showing another manner of applying the surfacing so as to provide variation in the distance of spray without altering the distance of the nozzle from the sprayed surface;

Fig. 12 is a side view, partly in section, of the double spray gun which we employ for the surfacing operation;

Fig. 13 is a top view illustrative of an automobile floor mat made with our sprayed surfacing;

Fig. 14 is a sectional view of an automobile seat cushion showing another advantageous use of our sprayed surfacing; and

Fig. 15 is an enlarged sectional view of a fragmentary portion of the seat cushion of Fig. 14 showing the surfacing in greater detail.

Spraying with latex or a coagulable dispersion of rubber has been employed heretofore in making layers or coatings of solid rubber, as for example as disclosed in Zimmerli and Semon Patent 1,841,076, wherein the dispersion is applied so that the particles combine on the surface in the form of a smooth dense layer, and similarly in Galligan Patent 2,191,910, wherein a continuous thin rubber film or membrane is produced in pattern form, preferably by spraying.

Moreover, latex spraying has been employed as in Mayne Patent 2,056,406 to produce a surface closely resembling suede, pebbled or grained leather by limiting the quantity of latex applied to a given surface area so that it is insufficient to form a smooth continuous film and it has also been employed, as in the above mentioned Galligan patent, to apply a latex deposit equally and uniformly on the depressed and raised portions of a pattern surface rubber membrane so as to form a spongy or pebbled coating that is of the same contour as the pattern surface.

With our invention, we do not limit the depos-

ited latex to a quantity insufficient to form a smooth continuous film nor do we apply the latex to produce a coating that is equal and uniform. On the contrary, we deposit a relatively large quantity of latex, sufficient to pile up a surfacing of non-solid texture to a substantial depth and with innumerable lumpy or pile like formations, due to unequal or non-uniform deposit or localized piling up of the deposited particles, so that the surfacing not only has the feel of depth of a tufted or pile fabric but also simulates the appearance thereof. Moreover, the localization of deposit or individuality of piled up latex particles may be controlled to produce varying arrangements and forms of piled up formations and in more or less separate or individualized relation as desired and accordingly materials of different types and of different appearance may be produced.

For example, as illustrated in Figs. 1, 2 and 3 of the accompanying drawing, the piled up formations, which are indicated at 20, are in the form of upright pile like elements, substantially separate or individualized, and arranged in accordance with the pattern of the base 21 which is embossed with closely arranged parallel grooves 22 intersected by other similar closely arranged parallel grooves 23 to provide slightly raised rectangular or diamond shaped formations 24, the arrangement of which determines the arrangement of the piled up formations or pile like elements 20 that are produced on the base 21.

Instead of the relatively low diamond shaped formations 24 of Figs. 1, 2 and 3, base formations may be employed as disclosed in Figs. 4, 5 and 6 wherein the base 25 is provided with innumerable small cylindrical projections 26 rising to a substantially higher elevation than the elevations 24 of Figs. 1, 2 and 3 and on each of these formations 26 the deposited latex is accumulated in a substantially individualized pile 27 providing a surfacing of innumerable pile like elements 27 of non-solid rubber.

Various other forms or designs of embossing may be employed instead of the embossings 24 and 26, which are merely illustrative, to control the piling up of the latex particles on the base and produce different patterns or designs of sprayed latex surfacing. Some deposit may occur between the localized or individualized piles of latex particles (20 of Figs. 1, 2 and 3, and 27 of Figs. 4, 5 and 6) and some interconnection may occur depending upon the particular base pattern employed and the spraying technique. In fact in some forms it may be desirable to provide some interconnection of the otherwise individualized formations as, for example, as shown in Figs. 7, 8 and 9 in which a base 28 is employed with the same embossing as that of Figs. 1, 2 and 3 of grooves 22 and 23 and diamond shaped elevations 24 but with the individualized piles 29 which are formed thereon interconnected as at 30 part way up from the base so that only the top parts of the formations 29 are strictly individualized with the result that the surface has a somewhat lumpy appearance, the nature and character of which depends upon the particular embossing of the base 28, but still retaining resemblance to tufted or pile material.

