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(54) METHODS AND APPARATUS FOR CREATING AND APPLYING POM POMS TO OBJECTS AND SURFACES

VERFAHREN UND VORRICHTUNG ZUR ERZEUGUNG UND ANBRINGUNG VON PUSCHELN AN
OBJEKTE UND OBERFLÄCHEN

PROCÉDÉS ET APPAREIL POUR CRÉER ET APPLIQUER DES POMPONS À DES OBJETS ET DE
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Description

FIELD

[0001] The present patent document relates to methods and apparatus for creating and/or applying pom poms. More particularly, the present patent document relates to methods of play and apparatus for applying tufts of yarn or thread, a.k.a. "pom pom," to objects and/or surfaces.

BACKGROUND

[0002] In the field of toys and arts and crafts, there is a need for a variety of different play patterns to allow decoration of objects. Recently, the art of "bedazzling" objects has become very popular. When an object is "bedazzled" sequins, beads, rhinestones (fake or real) are glued to the outside surface of an object to give the object greater appeal. Often, the sequins are very shiny resulting in an object that sparkles or has "bling." Although bedazzling is popular, it has drawbacks. The sequins are small and easily lost. The object surface becomes very rough and uncomfortable. To this end, it would be beneficial to create methods and systems for decorating objects that overcomes or at least alleviates some of the drawbacks of bedazzling. WO98/41680 discloses a method of play according to the preamble of claim 1 and a kit for creating a pom-pom according to the preamble of claim 10.

SUMMARY OF THE EMBODIMENTS

[0003] A kit for applying fibers to a surface is provided. In one embodiment the kit comprises a plurality of pellets. Each pellet includes a plurality of colored fibers and/or single colored fibers and/or material strands aligned in parallel with their first ends defining a first plane and their second ends defining a second plane parallel to the first plane. In preferred embodiments, each pellet includes a plurality of fibers with their longitudinal axes running parallel to each other. Each pellet further includes an outer container that secures and holds the fibers and/or material strands in position. To this end, pellets are preferably cylindrical constructs of parallel fibers and/or material strands with an outer container. The pellets may include fibers of the same color and the kit may include pellets of different color fibers. In preferred embodiments, the pellets comprise fiber of the same color and/or material strands. However in other embodiments, pellets may contain different colored fibers and/or fibers of different materials within a single pellet.

[0004] In some embodiments, the kit includes pellets with adhesive already applied to one end of the pellets, either on the ends of the fibers defining the first plane or second plane. In other embodiments, the kit includes adhesive provided in small portions on a sheet not yet coupled to the pellets. The adhesive may be any type of

adhesive including but not limited to, thermoplastic hot melt dots, double sided tape or other types of adhesives.

[0005] In some embodiments, each pellet in the plurality of pellets has a visual indicator that allows the plane of fiber strands of each pellet to be oriented in the same direction.

[0006] In one aspect of the present patent document, a method of play is provided. In preferred embodiments, the method of play comprises: providing a pellet that includes a plurality of fiber strands of substantially the same length arranged in parallel along their transverse lengths, wherein the fiber strands are arranged such that at least one end of each fiber strand lies in a plane to form a plane of fiber strand ends and wherein the pellet further comprises a retainer that surrounds the transverse lengths of the fiber strands and is open at one end exposing the plane of fiber strand ends; coupling the pellet to an adhesive segment by coupling the plane of fiber strand ends to the adhesive segment; coupling the adhesive segment including the pellet to a substrate; and, removing the retainer from the pellet to form a pom pom.

[0007] In some embodiments, the retainer of the pellet is a plastic tube. Preferably, the retainer is open at both ends. However, in some embodiments it may only be open at one end.

[0008] In some embodiments, the method of play further comprises the step of picking the pellet from a pallet of pellets using an applicator wherein the applicator includes a handle portion and a cavity designed to have an interference fit with the outside surface of the retainer. In embodiments, that use an applicator, preferably both the coupling steps are performed using an applicator. The applicator makes it much easier for a human to manipulate the smaller pellets.

[0009] Although the pellets may be any shape, they are cylindrical in the preferred embodiments. In addition, although the fiber strands may be made from any material, they are preferably made from yarn.

[0010] In some embodiments, the pellet has at least one end of each fiber strand in the plane of fiber strand ends coupled together with an adhesive. The adhesive constrains one end of the fibers while the other end of each fiber remains free. In certain embodiments, the plane of fiber strand ends further comprises a visual indicator coupled thereto.

[0011] In another aspect of the present patent document, a kit for creating pom poms is provided. In preferred embodiments, the kit comprises: a plurality of pellets wherein each pellet comprises a plurality of fiber strands of substantially the same length arranged in parallel along their transverse lengths, wherein the fiber strands are arranged such that at least one end of each fiber strand lies in a plane to form a plane of fiber strand ends and wherein each pellet further comprises a retainer that surrounds the transverse lengths of the fiber strands and is open at one end exposing the plane of fiber strand ends; and, a plurality of adhesive segments arranged on a releasable surface wherein the adhesive segments

have a profile that is the same as a pellet cross section.

[0012] In some embodiments the kit may also include an applicator wherein the applicator includes a handle and a cavity and wherein the cavity is sized to form an interference fit with an outside surface of the container of a pellet. The applicator is preferably designed to allow the pellets to be more easily handled and applied to objects. The applicator allows the outer container to be more easily removed from the pellets once the pellets are coupled to an object or surface.

[0013] The kit may include any type of adhesive segments. Preferably the adhesive segments are provided on a flat sheet or rolled tape. In some embodiments, the adhesive segments are round thermoplastic hot melt dots.

[0014] In some embodiments of the kit for creating pom poms, the kit comprises: a plurality of pellets wherein each pellet comprises a plurality of fiber strands of substantially the same length arranged in parallel along their transverse lengths, wherein the fiber strands are arranged such that at least one end of each fiber strand lies in a plane to form a plane of fiber strand ends and wherein the fiber strands are contained within a plastic tube along their transverse lengths to form a cylindrical pellet; and, a plurality of round adhesive dots arranged on a releasable surface wherein the dots have a radius equal or less than the radius of the pellets in the plurality of pellets.

[0015] In most embodiments, the kit may also include one or more objects to apply the pom poms to. The objects may be figurines, mobiles, templates, cups, glasses, or just about any other object. The objects may have indicators that indicate a color and location to adhere a pellet. In some embodiments, the kit further comprises a template with indicators that indicate a color and location to adhere a pellet.

[0016] Further aspects, objects, desirable features, and advantages of the apparatus and methods disclosed herein will be better understood from the detailed description and drawings that follow in which various embodiments are illustrated by way of example. It is to be expressly understood, however, that the drawings are for the purpose of illustration only and are not intended as a definition of the limits of the embodiments.

BRIEF DESCRIPTION OF THE DRAWINGS

[0017] Fig. 1 illustrates one embodiment of a kit for allowing kids to play with pom poms.

[0018] Fig. 2 illustrates one embodiment of a pellet for use in making a pom pom.

[0019] Fig. 2A illustrates an end view of the constrained ends of one embodiment of a pellet for use in making a pom pom.

[0020] Fig. 3 illustrates a play pattern for applying pellets to form pom poms on a mobile.

[0021] Fig. 4 illustrates another play pattern in which pom poms are applied to a speaker.

