

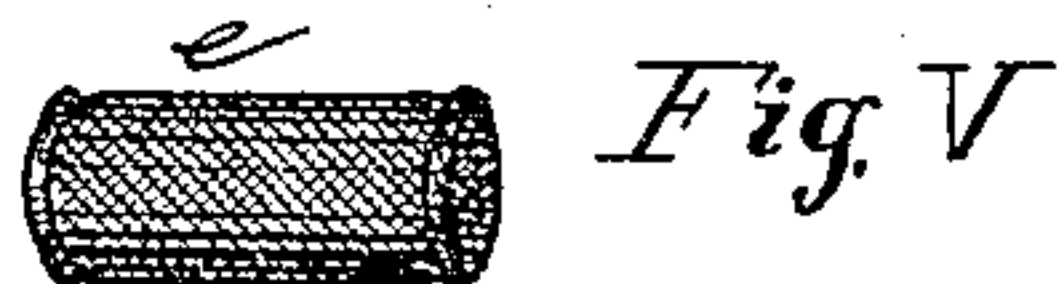
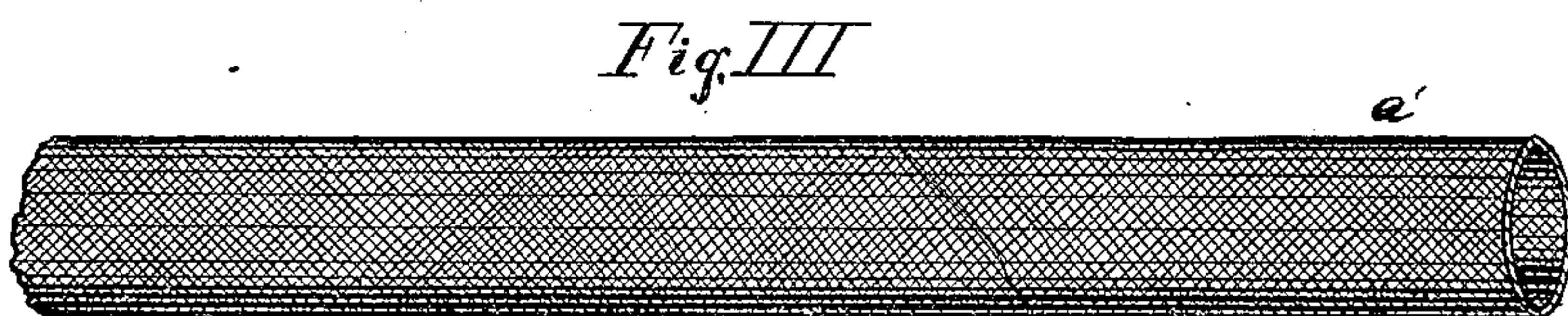
