E. SCAVINI.

MANUFACTURING HEADS OF PUPPETS, DOLLS, AND LIKE ARTICLES.

APPLICATION FILED SEPT. 10, 1919.

1,389,905. Patented Sept. 6, 1921.

3 SHEETS—SHEET 1.

Fig. 1

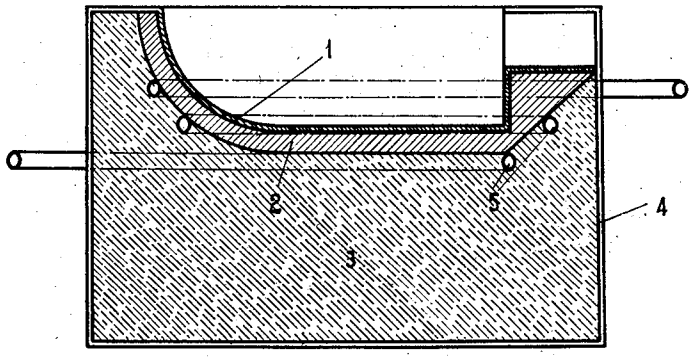
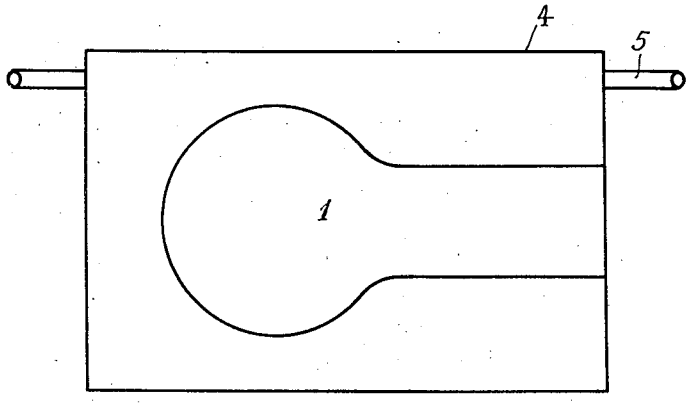


Fig. 2



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3 SHEETS—SHEET 2.

Fig. 3

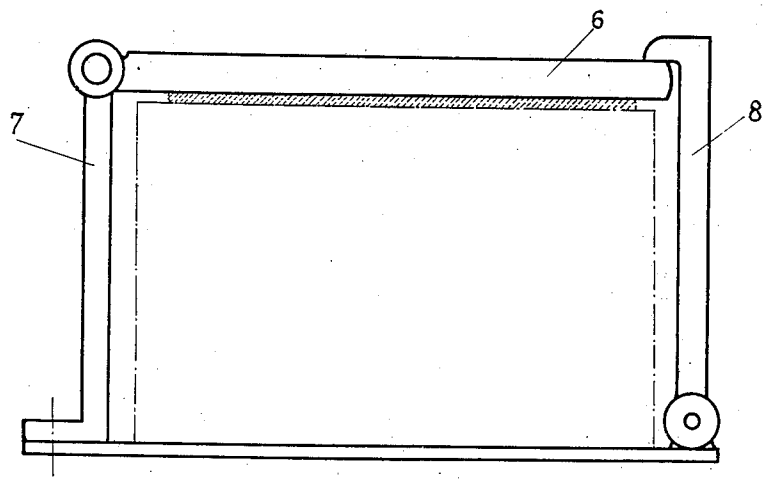
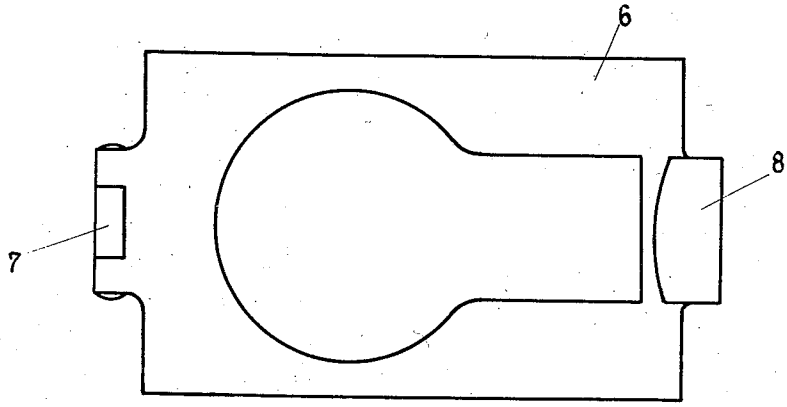


Fig. 4



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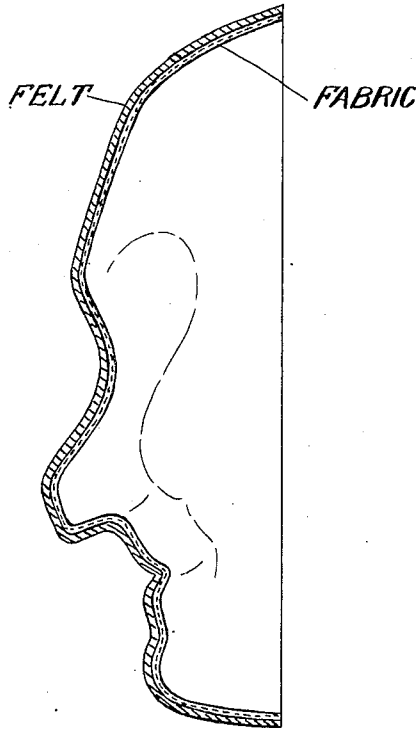
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3 SHEETS—SHEET 3.

