A method is provided for tying a continuous sequence of substantially identical overhand knots from a single piece of material. The sequence of knots is useful in the art of clothing design, accessory ornamentation, and decorative design, but may also be used for other aesthetic purposes.
DECORATIVE KNOT SEQUENCE AND METHOD FOR ITS FORMATION

FIELD OF THE INVENTION

[0001] This application relates to the field of tying knots. In particular, the application relates to the formation of decorative knots for use primarily in artistic designs.

BACKGROUND OF THE INVENTION

[0002] There is a considerable interest in forming knots from lace, line, string, rope, cable, ribbon, fabric, or any other kind of material known in the art of knot tying. While it is well known that knots can be used to bind and secure objects, knots are also often used in the artistic design of decorating clothing, small personal belongings, house interiors, and the like.

[0003] Knots have long been used in the clothing industry, the accessory industry, and decorative design. The kinds of knots used in these applications range from the structural to the ornamental, and in some cases, a knot can be both structural and ornamental (e.g., buttons). Ornamental knots, unlike structural knots, must be pleasing to the eye. There needs to be, therefore, a method of unvaryingly and efficiently tying a sequence of substantially identical knots. Efficiently tying substantially identical knots is particularly useful when the knots are to be arranged in a continuous manner or in close proximity. Using conventional knot-tying methods, however, can make this task quite daunting.

[0004] One advantage of the current invention is using the aforementioned principles in combination with a newly discovered knot-creating technique that enables the user to form a continuous, uniform sequence of knots from a single piece of material, such as fabric.

SUMMARY OF THE INVENTION

[0005] In accordance with one aspect of the present invention, a method is provided for tying a continuous sequence of substantially identical knots. The sequence of knots is useful in the art of clothing design, accessory ornamentation, and decorative design, but may also be used for other aesthetic purposes.

[0006] The term “designer” as used herein refers to a person or persons, as the case may be, who devises and/or executes designs related to knots, clothes, or other works in which knots may be used, whether alone or in one or more groups, whether in the same or various places, and whether at the same time or at various different times.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] FIGS. 1-3 illustrate a method of folding a piece of material to produce a ribbon-like length of material for use in knot tying;
[0008] FIG. 4, illustrates an end portion of the ribbon-like length;
[0009] FIGS. 5 and 6 illustrate the method of producing a single overhand knot using the ribbon-like length of FIG. 4;
[0010] FIGS. 7 and 8 illustrate the method of producing a continuous sequence of substantially identical knots using the method of FIGS. 5 and 6; and

[0011] FIGS. 9A and 9B illustrate both sides of a continuous length of the knots.

DETAILED DESCRIPTION

[0012] In certain embodiments, the knot may be constructed from a ribbon-like length of fabric. The ribbon-like length may be prepared from any type of fabric known in the art (e.g., acetate, acrylic, cotton, linen, nylon, polyester, rayon, silk, satin, velvet, denim, felt, flannel, microfiber, etc.).

[0013] In certain embodiments, the first step in the formation of the ribbon-like length of material is to fold over the end, or edge, of a piece of material as illustrated in FIG. 1. The end folding width 102 can vary depending on the designer’s application, but in the depicted embodiment, the folding width 102 is approximately ¼ inch. In certain embodiments, folding the end of the material may prevent fraying of the material and/or provide the termination point of the ribbon-like length of material with a cleaner, finished look.

[0014] FIG. 2 illustrates the step of folding the sides of the ribbon. The folding width 202 depends on the desired thickness of the final, ribbon-like length of material and the desired shape. In the depicted embodiment, the desired thickness of the ribbon-like length 400 is six material layers, thus the folding width 202 on each side would be approximately ⅛th the overall material width 104.

[0015] FIG. 3 illustrates the additional step of folding the sides of the material shown in FIG. 2. In the depicted embodiment, the folding width 302 is substantially equal to the folding width 202 in FIG. 2.

[0016] FIG. 4 illustrates the final step of folding the sides of the material shown in FIG. 3. In the depicted embodiment, the folding width 402 is substantially equal to both the folding width 202 in FIG. 2 and the folding width 302 in FIG. 3.

