

CATION OF TEXTILES & FIBERS,

SUBSTITUTED FOR MISSING COPY.

UNITED STATES PATENT OFFICE.

THEODOR SCHNEBELY, OF BAY RIDGE, NEW YORK, ASSIGNOR TO JEREMIAH MEYER, OF SAME PLACE.

IMPROVEMENT IN BLEACHING TEXTILE FABRICS.

Specification forming part of Letters Patent No. **39,998**, dated September 15, 1863; antedated January 3, 1863.*To all whom it may concern:*

Be it known that I, THEODOR SCHNEBELY, of Bay Ridge, in the county of Kings and State of New York, have invented a new and Improved Process for Bleaching Textile Fabrics, &c.; and I do hereby declare that the following is a full, clear, and exact description of the same.

This invention consists in the peculiar manner and order in which the fabric to be bleached is treated with certain well-known liquors, all and every one of which are applied cold, and the effect of which is such that the bleaching of cotton and other textile fabrics can be completed in from three (3) to three and one-half (3½) hours without injury to the fabrics, and that by this process the goods are bleached just as perfectly as by the ordinary tedious process.

To enable those skilled in the art to fully understand and correctly use my invention, I will proceed to describe it.

The different liquors which I use are solutions of caustic soda, chloride of lime, and diluted sulphuric acid. These liquors are applied in the following order:

First. A solution of caustic soda of about 3° Twaddle. This solution is applied perfectly cold, and after the goods have remained in it for about half an hour they are removed and thoroughly washed in clean cold water—an operation which also requires about half an hour with the proper machinery.

Second. A solution of chloride of lime of about 3° Twaddle. The goods are exposed to the action of this solution, which is also applied perfectly cold, for the time of about fifteen (15) minutes, and when removed from this solution they are again washed lightly for about fifteen minutes.

Third. A solution of sulphuric acid of about 3° Twaddle. This solution is permitted to act

on the goods for about fifteen minutes, when the same are removed and lightly washed or rinsed in clean water—an operation which requires another term of fifteen minutes.

Fourth. A solution of chloride of lime of 3° Twaddle. The goods are exposed to this solution for the same length of time as above under No. 2, and on being removed from it they are lightly washed, the whole operation requiring about thirty (30) minutes.

Fifth. A solution of sulphuric acid, as above. The action of this solution on the goods continues for fifteen minutes, when the same are removed and thoroughly washed. This operation completes the whole process; and it will be noticed that during the entire process all boiling operations or the use of warm or hot liquors are avoided, whereby much time and labor and the expenditure of fuel is saved.

For ordinary cotton goods the operation is completed in about three (3) or three and one-half (3½) hours, and the goods are full as white as goods bleached by the old process, which is not completed in the same number of days. My process is applicable, however, to bleach linen, and also stockings, and, in fact, for the heaviest goods—such as canton-flannel, marseilles, &c.—and in all cases it is conducted perfectly cold, and the bleaching is effected without injury to the fibers.

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

The within-described process for bleaching textile fabrics by treating them with the liquors herein set forth, and applied in the order and substantially in the manner specified.

THEODOR SCHNEBELY.

Witnesses:

W. HAUFF,
JAMES LAIRD.