

UNITED STATES PATENT OFFICE.

OSKAR KLAUSER, OF HERISAU, SWITZERLAND, ASSIGNOR TO THE FIRM OF AKTIEN-GESELLSCHAFT CILANDER, OF HERISAU, SWITZERLAND.

PROCESS FOR PRODUCING WOOL-LIKE EFFECTS ON COTTON FABRICS.

1,285,738.

Specification of Letters Patent.

Patented Nov. 26, 1918.

No Drawing. Original application filed August 12, 1916, Serial No. 114,620. Divided and this application filed August 24, 1917. Serial No. 188,033.

To all whom it may concern:

Be it known that I, OSKAR KLAUSER, a citizen of the Republic of Switzerland, residing at Herisau, Switzerland, have invented certain new and useful Improvements in Processes for Producing Wool-Like Effects on Cotton Fabrics; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to use the same.

This application is a division of my application for United States patent, filed August 12th, 1916, Serial No. 114,620.

Mercer observed in 1844, that concentrated sulfuric acid imparts to cotton fabrics a transparent appearance. It is also a well-known fact that sulfuric acid of at least 50½° Bé. imparts to cotton fabrics a parchment-like appearance—sulfuric acid of 45 to 50° imparts to cellulose only the property of being readily dyed. The action is a purely mercerizing one, as it is observed in 1896 by Thomas and Prevost, British Patent No. 20714. Heberlein (Patent 1,141,872, June 1, 1915) describes a process of producing wool-like effects on cotton previously mercerized, by subjecting it for several minutes to the action of sulfuric acid of a concentration of from 49° to 51° Bé.

The present invention is based on the observation that nonmercerized cotton dipped for several minutes into sulfuric acid of less than 50½° Bé. (as measured at 15° C. above zero) at a temperature of less than -4° C. shrinks about 10% in length and about 20% in width. In consequence of this shrinking the cotton fabric appears after washing out the acid, fuller, softer and becomes a wool-like character.

In this case the action of the cold sulfuric acid alone is similar to the successive action of lye and sulfuric acid at a normal temperature.

The fabric can also be printed with a reserve and then be dipped into the cold sulfuric acid of less than 50½° Bé. at a temperature of at or below -4° C. The places where the acid has acted will be wool-like, as contrasted to the places reserved, which after washing out the reserve will have the appearance of ordinary cotton. The patterns produced in this way can be made more prominent by dyeing them as the wool-like places will be dyed darker than the others.

The application of the aforesaid cold acid for producing pattern effects is especially advantageous, as its action on the reserve will be less intensive than the action of sulfuric acid of normal temperature.

What I claim is:

1. Process of imparting to cotton fabrics a wool-like appearance consisting of taking nonmercerized fabric, treating it for several minutes with sulfuric acid of less than 50½° Bé. at a temperature of less than -4° C. and then washing out the acid.

2. Process for producing wool-like pattern effects on cotton fabrics consisting of printing with a resist, treating the so prepared fabric with sulfuric acid of less than 50½° Bé. at a temperature of less than -4° C. and then washing out the acid and the resist.

3. The process of producing pattern effects on cotton fabrics, which consists in printing the fabric with a reserve, treating the printed fabric with sulfuric acid of less than 50½° Bé. at a temperature of less than -4° C., washing out the acid and reserve, and dyeing the fabric to render the pattern more prominent.

In testimony that I claim the foregoing as my invention, I have signed my name.

OSKAR KLAUSER.