

(No Model.)

F. MARKGRAF.
METHOD OF AND DEVICE FOR FINISHING COVERINGS OF BRAIDED MOLDS.

No. 532,280.

Patented Jan. 8, 1895.

Fig. 1.

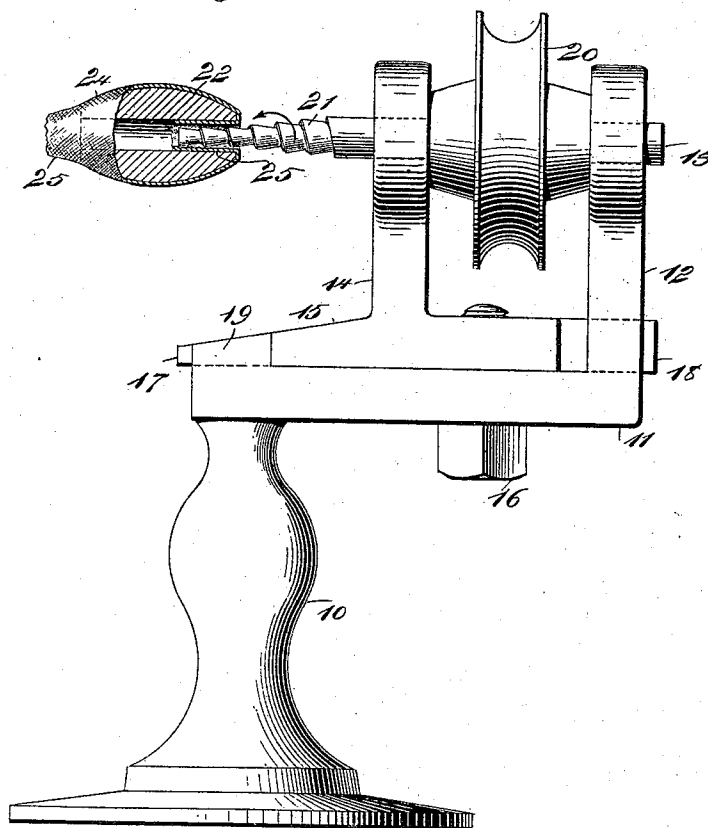


Fig. 2.

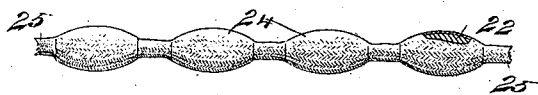
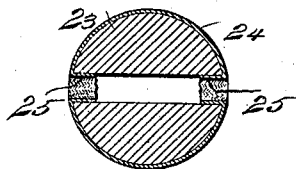


Fig. 3.



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METHOD OF AND DEVICE FOR FINISHING COVERINGS OF BRAIDED MOLDS.

SPECIFICATION forming part of Letters Patent No. 532,280, dated January 8, 1895.

Application filed August 24, 1892. Serial No. 444,020. (No model.)

To all whom it may concern:

Be it known that I, FRANZ MARKGRAF, of New York city, in the county and State of New York, have invented a new and useful
5 Method of and Device for Finishing the Coverings of Braided Molds, of which the following is a full, clear, and exact description.

My invention relates to an improved method and means for completing the covering of
10 braided molds.

In the manufacture of gimp, trimmings, tassels, and various kinds of ornamental fabric known as passementerie goods, an important feature of such manufactured material,
15 consists in the integral combination with the woven or plaited fabric of numerous bulbous effects, technically known as braided molds.

The parts just mentioned consist of longitudinally perforated bodies of wood or other
20 light, strong material, that are externally shaped as fancy may dictate or the style of the trimming they form a part of may require, these being termed molds. The wooden molds are first covered with braided fibrous material by a special machine, the molds being introduced at such intervals as will allow a tubular and contracted portion of the
25 braided covering to be produced between adjacent ends of the molds that are thus arranged in continuous order. After the molds are covered as has been explained, the intervening tubular portions that form the ends of the covering when separated, are severed so as to produce two projecting end portions
30 of the covering on each mold, that must be neatly inserted within the axial perforation of the mold to finish the latter, and adapt it for use as part of a tassel, or to be incorporated with the peculiar trimming goods of
35 which it is to form a part.

Ordinarily, the insertion of the ends of the braided covers on the wooden molds is effected by hand labor, with a smooth style or like implement, the operator pressing the implement into the ends of the covering. This
40 operation is comparatively slow, and therefore expensive.

The objects of my invention are, to provide an improvement in the art of finishing the
45 braided ends of covered molds, and a special machine to carry into effect my improved

method for effecting said operation, whereby the work will be accomplished in a superior manner, and with much greater speed than it was before my invention was produced and
55 employed for the purpose mentioned.

To these ends, my invention consists in the peculiar method for inserting the braided projecting ends of mold coverings, by a special progressive movement, and the construction and combination of parts in a machine
60 to carry into effect the improved method, as is hereinafter more particularly described and indicated in the claims.

Reference is to be had to the accompanying
65 drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views shown.

Figure 1 is a side view of the novel device preferably employed to carry into effect the
70 improved method for introducing the tubular ends of the braided coverings on hollow molds, by a progressive spiral movement of part of the device, and also shows a covered mold partly in section, illustrating the operation of
75 the machine. Fig. 2 is a side view of a series of molds covered by integral braided fabric, showing the molds in one of their forms, ready for separation to be completely covered by an insertion of their ends by the improved
80 method and machine; and Fig. 3 is a transverse sectional view of a spherical mold, showing the braided covering applied, and the ends of the latter inserted in the axial perforation of said mold.