The base materials 21, 25 and 28 are preferably of solid rubber, particularly for automobile mats, floor coverings or the like, and are calendered or molded with the particular design required for the ultimate surfacing to be produced, although the base may be of other material and it may be reinforced in any well known manner with a layer of fabric incorporated therein as indicated at 31 or otherwise as desired for the particular purpose for which it is to be used. The rubber base is advantageous as it is readily produced with any desired surface pattern embossed thereon and when the material is made entirely of rubber it is highly sanitary, unaffected by moisture, and easily cleaned. Moreover, certain synthetic rubbers are immune to oil and grease and, if such synthetic rubbers are used the material is immune to oil and grease, such immunity being especially desirable in some places, as, for example, in auto mats.

In making materials in accordance with this invention, a suitable base layer is provided with pattern surface appropriate for the sprayed surfacing to be built up thereon. This base layer may be made of any conventional milled and compounded rubber stock that is suitable for calendering or molding, and if the stock has a surface to which the latex will readily adhere the latex may be sprayed directly thereon.

We have found it advantageous, however, for some purposes to employ a stock in which whiting is used for a filler, primarily to prevent shrinkage, and as the whiting produces a surface to which latex does not stick satisfactorily, we employ, in such cases, a cement on the surface onto which the latex is to be sprayed. Thus in the structures of Figs. 1, 4 and 7, if the stock of which the respective base 21, 25 and 28 is made is a whiting filled stock, a coating 32 of cement is applied on the top pattern surface thereof before the latex is sprayed thereon.

For this purpose a cement may be employed made from the following compound:

	Pounds	Ounces
Pale Crepe	48	
941 Master	1	10
909 Master	1	8
Keystone Whiting	6	
Zinc Carbonate	5	
Rosin	2	8
Powdered Sulfur	1	
	65	10

wherein the 941 Master is composed of:

Pale Crepe	50
Flecto H (antioxidant) condensation product of acetone and aniline	50
	100

and the 909 Master is composed of:

Pale Crepe	80	
Altax (accelerator) Benzolthiazyl disulphide	16	11
D. O. T. G. (Di Ortho Tolyl Guanidine)	3	5
	100	

A very thin cement having a solid content of about 10 is made of this compound by dissolving in the proper amount of a suitable solvent and this cement is applied to the top surface of the base as indicated at 32 in Figs. 3, 6 and 9 by brushing the cement thereon or running the base through a pick up roller.

After the base layer is prepared with the embossed or molded surface and the cement applied if required to insure satisfactory sticking of the latex thereto, compounded latex is sprayed on

the embossed surface until the desired depth of deposit is obtained.

For this spraying operation a double spray gun is employed, such as indicated at **33** in Figs. 10 and 11 and shown in detail in Fig. 12, having two nozzles, one of which, indicated at **34**, supplies the latex dispersion in a fine spray at suitable velocity and the other of which, indicated at **35**, sprays a coagulant at an angle to the latex spray so as to intersect and mingle with the latex spray soon after the latter leaves the nozzle **34**.

The nozzles **34** and **35** are substantially alike and joined by a hinge connection **36** so that the angularity of one to the other may be adjusted as desired, the latex nozzle **34** having a body, indicated generally at **37**, with a latex passageway **38** leading therethrough to a nozzle tip **39** which has a threaded connection **40** with the body **37**, a flexible hose **41** being connected to the nozzle body at the outer end of the latex passageway **38** to supply latex to the nozzle tip **39**.

The nozzle body **37** at the nozzle tip end is enlarged to form a head **42** which is peripherally threaded at **43** for securing thereon a cap **44** which surrounds and provides an air chamber **45** around the nozzle tip **39**, and this air chamber **45** has an air outlet **46** therefrom surrounding the outer reduced extremity of the nozzle tip **39** to discharge a stream of air around the reduced outer end of the nozzle tip **39** and thereby suck latex from the nozzle tip **39** and break it up into fine particles, the size of which depends upon the pressure under which the latex is supplied to the nozzle tip **39**, the size of the nozzle tip orifice, and the volume and pressure of the air discharged from the chamber **45** through the air outlet **46** around the nozzle tip.

