

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Filed:	September 21, 2021	Examiner:	Fred M. Teskin
Title:	DISPLAY ASSEMBLIES AND METHODS FOR APPLYING THE SAME TO VULCANIZED RUBBER ARTICLES	Docket No.	67838.00236

Mail Stop Amendments
Commissioner of Patents
P. O. Box 1450
Alexandria, VA 22313-1450

PRELIMINARY AMENDMENT

Dear Commissioner:

Prior to examination of the above-identified U.S. application, Applicant respectfully requests that the following preliminary amendments be entered:

Amendments to the Claims begin on page 2 of this paper.

Remarks/Arguments begin on page 12 of this paper.

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of the Claims:

1. to 20 (Cancelled)

21. (Previously Presented) An assembly for attachment with a vulcanized rubber article, the assembly comprising:
- an outer layer of flexible material having a visually defining feature; and
 - an adhesive layer adhered to an interface surface of the outer layer, wherein at least a portion of the adhesive layer or the outer layer adjacent the interface surface comprises material composition that is protective, and wherein the adhesive layer is formed from a material capable of bonding with a surface of a vulcanized rubber article.
22. (Previously Presented) The assembly as recited in claim 21, wherein the flexible material is an elastomeric material.
23. (Previously Presented) The assembly as recited in claim 21 further comprising a functional device.
24. (Previously Presented) The assembly as recited in claim 23, wherein the functional device is connected with a surface of the assembly.
25. (Previously Presented) The assembly as recited in claim 23, wherein the assembly comprises a cavity, and wherein the functional device is connected with the cavity.
26. (Previously Presented) The assembly as recited in claim 23, wherein the functional device is an electrical element.

27. (Previously Presented) The assembly as recited in claim 21, wherein the vulcanized rubber article is a vehicle tire and the assembly is configured for attachment with a surface of the vehicle tire.
28. (Previously Presented) The assembly as recited in claim 27, wherein the assembly is configured for attachment with a sidewall surface of the vehicle tire.
29. (Previously Presented) The assembly as recited in claim 21 comprising an intermediate layer interposed between the outer layer and the adhesive layer.
30. (Previously Presented) The assembly as recited in claim 21 comprising a further layer disposed over the outer layer opposite the adhesive layer, wherein the further layer comprises a material composition different than that of the outer layer.
31. (Previously Presented) The assembly as recited in claim 30, wherein the further layer is at least one of a visual or protective layer.
32. (Previously Presented) The assembly as recited in claim 21, wherein the outer first layer includes one or more openings therethrough, and wherein the adhesive is visible through the one or more openings.
33. (Previously Presented) A method for attaching an assembly to a surface of a vulcanized rubber article comprising the steps of;
placing the assembly into contact with a surface of the vulcanized rubber article, wherein the assembly comprises an outer layer of flexible material that is in contact with an adhesive layer interposed between the surface and the assembly, and wherein at least one of the adhesive layer or the outer layer comprises a material composition that is protective to the assembly; and
bonding the assembly to the vulcanized rubber article.

34. (Previously Presented) The method as recited in claim 33 comprising applying pressure to the assembly after the step of placing.
35. (Previously Presented) The method as recited in claim 34 comprising heating the adhesive layer after the step of placing.
36. (Previously Presented) The method as recited in claim 33, wherein the material construction does at least one of mitigates migration of a material from the vulcanized rubber article to the assembly or mitigates transmission of forces from the vulcanized rubber article to the assembly.
37. (Previously Presented) The method as recited in claim 33, wherein the vulcanized rubber article is a vehicle tire and the surface placed into contact with the assembly is a sidewall surface of the vehicle tire.
38. (Previously Presented) The method as recited in claim 33, wherein the assembly comprises a functional element.
39. (Previously Presented) The method as recited in claim 33, wherein the functional element is an electrical device.
40. (Previously Presented) The method as recited in claim 38, wherein the functional element is disposed within a cavity, and wherein the cavity is disposed in or on a portion of the assembly.
41. (Previously Presented) The method as recited in claim 33, wherein the outer layer has a material construction that is different from that of the vulcanized rubber article surface.
42. (Previously Presented) The method as recited in claim 33 comprising an intermediate layer interposed between the outer layer and the adhesive layer.

