Nov. 23, 1943. W. GLUCK 2,335,053

METHOD AND DEVICE FOR MAKING HAIR RIBBON BOWS

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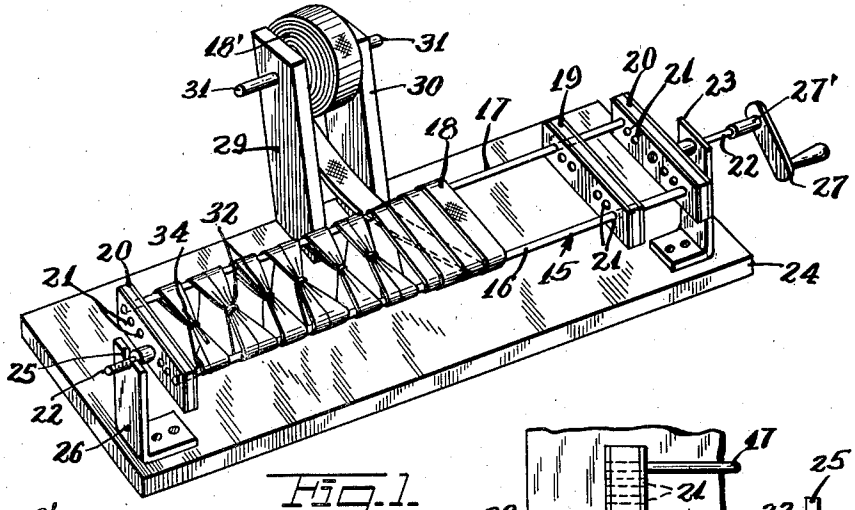


Fig. 1.

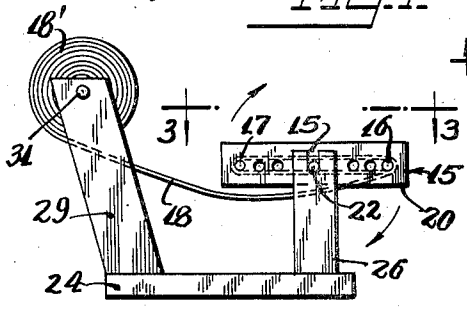


Fig. 2.

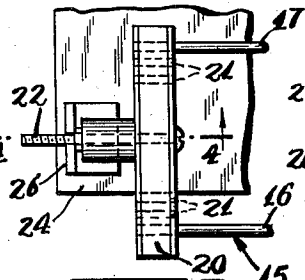


Fig. 3.

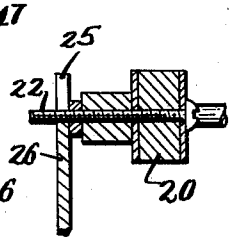


Fig. 4.

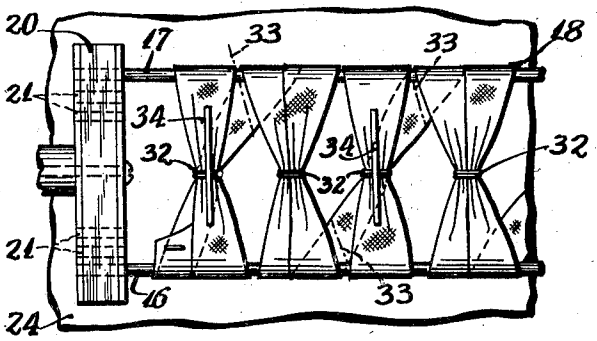


Fig. 5.

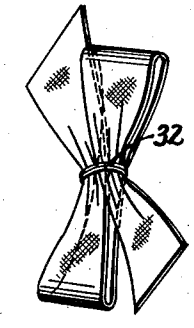


Fig. 6.

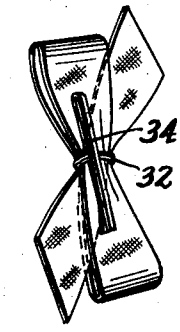


Fig. 7.