[0017] In the depicted embodiment of FIG. 4, the ribbon-like length 400 is six material layers thick; however, the ribbon-like length 400 may be any number of layers in thickness. The number of layers needed is a function of both the individual designer’s desired final thickness and the thickness of the material being used. For example, if a very thin material is used, a designer may use many folds to increase the final thickness. Conversely, if a thick material is used, the designer may use only a few folds, and the final ribbon-like length will be only a couple of layers thick.

[0018] In certain embodiments, an adhesive may be used between the layers or the folds to ensure that the ribbon-like length 400 does not unfold before, during, or after preparation. The adhesive or similar material may also be used to prevent the edges of the material from fraying.

[0019] In certain embodiments, the folding width in FIGS. 2-4 may be intentionally varied, thus giving the ribbon an inconsistent thickness. In some designs, for example, the designer may prefer the appearance of knots if one side of the ribbon-like fabric is thicker than the other.

[0020] FIGS. 5 and 6 illustrates the steps of forming a single overhand knot 408 from a ribbon-like length 400. A loop 406 to receive the working end 404 is formed in the ribbon-like length 400. The working end 404 is folded over the intersection point 410 of the working end 404 and the standing part 412 and pulled through the loop 406. The overhand knot 408 is tightened by pulling or tugging on the working end 404 while securing the standing part 412.

[0021] Once the first overhand knot 408 is formed, the process, as seen in FIG. 7 and FIG. 8, is repeated at another point in the fabric length. In the depicted embodiment, the
knots are arranged such that each knot in succession is in direct contact with the previous knot. The process of FIGS. 7 and 8 is repeated until the desired length of knots is reached. FIGS. 9A and 9B show both sides of a portion of a complete, continuous, uniform sequence of knots from a single piece of fabric.

In general, the embodiments described herein use fabric in the knot-tying process. However, it is entirely possible to apply the process of tying a continuous, uniform sequence of knots to other applications which involve flexible materials other than fabric. For example, in jewelry making, a designer could choose to use metal ribbon, strips or the like when making the metal equivalent of the ribbon-like fabric length 400. The final product could be used in a plurality of applications, including the fabrication of necklaces, rings, or bracelets, or it could be used merely as ornamentation.

Although various embodiments have been described with reference to a particular arrangement of parts, features and the like, these embodiments are not intended to exhaust all possible arrangements or features, and indeed, many other embodiments, modifications, and variations will be ascertainable to those of skill in the art.

What is claimed is:

1. A sequence of knots, comprising:
   a single ribbon-like length of material having a working end and a standing part, wherein the single ribbon-like length is formed by folding a planar material one or more times; and
   a plurality of knots in physical contact with one another wherein each knot is tied by:
   (1) forming a first loop element, defined by a cross-under area between the working end surface and the standing part surface of the ribbon-like length made responsive to one another, (2) penetrating said first loop with the working end and (3) adjusting the knot tightly against the standing part.

2. The sequence according to claim 1, wherein the material is acetate, acrylic, cotton, linen, nylon, polyester, rayon, silk, satin, velvet, denim, felt, flannel or microfiber.

3. The sequence according to claim 1, wherein the material is a metal or metal alloy.

4. A method of producing a sequence of knots, comprising the steps of:
   (1) providing a single ribbon-like length of material having a working end and a standing part, wherein the single ribbon-like length is formed by folding a planar material one or more times
   (2) holding the standing part in one hand and the working part in opposite hand;
   (3) passing the working end of the knot material underneath the standing part from right to left thereby forming an underhand loop wherein a cross-under area is formed where both parts of the knot material cross;
   (4) feeding the working end through the underhand loop;
   (5) pulling the working end while securing the standing part;
   (6) adjusting the knot tightly against the standing part;
   (7) repeating the method at step 2, wherein the newly formed knot becomes part of the standing part.

5. The sequence according to claim 4, wherein the material is acetate, acrylic, cotton, linen, nylon, polyester, rayon, silk, satin, velvet, denim, felt, flannel or microfiber.

6. The sequence according to claim 4, wherein the material is a metal or metal alloy.

* * * * *