[0022] Fig. 5 illustrates another play pattern in which a template is provided to allow the creation of images using pom poms

DETAILED DESCRIPTION OF THE EMBODIMENTS

[0023] The present patent document relates to methods and apparatus for adding pom poms to objects. The present patent document further relates to a number of play patterns involving the use of the methods and apparatus for adding pom poms to objects.

[0024] As used herein a "pom pom" may be any tuft, puff, or grouping of string, yarn, strands of fabric, fur or synthetic fiber. In a preferred embodiment, a pom pom consists of 1 or more individual pieces of fabric closely bunched together. In a preferred embodiment of a pom pom, the individual strands are constrained in close proximity on one end while being free on their opposite end. While a pom pom preferably has 5 or more individual strands, a pom pom may have any number of strands. As used herein, a pom pom may have 3, 5, 10, 15, 20, 50 or more individual strands constrained in close proximity at one end while free at their opposite ends. Preferably, a pom pom has between 1 and 48 strands of fiber. Even more preferably, a pom pom is comprised of 24 strands of fiber.

[0025] In preferred embodiments, the strands of fabric that form a pom pom are constrained in close proximity on one end. However, in other embodiments the strands of fabric may be constrained in close proximity in other locations. For example, in some embodiments, a plurality of strands of fabric may all be constrained in close proximity about their midpoints allowing both ends to be free. In other embodiments, the strands may be constrained in another location between their ends allowing both ends to be free.

[0026] Figure 1 illustrates one embodiment of a kit for allowing kids to create and apply pom poms to objects. As will be understood by reading this patent document, not all the items in the kit 20 shown in Fig. 1 are required to perform the methods described herein. The kit 20 of Fig. 1 includes, a pen 23, an applicator 24, three mini yarn spools 25, three fabric strips 26, two adhesive sheets 27, and thirty pom pom refills shown on three pallets 28. As may be seen in Fig. 1, a pom pom 22 adorns the end of pen 23. This is not required and is simply used to demonstrate the use of the pom pom 22.

[0027] Before becoming a pom pom, the fibers that will eventually become a pom pom may be provided in the form of a pellet. A plurality of pellets may be held, stored or placed on a pallet 28. Pellets may be organized by color such that each pallet 28 includes only a single color pellet. In Fig. 1, three pallets 28 of pellets are shown. Once the pellets are applied to a surface and transformed into a pom pom, they may appear similar to the pom pom 22 shown in Fig. 1.

[0028] Fig. 2 illustrates one embodiment of a pellet 10. The pellet 10 includes an outer retainer/container 12 that

surrounds a plurality of fiber strands 14. In the embodiment shown in Fig. 1, the outer retainer 12 is a circular tube but in other embodiments, other forms may be used. For example, outer retainer 12 may be square, hexagon or any other shape. In the embodiment shown in Fig. 1, outer retainer 12 is open at both ends. However in other embodiments, outer retainer 12 may be closed at one end. As may be seen in Fig. 1, the fibers 14 are all aligned with the outer retainer 12 such that they are parallel and their ends are arranged in approximately the same planes such that the assembly forms a cylinder. In preferred embodiments, the threads of fiber 14 are arranged such that at least one end of each fiber 14 lies in a plane to form a plane of fiber ends. In the embodiment shown in Fig. 1, outer retainer 12 is approximately the same length as the fibers 14. However, in other embodiments, outer retainer 12 may be shorter than the length of the fibers 14.

[0029] In a preferred embodiment, the outer retainer 12 of pellet 10 is composed of paper or plastic. However in other embodiments, other materials may be used including rubber, fabric or any other type of material. In some embodiments, the retainer 12 is very thin. For example, the retainer may have the thickness of a piece of paper or similar thickness piece of plastic.

[0030] In preferred embodiments of pellets 10, fiber(s) strand(s) 14 are tightly packed inside the outer container 12 in such a way that the fiber(s) strands(s) 14 will retain their position within the outer container 12 until they are adhered to a substrate and the outer container 12 is pulled away from the fiber(s) strand(s) 14. In preferred embodiments, the fiber strands 14 are of substantially the same length and arranged in parallel along their transverse lengths. In the context of this patent document, "substantially the same length" means that no fiber strand 14 in the same pellet 10 is more than 3 times the length of another fiber strand 14 in the same pellet. In preferred embodiments, all the fiber stands are the same length. In other embodiments, all the fiber stands 14 are within 90% of the length of all the other fiber strands 14 in the same pellet 10. Even if the fiber strands 14 in the same pellet 10 are of different lengths, each fiber 14 should have at least one end that lies substantially in a plane of fiber ends such that all the fiber s strands 14 may be easily coupled to objects. The different length fibers 14 will allow pom poms to be created that are "shaggy" or "bushy." Such pom poms may be advantageous for providing play patterns where the pom poms are later trimmed by scissors or other cutting apparatus.

[0031] In different embodiments, the pellet 10 may have different diameters depending on the number of fibers 14 contained within a pellet 10. In some embodiments, the pellets have a diameter less than 1 inch. In preferred embodiments, the pellets have a diameter between 0.2 inches and 2 inches and more preferably about 0.4 inches (10.5 mm). In other embodiments, the pellets have a diameter less than 3 inches although larger diameters may be possible.

[0032] In one embodiment, a method of applying one or more strands of fabric, fur or synthetic fiber(s) to a substrate using an adhesive to secure the fiber to the substrate is provided. In such embodiments, a pellet 10 may be used and an adhesive applied to one end of the pellet 10 such that the adhesive is coupled to the exposed ends of the fibers 14 on one end of the pellet 10. The pellet 10 with applied adhesive may be pressed onto any substrate or object by applying a force in the direction of the adhesive, perpendicular to the surface of the adhesive and the substrate. The outer retainer 12 is then pulled in a direction away from the substrate. The adhesive with fibers 14 is left attached to the substrate and the outer retainer 12 is pulled away and emptied. The end of the fibers 14 opposite the ends attached to the adhesive expand outward in a radial direction forming a pom pom.

[0033] In some embodiments, the pellets 10 may be manufactured with all the ends of the fibers 14 on one side of the pellet 10 already constrained. In other embodiments, the pellets 10 may be manufactured with both ends free such that the ends of the fibers on one side of the pellet 10 are not constrained until the pellet 10 is adhered to a surface to form a pom pom 22. In embodiments where all the ends of the fibers 14 on one side of the pellet 10 are constrained prior to being attached to a surface, the ends may be bonded together during manufacture of the pellets 10 using an adhesive. The adhesive may be any type of adhesive including glue, hot glue, hot melt, or any other type of adhesive. In embodiments where the pellets 10 are manufactured with all the ends of the fibers 14 on one side of the pellet constrained, the adhesive used to constrain the fiber ends is allowed to cure or dry such that a second adhesive is needed to attach the pellet 10 to a substrate to form a pom pom 22.

[0034] In some embodiments, the second adhesive, which preferably has a low profile, is also applied to one end of the fibers during the manufacturing process of a pellet 10. The adhesive may be comprised of a plastic or paper backing which protects the side of the adhesive not secured to the fibers. The paper backing is manually removed by peeling back the edge of the paper backing. The paper is then removed, exposing the adhesive. In some embodiments, the adhesive that constrains the ends of the fibers 14 in the pellet and the adhesive used to adhere the pellet to a substrate may be applied to the pellet during manufacture at the same time. In some embodiments, they may be one in the same adhesive.

