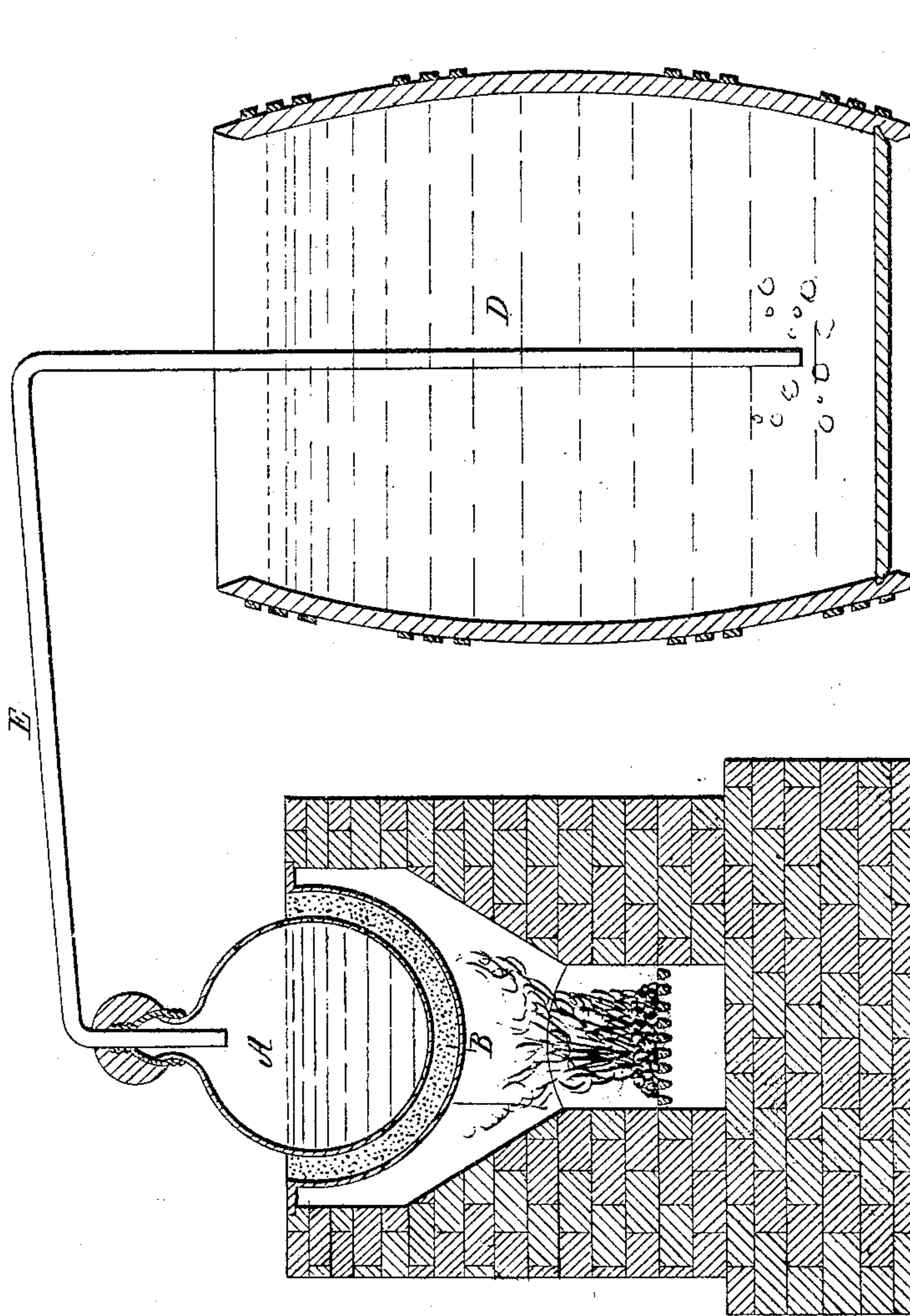


I. A. ROTH.

Removing Chlorine from Bleached Fabrics.

No. 10,095.

Patented Oct. 4, 1853.



## UNITED STATES PATENT OFFICE.

J. AUGUSTUS ROTH, OF PHILADELPHIA, PENNSYLVANIA.

### PROCESS FOR DECHLORINATING BLEACHED FABRICS.

Specification of Letters Patent No. 10,095, dated October 4, 1853.

*To all whom it may concern:*

Be it known that I, J. AUGUSTUS ROTH, chemist, of the city and county of Philadelphia and State of Pennsylvania, have discovered a new and useful Process for Removing Chlorin from Bleached Fabrics; and I do hereby declare that the following is a full, clear, and exact description thereof.

In the bleaching of linen, muslin, paper and other fabrics in the arts chlorid of lime is employed. The effective agent in this process of bleaching is the chlorin which this salt contains—after the process of bleaching is completed a portion of chlorid of lime remains in the bleached fibers; the chemical action of which is found after a length of time to have weakened the fabric and frequently to have changed its color.

I have discovered that by removing the chlorin from the fabric after it has been bleached the strength of the fabric and the permanence of its color are increased in comparison with fabrics from which the chlorin has not been so removed. I have also discovered the mode of preparing and applying a solution which will practically and economically accomplish this result. The solution which I employ, I suppose from the *rationale* of its preparation to be a sulfite of soda; but for greater accuracy I proceed to describe the mode of its preparation and the process of its application, so that others skilled in the art may make and use my invention.

I charge a glass retort A with three pounds of sulfuric acid and half a pound of charcoal pulverized, or in that proportion. The retort is placed in a sand bath B and slowly heated in any convenient mode. The retort is connected by means of a bent tube E extending nearly to the bottom of a res-

ervoir or receiver D. This reservoir or receiver D is filled with a solution of sal-soda which solution I prepare in the following proportion to the contents of the retort, viz: For every three pounds of sulfuric acid and half pound of charcoal as above, I place in the reservoir 2 pounds of soda and one gallon of water. Heat is applied to the retort until all the sulfurous acid gas passes over through the tube E into the reservoir, and there unites with the sal soda, thus forming a solution which I believe to be sulfite of soda and which I denominate "anti-chlorin." This solution is to be applied to bleaching fabrics at any time after the bleaching operation is completed in the following manner: The solution or anti-chlorin formed in the reservoir as above is to be diluted in the proportion of about one part of the solution or anti-chlorin to twenty-five parts of water, and into this solution the bleached fabric is immersed until entirely saturated. The effect as hereinbefore stated is to remove the chlorin and chlorid of lime remaining therein and prevent the subsequent injurious effect therefrom upon the fabric.

Having thus fully described the nature of my discovery and my process of preparation and application based thereon what I claim therefore as my invention and desire to secure by Letters Patent is—

The process of removing chlorin from fabrics by means of the solution herein described, and denominated anti-chlorin or by means of any other solution substantially the same, in the manner and for the purpose as herein described.

J. AUGUSTUS ROTH.

Witnesses:

JNO. EYRE SHAW,

CHARLES D. FREEMAN.