

Boiling-Off Silk

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THE TREATMENT OF SPECIAL FABRICS.

The methods of handling silk which have been explained above are not suited for certain very delicate fabrics which are easily disarranged and frayed during the degumming operation. Among such fabrics are the Alencon tulle made of fine thread and a loose net, called "Illusion," the silk lace known as "Islande," and in general all the goods in which the threads have few points of contact or interlacing with each other and are liable to be disarranged and frayed by the slightest tension in the degumming bath at the moment when the gum becomes soft.

Various methods of manipulating these fabrics have been tried without satisfactory results. Among these has been the use of the circulating system by which the goods remain stationary and the liquor is forced through them either by a pump or by a hydro-extractor moving at a slow speed. The difficulty with this method, however, is that the silk saturated with the soap solution becomes so compact as soon as the gum is softened that the circulation of the liquor becomes impossible. Furthermore, by reason of the goods not being moved freely in the liquor, the cleaning action is completely paralyzed.

In practice a method is used for handling these fabrics which is imperfect, but which gives fairly good satisfaction. It is called the cushion process and is carried out as follows: It has been found that the "illusion" fabric does not become displaced as easily when the tension is crossways of the fabric instead of lengthways, this being due to the hexagonal form of the aperture in the net. The object of the

new method therefore is to bring the tension crossways of the fabric. This is accomplished by winding the piece by a windlass, keeping it spread out in the open width which varies from 80 to 120 in. and even more. When the piece is unwound from the roll and folded it forms a sort of cushion about 20 inches wide, and from 40 to 120 inches long, the latter being the width of the goods. The two ends of this cushion are then joined by fastening with strong cotton and twine, thus forming a sort of ring or skein of large size which can be hung on a stick and manipulated like a skein of yarn in the liquor. It is clear that the tension thus brought on the skein or ring of cloth will be crossways of the piece, thus producing the most favorable conditions possible for preventing a displacement of the fabric structure. By an excess of precaution the cushions are often boiled off in a cloth sack, as has already been described in the case of skein yarn. This slightly retards the dissolving of the gum and the circulation of the liquor, but it effectively protects the fabrics. The difficulties with the latter method are partially remedied by using a stronger solution of soap for the bath and by rinsing thoroughly after the degumming operation.