[0035] In different embodiments, the adhesive used to affix the pellets 10 to a substrate may be applied in different ways. In one embodiment, the pellets 10 may come with adhesive already applied to one end of the fiber 14 during manufacturing. In preferred embodiments, the adhesive is applied to one and only one end of the fibers 14. In some embodiments, the adhesive may be liquid. However, in other embodiments the adhesive may be a gel or solid.

[0036] In some embodiments, the adhesive may be

provided as a number of preformed adhesive segments 29 on a sheet 27, as shown in Fig. 1. In some embodiments, the profile of the adhesive segment 29 may be formed in order to match the profile of the pellets 10. For example, in some embodiments, the adhesive may be an adhesive segment 29 designed to couple to the fibers 14 when packed into a pellet 10. In embodiments where the pellets 10 are cylinders, the adhesive segments 29 may be adhesive dots as shown in Fig. 1. In such embodiments, the further step of applying the adhesive segments 29 to the pellets 10 may be performed by an end user. To this end, in one play pattern, one end of a pellet 10 is pressed onto an adhesive segment 29 such that the adhesive segment 29 is coupled to the ends of the fiber 14 and then the assembly of the pellet 10 and adhesive segment 29 is applied to a substrate or object. Preferably, the pellet 10 is coupled to an adhesive segment 29 by coupling the plane of fiber ends to the adhesive segment 29. Then the adhesive segment 29 including the pellet 10 is coupled to a substrate or object. Once the assembly is coupled to an object, the retainer 12 may be removed from the pellet 10 to form a pom pom.

[0037] The adhesive sheet 27 may include one more backings that protect the adhesive segments 29. In embodiments where the adhesive is not coupled to the pellets during manufacture, the adhesive sheet 27 may consist of a layer of adhesive between two layers of plastic or paper backing which protects the sides of the adhesive. In embodiments where the adhesive is already coupled to the pellets 10, the adhesive may include a single backing on the side of the adhesive not secured to the fibers 14. The backing may be made of paper, wax paper, plastic or any other material. The backing may be manually removed by peeling back the edge. Once the backing is removed, the adhesive is exposed. In preferred embodiments, the adhesive has a low profile.

[0038] Returning to Fig. 1, it may be seen that adhesive segments 29 may be provided on sheets 27. In the embodiment shown in Fig. 1, each sheet 27 includes a plurality of round adhesive portions, a.k.a. adhesive dots 29. In other embodiments, shapes other than round may be used for the adhesive portions. Preferably, the adhesive portions match the shape and size of the cross section of the pellets 10. In some embodiments, the outside dimensions of the adhesive portions may be larger than the outside dimensions of the pellets 10. However, preferably, the outside dimensions of the adhesive portions are either the same size or smaller than the outside dimensions of the pellets 10. For example, in embodiments with round pellets 10 with about a 10.5mm diameter, the diameter of the adhesive dot preferably has a range of about 8-9mm. Generally, it is preferable that the outside diameter of the adhesive dot is at least a millimeter or more less than the diameter of the pellet; a range of 1-5 millimeters less is preferable and a range of 1-3 millimeters less is more preferable. As used herein "about the same radius" means that the first radius is within 25% of the second radius either larger or smaller. Such that a

10.5mm pellet and 8-9mm adhesive dots have "about the same radius."

[0039] In a preferred embodiment, the pellets 10 are round and the fibers 14 are secured by a tubular outer retainer 12. The adhesive is supplied as a plurality of adhesive dots on a sheet 27. In some embodiments, the adhesive dots may be supplied on a rolled up tape or sheet. In such embodiments, the adhesive dots preferably have a similar diameter to the diameter of the pellets 10. In operation, the adhesive on one side of the dots is exposed and one end of a pellet 10 is pressed against an adhesive dot. The center line of the outer retainer 12 should be aligned with the center line of the pre-cut circular adhesive segments 29. This causes the adhesive segment 29 to couple to one end of the pellet 10. Next, the adhesive on the other side of the adhesive segment 29 is exposed by further removing a backing. The pellet 10 with the adhesive segment 29 coupled to the fibers 14 may then be pressed on to a substrate or object. The pressing is performed such that one end of the fibers 14 is coupled to the substrate or object via the adhesive. This is typically in a direction perpendicular to the surface of the object or substrate and along the longitudinal axis of the pellet 10. Finally, the outer retainer 12 is removed such that the uncoupled ends of the fibers 14, the ends not attached to the adhesive segment 29, can spread out radially to form a pom pom. This is typically accomplished by pulling the outer retainer 12 in a direction away from the adhesive segment 29 along the longitudinal axis of the pellet 10.

[0040] Depending on the embodiment, the pellets 10 may be any shape or size. In some embodiments, the pellets 10 are around 1 to 2 inches in length. In other embodiments, longer or short pellets 10 may be used. Preferably, the pellets 10 are 1 inch in length and no less than 0.25 inches in length. In some embodiments, much longer pellets on the order of 5 to 10 inches or longer may be used.

[0041] Pellets 10 may contain any color fibers 14. Preferably, each pellet 10 only includes a single color fiber 14. However, in some embodiments, pellets with a plurality of fiber colors are possible. While typically a single pellet 10 may only have a single fiber color, kits for various different play patterns may be provided with a plurality of pellets of varying colors. However, there is no restriction to the type of colors that may be included in a pellet 10 and pellets may include fiber of the same color and/or material strands or a single pellet may contain different colored fibers and/or fibers of different materials. For example, in some embodiments, the pellets may be made up of half regular strands of fiber or yarn and half sparkly strands of fiber or yarn. The sparkly strands may be created using glitter or some other type of reflective material.

[0042] Fig. 2A illustrates an end view of the constrained ends of one embodiment of a pellet 10 for use in making a pom pom. As may be seen in Fig. 2A, a visual indicator 15 may be added to one end of the pellet 10. The visual indicator 15 may be any type of indicator including any

shaped dot or mark. The visual indicator is used to indicate an orientation for the pellet 10. Because the pellet may be manufactured with all the fiber ends pre-constrained on one end of the pellet 10, orientation of the pellet 10 can be important. Users will always want to orient the pre-constrained end towards the substrate they are attaching the pellet 10 to. To this end, a plurality of pellets may be provided all with a visual indicator on the end of the same side, either the constrained side or the unconstrained side. In preferred embodiments, the visual indicator is on the constrained side indicating that side should be placed against the substrate. In other embodiments, the visual indicator may be placed on the side of the container 12 and may indicate an orientation of the pellet 10 such as with an arrow or other indicator. In other embodiments, the container 12 may have a visual indicator on the side but towards one end to indicate an orientation. The key is that the visual indicators 15 consistently distinguishes between a constrained end and an unconstrained end of the fibers 14 in a pellet 10.

[0043] Returning to Fig. 1, in a preferred embodiment, an applicator 24 is used to apply the pellets 10 to a substrate or object. The applicator 24 may have various designs. As may be seen in Fig. 1, the applicator 24 includes a handle portion 31 and a cavity 33. The cavity is designed to have an interference fit with an outside surface of the retainer 12. Accordingly, the applicator 24 may couple to the outer retainer 12 of the pellets 10 such that when the applicator 24 is pulled away, the outer retainer 12 is pulled away with it. In preferred embodiment, the applicator 24 is coupled to the outer retainer 12 using an interference fit.

