

No. 711,595.

Patented Oct. 21, 1902.

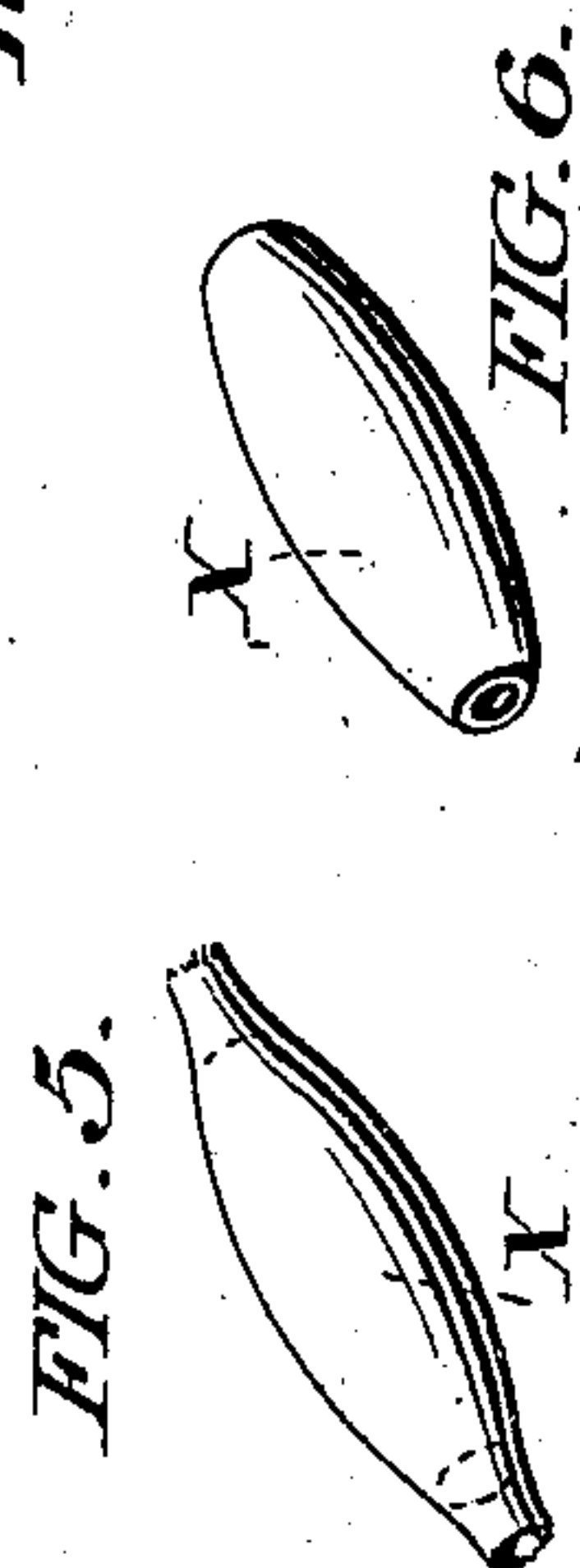
