

UNITED STATES PATENT OFFICE.

ISABELLA J. VAN SKELLINE, OF BROOKLYN, E. D., NEW YORK.

IMPROVEMENT IN PROCESSES OF DYEING TISSUE AND BONBON PAPERS.

Specification forming part of Letters Patent No. **192,201**, dated June 19, 1877; application filed February 13, 1877.

To all whom it may concern:

Be it known that I, ISABELLA J. VAN SKELLINE, of Brooklyn, E. D., in the county of Kings and State of New York, have invented certain new and useful Improvements in Dyeing Red, Cherry, or Pink Shades, the same being especially designed for dyeing tissue-papers, and for commercial purposes, such as are used for the wrappers of bonbons and other like articles, after having been made up into sheets, of which the following is a full, clear, and exact description.

It has long been a matter of great difficulty to produce the different shades of red, varying from a light-pink to a deep-scarlet or cherry color, in proper purity and brilliancy to produce the best effect, the colors produced by the ordinary processes being dull and heavy or expensive in tissue-papers, rendering the finished articles of comparatively little value for ornamental or trade purposes.

My invention is especially designed to overcome these objections; and it consists in a certain new and useful method of preparing and combining the aniline colors, known in the market as "eosine" and "aurine," with the material to be dyed, and fixing the same upon said material by means of a peculiar mordant, as more fully hereinafter set forth.

To this end my invention consists in first combining the aniline salts known in the market as "eosine" or "aurine," in a state of solution, with the salts of tin, lead, or zinc, with alum as a mordant, and in treating the articles to be dyed with such solutions until the desired shade is produced, and afterward, if desirable, more permanently fixing said colors by means of an alkaline solution of alum, as more fully hereinafter set forth.

In carrying out my invention I employ as coloring agents the aniline salts or preparations known in the market as "eosine" and "aurine." These materials I combine with the salts of tin or lead, as more fully hereinafter described.

In preparing said colors I proceed as follows: In carrying out my invention I take of a solution of eosine or aurine, or the two combined, five or more parts, according to the depth of shade to be produced in the finished article, and about twelve parts, or thereabout,

of either the saturated solution of stannate of soda, or the double acetate of lead, zinc, or tin, and combine and mix the whole thoroughly together.

This forms a dyeing solution which can be applied to the articles to be dyed by simply dipping the edges of the bonbon-papers, leaving the center white, so that the coloring matter or dyes do not come in contact with the candies, &c.

As my invention is designed particularly for tinting tissue-papers for bonbon wrappers and papers, I will, in the present instance, describe it more particularly with reference to the dyeing of same.

I take the solutions, as above described, and, placing them in a suitable vat or vessel, dip, brush, or manipulate the bonbon papers or wrappers to be dyed therein, after they have been made up into sheets, until they have received the desired tint. After they have absorbed the requisite amount of coloring-matter, they are then ready for the subsequent treatment with the astringent mordant, if it is desired to more permanently fix the dye, which is prepared as follows: I take of a saturated solution of commercial alum, in water, two parts, or thereabout, and add to the same a saturated solution of carbonate of ammonia, in the proportion of one part, or thereabout, and thoroughly mix and combine the two solutions. These proportions I have named are found convenient in practice; but I do not limit myself to the same, as they may be varied according to the depth of shade to be ultimately produced in the finished article.

After treating the articles with the dyeing solution first above mentioned, I submit them to the action of the alkaline mordant solution last mentioned, by means of which the coloring matter, in combination with the metallic salts, is fixed and thoroughly fastened in the body of the material to be dyed.

The alkaline salts which I employ are either the stannate of soda or potash, which possesses an alkaline reaction of itself, or the acetates of lead, tin, or zinc.

I do not intend to limit myself to the employment of eosine or aurine together, or in combination with the metallic salts above mentioned, and the alkaline alum mordant,

as they may be used with advantage separately to produce different shades of color, as may be desired.

I do not claim in this application the article as produced, as that is a subject of another patent granted to me February 20, 1877, No. 187,495.

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

1. The process herein described of dyeing tissue-papers for bonbons and other like articles, by treating the same with a solution of eosine, combined with the salts of tin, lead,

or zinc rendered alkaline, and subsequently with an alkaline alum mordant, substantially as herein described.

2. The application of eosine as the central or main color, which may be substituted by aurine, in whole or in part, as its equivalent, so as to vary the shades, as desired, in the tinting of the edges of bonbon-wrappers or motto-papers, substantially as and for the purposes set forth.

ISABELLA J. VAN SKELLINE.

Witnesses:

E. EDWARD TEALE,
OLIVER W. WREN.