

# UNITED STATES PATENT OFFICE.

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OF QUEENS, NEW YORK.

## TREATING AND BLEACHING RATTAN.

SPECIFICATION forming part of Letters Patent No. 343,897, dated June 15, 1886.

Application filed April 15, 1886. Serial No. 199,000. (Specimens.)

### *To all whom it may concern:*

Be it known that I, HERMANN ENDEMANN, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Treating and Bleaching Rattan, of which the following is a specification.

My invention consists in an improved process of bleaching rattan after the enamel or silix has been removed.

In carrying out my invention it is necessary to first remove the enamel or silix from the surface of rattan. For this purpose I employ a solution of soap, such as hereinafter described, into which the rattan is immersed and boiled until all the silix or enamel is removed, which occupies a period of time varying from one and one-half to two and one-half hours. The rattan is inspected from time to time during the process, so as to determine the proper time for removal. The soap which I use contains a considerable excess of free caustic soda. In preparing such a soap I dissolve one part of commercial caustic soda in about one hundred parts of water and saponify with the solution one-half part, by weight, of oleic acid, or, in place of oleic acid, other fatty substances can be used—such as tallow or the fatty acids of tallow or cocoa-butter. By the solution of soap the silix or enamel covering the rattan is dissolved, and at the same time the rattan remains pliable, which is due particularly to the fatty substances contained in the soap. After the silix or enamel has been removed, the caustic solution is drawn off, and the rattan is soaked in cold water for ten or twelve hours to remove all traces of soap.

For bleaching the rattan after the enamel or silix has been removed, I make use of a reducing agent, and, by preference, a solution obtained as follows: Fifteen parts of sodium bisulphate are dissolved in fifteen hundred parts of water, and to this is added a mixture of eight parts of concentrated commercial sulphuric acid with fifty parts of water. The rat-

tan to be bleached is immersed in this solution for one or more days until it has been bleached to the desired degree of whiteness, after which it is removed from the solution and soaked in pure water until all traces of the bleaching solution have been removed. It is then boiled with a dilute solution of boric acid in water, and finally again soaked in water and dried. The rattan may also be bleached by placing the moist cane, after the removal of the silix or enamel, in an air-tight chamber and fumigating the same with sulphurous acid produced by the combustion of sulphur. Excess of acid is removed by boiling with a borax solution in water.

The rattan, after having been treated as above described, assumes its original color without the gloss, and it is brought into such a condition that it may be dyed by either acid or basic colors.

What I claim as new, and desire to secure by Letters Patent, is—

1. The herein-described process for bleaching rattan, which consists in first exposing the rattan to the action of a soap solution for removing the silix, and then treating the same with a reducing agent, substantially as described.

2. The herein-described process for bleaching rattan, which consists in first exposing the same to the action of a soap solution for removing the silix, and then treating the same with a reducing agent composed of sodium bisulphate, sulphuric acid, and water in the proportions designated, and finally boiling the same with a solution of boric acid in water, substantially as described.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

HERMANN ENDEMANN. [L. s.]

Witnesses:

W. HAUFF,  
E. F. KASTENHUBER.