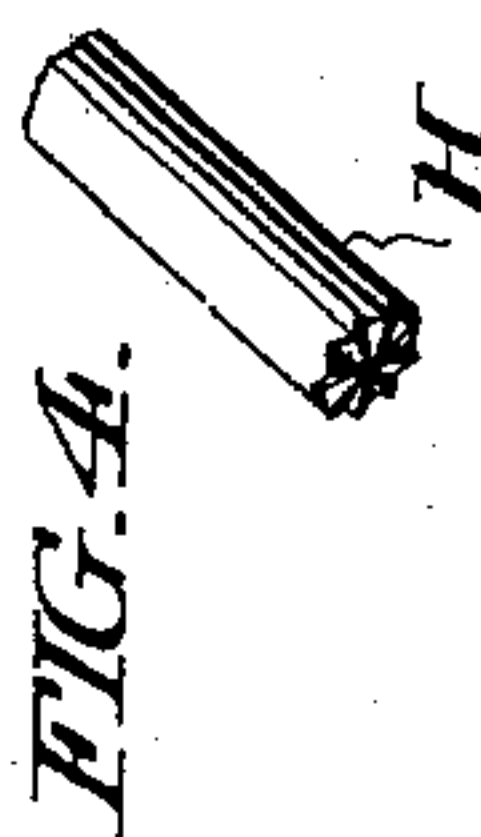
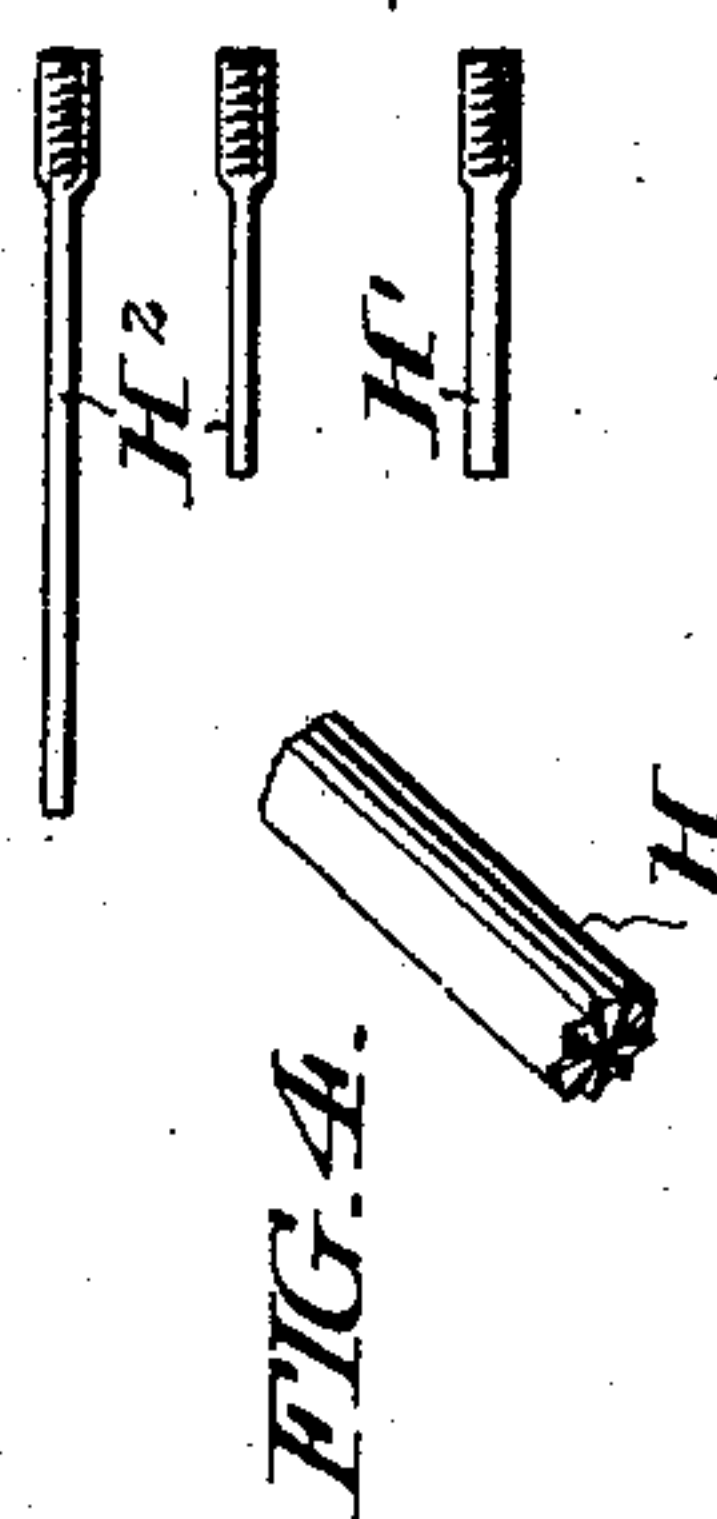