43. (Previously Presented) A vulcanized rubber article comprising:
a target surface disposed along a portion of the vulcanized rubber article;
an assembly bonded to the target surface and comprising:
an outer layer of flexible material having a visually defining feature; and
an adhesive layer interposed between the outer layer and the target surface,
wherein the adhesive layer is formed from a material capable of forming an attachment
bond between the assembly to the target surface of the vulcanized rubber article;
wherein at least a portion of at least one of the adhesive layer or the outer layer comprises
a material composition that is protective to the assembly.
44. (Previously Presented) The vulcanized rubber article as recited in claim 43,
wherein the vulcanized rubber article is a vehicle tire and the target surface is a sidewall surface
of the vehicle tire.
45. (Previously Presented) The vulcanized rubber article as recited in claim 43, further
comprising a functional element connected with the assembly.
46. (Previously Presented) The vulcanized rubber article as recited in claim 45,
wherein the functional element is an electrical device.
47. (Previously Presented) The vulcanized rubber article as recited in claim 45,
wherein the functional element is connected to a cavity, and wherein the cavity is disposed in or
on a portion of the assembly.
48. (Previously Presented) The vulcanized rubber article as recited in claim 43,
wherein the outer layer comprises a first layer and a second layer, and wherein at least a portion
of the adhesive layer or the second layer is visible from outside the first layer.

49. (Previously Presented) An assembly for attachment with a flexible article comprising:
an outer layer of flexible material having a visually defining feature; and
an adhesive layer adhered to an interface surface of the outer layer, wherein one or more of the outer layer or the adhesive layer has a material composition that is protective, and wherein the adhesive layer is formed from a material that bonds with a surface of a flexible article.
50. (Previously Presented) The assembly as recited in claim 49, wherein the outer layer of material has a material composition that is different from that of the flexible article.
51. (Previously Presented) The assembly as recited in claim 49, comprising a further layer disposed over the outer layer opposite the interface surface.
52. (Previously Presented) The assembly as recited in claim 51, wherein the further layer is a visual layer or a protective layer.
53. (Previously Presented) The assembly as recited in claim 49, wherein the outer layer comprises a first layer and a second layer, and wherein at least a portion of the second layer or the adhesive layer is visible from outside of the first layer.
54. (Previously Presented) The assembly as recited in claim 49, wherein the flexible article comprises one or more of a polymeric composition or an elastomeric composition.
55. (Previously Presented) The assembly as recited in claim 49 comprising a functional element.
56. (Previously Presented) The assembly as recited in claim 55, wherein the functional element is an electrical device.

57. (Previously Presented) The assembly as recited in claim 49, wherein the functional element is connected with a cavity of the assembly, and wherein the cavity is disposed in or on the outer layer.

58. (Previously Presented) A method for attaching an assembly to a surface of a flexible article comprising the steps of:

placing the assembly into contact with a surface of the flexible article, wherein the assembly comprises an outer layer of flexible material, wherein the outer layer is in contact with an adhesive layer interposed between the surface and the assembly, and wherein the outer layer comprises a material composition that is protective to the assembly; and

bonding the assembly to the flexible article.

59. (Previously Presented) The method as recited in claim 58 comprising applying pressure to the assembly after the step of placing.

60. (Previously Presented) The method as recited in claim 58 comprising heating the adhesive layer after the step of placing.

61. (Previously Presented) The method as recited in claim 58, wherein the material construction does at least one of mitigates migration of a material from the flexible article to the assembly or mitigates transmission of forces from the flexible article to the assembly.

62. (Previously Presented) The method as recited in claim 58, wherein the flexible article is formed from a polymeric or elastomeric material, and wherein the surface placed into contact with the assembly is a visible surface of the flexible article.

63. (Previously Presented) The method as recited in claim 58, wherein the assembly comprises a functional element.

