

United States Patent Office.

ALFRED PARAF, OF NEW YORK, N. Y.

Letters Patent No. 69,121, dated September 24, 1867.

IMPROVED MODE OF PRODUCING BLACK IN DYEING AND PRINTING.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, ALFRED PARAF, now residing in the city, county, and State of New York, have invented a new and useful Improvement in the Process of Producing Black in Fibrous and Textile Materials by Dyeing and Printing; and that the following is a full, clear, and exact description and specification of my said invention.

In carrying out my invention I make use of asphaltum, and precipitate the black coloring matter thereof in the article to be dyed or printed by means of albumen or its equivalent.

The kind of asphaltum which I prefer to use is that known by the name of Grahamite. I prepare a solution of the asphaltum by dissolving it in turpentine, benzole, or other neutral solvent, permitting the solvent to take up as much of the material as it will. The solution is permitted to settle, and the liquor is poured off.

On the other hand, I prepare a solution of albumen in water. If egg albumen be used, the solution may be prepared by dissolving one pound of the albumen in one gallon of water. If blood albumen be used, the solution may be prepared by dissolving two and a half pounds of such albumen in one gallon of water.

When cloth is to be printed, equal quantities of the solution of asphaltum and albumen are mixed together, and the cloth is printed in the usual manner with the compound. After the printing is completed, the cloth is placed in the steam-chest commonly used in calico print-works, and is steamed sufficiently to coagulate the albumen and drive off the solvent of the asphaltum. Steaming for half an hour at a pressure of six pounds is generally sufficient for this purpose.

If yarn or a fabric is to be dyed black, I immerse the article first in the solution of albumen, and dry it at a temperature below that at which albumen coagulates. The dry article is immersed in the solution of asphaltum, and it is then steamed to coagulate the albumen and drive off the solvent of the asphaltum.

Although I have mentioned egg albumen and blood albumen in the above description, the invention is not limited to the use of those articles, as other forms of albumen may be used. Thus, for example, the prepared gluten known in commerce as lucine may be used in place of animal albumen, and the solution of it for printing or dyeing may be made by dissolving two and a half pounds of it in a gallon of water.

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

The process of producing black in dyeing and printing operations by means of asphaltum and albumen, substantially as before described.

In testimony whereof I have hereto set my hand this thirty-first day of August, A. D. 1867.

ALFRED PARAF.

Witnesses:

E. S. RENWICK,

J. RATHBONE, Jr.