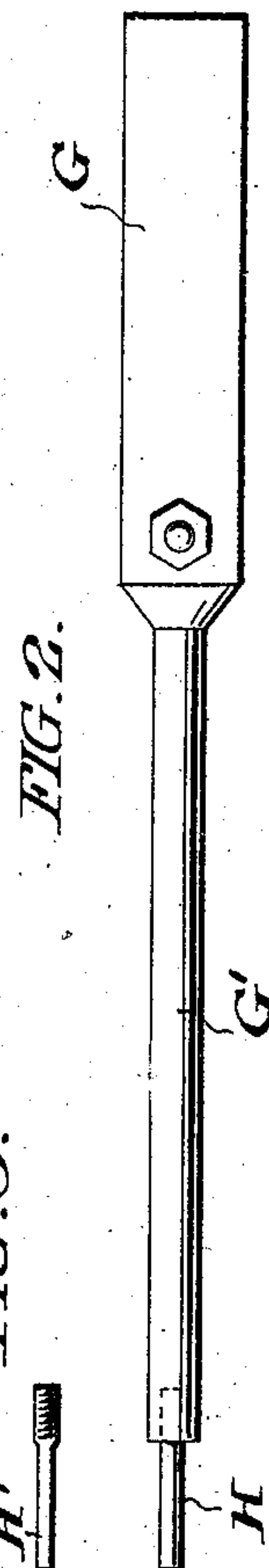
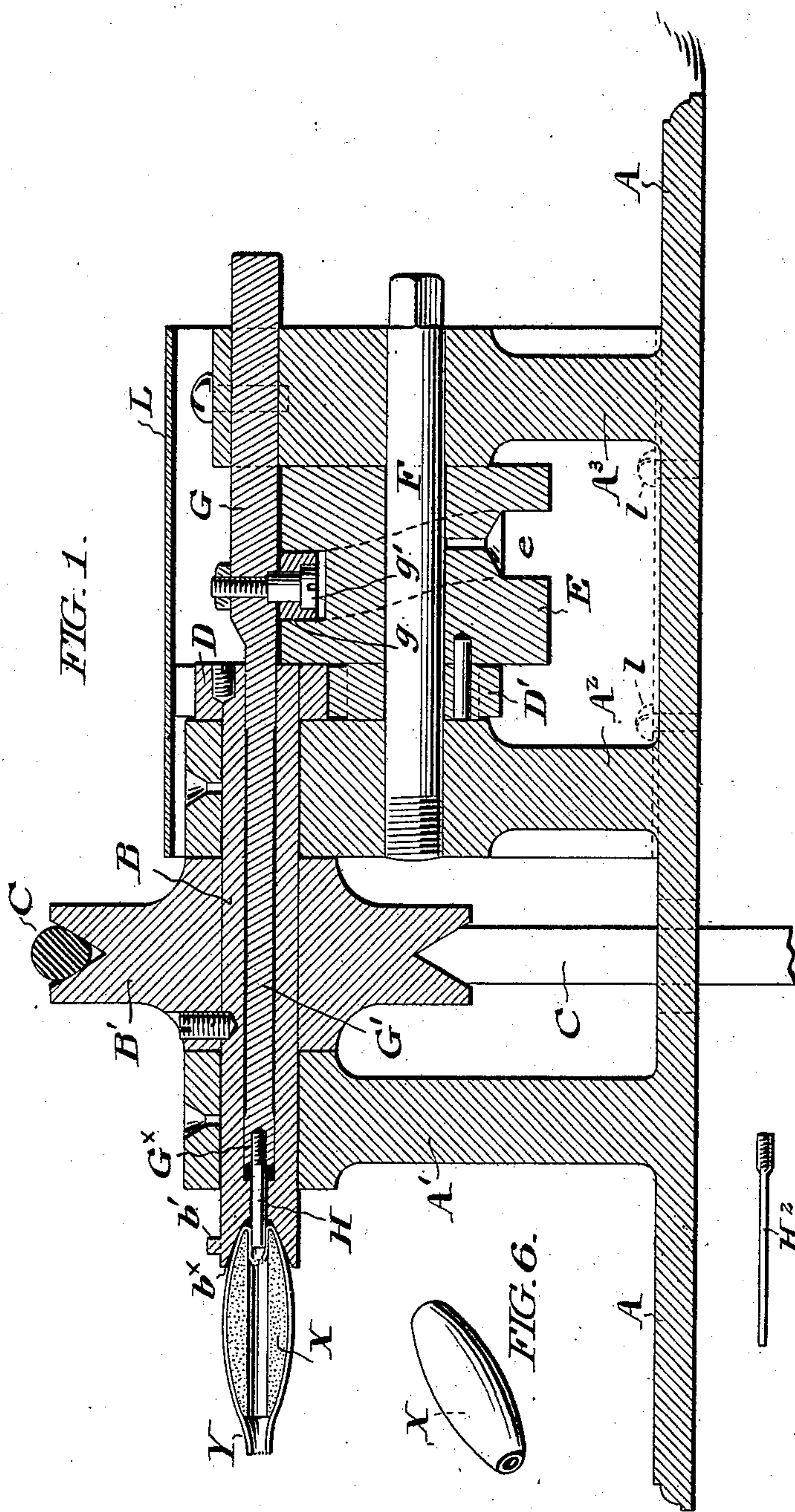
G. W. SWIFT, JR.