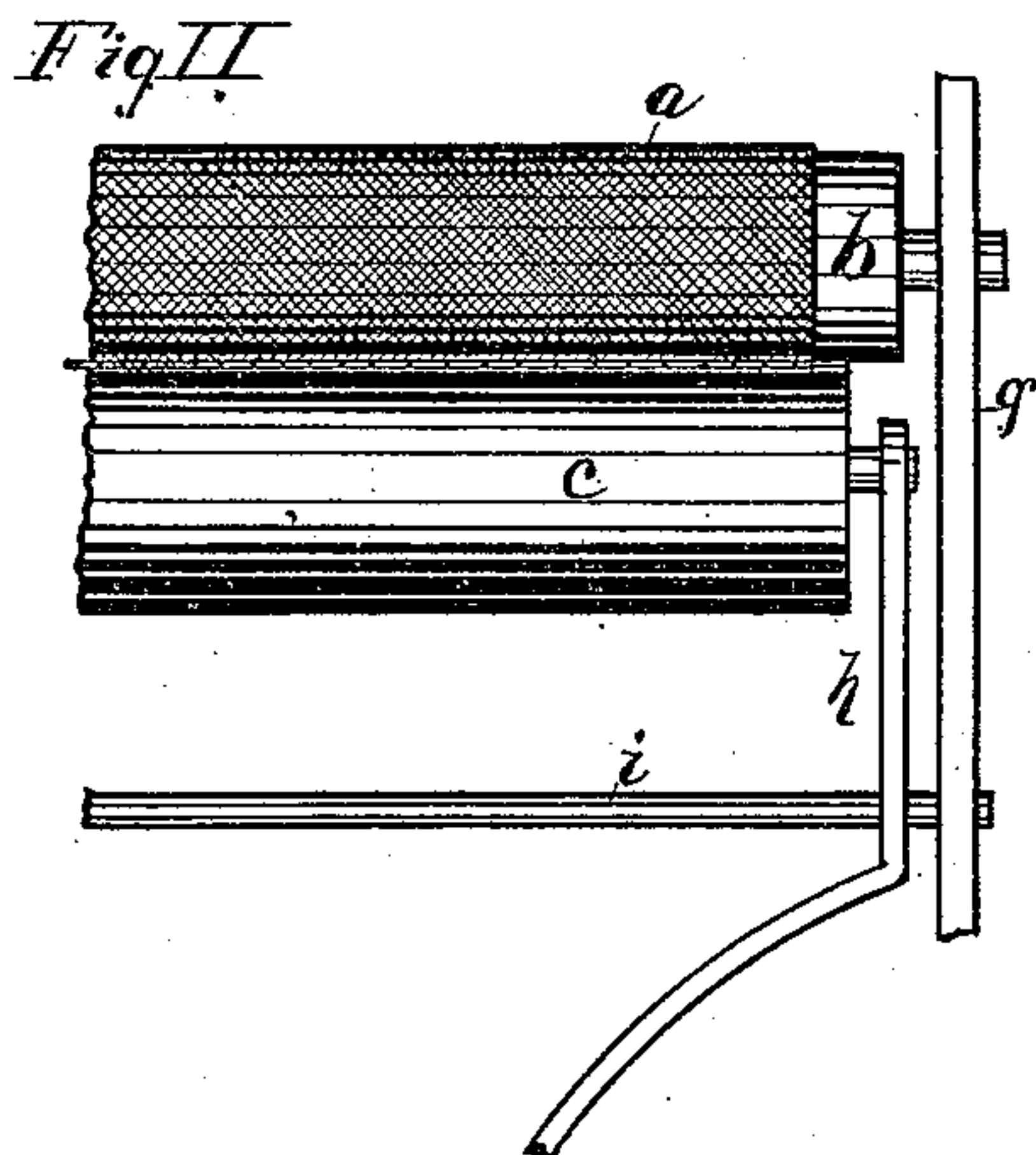
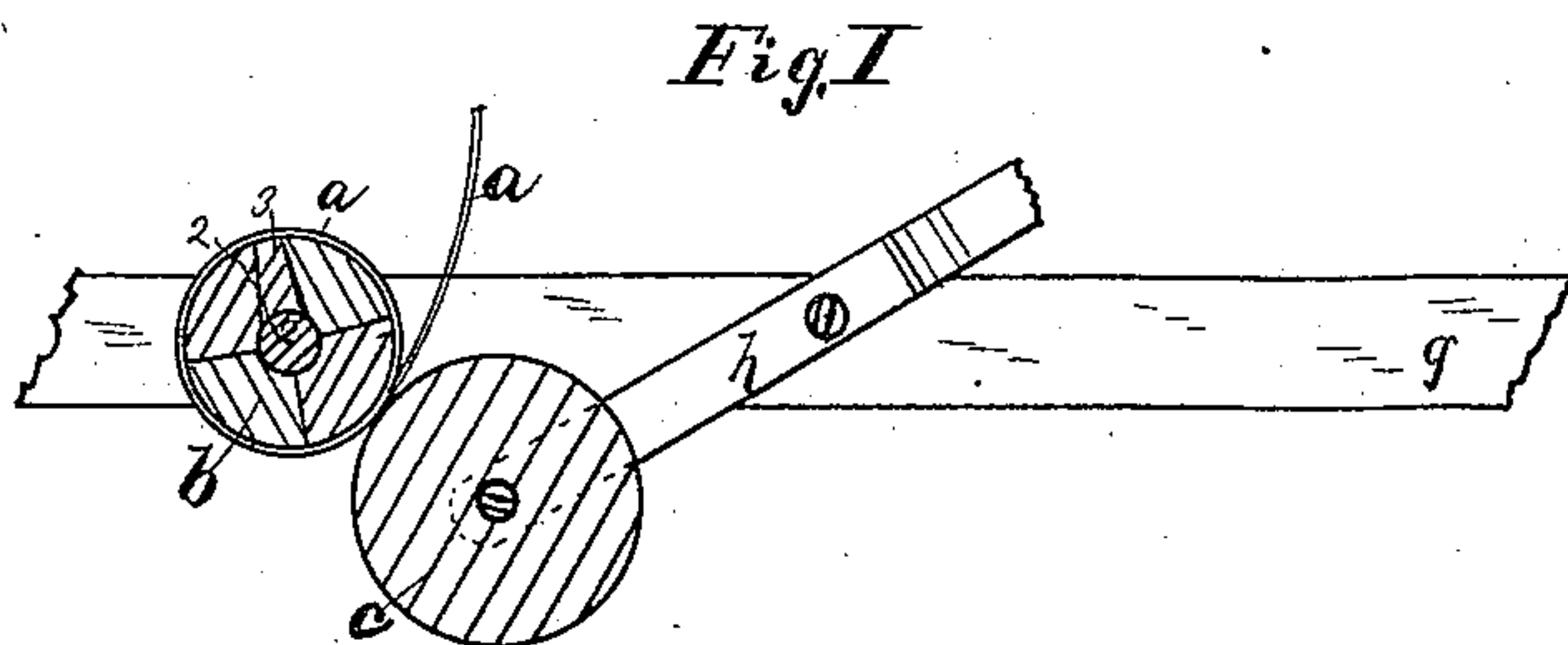
(No Model.)