[0044] In preferred embodiments, an applicator 24 is used to mechanically transfer or couple the pellets 10 to other objects. In a preferred embodiment, the applicator 24 is designed to pick a single pellet 10 from a pallet 28. However, in other embodiments, the applicator 24 may be used to select multiple pellets 10 at a time.

[0045] In a preferred embodiment, the applicator 24 includes a passageway or cavity 33 with a diameter that is designed to create an interference fit with the outside of the outer retainer 12 of a pellet 10. To this end, the applicator 24 may be pressed onto the pellets 10 and when pulled away, will only remove the outer retainer 12. Preferably, the resistance between the passageway or cavity 33 of the applicator 24 and the outer surface of retainer 12 is more than the resistance between the inside surface of the retainer 12 and the fibers 14. In a preferred embodiment, the passageway or cavity 33 is at the end of a handle portion 31 allowing the pellets to be more easily maneuvered and applied.

[0046] Although the pellets 10 are typically applied to substrates by adding an adhesive to one end, the pellets 10 may be adhered and form pom poms in other ways not forming part of the claimed invention. In some embodiments, the fibers 14 may be retained by a slot or opening. In such an embodiment, a pellet 10 is placed within a slot or opening and the outer retainer 12 is re-

moved, the expansion of the compressed fibers 14 previously trapped by the outer retainer 12 secures the fibers in the opening. The remainder of the fibers length continues to expand forming a pom pom without the use of adhesive.

[0047] Using slots or openings allows the pellets 10 to form into pom poms without the use of adhesive. In a preferred embodiment, one end of the pellet 10 is pressed into an opening with a smaller cross-section than the cross section of the pellet 10. While a smaller cross-section may be advantageous to pinch the fibers 14 and securely anchor the pom pom 22, it is not required and other embodiments may use a less restrictive opening. In various different embodiments, openings or slots that may be used as anchors points for pom poms 22 may be formed in sheets, figurines, lamps or any other type of accessory.

[0048] Although embodiments of pellets 10 have, up to this point, included an outer container 12, some embodiments of a pellet 10 do not have an outer container 12. In some embodiments, the outer container 12 may be omitted and the pellet 10 comprises simply a plurality of fibers 14 constrained on one end. As discussed above, pellets 10 can have fibers 14 constrained at one end during manufacture. Embodiments without a container 12, have their fibers constrained at one end by an adhesive to create a pellet 10 without a container. As may be understood from the teachings herein, if the pellets have the fibers constrained at one end using an adhesive during manufacture, the container take many different forms or be omitted. For example, rather than a cylindrical container like the one shown in Fig. 2, the container 12 could be a retaining ring, such as an elastic band or string. In yet other embodiments, the container 12 could be any band or sheath that restricts the spread of the ends of the fibers 14 opposite the constrained ends.

[0049] Numerous play patterns may be developed using the methods disclosed herein. For example, pom poms 22 may be applied to numerous different objections including, figurines, glasses, electronics such as phones, cups and numerous other objects. In some embodiments, numerous pom poms 22 may be applied in close proximity to create a larger pom pom.

[0050] Fig. 3 illustrates a play pattern for applying pellets to form pom poms 22 on a mobile 30. The mobile 30 may be any shape or size and the pom poms 22 may be applied in various different locations. Various different color pom poms 22 may be used. In preferred embodiments, the pom poms 22 are applied with an applicator 24.

[0051] Fig. 4 illustrates another play pattern in which pom poms 22 are applied to a speaker/stereo 40. As may be seen in Fig. 4, any color and any style of decoration may be used. A single pellet 10 may be applied in one spot to form a small puff or pom pom 22 or multiple pellets 10 may be applied in close proximity to create a larger puff or pom pom 22.

[0052] Fig. 5 illustrates another play pattern in which

a template is provided to allow the creation of images using pom poms. As may be seen in Fig. 5, a kit or studio may be provided with a craft box 50 that includes one or more templates for creating images out of pom poms. In the embodiment shown in Fig. 5, a grid 54 may be provided for holding a plurality of pom poms. The grid 54 may be laid over a template of an image. The template may provide indicators to indicate both the color and location that a pom pom should be formed. For example, the template may have colored spots. Each spot is located where a pom pom should be placed and each spot is colored to the color of the pom pom that should be placed there. The pom poms may be inserted in the grid 54 such that the color of the pom poms is matched to the color shown below on the template or image. Once the pom poms are placed in the grid 54, the grid 54 may be rotated about an axis such that it comes into contact with a sticky canvas 52. The pom poms will be stuck to the canvas 52 and when the grid 54 is pulled away, their outer retainers 12 may be simultaneously removed revealing an image similar to the template only constructed of pom poms.

[0053] In yet another embodiment, no studio or grid is needed and pom poms may be applied directly to a template or image.

[0054] Pellets 10 may be manufactured in many different ways. In one embodiment, a plurality of fiber strands 14 may be pulled through a retainer 12. In preferred embodiments, the retainer 12 begins much longer than the final pellet length and is then cut once the appropriate number of fiber strands 14 have been pulled through. For example, twenty-four 18 inch fiber strands may be pulled through a straw or other retainer 12. Once twenty-four strands have been pulled through, the straw or retainer 12 may be cut along its length in a plurality of locations to form a plurality of pellets 10. In some embodiments, the ends of each pellet 10 may have an adhesive applied to constrain the ends of the fiber strands 14 on one side of the pellet during manufacture.

[0055] Although the embodiments have been described with reference to preferred configurations and specific examples, it will readily be appreciated by those skilled in the art that many modifications and adaptations to the methods and apparatus described herein are possible.

Claims

1. A method of creating a pom-pom comprising:

providing a pellet (10) comprising a plurality of fiber strands (14) of substantially the same length arranged in parallel along their transverse lengths, wherein the fiber strands (14) are arranged such that at least one end of each fiber strand lies in a plane to form a plane of fiber strand ends and wherein the pellet (10) further comprises a retainer (12) that surrounds the

transverse lengths of the fiber strands (14) and is open at one end exposing the plane of fiber stand ends; **characterised by** coupling the pellet (10) to an adhesive segment (29) by coupling the plane of fiber strand ends to the adhesive segment (29); coupling the adhesive segment (29) including the pellet (10) to a substrate; and removing the retainer (12) from the pellet (10) to form a pom-pom (22).

2. The method of claim 1, wherein the retainer (12) is a plastic tube.

3. The method of claim 1, wherein the retainer (12) is open at both ends.

4. The method of claim 1, further comprising the step of picking the pellet (10) from a pallet of pellets (28) using an applicator (24) wherein the applicator (24) includes a handle portion (31) and a cavity (33) designed to have an interference fit with an outside surface of the retainer (12).

5. The method of claim 4, wherein both the coupling steps are performed using the applicator (24).

6. The method of claim 1, wherein the pellet (10) is cylindrical.

7. The method of claim 1, wherein the fiber strands (14) are yarn.

8. The method of claim 1, wherein the pellet (10) has at least one end of each fiber strand (14) in the plane of fiber strand ends coupled together with an adhesive.

9. The method of claim 8, wherein the plane of fiber strand ends further comprises a visual indicator (15) coupled thereto.

10. A kit (20) for creating pom-poms (22) comprising:

a plurality of pellets wherein each pellet (10) comprises a plurality of fiber strands (14) of substantially the same length arranged in parallel along their transverse lengths, wherein the fiber strands (14) are arranged such that at least one end of each fiber strand lies in a plane to form a plane of fiber strand ends and wherein the at least one end of each fiber strand (14) are coupled together with an adhesive; and, a plurality of adhesive segments (29) arranged on a releasable surface (27) wherein the adhesive segments (29) have a profile that is about the same as a pellet cross section.