MACHINE FOR MAKING TEXTILE COVERED MOLDS.

(Application filed July 15, 1897.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:
E. L. Fullerton.
F. C. Morley.

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2 Sheets—Sheet 2.

FIG. 7.

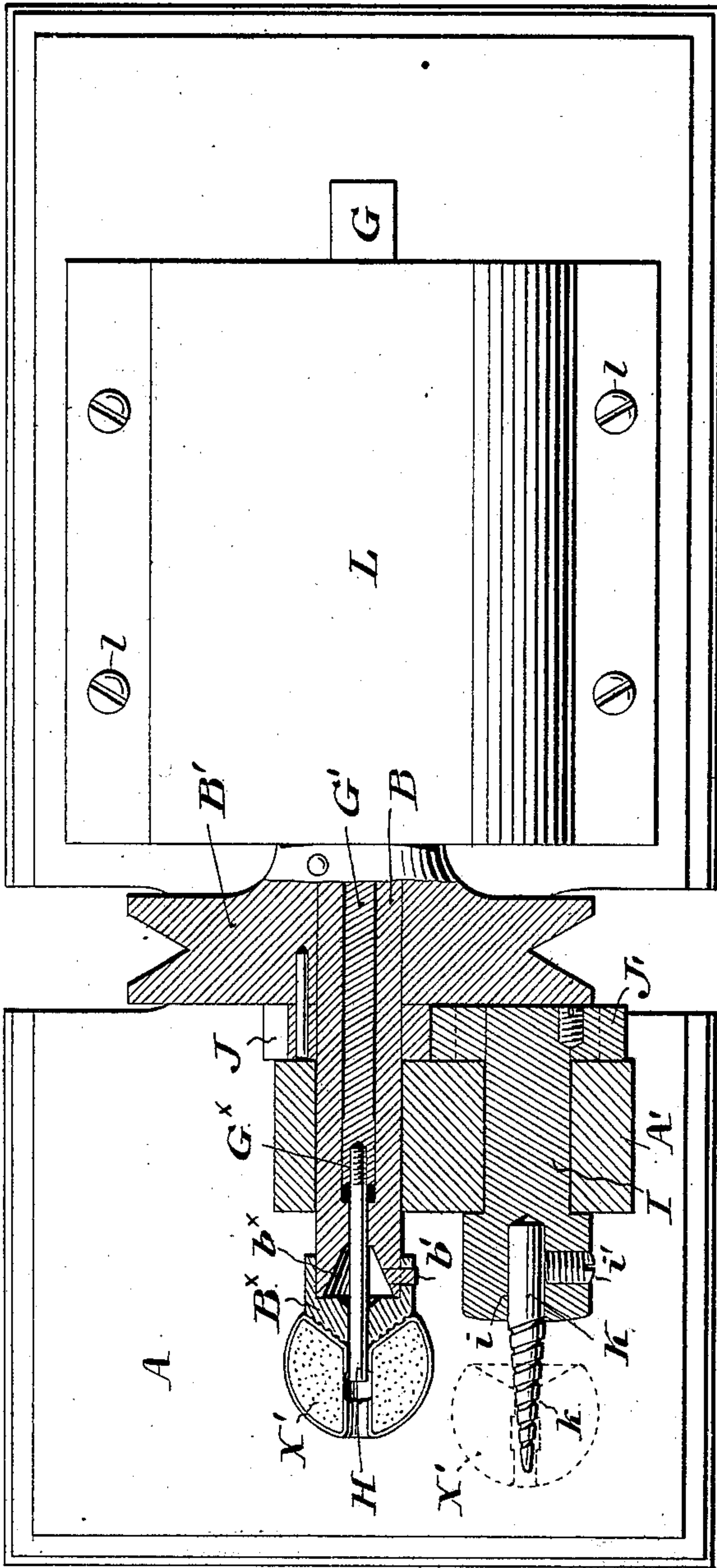


FIG. 8.

