

United States Patent Office.

BRUNO SCHMIDT, OF NEW YORK, N. Y.

Letters Patent No. 85,860, dated January 12, 1869.

IMPROVED BLEACHING-PROCESS.

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, BRUNO SCHMIDT, of the city, county, and State of New York, have invented a new and improved Bleaching-Process; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same.

This invention consists in removing the permanganates used in bleaching cotton, linen, wood, straw goods, wax, or other fabrics or articles, together with the coloring-matter adhering to the fibre or article to be bleached, by subjecting the same to the action of a heated bath of sulphuric acid, in such a manner that the bleaching-action of the permanganates is rendered perfect, and the use of sulphuric acid or other gaseous agents noxious to the health can be dispensed with.

In carrying out my process, I introduce the articles to be bleached into the solution of the permanganates, in the usual manner, leaving them therein until all the permanganates contained in the solution are absorbed.

After the articles to be bleached are removed from the bath containing or having contained the permanganates, they are usually exposed to the action of gaseous sulphurous acid, and the fumes arising in completing the process are noxious to the health of the operators; and furthermore, the effect of the sulphurous acid is not quite as perfect as may be desired, and said acid, when once used, is spent, because it escapes in the form of a gas.

All these difficulties are obviated by my invention.

After removing the articles to be bleached from the bath of the permanganates, I introduce them into a bath of diluted sulphuric acid, which I heat to about 210°, and I have found that, by heating, the effect of the bath is increased to such an extent that said bath acts one hundred and fifty times quicker than it does if applied cold.

I am aware that manifold experiments have been made with the sulphuric-acid bath, but always in a cold state, and in this state the action of the bath is so slow that it is practically useless.

By using the heated bath, a perfect effect is produced, all noxious gases are avoided, and, furthermore, the cost of the whole process is materially reduced, since the sulphuric-acid bath can be used as many as five times before its power is spent, while the gaseous agents, such as sulphurous acid, can only be used once.

Having thus described my invention,

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

The within-described process of removing the permanganates used in the bleaching-process, together with the coloring-matter adhering to the fibres or articles to be bleached, by subjecting the same to the action of a heated bath of diluted sulphuric acid, in the manner herein set forth.

BRUNO SCHMIDT.

Witnesses:

W. HAUFF,
ERNEST F. KASTENHUBER.