

UNITED STATES PATENT OFFICE.

JOHN H. STEVENS, OF NEWARK, NEW JERSEY, ASSIGNOR TO THE CELLULOID COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

FLEXIBLE SKIN OR FABRIC.

SPECIFICATION forming part of Letters Patent No. 622,727, dated April 11, 1899.

Application filed February 9, 1899. Serial No. 705,061. (No specimens.)

To all whom it may concern:

Be it known that I, JOHN H. STEVENS, of the city of Newark, county of Essex, and State of New Jersey, have invented certain new and useful Improvements in Flexible Skins or Fabrics, of which the following is a specification.

In my United States Patent No. 615,319, of December 6, 1898, I have described the use of naphthol as an important ingredient in flexible pyroxylin compositions containing camphor. The present invention is based on my successful use of naphthol in flexible compounds of pyroxylin which contain no camphor. I find that by dissolving pyroxylin in a mixture consisting of a suitable oil, a liquid solvent of pyroxylin, and naphthol I get a product which can be combined with coloring-matter and then spread upon leather, cloth, or other fabric to produce an improved article which takes the place of the best-finished leather goods. It is essential that the solvent either consist of or contain a liquid of comparatively slow volatility and immiscible with water. This liquid must either be a solvent of pyroxylin or form a solvent in combination with the other ingredients. There are many liquids which answer this description. For instance, I have successfully used acetate of amyl, benzoic ether, propionic ether, capronic ether, formate of amyl, and fusel-oil.

My coatings remain flexible for a much longer time than the same compounds with the naphthol left out. By preference I use castor-oil, beta-naphthol, and amyl acetate, either alone or mixed with any of the alcohols. A good formula for coating a solution for cloth or leather is as follows: soluble py-

roxylin, one hundred parts; amyl acetate, three hundred parts; wood-spirit, three hundred parts; castor-oil, one hundred and fifty parts; beta-naphthol, two to three parts. The proportion of wood-spirit can be varied according to the solubility of the particular pyroxylin employed, so as to make a solution suitable for spreading and, other things being equal, the proportion of oil be changed to suit the flexibility desired.

Suitable pigments for coloring can be ground in or mixed with the composition in the manner usually employed for coloring, enameling, or waterproofing mixtures.

The finished fabric is susceptible of embossing or burnishing and will remain pliable for a long time without decomposition or offensive odor.

I disclaim in this application a pyroxylin compound which contains camphor.

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

1. A fabric waterproofed by a pyroxylin compound which contains pyroxylin, oil, naphthol, and a volatile liquid menstruum insoluble in water, substantially as described.

2. A fabric waterproofed by a pyroxylin compound which contains pyroxylin, oil, naphthol, and amyl acetate, substantially as described.

3. A fabric waterproofed by a pyroxylin compound which contains pyroxylin, castor-oil, beta-naphthol, and amyl acetate, substantially as described.

JOHN H. STEVENS.

Witnesses:

WALTER P. LINDSLEY,
M. R. EISELE.