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FIG. 11.

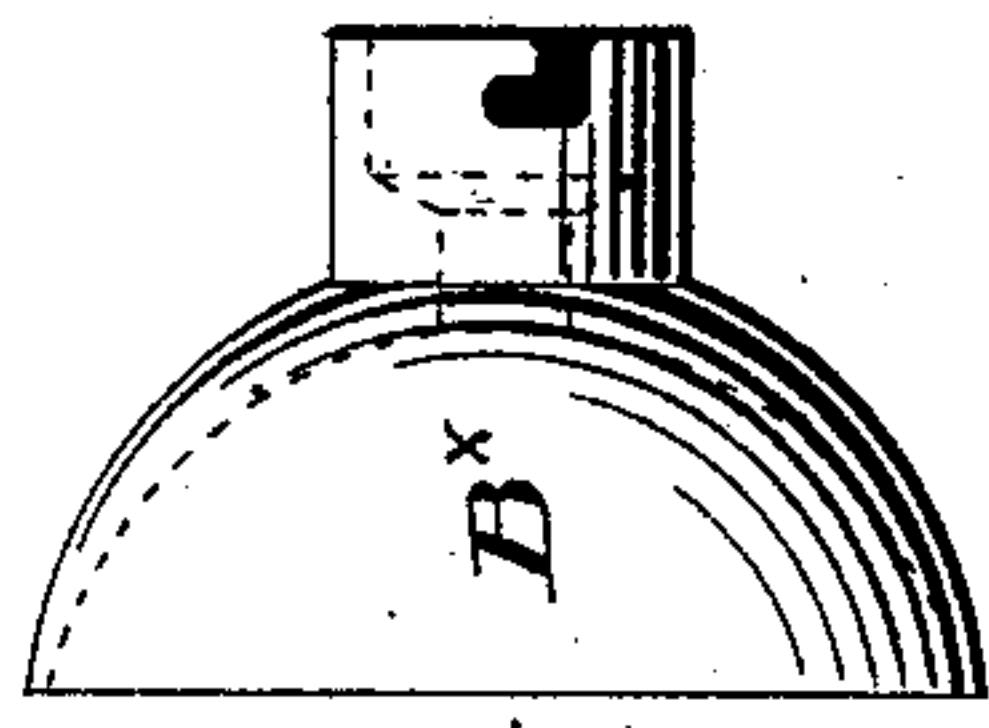


FIG. 10.

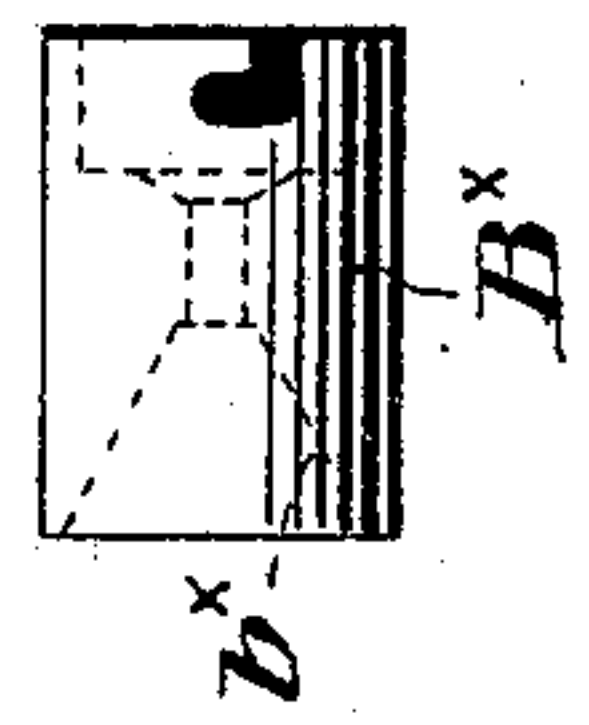
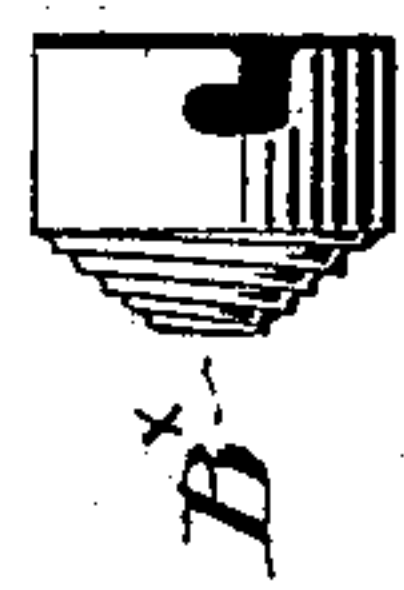