11. The kit (20) of claim 10 wherein each pellet (10) further comprises a retainer (12) that surrounds the transverse lengths of the fiber strands (14) and is open at one end exposing the plane of fiber strand ends.
12. The kit (20) of claim 11, further comprising an applicator (24), wherein the applicator (24) includes a handle (31) and a cavity (33) and wherein the cavity (33) is sized to form an interference fit with an outside surface of the container (12) of a pellet (10).
13. The kit (20) of claim 10, wherein each pellet (10) in the plurality of pellets is cylindrical.
14. The kit (20) of claim 12, wherein the adhesive segments (29) are round thermoplastic hot melt dots.
15. The kit (20) of claim 10, wherein the fiber strands (14) are yarn.
16. The kit (20) of claim 11, wherein the retainer (12) is a plastic tube.
17. The kit (20) of claim 11, wherein the retainer (12) is open at both ends.
18. The kit (20) of claim 10, wherein each pellet (10) in the plurality of pellets has a visual indicator (15) that allows the plane of fiber strands to be oriented in the same direction.

Patentansprüche

1. Verfahren zum Erzeugen eines Puschels, umfassend:

Bereitstellen eines Pellets (10), das eine Mehrzahl von Fasersträngen (14) von im Wesentlichen der gleichen Länge umfasst, die parallel entlang ihrer Querlängen angeordnet sind, wobei die Faserstränge (14) derart angeordnet sind, dass mindestens ein Ende jedes Faserstrangs in einer Ebene liegt, um eine Ebene von Faserstrangenden zu bilden, und wobei das Pellet (10) ferner einen Halter (12) umfasst, der die Querlängen der Faserstränge (14) umschließt und an einem Ende, das die Ebene von Faserstrangenden freilegt, offen ist;

gekennzeichnet durch

Koppeln des Pellets (10) an ein Klebstoffsegment (29) durch Koppeln der Ebene von Faserstrangenden an das Klebstoffsegment (29); Koppeln des Klebstoffsegments (29), welches das Pellet (10) aufweist, an ein Substrat; und Entfernen des Halters (12) von dem Pellet (10), um einen Puschel (22) zu bilden.

2. Verfahren nach Anspruch 1, wobei der Halter (12) ein Kunststoffrohr ist.
3. Verfahren nach Anspruch 1, wobei der Halter (12) an beiden Enden offen ist.
4. Verfahren nach Anspruch 1, ferner umfassend den Schritt des Aufnehmens des Pellets (10) von einer Palette von Pellets (28) unter Verwendung eines Applikators (24), wobei der Applikator (24) einen Griffabschnitt (31) und einen Hohlraum (33) aufweist, der mit einer Presspassung mit einer Außenoberfläche des Halters (12) konzipiert ist.
5. Verfahren nach Anspruch 4, wobei beide Koppelschritte unter Verwendung des Applikators (24) ausgeführt werden.
6. Verfahren nach Anspruch 1, wobei das Pellet (10) zylindrisch ist.
7. Verfahren nach Anspruch 1, wobei die Faserstränge (14) Garn sind.
8. Verfahren nach Anspruch 1, wobei das Pellet (10) mindestens ein Ende jedes Faserstrangs (14) in der Ebene von Faserstrangenden aufweist, die mit einem Klebstoff aneinander gekoppelt sind.
9. Verfahren nach Anspruch 8, wobei die Ebene der Faserstrangenden ferner einen damit verbundenen visuellen Indikator (15) umfasst.
10. Kit (20) zum Erzeugen von Puscheln (22) umfassend:

eine Mehrzahl von Pellets, wobei jedes Pellet (10) eine Mehrzahl von Fasersträngen (14) von im Wesentlichen der gleichen Länge umfasst, die parallel entlang ihrer Querlängen angeordnet sind, wobei die Faserstränge (14) derart angeordnet sind, dass mindestens ein Ende jedes Faserstrangs in einer Ebene liegt, um eine Ebene von Faserstrangenden zu bilden, und wobei das mindestens ein Ende jedes Faserstrangs (14) mit einem Klebstoff aneinander gekoppelt sind; und, eine Mehrzahl von Klebstoffsegmenten (29), die auf einer lösbaren Oberfläche (27) angeordnet sind, wobei die Klebstoffsegmente (29) ein Profil aufweisen, das etwa einem Pelletquerschnitt entspricht.

11. Kit (20) nach Anspruch 10, wobei jedes Pellet (10) ferner einen Halter (12) aufweist, der die Querlängen der Faserstränge (14) umschließt und an einem Ende, das die Ebene der Faserstrangenden freilegt, offen ist.

12. Kit (20) nach Anspruch 11, ferner umfassend einen Applikator (24), wobei der Applikator (24) einen Griff (31) und einen Hohlraum (33) aufweist und wobei der Hohlraum (33) so bemessen ist, dass er eine Presspassung mit einer Außenoberfläche des Behälters (12) eines Pellets (10) bildet.
13. Kit (20) nach Anspruch 10, wobei jedes Pellet (10) in der Mehrzahl von Pellets zylindrisch ist.
14. Kit (20) nach Anspruch 12, wobei die Klebstoffsegmente (29) runde thermoplastische Heißschmelzpunkte sind.
15. Kit (20) nach Anspruch 10, wobei die Faserstränge (14) Garn sind.
16. Kit (20) nach Anspruch 11, wobei der Halter (12) ein Kunststoffrohr ist.
17. Kit (20) nach Anspruch 11, wobei der Halter (12) an beiden Enden offen ist.
18. Kit (20) nach Anspruch 10, wobei jedes Pellet (10) in der Mehrzahl von Pellets einen visuellen Indikator (15) aufweist, der ermöglicht, dass die Ebene von Fasersträngen in der gleichen Richtung ausgerichtet ist.

Revendications

1. Procédé de création d'un pompon comprenant :

l'approvisionnement d'une pastille (10) comprenant une pluralité de brins de fibres (14) ayant sensiblement la même longueur, disposés en parallèle le long de leurs longueurs transversales, dans laquelle les brins de fibres (14) sont agencés de telle sorte qu'au moins une extrémité de chaque brin de fibre se trouve dans un plan pour former un plan d'extrémités de fil de fibre et dans lequel la pastille (10) comprend, en outre, un élément de retenue (12) qui entoure les longueurs transversales des brins de fibres (14) et est ouverte à une extrémité exposant le plan des extrémités de support de fibre ;

caractérisé par

le couplage de la pastille (10) à un segment d'adhésif (29) en couplant le plan des extrémités de brin de fibre au segment adhésif (29) ;
par le couplage du segment adhésif (29), incluant la pastille (10), à un substrat ; et
par le retrait du dispositif de retenue (12) de la pastille (10) pour former un pompon (22).

2. Procédé selon la revendication 1, dans lequel le dispositif de retenue (12) est un tube en matière plas-

tique.