The nozzle body **37** has an air passageway **47** leading from the air chamber **45** to a body part **48** to which a flexible hose **49** is connected for supplying air to the nozzle and a branch **50** leads from the passageway **47** through the hinge connection **36** to supply air to the other nozzle **35**, it being understood, of course, that the air connection through the hinge **36** is arranged in well known manner to maintain uninterrupted air connection therethrough in the various angular positions to which the nozzles **34** and **35** may be adjusted.

The coagulant nozzle **35** is of substantially the same construction as the nozzle **34** with a nozzle body **51**, having a nozzle tip **52** and a cap **53** providing an air chamber **54** around the nozzle tip exactly in the same manner as in the latex nozzle **34** and this nozzle body **51** has a passageway **55** leading therethrough to the nozzle tip **52**, a flexible hose **56** being connected to the nozzle body **51** at the outer end of this passageway **55** to supply coagulant to the nozzle tip **52**. Air is supplied to the air chamber **54** of the nozzle **35** through a passageway **57** from the hinge connection **36** and cooperates with the nozzle **52** to deliver coagulant therefrom in the same manner as latex is delivered from the nozzle tip **39** of the latex nozzle **34**.

In some cases a flattened spray may be desired and for this purpose the caps **44** and **53** may be provided with diametrically opposed ears **68** with air outlet **69** therefrom directed inwardly toward the spray from the respective nozzle tip **39** or **52**.

While we are aware that other dispersions and coagulants may be employed and the materials of our invention may be produced with variations in the technique which we have employed, we have produced the materials very successfully by employing as a coagulant 10% formic acid and a latex compound having a measured sensitivity of approximately 2½ minutes and composed of the following:

	Pounds	Ounces	Grams
Centrifugal latex	23		
Dimethyl Amine		10	
37% Formaldehyde		12	
Water	1	8	
P-80 (50% Phthalic Anhydride) Accelerator		4	
P-81 (60% Sulfur Paste)		6	
P-82 (60% Zinc Oxide Paste)		4	
P-99 (50% Betanox Antioxidant Paste)		2½	
P-83-3 (60% Titanium Dioxide)	2	7	
P-41-2 (Mapico Brown) 50% Solids		5½	
PCD (Dupont-Blue) 21% Solids			11
	29	11	11

The P-41-2 and PCD are, of course, merely for coloring purposes and other color pigments are used according to the particular color desired.

Compressed air is supplied through the hose **49** to the nozzle at a pressure of from 40 to 80 pounds, depending on the size of the nozzles, while the latex dispersion is supplied through its hose **41** at about 2½ pounds pressure and the coagulant is supplied through the hose **56** under a gravity head of about 3 feet. With the nozzles and caps of the sizes hereinafter recommended an air pressure of approximately 40 pounds has been found quite satisfactory, but greater air pressure may be employed with larger latex nozzles and less pressure with smaller latex nozzles.

The size of the nozzle tip openings is quite important and the air orfices as well, and also the place of intersection of the coagulant spray with the latex spray and the distance of the nozzle from the surface to be sprayed. Control of static pressure on the latex is also quite important as this pressure regulates the volume or rate of flow of the latex from the nozzle and is an important factor in obtaining the required coagulation.

We have found that particularly satisfactory results are accomplished by using nozzle tips **39** and **52** corresponding respectively to the No. 2 and No. 0 nozzles of Paschee Spray Equipment Company of Chicago, Illinois, and caps **44** and **53** corresponding respectively to the No. 4—12 and No. 0—9 caps put out by said company.

The above mentioned cap No. 4—12 (**44** of Fig. 12) has an air outlet of 15.95 mm.^{2} area and the No. 2 nozzle (**39** of Fig. 12) has a discharge orifice of 2.92 mm.^{2} area and this No. 2 nozzle, at its outer end, where it projects into the air outlet of the cap No. 4–12, has an overall area of 6.44 mm.^{2} so that the actual air outlet (**46** of Fig. 12) is an annular opening the area of which is 9.51 mm.^{2} (15.95 mm.^{2} minus 6.44 mm.^{2}).