FIG. 9.



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UNITED STATES PATENT OFFICE.

GEORGE W. SWIFT, JR., OF BORDENTOWN, NEW JERSEY.

MACHINE FOR MAKING TEXTILE-COVERED MOLDS.

SPECIFICATION forming part of Letters Patent No. 711,595, dated October 21, 1902.

Application filed July 15, 1897. Serial No. 644,611. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. SWIFT, Jr., of Bordentown, New Jersey, have invented certain new and useful Improvements in Machines for Making Textile-Covered Molds, whereof the following is a specification, reference being had to the accompanying drawings.

My invention relates to the manufacture of articles comprising a mold or form of wood or other material covered with textile material and used in dress or upholstery trimmings for frogs, tassel-bodies, &c. As said articles are usually manufactured the textile covering aforesaid is tightly woven or braided in a continuous tube inclosing a series of said molds, with blank portions in said tube between adjoining molds. Said blank portions are of such length that when the tube is clipped intermediate of said molds the loose ends of the tube upon each mold serve to tuck into the ends of the latter, and thus completely cover and finish the article. Hitherto the tucking and finishing aforesaid has only been accomplished by skilled handwork.

It is the object of my invention to provide a machine to effect the finishing of the articles aforesaid, said machine being so constructed as to be automatic in its action, requiring only the labor of an unskilled operator to feed the incomplete articles to said machine.

Broadly speaking, my invention comprises a support for the article to be finished, said support being hereinafter termed a "cap," a tool adapted to coöperate with said cap to effect the tucking action aforesaid, and mechanism to actuate said elements.

In the drawings, Figure 1 is a central longitudinal section through a machine embodying my invention. Fig. 2 is a plan view of the reciprocating member of said machine. Fig. 3 illustrates various sizes of tucking-tools. Fig. 4 is an enlarged view of the end portion of one of said tools. Fig. 5 is a perspective view of one of the incomplete articles in condition to be presented to the machine. Fig. 6 is a perspective view of one of said articles as finished by the machine. Fig. 7 is a plan view of a modified form of my invention, certain parts being sectioned to better illustrate the details thereof. Figs. 8 and 9 are respec-

tively front and side elevations of a removable cap. Figs. 10 and 11 are side elevations of modified forms of caps.

In said figures, A is a base provided with three standards A^1 A^2 A^3 . The shaft B is mounted for rotation in the standards A^1 and A^2 and is conveniently rotated by means of the grooved pulley B^1 , secured thereon and adapted to receive and be rotated by the belt C.

Upon the inner end of the shaft B is secured a gear-wheel D, which engages a similar gear-wheel D^1 , secured upon the rotary cam E. Said wheel D^1 and its connected cam E are loosely mounted for rotation upon the shaft F, fixed in the standards A^2 A^3 . The cam E is provided with a camway e , which receives a roller g , conveniently mounted upon the stud g^1 , extending from the slide G, said slide being mounted for reciprocation in the standard A^3 . The cylindrical portion G^1 of said slide G extends within the shaft B and is provided with a socket G^x for a tucking-tool G.