C. G. BECKER.

WHIP BUTTON AND METHOD OF MANUFACTURE.

No. 356,092.

Patented Jan. 18, 1887.



WITNESSES:

Geo. O. Kingsbury
M. J. Foley

INVENTOR

Charles G. Becker
BY Allen Webster

ATTORNEY

UNITED STATES PATENT OFFICE.

CHARLES G. BECKER, OF WESTFIELD, MASSACHUSETTS.

WHIP-BUTTON AND METHOD OF MANUFACTURE.

SPECIFICATION forming part of Letters Patent No. 356,092, dated January 18, 1887.

Application filed September 24, 1886. Serial No. 214,423. (No model.)

To all whom it may concern:

Be it known that I, CHARLES G. BECKER, a citizen of the United States, residing in Westfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in the Manufacture of Whip-Buttons, of which the following is a specification.

My invention relates to buttons used for the ornamentation of whips; and its object is to provide a cheap, strong, durable, and elastic button, which is made up of textile or other fabric, which may be molded or pressed into ornamental shape upon the exterior and adapted to be forced into place upon the whip; and I accomplish these objects in the manner herein specified.

Heretofore prior to this application whip-buttons have been formed or braided upon the whip itself. This is objectionable, because expensive, and the process or method is complicated and the requisite degree of ornamentation cannot be obtained. Removable or independent whip-buttons have also been made by cutting a ring from leather or forming a ring by cementing the edges of a leather strip together and afterward forming the exterior in such ornamental shape as desired. This method of constructing an independent button is too expensive for the cheapest grade of whips, and it is somewhat difficult to make a "long button" in this manner of the desired degree of strength, for if the ring be cut from the leather there will be annular seams or joints in the same wherever the rings or blanks are united, and where the ring is formed by bringing the edges together and uniting them it is somewhat difficult to obtain the desired strength coupled with the desired economy of manufacture. Independent buttons have also been made by wrapping a lining of textile material around an arbor, cementing the edges of the lining together, and winding and cementing a strip of leather spirally upon the lining, forming a leather tube having a textile lining from which the button-sections are separated. This, however, is an expensive method of manufacture, and the completed button has the objectionable annular seam or joints, which greatly weakens the device, and renders it very difficult, if it be possible, to

construct a strong button of the length desired in the manufacture of whips.

