

UNITED STATES PATENT OFFICE.

HERBERT A. FOLSOM, OF PROVIDENCE, RHODE ISLAND.

SOLVENT FOR DYE STUFFS.

1,379,175.

Specification of Letters Patent.

Patented May 24, 1921.

No Drawing.

Application filed February 25, 1921. Serial No. 447,834.

To all whom it may concern:

Be it known that I, HERBERT A. FOLSOM, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Solvents for Dyestuffs, of which the following is a specification.

My invention relates to solvents for coloring matter.

Certain colors, such as vat colors and sulfur colors are insoluble in water. It is necessary, in order that these colors be used to dye a material, that they be made soluble. It is also important that colors after being dissolved be maintained in solution.

To the above ends essentially my invention consists in such materials and in such combinations of materials, and in such steps and combinations of steps as fall within the scope of the appended claims.

I have discovered that sulfite liquor, which occurs as a by-product in the sulfite process of paper pulp manufacture, is a suitable agent for dissolving and blending vat colors and sulfur colors for dyeing and printing. By vat colors is meant indigo, indigo and anthracene derivatives, and modifications of the derivatives.

In utilizing my invention any one of the enumerated coloring matters, either in powder or paste form, is subjected to the action of sulfite waste liquor in alkaline solution.

The sulfite waste liquor employed is the by-product of the sulfite process of paper pulp manufacture. Alkaline herein refers to any alkali or salt having an alkaline action. The amount of the sulfite liquor and the amount and kind of alkali may be varied with advantage in the treatment of individual coloring matters, and upon different materials.

The following is an illustrative formula for dissolving synthetic indigo or a vat color of indigo derivation: By weight, 2 parts sulfite waste liquor, on dry basis, dissolved in 5 parts water; into which is stirred 1 part granulated caustic soda, first, and then 2 parts of 100% indigo or indigo derivative. This mixture is stirred and heated to about 135 degrees Fahrenheit, and then diluted and cooled to a volume of 20 parts and a temperature of about 110 degrees which completes the dye liquor.

I claim:—

1. As a solvent for vat colors and sulfur colors, a sulfite waste liquor in alkaline solution.

2. A process of dissolving vat colors and sulfur colors consisting in mixing the color to be dissolved with water, an alkali, and a sulfite waste liquor.

In testimony whereof I have affixed my signature.

HERBERT A. FOLSOM.