The above mentioned cap No. 0—9 (**53** of Fig. 12) has an air outlet of 9.42 mm.^{2} area and the No. 0 nozzle (**52** of Fig. 12) has a discharge orifice of 1.04 mm.^{2} area, and this No. 0 nozzle, at its outer end where it projects into the air outlet of the cap No. 0—9, has an overall area of 3.74 mm.^{2} so that the actual air outlet (**70** of Fig. 12) is an annular opening the area of which is 5.68 mm.^{2} (9.42 mm.^{2} minus 3.74 mm.^{2}).

The nozzles **34** and **35** of Fig. 12 are preferably adjusted so that the sprays therefrom intersect

at about three inches from the nozzles, this distance being indicated at *a* in Fig. 10.

The combined latex and coagulant spray is directed toward the surface of the pattern surfaced base, for example 24, 25 or 28 as indicated in Fig. 10, with the nozzle held at the proper distance from the surface which is indicated at 58 in Fig. 10, the nozzle and base being moved relatively in parallel relation to distribute the deposit to substantially the same depth throughout the entire area of the surface and the spraying being continued until the desired depth is obtained.

The spray gun may be moved back and forth over the surface 58 for this purpose, keeping the spray gun at the appropriate distance from the surface throughout its back and forth movement or the base 58 may be moved back and forth under a stationary spray gun instead if desired, or a battery of spray guns may be mounted over a conveyor on which the base is propelled under the spray guns at a proper rate of speed to build up the desired depth of deposit and with the spray guns provided in sufficient number and properly arranged to insure uniformity of depositing throughout the area of the base.

The spraying may be performed with the nozzle at a distance of approximately 30 inches (represented at *b* in Fig. 10) from the sprayed surface 58 throughout the spraying operation, but we have found it advantageous to initially spray at the 30 inch distance for approximately one-third of the spraying time and thereafter complete the spraying with the nozzle at a distance of approximately 24 inches (represented at *c* in Fig. 10) from the surface. The spraying at the approximately 30 inch distance during the initial approximately one-third of the spraying, piles up the particles in a loose texture that does not have adequate abrasive resistance for purposes wherein the material is subjected to considerable wear whereas we have found that by shortening the spraying distance to approximately 24 inches after initially spraying at the 30 inch distance, a closer knit texture results imparting a toughness to the piled up formations which provides improved wear and abrasive properties. Moreover, there is also lessened surface area and better resistance to oxidation.

Thus the particles of latex are built up on the base in more or less individualized piles and form a stubble surfacing on the base layer, the arrangement and proximity of the individualized piles depending upon the particular pattern that is embossed on the base, and as indicated in Figs. 3 and 6, the latex may be accumulated or built up in erect individual pile like elements of substantial height.

The surfacing thus produced and contemplated herein is of a character entirely dissimilar to the suede, granular, and pebbled surfacings heretofore produced by latex spraying and instead is composed of substantially individualized upstanding, loose-textured, fingery-like elements of a nature corresponding to tufts or pile elements of pile carpeting and the like, and reference herein to pile-like elements, pile formations and the like is to be understood to signify upstanding fingery-like formations in contradistinction to mere irregularities of surfaced texture such as constitute the suede, granular and pebbled surfacings heretofore produced.

For less individualized formations that are interconnected part way up from the base as in Fig. 9, the ratio of latex to acid is increased with the result that less complete coagulation occurs and the deposited latex spreads out more, thereby causing some fusing together of the already formed tufts or individual piles.

This increase in the ratio of latex to acid may be accomplished by using a nozzle 39 with a larger discharge orifice or by employing a higher static pressure on the latex so as to increase the rate of latex flow. We have found increase of static pressure to be more convenient as the pressure may be adjusted very readily to give any desired variation of rate of latex flow, a static pressure of from 3½ to 4 pounds (instead of the 2½ pounds recommended for individualized piles of Figs. 3 and 6) having been found quite satisfactory.

