## Anited States Patent Office.

## JOHN W. GOODWYN, OF PETERSBURG, VIRGINIA.

Letters Patent No. 100,523, dated March 8, 1870; antedated February 26, 1870.

## IMPROVED PROCESS OF PULPING AND BLEACHING PAPER STOCK

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, John W. Goodwyn, of Petersburg, in the county of Dinwiddie, and State of Virginia, have invented a new and improved Process for Pulping and Bleaching Paper Stock and other similar Substances; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to understand the same.

The nature of my invention relates to improvements in pulping and bleaching paper stock, the object of which is to provide a means for accomplishing the same more quickly, in a better manner, and at a less expense than can be done by the means at present in use.

It consists in first submitting the substance to be pulped and bleached to the action of dilute nitric acid, well heated; second, boiling it in alkali, in an open vessel, and finally, to a bath of chloride of lime and sulphuric acid.

I find that by the application of heat to the nitric acid very much time is saved over the common pro-

cess of pulping and bleaching; that very dilute acid will produce the desired effect in very much less time than can be done without heat with the acid very much stronger also, that the time required for boiling in the alkali is greatly reduced.

My improved process may also be applied to pulping and bleaching other substances with improved results.

Having thus described my invention,

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

An improved process for pulping and bleaching paper stock, which consists in first submitting the substance to the action of hot dilute nitric acid; second, boiling it in an alkali in an open vessel, and third, submitting it to a bath of chloride of lime and sulpauric acid.

JOHN W. GOODWYN.

Witnesses:

JNO. M. PLEASANTS, JOHN S. WEEKS.