UNITED STATES PATENT OFFICE.

ERNST OSCAR FANKHAUSER, OF BURGDORF, SWITZERLAND.

MORDANT.

SPECIFICATION forming part of Letters Patent No. 437,295, dated September 30, 1890.

Application filed May 8, 1890. Serial No. 351,088. (No specimens.) Patented in France November 22, 1888, No. 194,278; in Belgium November 28, 1888, No. 84,118; in Italy November 30, 1888, No. 24,501; in England December 21, 1888, No. 18,717; in Spain January 25, 1889, No. 8,945, and in Austria-Hungary December 20, 1889, No. 47,104.

To all whom it may concern:

Be it known that I, ERNST OSCAR FANKHAUSER, a citizen of Switzerland, residing at Burgdorf, in the canton of Bern, Switzerland, have invented certain new and useful Improvements in Mordants for Cotton and other Threads and Fabrics, (for which I have obtained patents in the following countries: Italy, No. 24,501, dated November 30, 1888; France, No. 194,278, dated November 22, 1888; Spain, No. 8,945, dated January 25, 1889; Great Britain, No. 18,717, dated December 21, 1888; Belgium, No. 84,118, dated November 28, 1888, and Austria-Hungary, No. 47,104, dated December 20, 1889,) of which the following is a specification.

This invention relates to an improved mordant to be used in the process of dyeing yarn or thread or fabrics of cotton and any other textile material.

The improved mordant of my invention is applied directly to the cotton yarn or fabrics to be dyed without any previous boiling of the cotton or cotton thread or yarn or fabrics under treatment. The improved mordant of my invention may as well be employed in treating thread or yarn or fabrics of mixed material, such as cotton and silk, or wool and cotton, which fabrics will become very soft and susceptible for the dyeing to be applied.

The process of preparing the new and improved mordant of my invention consists in first preparing a mixture of one hundred kilograms of castor-oil and twenty kilograms of sulphuric acid. The oil and the acid are slowly stirred to form an intimate mixture, which remains in a state of rest for several days, upon which twenty-three kilograms of soda-lye of 30° Baumé are added in small portions. The mixture is then heated to 45° Reaumur, and an addition of twenty kilograms of ammonia is made to the mass. Separately from the mixture aforedescribed I prepare in another vessel a solution of six kilograms best white soap in twenty-five liters of water, and to this solution I add a solution of four kilograms of extract of sumac in ten liters of water. This combined solution is then added to the first mixture, before described, while still in a heated state.

By the application of this improved mordant the boiling of the yarn or fabrics before being mordanted is entirely dispensed with, and a considerable economy of fuel, time, and wages is obtained. The thread or yarn or fabrics mordanted by the improved mordant is obtained soft and supple and highly susceptible for the dye. The dye-fluid is readily imbibed by the mordanted yarn or fabrics and the colors are fixed in a superior manner, receiving shades of improved intensity.

I claim as my invention—

A mordant for cotton or mixed thread, yarn, or fabrics, composed, substantially as described, of a mixture of castor-oil, sulphuric acid, soda-lye, ammonia, white soap, and extract of sumac, as set forth.

In testimony whereof I hereunto sign my name, in the presence of two subscribing witnesses, this 19th day of April, 1890.

ERNST OSCAR FANKHAUSER.

Witnesses:

JOHANN WÄBER,

S. MAUYER.