In the accompanying drawings, in which similar letters of reference indicate like parts, Figure I is a sectional end view of a tube-forming device having a piece of material in process of being formed into a tube. Fig. II is a plan or top view of the same. Fig. III is a view of the completed tube. Fig. IV is a view, on a reduced scale, of a mandrel or arbor, showing a tube thereon and a section detached therefrom in the process of making the buttons. Fig. V is a view of the button complete, and Fig. VI is a view of a section of a whip having the button in place.

Referring to the drawings more in detail, *a* indicates the fabric composing the tube. *b* indicates the mandrel or arbor upon which the tube is first formed. *c* indicates a roll adapted to apply pressure upon the fabric during the operation of winding. *d* indicates a revolving arbor upon which the tube is placed to separate the button-sections therefrom. *e* indicates the whip button, and *f* indicates a section of a whip.

The method of construction which I deem the best is as follows: A sheet of textile material, preferably of linen, is treated by being saturated in a cement consisting of a solution of gum-shellac and asbestos, and after the fabric becomes thoroughly permeated with the cement it is formed or molded into a tube by being wound upon a mandrel or former, *b*, which revolves, wrapping the sheet exteriorly upon it until the requisite degree of thickness is attained, during which operation pressure is applied to the sheet as it is wrapped upon the mandrel to force the surfaces closely in contact and expel all air-bubbles and excess of cement, and this operation also forces the cement more thoroughly into the fibrous material, and the whole forms when hardened practically a tube formed of a solid mass of material.

As it is very desirable that buttons be of a uniform size, so that when placed upon a tapering whip they will all come to the same relative position, thus giving the whips a uniform appearance, I form the tube upon a mandrel or former of the same diameter throughout its whole extent, and to render the same

easily removable I prefer to use a sectional mandrel. This I make as shown in Fig. I. The central part, 2, being drawn out allows the section 3 to drop toward the center, thus relieving the other sections and permitting of their ready removal. Other means may be resorted to to accomplish this result.

The pressure during the winding operation may be applied by a roll, *c*, revolving upon bearings in supports which are pivoted to the frame, and pressure applied by hand or by an arrangement of springs or weights, as may be desired.

After the tube has become sufficiently hardened, I place it upon a revolving arbor or chuck-rod, *d*, which fits snugly within the tube, and while the same is revolving I cut sections therefrom of the desired length, and place such ornamentation upon the exterior as may be desired. This is best done by the application of a burr-tool or former in the well-known manner. The exterior is also polished and finished before the removal of the button, after which it is ready for application to the whip.

Although a cement other than water-proof may be used and a good result attained, yet I prefer a water-proof cement, as a more durable button is made thereby. I do not, however, limit myself to the use of a water-proof cement, and the saturation or permeation of the fabric may be accomplished after being formed into a tube, an adhesive material being used to cause the surfaces to adhere during the rolling or forming operation. It will also be seen that paper may be substituted for the textile fabric and a strong durable button be made, or that paper and cloth together may be used to make up the tube, it being subjected to the same treatment as above described.

I am aware, as before stated, that whip-buttons have prior to this application been made of leather, either cut from the stock in the form of a ring or formed into a ring by lapping

and cementing the edges together, after which the exterior surface is shaped or ornamented.

With my method of construction, herein disclosed, a much cheaper button is constructed, and I am enabled to make a much longer and stronger button, which will be entirely free from annular seams or joints.

I am also aware, as before stated, that before the filing of this application a button has been made having a textile lining with its edges lapped and cemented, upon which lining a leather cover is spirally wound and cemented, the whole structure being thus formed in a tube, from which the button-sections are detached. My method and structure differs from this in that my device has no annular seam or joint and the whole surface of the fabric is cemented together, while with the other only the edges of the textile lining are cemented, forming a lining upon which a leather cover or body is placed.

Having therefore described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A whip-button consisting of several layers of textile material forming a tube or ring and permeated with an adhesive material, substantially as shown.

2. A whip-button consisting of several layers of flexible material forming a tube or ring and permeated with a water-proof adhesive material, substantially as shown.

3. The method of making whip-buttons, consisting of applying an adhesive material to a sheet of flexible material, forming the same into a tube of several layers, cutting sections from the tube, and forming the exterior surfaces by pressure or rolling, substantially as shown.

CHARLES G. BECKER.

Witnesses:

ALLEN WEBSTER,
CHAS. CULVER.