

United States Patent Office.

ALFRED PARAF, OF NEW YORK, N. Y.

Letters Patent No. 93,900, dated August 17, 1869.

IMPROVED MATERIAL FOR DYEING AND PRINTING, OBTAINED FROM MADDER.

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, of France, at present a resident in the city, county, and State of New York, have made an invention or discovery of a new article of manufacture suitable for dyeing and printing, which I denominate Tinctarine; and that the following is a full, clear, and exact description and specification of my said invention or discovery.

My invention is a peculiar reddish-brown preparation or extract, produced from madder-root, and consisting of the coloring-matter of the madder-root combined or compounded with fatty and resinous matters, but practically free of pectic acid or its compounds.

Previous to its production, colored extracts of madder-root had been known, and such may be divided into two classes, viz, the pure colored extract of madder, obtained by chemists, consisting of purpurine and alizarine, in a practically pure state; and the impure commercial extracts produced for dyeing and printing, consisting of the said principles, (purpurine and alizarine,) either mixed or combined with certain fatty and resinous matters, and with pectic acid, or its compounds, or mixed or combined with compounds of copper.

The new article of manufacture, denominated by me tinctarine, differs from madder-extracts of the first class, by containing certain of the fatty and resinous matters derived from the madder-root, while it differs mainly from some madder-extracts of the second class by being practically free of pectic acid, or its compounds; and it differs from another extract of the second class by being free of compounds of copper.

The said tinctarine has been found by practice to be particularly adapted to the printing of cloths, and it is believed that its value for this purpose results from the difference between its constitution and those of previous madder-extracts, as above stated; the practical effect of pectic acid, when present in a madder-extract used for printing, being to transform certain portions of the coloring-matter of madder into soluble

compounds during the steaming to which the printed fabric is subjected, for the purpose of fixing the colors, so that madder-extract containing it, contains an agent destructive of the printed color, the practical effect of the presence of copper-compounds being to produce a dirty color, while pure purpurine and alizarine are not only too costly to be used for printing, but are found to be practically unsuited to it, by reason, it is believed, of the absence of all fatty matters.

I prefer to prepare my new article by the process and means described by me in the specification of Letters Patent of the United States, No. 86,939, dated the 16th day of February, A. D. 1869, using, by preference, a digester, as therein described; but my present invention or discovery is not restricted by the process or means used in preparing it, as it is possible to vary these, without materially changing the constitution or the valuable properties of the article produced. Moreover, it is not restricted to an article containing the peculiar fatty or resinous matters derived from madder-root, or to one containing those matters without others, because those matters might be changed for their substitutes or equivalents, and the material might be adulterated by the addition of material that is harmless to the color, without materially changing the constitution and properties of the article that render it valuable for printing-purposes.

The material may also be rendered more valuable for printing-purposes, by compounding or combining it with other materials.

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

The new article of manufacture hereinbefore described, and denominated tinctarine.

In testimony whereof, I have hereunto set my hand, this 28th day of July, A. D. 1869.

ALFRED PARAF.

Witnesses:

JULIUS GERSON,
W. C. WITTER.