Fig 5



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UNITED STATES PATENT OFFICE.

ENRICO SCAVINI, OF TURIN, ITALY.

MANUFACTURING HEADS OF PUPPETS, DOLLS, AND LIKE ARTICLES.

1,389,905. Specification of Letters Patent. Patented Sept. 6, 1921.

Application filed September 10, 1919. Serial No. 322,946.

To all whom it may concern:

Be it known that I, ENRICO SCAVINI, a subject of the King of Italy, and resident of Turin, Italy, have invented a certain new and useful Improved Method in Manufacturing Heads of Puppets, Dolls, and like Articles, of which the following is a specification.

This invention relates to the manufacture of heads of dolls, puppets and like articles, which are required to show recesses and comparatively high projections, by using felt, and to a method of shaping said felt which allows of obtaining in the simplest manner articles having a very satisfactory appearance, said articles being also very resistant and durable.

According to this invention the felt is hot pressed by either a single or a plurality of successive operations, into a matrix reproducing the shape of the article to be obtained and during this operation a layer of fabric strongly starched and hot wetted is located on the surface intended to result inside the article.

On the annexed drawing is shown by way of example a construction of the device which may be conveniently used for effecting the shaping according to this invention and Figure 1 is a longitudinal section of the matrix, Fig. 2 is a plan view thereof; Fig. 3 is a side view of the matrix provided with a top plate for holding in place the felt to be pressed and Fig. 4 is the corresponding plan view of Fig. 3 and Fig. 5 is a sectional view of the front portion of a puppet head made in accordance with the invention.

As shown by Figs. 1 and 2, the matrix comprises a shell 1 preferably of copper and obtained by galvanoplastic from the model to be reproduced, and said shell is located, with interposition of a layer 2 of soft alloy, into a block 3 of plaster or cement compressed into a metal box 4. Into the block 3 is embedded a pipe 5 as near as possible to surface of shell 1 and steam is caused to flow through said pipe for the purpose of heating the die.

The matrix is provided with a plate 6 (Figs. 3 and 4) having an opening adapted to leave the recess uncovered and said plate is pivoted at one end, by way of example, with a support 7 while at the opposite end is engaged by a hook 8.

The interstice between the lower surface of plate 6 and the upper surface of the matrix must have such an extension as to properly clamp the sheet of felt to be pressed when this sheet is located between the matrix and plate 6 is engaged by hook 8 as shown by Fig. 3.

In order to effect the operation, the piece of felt is slightly starched and wetted with steam, then it is located under plate 6 and a proper patrix (not shown) is caused to act on said piece. Said patrix is preferably made of soft alloy and may be operated by any proper means.

It is useful to submit the sheet of felt to a first pressing operation as above described, and then, after having raised the patrix to insert a triple sheet of fabric in the recess of the piece of felt which has been shaped to a certain extent, said fabric being strongly starched and previously wetted with steam.

To prevent said fabric from adhering to the patrix a sheet of oiled paper is located thereon and thereafter the patrix is lowered again. During the pressing operation the felt located straight on the mouth of the matrix is caused to extend in a uniform and gradual manner owing to pressure under which the upper plate 6 holds it on the upper surface of the matrix, so that the liability of said felt to become wrinkled on the side or on the edge of the matrix is avoided.

Further by effect of the pressure and heat the starched fabric arranged on the felt is caused to adhere to it and a portion of the starch is absorbed by said felt so that after said pressing a piece is obtained which is strongly compact and holds durably the shape imparted to it, being at the same time infrangible because of the material forming the same.

Fig. 5 indicates by way of example the outer or face layer of felt and the inner layer of starched fabric which is caused to adhere to said felt layer during the stamping operation of the felt to the shape of the final article.

What I claim as my invention and desire to secure by United States Letters Patent is:—

1. The herein-described method of manu-

facturing heads of puppets, dolls and the like, which consists in hot pressing in a matrix a piece of sized felt with a piece of thoroughly starched, hot, wet fabric arranged on the surface of the felt and intended to form the interior surface of the finished article.

2. The herein-described method of manufacturing heads of puppets, dolls and the like, which consists in, first, partly shaping in a matrix a piece of sized felt; then placing a piece of thoroughly starched, hot, wet fabric inside said partly shaped felt; and then pressing the superposed felt and fabric into the final shape.

3. As new articles of manufacture, heads of dolls, puppets and the like made of sized felt and stiffened fabric.

4. As new articles of manufacture, heads of dolls, puppets and the like made of sized felt and having a surface covering of stiffened fabric.

5. As new articles of manufacture, heads of dolls, puppets and the like made of pressed sized felt and having a surface covering of stiffened fabric.

6. As new articles of manufacture, heads of dolls, puppets and the like made of pressed starched felt and having a surface covering of stiffened fabric.

7. As new articles of manufacture, heads of dolls, puppets and the like made of an exterior layer of felt and sized an interior layer of stiffened fabric.

8. As new articles of manufacture, heads of dolls, puppets and the like made of an exterior layer of pressed starched felt and an interior layer of fabric.

9. As new articles of manufacture, heads of dolls, puppets and the like made of an exterior layer of pressed felt and an interior layer of stiffened fabric.

10. The herein described method of manufacturing heads of puppets, dolls and the like, which consists in first, submitting to an initial pressure a piece of starched felt wetted with steam; then superposing upon it fabric which was starched and wetted with steam; and then subjecting the felt and fabric to final pressure and heat.

Signed at Turin, Italy, this 5th day of August A. D. 1919.

ENRICO SCAVINI.