

United States Patent Office.

IMPROVEMENT IN THE MANUFACTURE OF GUN-COTTON.

TALIAFERRO P. SHAFFNER, OF LOUISVILLE, KENTUCKY.

Letters Patent No. 60,571, dated December 18, 1866.

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, TALIAFERRO P. SHAFFNER, of Louisville, in the county of Jefferson, and State of Kentucky, have made a new and useful Improved Process for making Nitro-Cotton and other Nitro-Fibre, commonly called Gun-Cotton; and I do hereby declare the following to be a full, clear, and exact description of the nature and operation of the same, sufficient to enable one skilled in the art to which it is allied to make use of the same.

The improvement consists in the treatment of the cotton, or other fibre, with the acids and with the cleansing water under pressure. The gain is in the time and the completeness of the operation. The object being to saturate the fibre with the required acids, the more speedily the operation can be performed the better. The usual course has been to allow the fibre to soak up the acid, and become saturated by capillary attraction. This process is tedious, and my invention consists in bringing a pressure to bear upon the fibre and the liquid in which it is immersed, so as to saturate the fibre more quickly and completely, and also to cleanse it speedily and thoroughly, by washing it in water, for the purpose of expelling the remaining liquid after absorption has taken place. Considerable damage frequently occurs to the fibre by the delay in the expulsion of the remaining liquid from the mass of fibre after the absorption is complete, and my invention consists in performing the operations of saturation and washing under pressure, so as to make them speedy and effective, compelling the fluids to permeate the fibre thoroughly.

Having described my invention, what I claim therein as new, and desire to secure by Letters Patent, is—
The process of making nitro-cotton (commonly called gun-cotton) or other nitro-fibre, under pressure.

TAL. P. SHAFFNER.

Witnesses:

ALEX'R A. C. KLAUCKE,
EDWARD H. KNIGHT.