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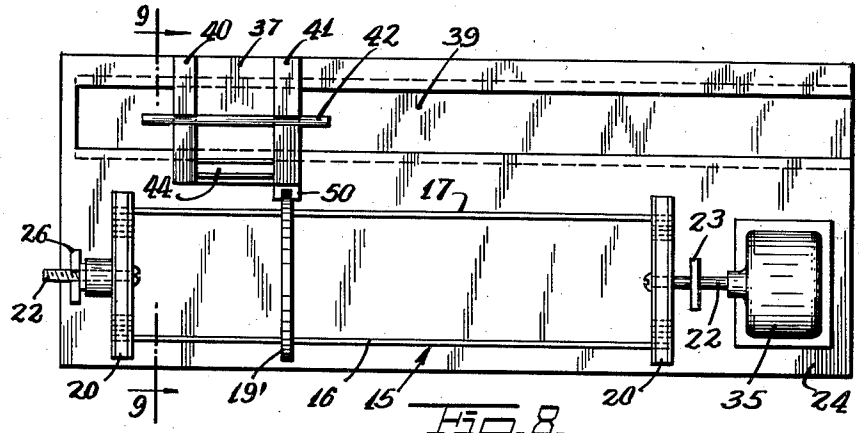


Fig. 8.

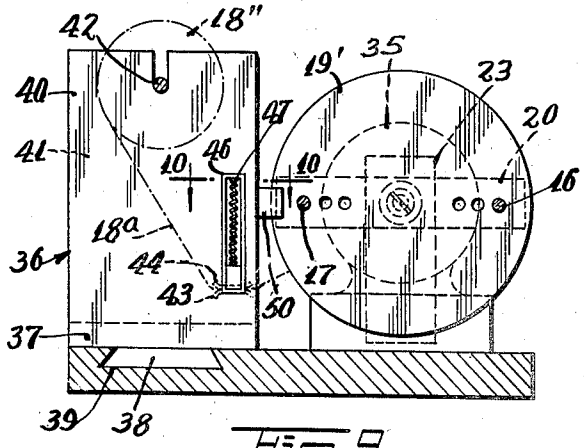


Fig. 9.

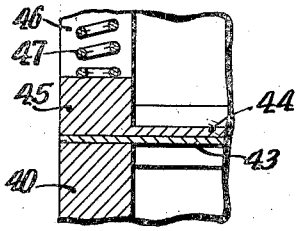


Fig. 11.

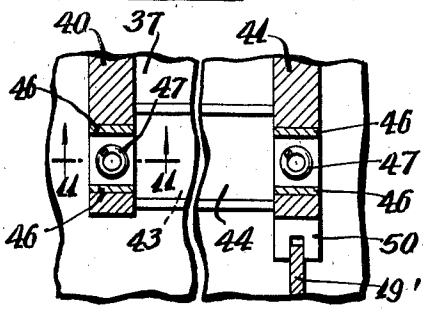


Fig. 10.

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METHOD AND DEVICE FOR MAKING HAIR RIBBON BOWS

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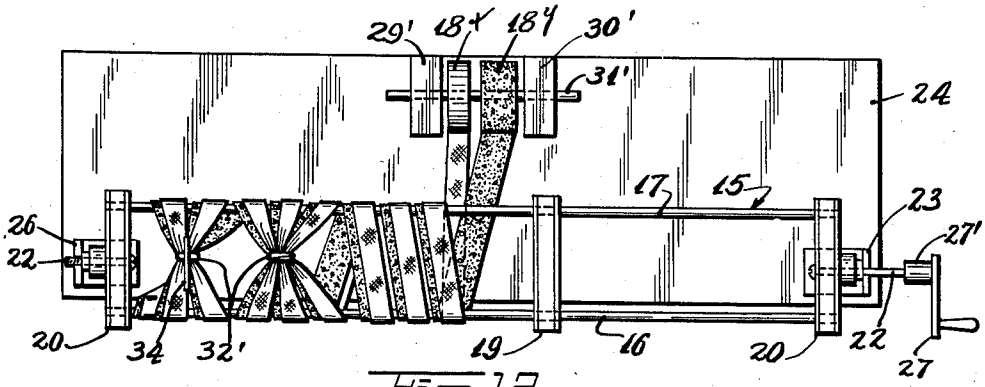


Fig. 12.

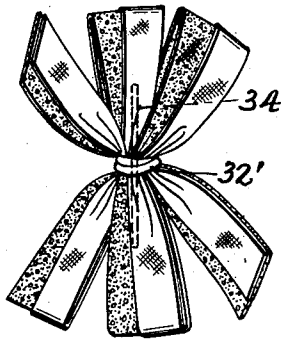


Fig. 13

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UNITED STATES PATENT OFFICE

2,335,053

METHOD AND DEVICE FOR MAKING HAIR RIBBON BOWS

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Application June 27, 1941, Serial No. 400,046

11 Claims. (Cl. 223—46)

This invention relates to new and useful improvements in a method and device for making hair ribbon bows and the like.

