# United States Patent [19]

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### [54] METHOD OF STRINGING BEADS

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#### **Related U.S. Application Data**

- [62] Division of Ser. No. 831,565, June 9, 1969, Pat. No. 3,650,010.
- [51] Int. Cl. .....B23p 19/04
- [58] Field of Search ......29/160.6, 433, 241; 63/2

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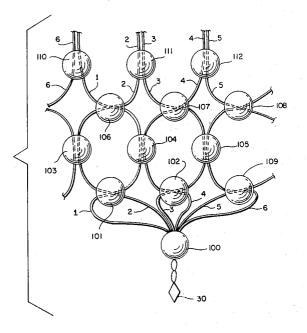
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Primary Examiner—Charlie T. Moon Attorney—Finnegan, Henderson, Farabow & Garrett

### [57] ABSTRACT

Method for stringing beads wherein a plurality of cords, not less than six, are paired and the cords of each pair are criss-crossed in a horizontally run through a bead, resulting in a re-pairing, which pair is then vertically run through a bead together with a stand having a central opening for practicing the method and the resultant three dimensional string of beads.

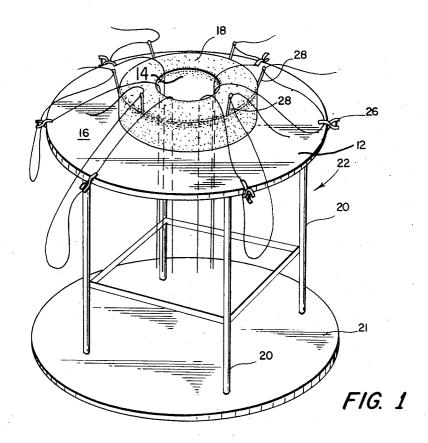
#### **3 Claims, 5 Drawing Figures**

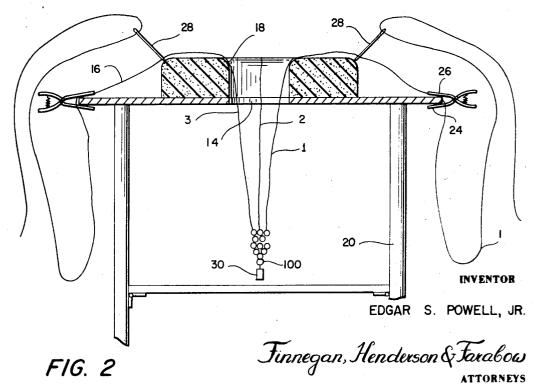


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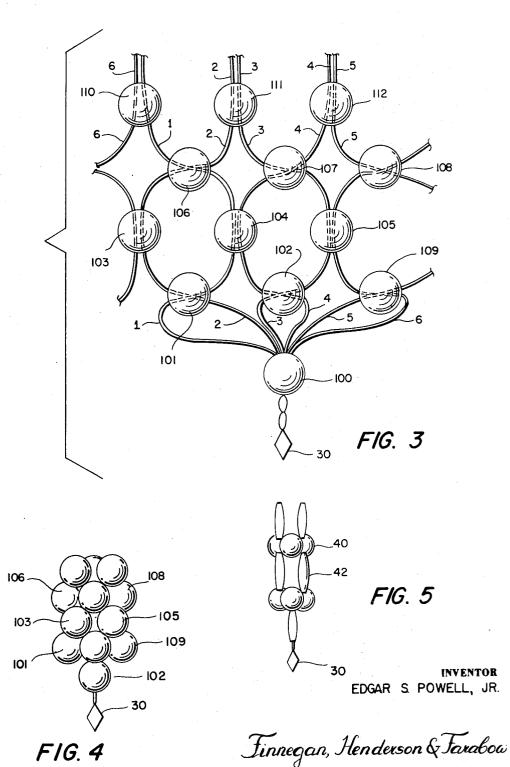




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### METHOD OF STRINGING BEADS

This application is a division of application Ser. No. 831,565, filed June 9, 1969, now U.S. Pat. No. 3,650,010.

The invention herein relates to the threading of beads and more particularly to the method for doing so and including means for conveniently practicing the method and the product resulting therefrom.

To avoid confusion in terminology, "cord" will be 10 used for the material on which the beads are threaded, "thread or threading" used for the act of placing the beads on the cord, and "string" will be used with reference to the finished product. Additionally considering the passage through a bead as the reference 15 point, the cords are defined as being in a horizontal criss-crossed run when the passage through the bead is in a horizontal plane, and as being in a vertical parallel run when the bead passage is in a vertical plane.