3. Procédé selon la revendication 1, dans lequel le dispositif de retenue (12) est ouvert dans ses deux extrémités.
4. Procédé selon la revendication 1, comprenant, en outre, l'étape de prélèvement de la pastille (10), à partir d'une palette de pastilles (28) en utilisant un applicateur (24), ledit applicateur (24) incluant une poignée (31) et une cavité (33) conçue pour permettre un ajustement serré avec une surface extérieure de l'élément de retenue (12).
5. Procédé selon la revendication 4, dans lequel les deux étapes de couplage sont réalisées en utilisant l'applicateur (24).
6. Procédé selon la revendication 1, dans lequel la pastille (10) est cylindrique.
7. Procédé selon la revendication 1, dans lequel les brins de fibres (14) sont des fils.
8. Procédé selon la revendication 1, dans lequel la pastille (10) présente, au moins, une extrémité de chaque brin de fibre (14), dans le plan des extrémités de brin de fibre couplées avec un adhésif.
9. Procédé selon la revendication 8, dans lequel le plan des extrémités de brin de fibre comprend, en outre, un indicateur visuel (15) couplé à celui-ci.

10. Kit (20) pour créer des pompons (22) comprenant :

une pluralité de pastilles où chaque pastille (10) comprend une pluralité de brins de fibres (14) ayant sensiblement la même longueur, disposés en parallèle, le long de leurs longueurs transversales, dans laquelle les brins de fibres (14) sont agencés de telle sorte qu'au moins une extrémité de chaque brin de fibre se trouve dans un plan pour former un plan d'extrémités de fil de fibre et dans lequel au moins une extrémité de chaque brin de fibre (14) est couplée avec un adhésif ; et,
une pluralité de segments adhésifs (29) agencés sur une surface amovible (27) dans laquelle les segments adhésifs (29) ont un profil qui est à peu près le même qu'une section transversale de pastilles.

11. Kit (20) selon la revendication 10, dans lequel chaque pastille (10) comprend, en outre, un élément de retenue (12) qui entoure les longueurs transversales des brins de fibres (14) et est ouvert à une extrémité exposant le plan des extrémités de brin de fibre.

12. Kit (20) de la revendication 11
comprenant, en outre, un applicateur (24), ledit applicateur (24) incluant une poignée (31) et une cavité (33) et dans lequel la cavité (33) est dimensionnée pour former un ajustement serré avec une surface extérieure du récipient (12) d'une pastille (10). 5
13. Kit (20) selon la revendication 10, dans lequel chaque pastille (10), dans la pluralité de pastilles, est cylindrique. 10
14. Kit (20) selon la revendication 12, dans lequel les segments adhésifs (29) sont des points de fusion thermoplastiques ronds. 15
15. Kit (20) selon la revendication 10, dans lequel les brins de fibres (14) sont des fils.
16. Kit (20) selon la revendication 11, dans lequel le dispositif de retenue (12) est un tube en matière plastique. 20
17. Kit (20) selon la revendication 11, dans lequel le dispositif de retenue (12) est ouvert dans ses deux extrémités. 25
18. Kit (20) selon la revendication 10, dans lequel chaque pastille (10) dans la pluralité de pastilles a un indicateur visuel (15) qui permet au plan des brins de fibres d'être orienté dans la même direction. 30

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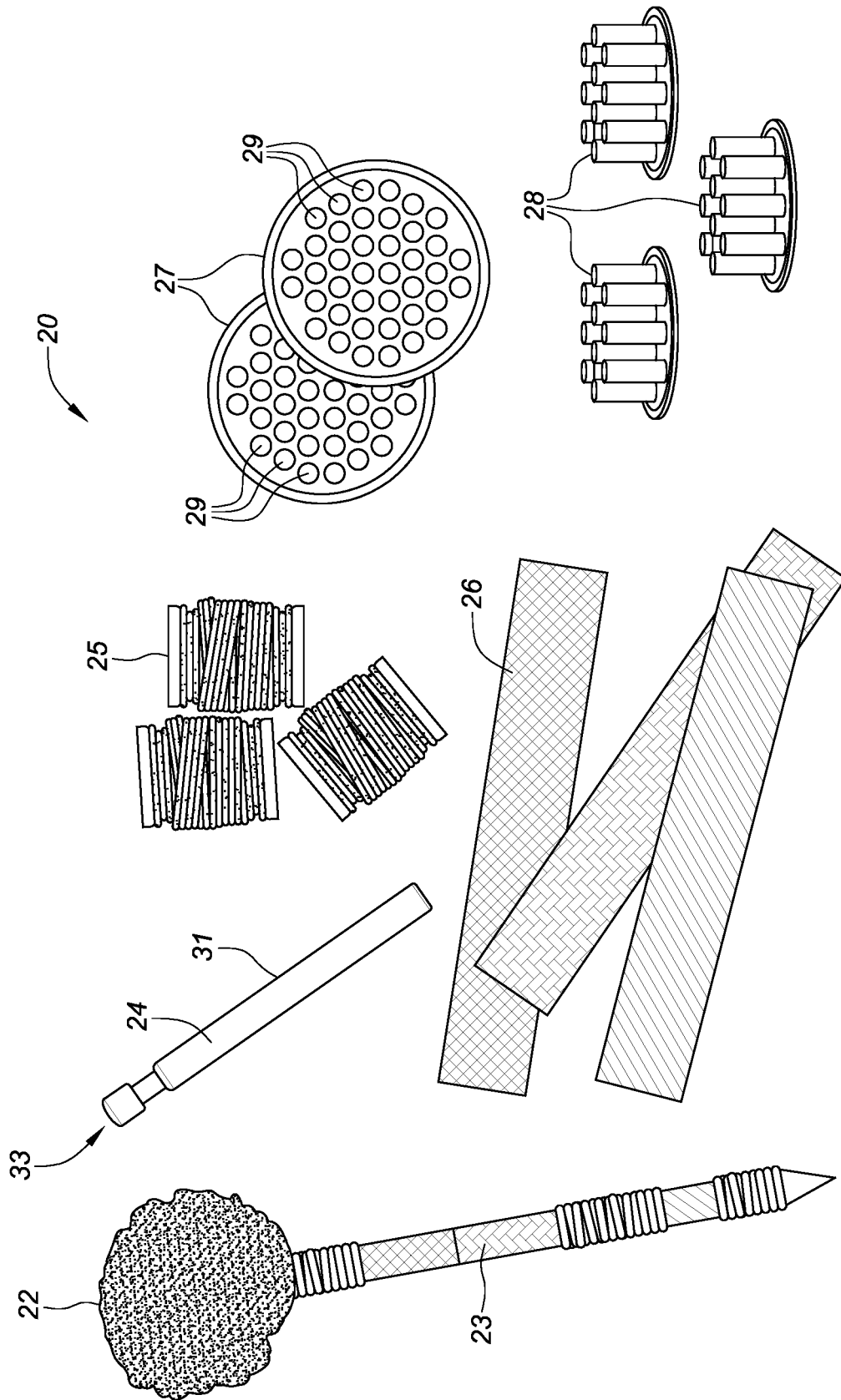