64. (Previously Presented) The method as recited in claim 63, wherein the functional element is an electrical device.
65. (Previously Presented) The method as recited in claim 63, wherein the functional element is connected with a cavity, and wherein the cavity is disposed in or on a portion of the assembly.
66. (Previously Presented) The method as recited in claim 38, wherein the outer layer has a material construction that is different from that of the flexible article surface.
67. (Previously Presented) A flexible article comprising:
a target surface disposed along a portion of the flexible article;
an assembly disposed onto the target surface and comprising:
an outer layer of flexible material having a visually defining feature; and
an adhesive layer connected with the outer layer;
wherein at least a portion of the adhesive layer or the outer layer comprises a material composition that is protective.
68. (Previously Presented) The flexible article as recited in claim 67, wherein the flexible article is formed from a polymeric or elastomeric material.
69. (Previously Presented) The flexible article as recited in claim 67, wherein the outer layer is formed from a material that is different from that of the flexible article.
70. (Previously Presented) The flexible article as recited in claim 67 further comprising a functional element connected with the assembly.
71. (Previously Presented) The flexible article as recited in claim 70, wherein the functional element comprises an electrical device.

72. (Previously Presented) The flexible article as recited in claim 70, wherein the functional element is connected to a cavity, and wherein the cavity is disposed in or on a portion of the assembly.
73. (Previously Presented) The flexible article as recited in claim 67, wherein the outer layer comprises a first layer and a second layer, and wherein at least a portion of the adhesive layer or the second layer is visible from outside the first layer.
74. (Previously Presented) The flexible article as recited in claim 67 further comprising a surface layer disposed above the outer layer opposite the adhesive layer, wherein the surface layer is a visual or a protective layer.
75. (Previously Presented) The assembly as recited in claim 21 comprising a cavity that has an opening extending along a surface of the assembly.
76. (Previously Presented) The method as recited in claim 33, wherein the assembly comprises a cavity that is open along a surface of the assembly.
77. (Previously Presented) The vulcanized rubber article as recited in claim 43, wherein the assembly comprises a cavity that has an opening extending along a surface of the assembly.
78. (Previously Presented) The assembly as recited in claim 49 comprising a cavity that has an opening extending along a surface of the assembly.
79. (Previously Presented) The method as recited in claim 58, wherein the assembly comprises a cavity that is open along a surface of the assembly.
80. (Previously Presented) The flexible article as recited in claim 67, wherein the assembly comprises a cavity that has an opening extending along a surface of the assembly.

81. (Previously Presented) An assembly for attachment with a vulcanized rubber article, the assembly comprising:
- a layer of flexible material having an outer surface;
 - an adhesive layer connected with the layer of flexible material opposite the outer surface,
- wherein the adhesive layer is formed from a material capable of bonding with a surface of the vulcanized rubber article; and
- a cavity having an opening extending along a portion of the outer surface.
82. (New) The assembly of claim 81, wherein the cavity contains an electronic device.
83. (New) The assembly of claim 81, wherein at least one additional layer of flexible material is connected between the layer of flexible material opposite the outer surface and the adhesive layer.
84. (New) A method for attaching the assembly of claim 81 to a vulcanized rubber article comprising placing the assembly into contact with a surface of the vulcanized rubber article during a process of manufacturing the vulcanized rubber article.
85. (New) The method of claim 84, wherein at least the step of placing takes place after the vulcanized rubber article has exited a curing chamber.
86. (New) The method of claim 84, wherein after the step of placing the assembly, a compatible material of the adhesive layer and contact surface of the vulcanized rubber article form a bonded connection.
87. (New) The method of claim 84, wherein an additional adhesive is applied to the assembly or a contact surface of the vulcanized rubber article prior to the step of placing the assembly.

88. (New) The method of claim 84, wherein after the step of placing the assembly, the assembly is bonded to the contact surface of the vulcanized rubber article, and wherein during or after placing the assembly at least one or more of heat, pressure, or time is used to strengthen the bond.

89. (New) The method of claim 84, wherein the surface of the vulcanized rubber article is an inner liner of a tire.

90. (New) The method of claim 84, wherein a sensor is placed within the cavity of the assembly before or after the step of placing the assembly.

REMARKS

Prior to examination of this application, Applicant respectfully requests that the claims be amended as indicated herein. Support for the amendments may be found in the originally filed specification, claims, and figures. No new matter has been introduced by the amendments.

The Commissioner is hereby authorized to charge any fees, which may be required, or credit any overpayment, to Deposit Account No. 19-2814.

Respectfully submitted,

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