In so far as the method is concerned, the invention proposes to characterize the method of winding a ribbon or like strip, on a pair of laterally spaced parallel rods in substantially spiral formation, tying the turns of said ribbon together in groups of one and one-half, two and one-half, etc., turns each at points between said rods, and cutting said ribbon to free the formed bows.

The method further contemplates the removal of the bows from the rods.

Still further the method proposes the mounting of bobby pins in a certain way upon the bows while they are still mounted upon the rods, as will become clear as this specification proceeds.

In so far as the device is concerned, the invention proposes to characterize it by a rotative frame having a pair of laterally spaced parallel rods upon which a ribbon may be wound in a flat spiral formation. It is also proposed to provide a spacer slidably mounted on the rods for preventing bending thereof while said ribbon is wound in position. This insures the formation of all of the bows of the same size.

Still further the invention proposes a novel arrangement for guiding the ribbon and for moving the spacer in a certain way.

The invention also proposes a method and apparatus for constructing a bow from double layers or a plurality of layers of bow material.

For further comprehension of the invention, and of the objects and advantages thereof, refrence will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a perspective view of a device for making ribbon bows in accordance with this invention.

Fig. 2 is an end elevational view of Fig. 1 looking from the left hand side.

Fig. 3 is a fragmentary plan view looking in the direction of the line 3—3 of Fig. 2.

Fig. 4 is a fragmentary vertical sectional view taken on the line 4—4 of Fig. 3.

Fig. 5 is a fragmentary enlarged plan view of a portion of the device.

Fig. 6 is a perspective view of one of the finished bows looking from the front.

Fig. 7 is a perspective view of the bow shown in Fig. 6 viewed from the rear.

Fig. 8 is a plan view of a device constructed in accordance with a modified form of this invention.

Fig. 9 is a transverse enlarged vertical sectional view taken on the line 9—9 of Fig. 8.

Fig. 10 is a fragmentary enlarged horizontal sectional view taken on the line 10—10 of Fig. 9.

Fig. 11 is a fragmentary sectional view taken on the line 11—11 of Fig. 10.

Fig. 12 is a plan view of an apparatus constructed in accordance with another form of this invention.

Fig. 13 is a perspective view of a bow formed on the apparatus shown in Fig. 2.

The device for making bows, in accordance with this invention as illustrated in Figs. 1 to 7 inclusive, includes a rotative frame 15 having a pair of laterally spaced parallel rods 16 and 17 upon which a ribbon 18 or like strip, may be wound in flat spiral formation. A spacer 19 is slidably mounted on the said parallel rods 16 and 17 for preventing bending thereof while said ribbon is wound in position.

The rods 16 and 17 are mounted upon rigid strips 20 which are formed with a plurality of openings 21 located at different distances from their centers. These openings 21 are capable of receiving the rods 16 and 17. The arrangement is such that there is a selection of mounting said rods in the openings 21 to space them at predetermined relative positions which will control the size of the spiral formation and thus the size of the finished body. The strips 20 are provided with spindles 22 mounted at right angles at their centers. One of the spindles 22 engages through an opening in a standard 23 mounted on a base 24. The other spindle 22 engages into a slot 25 formed in the standard 26. This latter standard is also mounted on the base 24. The first named spindle 22 is provided with a handle 27 by which it may be manually turned.

Guide and supporting means for the ribbon 18 is also provided, and mounted on the base 24. This means includes a pair of standards 29 and 30 mounted on the base 24 and supporting a removable spindle 31. The spindle 31 passes through a roll 18' of the ribbon 18.

The operation of the device is as follows:

The spacer 19 is moved to the left hand end of the frame 15. Then the ribbon 18 is wound several turns on the left hand end of the frame 15, to hold it in position. Then the handle 27 is slowly turned and the ribbon 18 is wound in flat spiral formation across the parallel rods 16 and 17. The spacer 19 is progressively moved towards

the right during this winding operation. The spacer 19 serves to hold the rods 16 and 17 from bending inwards. Thus the size of the turns of the ribbon 18 will be uniform.

The turns of the ribbon 18 are tied together in groups of 1½ turns each with threads or cords 32. The bows thus formed are cut apart by cutting the ribbon 18 along the lines indicated by the dot and dash lines 33. This frees the individually formed bows. Bobby pins 34 are mounted upon the bows by slipping one of the arms of the bobby pins beneath the cords 32 (see Fig. 7). The bobby pins 34 of adjacent bows are mounted on opposite faces of the bows so as to always be mounted on the backs of the bows. Fig. 7 illustrates the back of one bow. It should be noted that at the back, the ribbon extends straight up and down, while at the front adjacent portions of the ribbon are held close together by the cord 32. After the bows have been separated, the rods 16 and 17 are removed from one of the strips 20 and the finished bows are slipped off.