Instead of changing the distance of the nozzle from the sprayed surface from the recommended 30 inches to 24 inches, we have found that substantially the same result may be accomplished as indicated in Fig. 11 by locating the nozzle 24 so that the spray therefrom strikes the surface 58 at an angle somewhat as shown in said figure so that at the lower side of the spray stream, the distance from the nozzle to the surface, indicated at *b* in Fig. 11, is approximately 24 inches and the distance at the upper side of the spray stream from the nozzle to the surface, indicated at *c* in Fig. 11, is approximately 30 inches. Thus, by moving the base 58 in the direction indicated by the arrow 59 in Fig. 11, the initial spraying begins at approximately 30 inches distance from the nozzle and the distance gradually diminishes to the final spray distance of 24 inches. This method of spraying does not produce pile elements as erect or upright as spraying directly toward the surface in the manner shown in Fig. 10, the resultant pile elements of the Fig. 11 spraying, being piled up in a manner leaning somewhat toward the spray nozzle, but for some purposes this is not objectionable.

After the spraying is completed the material is vulcanized and the sprayed latex formations become inseparably combined with the rubber base into a unitary vulcanized rubber structure.

These materials may be made with different designs and depths of surfacing, for example, as much as one-eighth to one-quarter inch in depth, and also with differences in texture, depending upon the purpose for which they are to be used, and they may be made in different colors or with a mixture of colors by changing the color of the latex during the spraying operation. Moreover, the base may be made of one color with latex sprayed thereon of another color with the base color visible through the sprayed latex surfacing.

Moreover these materials may be used for a variety of different purposes. They are especially useful and desirable for floor coverings, because of their similarity in appearance and feel to pile or tufted carpeting that is commonly used. Such carpeting, while desirable for automobile floor mats and the like, is not practical because of the exposure thereof to mud, dirt, snow and the like that is tracked in by the car occupants and other conditions which soon render such mats unsightly and are otherwise detrimental thereto. The present materials are especially advantageous for this purpose because of their desirable similarity to pile or tufted carpeting and immunity to the conditions of automobile use which render ordinary carpeting unsuitable for such use.

Obviously the materials of this invention, being made entirely of rubber, may be readily washed and kept clean and, moreover, if made of a suit-

able synthetic rubber are immune to oil, grease and the like which it is difficult or impossible to remove from ordinary carpeting.

Automobile floor mats of this material, as illustrated in Fig. 13, may be made quite readily in forms and patterns particularly suited for automobile use. A border may be provided as indicated at **60** in Fig. 13 by compressing and flattening down a marginal portion of the sprayed latex surfacing before vulcanization of the mat or by masking out the border **60** during the spraying operation so as to leave the marginal surface of the base exposed. Other areas may also be masked out to leave the base exposed at other places if desired, as for example at **61** where the pedals and steering column extend therethrough and the base may, if desired, be provided with a thickened rubber portion as at **62** where the car operator's feet ordinarily wear the mat and this area **62** may be masked out in the spraying operation to leave the surface of the thickened rubber surface exposed. Moreover, different areas of the mat may be made with the base layer thereof differently embossed so that the latex formations produced thereon are differently arranged, as for example the floor board portion **63** may be embossed differently than the inclined toe board portion **64** so that the sprayed surfacing differs thereon and various color arrangements and combinations may also be employed to make the mat attractive as well as serviceable.

Moreover, this invention may be used advantageously for upholstering material, and particularly as an upholstery covering for foam rubber automobile cushions or the like which are to some extent subject to the same unfavorable conditions of use as the automobile mats.

In such cushions, which are commonly made by molding the foam rubber in the cushion form as shown in Fig. 14 with cored out openings **65** in the bottom thereof, the exposed cushion surfaces may be molded with an embossing or pattern providing formations **66**, corresponding to the elevations **24** or **26** of Figs. 1 and 4, upon which the latex sprayed upon the embossed cushion surface will pile up in the form of pile like elements **67**, and by spraying the latex directly thereon the cushion surfaces are thereby covered with a pleasing and practical surfacing **67** that has the appearance of a pile fabric which becomes an integral part of the rubber cushion upon vulcanization.