More specifically, the method basically contemplates <sup>20</sup> the utilization of an even number of cords, not less than six, joined at one end; preferably passed through one bead; and then radially spread and angularly spaced apart from the knot or head, as the center point. Thereafter a first pair of adjacent cords is criss-crossed <sup>25</sup> through a bead, followed by the second pair through a second bead, followed by the third pair through a third bead. The next step is to pass the re-paired cords emerging from adjacent and facing horizontal bead ends, vertically through a bead followed by the next or <sup>30</sup> second pair vertically through a second bead, and the third pair vertically through a third bead.

The above sequence of horizontal criss-crossing runs and vertical paralleling runs is then repeated until a string or desired length is completed, and finally all <sup>35</sup> cords are passed through one bead and tied into a knot. The result is a string which has a three dimensional appearance, substantially triangular when six cords are used, rectangular when eight cords are used, pentagonal when 10 cords are used, with the shape being <sup>40</sup> dependent upon the number of cords.

In carrying out the method a stand is utilized to permit the knotted end of the cords to be centrally suspended with the cords extending radially and angularly spaced about a collar member. In this manner successive pairs of cords may be easily selected.

The stand generally comprises a table top provided with a central opening surrounded by a cushion collar extending vertically from the top. The top is supported by legs at a suitable height, providing in effect a central well in which the ends of the cords are suspended and knotted, with the cords angularly disposed around the collar, draped over the table top, removably held in position, on the table top, and the threading needle positioned in the cushion collar. The stand may be set upon a revolving "lazy susan" platform to facilitate the operation.

From the foregoing it is seen that the object of the invention is to produce a string of beads having a three dimensional characteristic and the method for readily producing such strings.

A further object is a stand for utilization with the method whereby the latter may be readily practiced.

A further object is a stand which may be readily 65 folded for packing, storing or the like.

A still further object is a string of beads having increased strength as two cords pass through each bead.

The foregoing and other objects and the advantages will become apparent from the description when read in view of the accompanying drawings wherein:

FIG. 1 is a perspective view of the stand with the 5 cords positioned for practicing the method;

FIG. 2 is a cross section of FIG. 1;

FIG. 3 is a view illustrating the method;

FIG. 4 is a portion of a string when six cords are used, and

FIG. 5 is a portion of a string when eight cords are used.

Referring to the drawings the stand 10 includes a table top 12 which may be of any shape but is preferably circular and provided with a central circular opening 14. The table top upper surface and outer periphery is preferably covered with cloth or other soft material 16 for reasons hereafter explained. Surrounding the opening 14 and secured to table top 12 in any suitable manner is a cushion collar 18, which in the embodiment illustrated is a ring of styrofoam into which needles 28 may be repeatedly inserted and removed.

The table top 12 is shown as supported by a plurality, of legs 20, which may be secured to the underside of the top in any suitable manner, preferably being foldable and locked in vertical position in a manner similar to the folding legs on any conventional bridge table. It should be apparent that any means may be used to support the table top at the desired height. The stand may then be supported on a revolving lazy-susan platform 21.

The stand further includes a plurality of clips 22 disposed radially and spaced angularly around the periphery of the table top. The clip 22 is shown con-35 structed in the same manner as a conventional spring type clothes pin, and may be removable, but in the preferred form the clip leg 24 (FIG. 2) is secured to the under surface of the table top and thus when the outer ends are pressed toward each other the upper leg 26 40 will be removed away from the top to permit a cord to be held thereunder. It is apparent that the clips 26 could be replaced by simple radial projections around which a turn or two of the cord could be made, but the clips have been found to be the most satisfactory hold-45 ing means.

The dimensions of the stand are not critical. The stand actually reduced to practice has a table top 12 with a 15-inch diameter and has a central opening 14, 5 inches in diameter. The cushion collar 18 has an inside diameter of 5 inches, an outside diameter of 9 inches and is 2 inches high. The edges inside and outside should be rounded. The table top is supported by 18-inch legs, and preferably the stand is supported on a revolving means, such the lazy susan 21 to permit rota-55 tion when in use.