The shaft B is provided at its outer extremity with a cup b^x , which serves to receive and laterally support the end of an article which is to be finished. Said cup is adapted to receive molds of the general form of that marked X. (Illustrated in Figs. 5 and 6.) As, however, it is desirable to adapt a single machine to finish a variety of forms of molds, I provide upon the forward extremity of the shaft B a stud b^1 , which is adapted to engage removable caps B^x , such as are indicated in Figs. 8, 9, 10, and 11. The aforesaid caps B^x may be provided with cup-shaped depressions b^x , such as that indicated in the extremity of the shaft B, or may be otherwise suitably shaped to conform to the contour of particular types of molds. For instance, the form of cap shown in Figs. 8 and 9 is particularly adapted to finish molds of the type indicated at X' in Fig. 7. I find in practice that the efficiency of such a cap is materially increased by forming upon it a spiral ridge. (Best shown in Fig. 8.) Said ridge serves in the rotation of the cap to draw the loose threads projecting beyond the end of the mold toward the center of the latter more rapidly than if said cap were smooth upon its face. The form shown in Fig. 10 is

adapted for use in connection with molds of the same general character as the molds X, but of larger dimensions. The form shown in Fig. 11 is adapted for use in connection
5 with large tassel bodies having rounded ends.

As indicated in Fig. 3, the tucking-tool H may be of different dimensions in accordance with the work to be operated upon. For instance, the mold X, covered with a fabric
10 Y of the thickness indicated in Fig. 1, may be properly finished with the tucking-tool H. (Shown in Fig. 1.) If, however, it is desired to use a thicker fabric to cover said mold, a tucking-tool of less diameter, such as indicated in Fig. 3 at H' or H², may be substituted for the tool H.
15

In the form shown in Fig. 7 the shaft I is mounted in the standard A', counter to the shaft B. The gear-wheel J upon the latter
20 engages with a corresponding gear J' upon the shaft I and serves to rotate it. The shaft I is provided at its forward extremity with a socket *i*, adapted to receive the tool K, the set-screw *i'* serving to secure the latter in
25 proper position. The tool K is conveniently used in connection with molds through which a cord is passed in their ultimate use, said tool K serving to provide a clear passage-way through the rough ends of the fabric Y after
30 the latter has been tucked within the mold by means of the tool H, above described. Said tool K is conveniently provided with a screw-thread *k*, formed upon it in such a manner as to thrust said loose ends of the fabric
35 Y toward the interior of the mold operated upon.

It is obvious that other forms of the tool K may be used, in accordance with the dimensions of the molds operated upon.

40 In operation the machine is rotated at a high speed, and the articles to be finished have their ends successively presented in the condition indicated in Fig. 5 to a suitable cap B^x upon the shaft B, which serves to direct the loose ends of the fabric Y, presenting them to the reciprocating action of the tucking-tool H, as aforesaid. When thus finished, the articles present the appearance indicated in Fig. 6.

50 The working parts of the machine intermediate of the standards A² and A³ are con-

veniently covered by a metallic shield L, secured upon the base A, as indicated at *ll*.

I believe it to be broadly new to finish articles of the type referred to by means of a
55 machine. I therefore do not desire to limit myself to the precise embodiment of my invention which I have shown and described, as it is obvious that many modifications may be made in the details of construction with-
60 out departing from the spirit of my invention.

I therefore claim—

1. In a machine of the class described, a rotatable member adapted to support a mold; a tucking-tool in said rotatable member; and
65 means to operate said rotatable member, substantially as set forth.

2. In a machine of the class described; a rotatable member adapted to support a mold; a reciprocatory tucking-tool in said rotatable
70 member; and means to operate said tool and rotatable member, substantially as set forth.

3. In a machine of the class described, a rotatable member adapted to support a mold; a reciprocatory member mounted in said ro-
75 tatable member; a tucking-tool removably secured on one end of said reciprocatory member; and means to operate said members, substantially as set forth.

4. In a machine of the class described, a
80 rotatable member provided with a removable cap adapted to support a mold; a tucking-tool in said rotatable member; and means to operate said rotatable member, substantially
85 as set forth.

5. In a machine of the class described, a rotatable member provided with a removable cap having a spiral ridge on its face; a tuck-
90 ing-tool in said rotatable member; and means to operate said rotatable member, substan-

6. In a machine of the class described, a rotatable member adapted to support a mold; a tucking-tool in said rotatable member hav-
95 ing face edges adapted to engage a fabric; and means to operate said rotatable member, substantially as set forth.

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Witnesses:

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