The handle 27 has a hub portion 27' which is removably engaged on the spindle 22 so that it may be taken off when desired. This permits the frame 15 to be removed from the standards 23 and 26.

In Figs. 8 to 11 inclusive, a modified form of the invention has been disclosed which distinguishes from the prior form in several respects. In accordance with this form of the invention there is an electric motor 35 connected with one of the spindles 22 for slowly rotating the frame 15. This motor 35 is mounted on the base 24. The guide means for the supply of ribbon comprises a frame 36 consisting of a bottom wall portion 37 provided with a dove-tailed tongue 38 slidably engaging in a complementary dove-tailed groove 39 formed along the length of the base 24. The frame 36 is also provided with a pair of vertical parallel arms 40 and 41. A rod 42 is mounted between these arms. This rod is adapted to receive a roll of ribbon 18''.

The web 18^a from this roll of ribbon passes above a stationary plate 43 mounted between the arms 40 and 41. This plate has its front and rear edges bent downwards as shown in Figs. 9 and 11. A pressure plate 44 is mounted above the plate 43 and is resiliently urged against said plate 43. The web of ribbon 18^a passes between the plates 43 and 44. The plate 44 has upturned edges and is provided with enlarged ends 45 which slidably engage in frame 46 which are set into openings in the arms 40 and 41. Springs 47 are mounted within the frames 46 and act to resiliently urge the plate 44 against the plate 43. This tensions the web 18^a of the ribbon when the ribbon is drawn.

The device is also provided with a spacer 19' in the form of a disc. A side portion of this disc 19' engages between the arms of a fork member 50 which is mounted on the vertical arm 41 of the frame 36. The arrangement is such that when the frame 36 is moved along the base 24, the spacer 19' will be correspondingly moved.

The operation of this form of the invention is very similar to the prior form distinguishing in the fact that it is merely necessary to move the frame 36 from left to right at the proper speed to spirally wind the ribbon on the parallel rods 16 and 17. The motor 35 rotates the frame 15 during this operation. Motion of the frame 36 is communicated to move the spacer 19' which acts to maintain the rods 16 and 17 at uniformly spaced positions. In other respects this form of the invention is similar to the previous form and like parts are indicated by like reference numerals.

This device may also be used for double, triple or more loop bows by grouping the ribbon 18 and tying them together in groups of two and one-half, three and one-half, etc., turns respectively.

In Figs. 12 and 13 another embodiment of the invention has been disclosed. In Fig. 12 an apparatus is shown for making a bow of double layer bow material. This apparatus is substantially identical to that shown in Figs. 1 to 5, distinguishing however in the fact that the standards 29' and 30' are sufficiently spaced apart so that two separate rolls of ribbon 18^x and 18^y may be located therebetween. These rolls are supported upon the spindle 31'. In other respects the device is of identical construction to the prior form and like parts are identified by like reference numerals.

The webs of the rolls of the ribbons 18^x and 18^y are overlapped and wound upon the rods 16 and 17 in closely wound fashion, as shown in Fig. 12. Then every one and one-half turns, or two and one-half or three and one-half turns, are tied together with cords or threads 32' to form the bows. These bows are then equipped with the bobby pins 34 mounted on opposite sides of adjacent bows. The bows are then cut apart and removed, as previously described. From an inspection of Fig. 13 it will readily be seen that the newly formed bow has its wings of double layer bow material. This is the only way it distinguishes from the prior construction.

It is to be understood that these bows may be of any size and used for any desired purpose, such as for dress and millinery trimmings, ornaments for various objects, etc.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:

1. A method for making hair bows, consisting in winding a ribbon on a pair of laterally spaced parallel rods in substantially spiral formation, tying the turns of said ribbon together in groups of one and one-half turns each at points between said rods, cutting said groups of ribbon apart to form bows, and removing said bows from said rods.

2. A method for making hair bows, consisting in winding a ribbon on a pair of laterally spaced parallel rods in substantially spiral formation, tying the turns of said ribbon together in groups of one and one-half turns each at points between said rods, cutting said groups of ribbon apart to form bows, and removing said bows from said rods, said groups of ribbon being cut at points immediately adjacent said rods.