FIG. 1

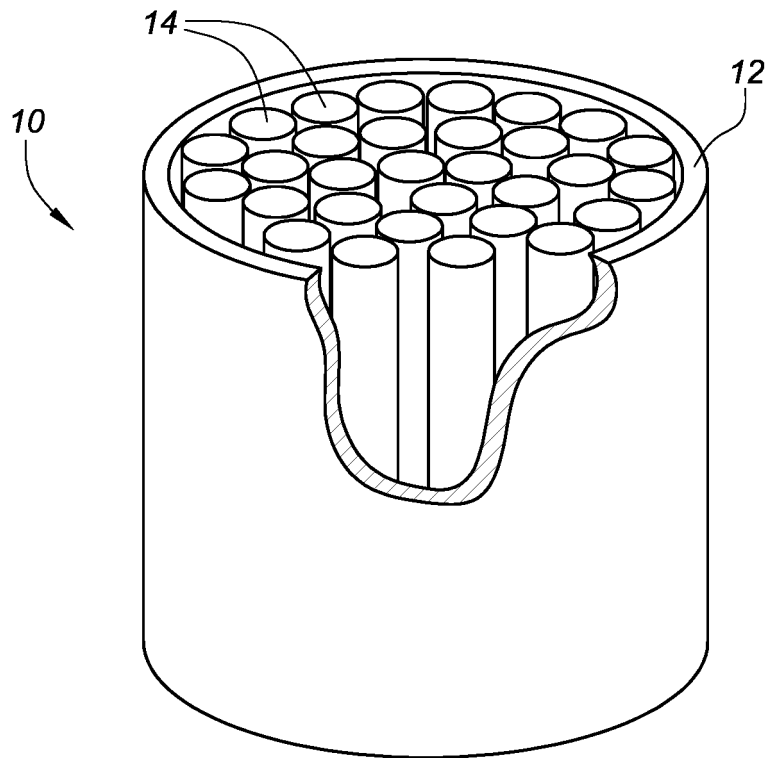


FIG. 2

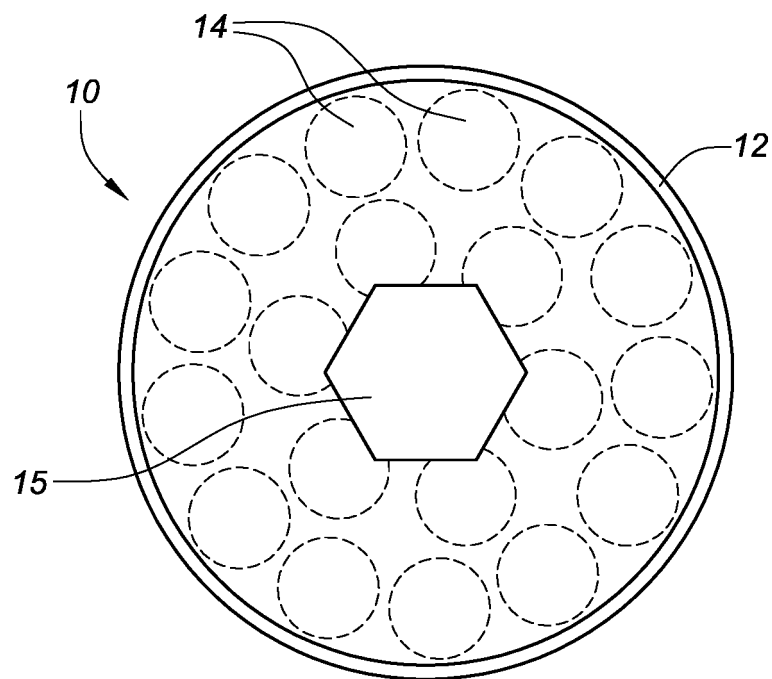


FIG. 2A

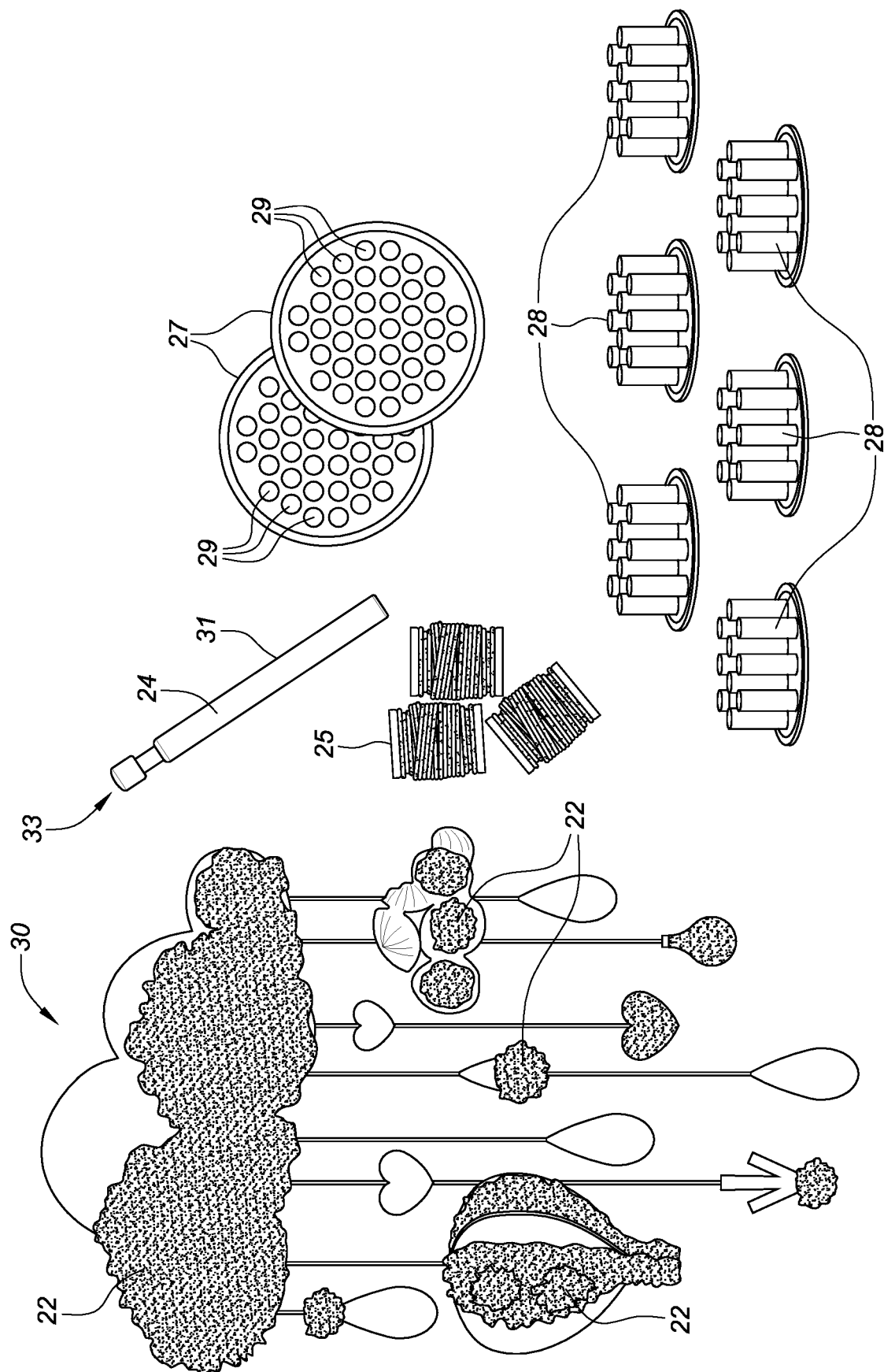


FIG. 3

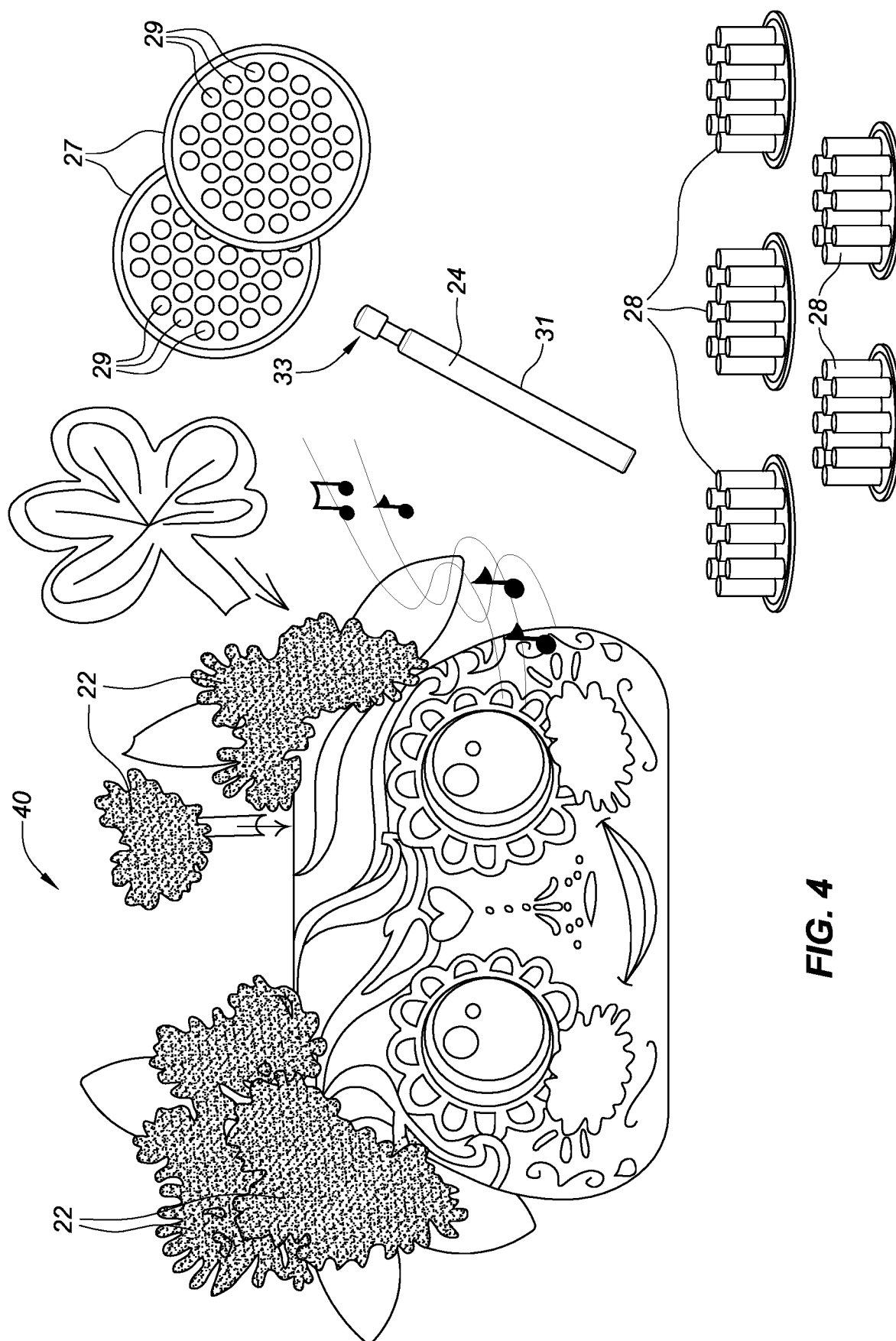