The improved method for inserting the tubular projecting ends of the braided coverings on hollow molds consists in the introduction of these end portions within the axial perforation of the mold, by a rotary progressive
85 movement of a coarse pitched screw-cut style, which as it is revolved and longitudinally pressed into the fibrous tubular ends of a covered mold, speedily inverts the ends of said covering, pushing them into the perforation of the mold and stretching as well as
90 smoothing the material of the covering, so as to rapidly and neatly finish the covered mold, without injury to the material composing the mold covering.

While it is feasible to use the screw threaded style by hand, and effect the work
100

of inserting the ends of mold coverings more speedily and better than by the ordinary method and means, it is preferred in order to lessen labor and expedite the operation, to
 5 employ a simple power-driven machine whereon the screw-cut style is mounted, and adapted for rapid rotation in a proper direction, so that the end portions of the coverings on the molds, may be successively applied to
 10 the free end of the revolving style, and said end portions be rapidly inverted and introduced within the perforations of the molds.

The machine shown in Fig. 1, represents the preferred form for the device that is employed to rapidly rotate by applied power the
 15 screw-formed body of the style, and essentially consists of parts constructed and combined as follows:

There is an upright column 10, provided,
 20 having sufficient weight and lateral dimensions at the base to insure stability, or the column may be clamped or screwed by any suitable means on a table, bench or other stable support at a proper height from the floor of
 25 the room wherein the machine is placed. On the top of the column, a bed piece 11, is secured by one of its ends, so as to project the main portion in a horizontal plane over the enlarged base of the column 10. An upright
 30 standard 12, is formed on or secured to the opposite end of the bed piece, which standard has a laterally perforated enlargement on its upper end for the reception of one journal end of a spindle 13. Another vertical standard
 35 14, is provided for the loose support of the front end portion of the spindle 13, said standard being projected upwardly from a base block 15, that is seated on the top surface of the bed piece 11, and secured thereto
 40 by a screw bolt 16. To retain the front standard in proper position and prevent its lateral displacement, tongues 17 and 18 are formed on the front and rear end portions of the base block 15. The tongue 18, on the rear of the
 45 block 15 has a sliding engagement with a mortise in the lower portion of the standard 12, and the front tongue 17 is seated on the bed piece 11, between two upwardly projecting abutments on the latter, one being indicated
 50 at 19, in Fig. 1. The spindle 13, has a grooved pulley 20, mounted on and secured to it between the standards 12, 14; or said pulley may be integrally formed with the standard, and in service is driven by a belt extended to any
 55 source of power and rotary motion. From the forward end of the spindle 13, the style 21, is projected in axial alignment with it, and it is not essential whether the body of the style is integrally formed with the spindle, or made
 60 separately and secured to it by any suitable means. The style 21, is sufficiently elongated to render it efficient in service, and has a coarse pitched right or left hand screw formed on its portion that extends from the spindle
 65 to its free end, said screw thread being tapered a proper degree toward the outer end, so as to

adapt it for a quick and easy insertion within the tubular fibrous end portions of the mold coverings.

To render the threaded body of the style
 70 capable of producing the best results, it is essential that there be a scroll-like formation given to it so that there will be but little height afforded for the thread, and a broad face or peripheral surface produced, as
 75 clearly represented in Fig. 1, the incline or slope on the screw thread being in a direction away from the smaller end or point of the style.

As before explained, the perforated molds
 80 may be externally shaped as preferred, it being understood that in all of said molds a central perforation is formed with which all parts of the periphery are concentric.

For the purpose of illustrating the im-
 85 proved method and device for finishing the ends of braided molds, as these parts are technically termed, molds that swell from each end toward the longitudinal center are shown at 22, in Figs. 1 and 2; and at 23, in Fig. 3, a
 90 spherical mold of enlarged dimensions is indicated, the fibrous covering 24, in all the views being tightly drawn over the molds.

In use, the molds having been covered as explained, and separated from each other so
 95 as to permit projecting end portions 25 to be produced, as represented at the left end of the mold in Fig. 1, and at the outer ends of the series of connected molds shown in Fig. 2, the operator grasps the covered molds one after
 100 the other and presses the fibrous tubular end portions of their covers successively against or rather over the free rapidly rotating end of the screw threaded style 21, which moves from
 105 left to right, or in the direction of the curved arrow in Fig. 1.

It will be seen that the initial engagement of the small outer end of the screw body of the style as it revolves with the rough and possibly frayed edge on the braided covering
 110 of the end on the mold, will, by an engagement of the latter with the coarse pitch or incline of the screw, cause said end portion to be inwardly pressed, so as to invert-fold the material, the continuation of the operation
 115 spreading the tubular end portion of the covering so as to force it into close contact with the cylindrical wall of the axial perforation in the mold, thereby drawing all surplus material into the latter, and producing a neat,
 120 durable finish at the ends of the molds as they are successively operated upon, the perfection of which finish adds additional value to the goods thus finished by the improved method and means, while the cost of the fin-
 125 ishing work is greatly reduced.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The herein described method for finish-
 130 ing the ends of braided molds, consisting in the inversion and insertion of the tubular

ends of the mold covering by a screw-cut style.

2. The herein described method for finishing the ends of braided molds, consisting in the inversion and insertion of the tubular ends of the mold covering by a rotating screw-cut style.

3. In a device for inserting the ends of covered molds, a rotatable, tapered and coarse

pitched screw formed style, the thread on which style is sloped away from its point, substantially as described.

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Witnesses:

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