3. A method for making hair bows, consisting in winding a ribbon on a pair of laterally spaced parallel rods in substantially spiral formation, tying the turns of said ribbon together in groups of two and one-half turns each at points between said rods, cutting said groups of ribbon apart to form bows, removing said bows from said rods, and mounting bobby pins upon the tied center portions of said ribbon bows.

4. A method for making hair bows, consisting in winding a ribbon on a pair of laterally spaced parallel rods in substantially spiral formation, tying the turns of said ribbon together in groups of two and one-half turns each at points between said rods, cutting said groups of ribbon apart to form bows, removing said bows from said rods, and mounting bobby pins upon the tied center portions of said ribbon bows, said bobby pins being mounted on opposite sides of adjacent ribbons so as to be disposed on the backs of the bows which have been formed.

5. A device for making hair bows comprising a base, a pair of spaced standards mounted on said base, a frame rotatively mounted on said standards and having a pair of laterally spaced parallel rods upon which a ribbon may be wound in a flat spiral formation, guide means for a supply of ribbon movably mounted on said base to move along the length of said frame, a spacer slidably mounted on said parallel rods for preventing bending thereof while said ribbon is wound in position, and means for connecting said guide means and spacer to move along said frame as a unit.

6. A device for making hair bows comprising a base, a pair of spaced standards mounted on said base, a frame rotatively mounted on said standards and having a pair of laterally spaced parallel rods upon which a ribbon may be wound in a flat spiral formation, guide means for a supply of ribbon movably mounted on said base to move along the length of said frame, a spacer slidably mounted on said parallel rods for preventing bending thereof while said ribbon is wound in position, means for connecting said guide means and spacer to move along said frame as a unit, and tensioning means for said supply of ribbon.

7. In a device for making bows having a rotative frame upon which a ribbon is adapted to be wound, said frame comprising spaced strips having rotatively supported centers, spaced rods mounted between said spaced strips at right angles thereto and upon which said ribbon is wound, and a spacer slidably mounted and freely movable on said rods between said spaced strips and adapted to hold the centers of said rods spaced to prevent the rods from being drawn together when said ribbon is wound thereon, said spaced rods being selectively engageable with aligned openings formed in said strips on opposite sides of the rotatively supported centers and in said spacer for varying the spacing of said rods to form bows of different lengths.

8. A device for making hair bows, comprising a base, a frame rotatively mounted on said base and having a pair of spaced parallel rods upon which a ribbon is adapted to be wound, a guide means for supply of ribbon to be wound on said rods slidably mounted on said base to move along the length of said frame, a spacer mounted on said rods for holding the rods evenly spaced while the ribbon is being wound thereon, and means connecting said guide means to said spacer to move said spacer along the length of said rods in advance of the ribbon being wound on said rods as said guide means is moved along the length of said frame.

9. A device for making hair bows, comprising a base, a frame rotatively mounted on said base and having a pair of spaced parallel rods upon which a ribbon is adapted to be wound, a guide means for a supply of ribbon to be wound on said rods slidably mounted on said base to move along the length of said frame, a spacer mounted on said rods for holding the rods evenly spaced while the ribbon is being wound thereon, and means connecting said guide means to said spacer to move said spacer along the length of said rods in advance of the ribbon being wound on said rods as said guide means is moved along the length of said frame, said spacer being in the form of a disc mounted on said rods to rotate concentrically.

10. A device for making hair bows, comprising a base, a frame rotataively mounted on said base and having a pair of spaced parallel rods upon which a ribbon is adapted to be wound, a guide means for a supply of ribbon to be wound on said rods slidably mounted on said base to move along the length of said frame, a spacer mounted on said rods for holding the rods evenly spaced while the ribbon is being wound thereon, and means connecting said guide means to said spacer to move said spacer along the length of said rods in advance of the ribbon being wound on said rods as said guide means is moved along the length of said frame, said means, comprising a fork mounted on a portion of said guide means adjacent said frame and engaging a peripheral edge portion of said spacer.

11. A device for making hair bows, comprising a base, a frame rotatively mounted on said base and having a pair of spaced parallel rods upon which ribbon is adapted to be wound, a guide means for a supply of ribbon to be wound on said rods slidably mounted on said base to move along the length of said frame, a spacer mounted on said rods for holding the rods evenly spaced while the ribbon is being wound thereon, and means connecting said guide means to said spacer to move said spacer along the length of said rods in advance of the ribbon being wound on said rods as said guide means is moved along the length of said frame, said slidable mounting of said guide means, comprising a dove-tailed tongue formed on said guide means and engaging a complementary dove-tailed groove formed in said base.

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