FIG. 4

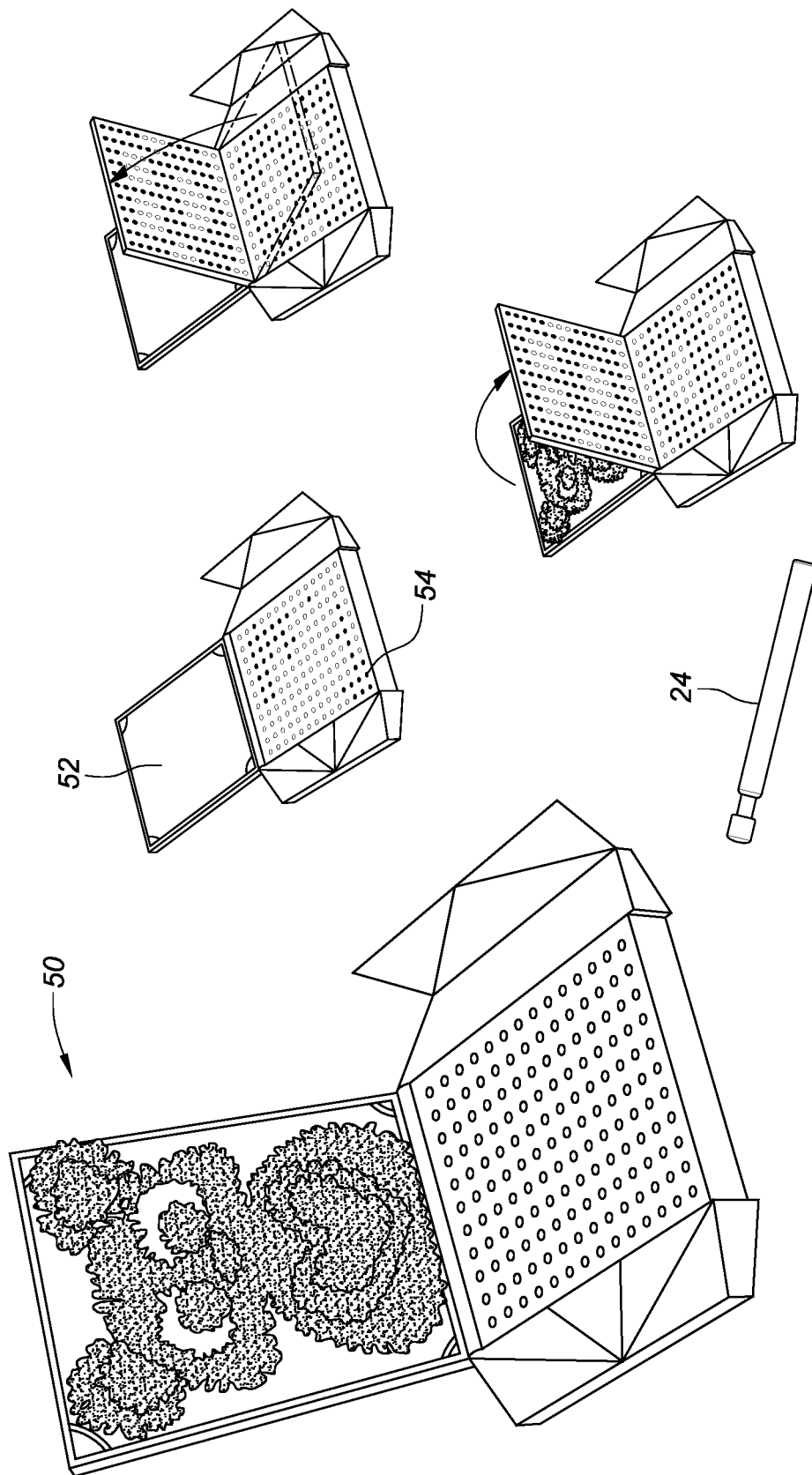


FIG. 5

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

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