It is to be understood that while we have specified a particular latex compound that may be used in the spraying operation and have referred to our spraying procedure as latex spraying, our invention contemplates not only natural latex, but also dispersions of synthetic rubber or of any other similar elastic materials that may be employed for the purpose, all of which are contemplated in the term rubber as used in the claims hereof.

Moreover, while the base upon which the rubber or other material is sprayed is indicated herein as preferably of rubber, any other material may be used to which the sprayed rubber or other sprayed material will adhere or may be caused to adhere, as, for example, embossed paper or the like.

While we have shown and described our invention in a preferred form, we are aware that various changes and modifications may be made therein without departing from the spirit of our invention, the scope of which is to be determined by the appended claims.

What we claim is:

1. In a stubble surfaced material of the class described, the combination of a base and a stubble surfacing on said base, said stubble surfacing comprising a multiplicity of closely adjoining upstanding finger-like elements, each integrally bonded at its lower end to the base and composed of a pile of rubber particles coalesced in a scraggly mass, each pile being composed of vulcanized coagula of a rubber dispersion.

2. In a stubble surfaced material of the class described, the combination of a milled rubber layer, one face of which is formed with a multiplicity of closely adjoining elevational embossments, and a layer of stubble surfacing on said face comprising a corresponding multiplicity of individual upstanding substantially parallel finger-like elements of spongy rubber each composed of vulcanized coagula of a rubber dispersion and extending upwardly from and integrally bonded at its lower end to a separate embossment of the rubber layer.

3. A floor covering comprising a body layer having thereon a tread surfacing comprising a multiplicity of closely adjoining substantially parallel upstanding finger-like elements each integrally bonded at its lower end to the body layer and composed of an individual pile of rubber particles coalesced in cumulatively piled up relation, each pile being composed of vulcanized coagula of a rubber dispersion.

4. In a material of the class described, the combination of a base having thereon a surfacing comprising a multiplicity of closely adjoining upstanding substantially parallel scraggly surfaced finger-like elements of rubber each integrally bonded at its lower end to the base and composed of vulcanized coagula of a rubber dispersion.

5. A lumpy surfaced material of the class described comprising a body layer of rubber, one face of which is formed with a multiplicity of closely adjoining elevational embossments, and an individualized scraggly surfaced spongy rubber lump on each embossment composed of a pile of rubber particles coalesced in cumulatively piled up loose textured relation, each pile being composed of vulcanized latex coagula.

6. A member having a rubber surface in imitation of a pile fabric, each pile element thereof being elastic and having a rough exterior and comprising a plurality of rubber dispersion particles coagulated and vulcanized and bonded together into an elastic pile element, some of the particles projecting externally of the pile element and forming the rough exterior thereon in imitation of fabric.

7. A member having a rubber surface in imitation of a pile fabric, each pile element being elastic and having a rough exterior and comprising a plurality of rubber dispersion particles coagulated and vulcanized, said particles being spray-deposited upon one another progressively into a pile element, some of the rubber particles projecting externally and forming said rough exterior in imitation of fabric.

8. A floor covering comprising a rubber backing sheet having an embossed top surface and a pile surface in imitation of a pile fabric, each pile element being elastic and having a rough exterior and comprising a plurality of rubber dispersion particles coagulated and vulcanized and locally deposited on an embossment, some rubber particles projecting externally and forming said rough exterior in imitation of fabric.

9. A floor covering comprising a rubber backing sheet having an embossed top surface and a pile surface in imitation of a pile fabric, each pile element being elastic and having a rough exterior and comprising a plurality of rubber dispersion particles coagulated and vulcanized and deposited on an embossment, some rubber particles projecting externally and forming said rough exterior in imitation of fabric, adjacent pile members being interconnected between their ends.

10. A member having a rubber surface of pile like elements in imitation of a pile fabric, each pile like element being elastic and having a rough exterior and composed of a compilation of rubber dispersion particles and a coagulant, said rubber particles being clotted together and vulcanized in clotted together relation in an elastic pile like element, some of the particles projecting externally of the pile like element and forming said rough exterior thereon in imitation of fabric.

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