With the stand so constructed, its use in carrying out the method will be described with relation to producing a string of beads having six cords (see FIG. 3). A desirable length of cord 1 is threaded through a needle 28 and the needle is inserted into the cushion collar 18. The cord 1 is then looped down and then up to the table top and then draped across the table top and over the cushion 18 with the free end suspended downwardly through opening 14, and with the proper length suspended the cord is secured by the clip 24 to the table top, the cloth top and periphery of the table top preventing abrasion of the cord. Not only does the 5

styrofoam cushion collar 18 permit repeated insertion and removal of the needle 28, its surface also serves to hold the cord 1 in position. The above step is repeated for each of the cords 2, 3, 4, 5, and 6 (see FIG. 1) and each cord will be radially and angularly spaced approximately 60° from the one next to it. The free ends of the six cords are now, in effect, within a well, and their free ends are gathered together and knotted, whereupon a weight 30 is attached at the knot and preferably all six cords are then successively strung in vertical parallel 10 number of pairs of cords, but not less than three pairs, relation through a single bead 100 (see FIG. 2). The weight 30 may be an ornamental clasp.

Referring now to FIG. 3, the cords may be considered as three pairs 1 and 2; 3 and 4; and 5 and 6. Cords 1 and 2 are initially criss-crossed in a horizon- 15 tally run through a spherical bead 101 and each cord is then replaced on the collar cushion 18 in the position of the other, i.e., the needle of cord 1 is now radially positioned in the starting position of cord 2 and the 1. The second pair of cords 3 and 4 are now crisscrossed through head 102 and the needles radially transposed to the others position. The third pair of cords 5 and 6 are now criss-crossed through bead 109 25 and transposed radially at the table top in like manner to the earlier pairs. This step would be repeated for each pair of cords were more used.

It will now be seen from FIG. 3 that the pairing of cords becomes 5 and 2, 1 and 4, and 3 and 6. The  $_{30}$ respective pairs are now paralleled and vertically run through the beads 103, 104, and 105 and each needle is replaced in its previous position. At the next step the initial pairs are again horizontally criss-crossed through beads 106, 107, and 108 and comparing beads 101 and 35 106 it will be seen that the criss-crossing has been reversed and all the cords will be in their initial positions. On the next vertical run in order to prevent a vertical bead from being directly over a horizontal bead, the threading is now shifted  $60^{\circ}$  to pair 6 and 1; 2 and 3; 40 4 and 5; and each respective pair run vertically through the respective beads 110, 111, and 112.

It is thus seen that the string comprises successive rows of horizontal beads and vertical beads, and the vertical runs must always consist of the cords which 45 become paired by emerging from the facing ends of adjacent beads because of the criss-crossing, or stated another way the pair of cords criss-crossed through a single bead are never paired for the next vertical run. As a result when the beads are in position on a 50 suspended inside and below the collar and the other completed string the beads of each successive row will tangentially engage and be centrally disposed relative

to two beads of row below it. This is illustrated in FIG. 4 wherein a three dimensional triangular effect is obtained.

FIG. 5 illustrates a string wherein four pairs of cords are used, and the horizontal rows are of spherical beads 40 and the vertical beads 42 are elongated ovals. The resultant string is rectangular in cross section and each side is similar to the view illustrated.

From the foregoing it can be seen that by varying the and by successively alternating horizontal crisscrossing runs and the parallel vertical runs, numerous varieties of strings may be produced, each of which has a three dimensional effect.

It is also apparent that variations can be made; for example, there can be successive vertical runs between horizontal runs, or vice versa, or any combination of same, and in all instances whenever a horizontal row and vertical row succeed each other the beads of each needle of cord 2 is now in the starting position of cord 2 and the 1. The accord 1 is needed to cord 2 and the starting position of cord 20 is needed to co is necessary however that in all variations the cord extending from one end of a horizontal bead be paired with the cord projecting from the adjacent or facing end of the next horizontal bead.

> It is also apparent that variations can be made in the size, shape and color of the beads used, as well as the number in each row.

The following is claimed:

- 1. The method of stringing beads which includes,
- a. providing a plurality of cords, not less than six,
- b. knotting one end of all cords together,
- c. spacing the cords radially and angularly outwardly from the knot,
- d. providing a plurality of beads equal in number to half the number of cords,
- e. horizontally and criss-cross running each successive pair of cords through a successive bead passage,
- f. pairing the cords extending from adjacent and facing horizontal bead passages,
- g. providing a second plurality of beads equal to half the number of cords, and
- h. vertically running each such last pairing through a successive vertical bead opening.

2. The method defined in claim 1 including alternate horizontal criss-crossing and vertically parallel runs.

3. The method defined in claim 1 wherein one free end of each cord is initially spaced radially and angularly around a collar with the free end of each cord free end exterior of the collar.

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