

# UNITED STATES PATENT OFFICE.

WILLIAM E. GEER, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN PROCESSES FOR THE MANUFACTURE OF OAKUM.

Specification forming part of Letters Patent No. **203,723**, dated May 14, 1878; application filed October 10, 1877.

*To all whom it may concern:*

Be it known that I, WILLIAM E. GEER, of the city of Chicago, county of Cook, and State of Illinois, have invented a new and useful Process in the Manufacture of Oakum, of which the following is a full and clear specification:

I saturate the new fiber of flax, hemp, or similar fiber, in a solution of sal-soda, (or similar alkali,) pine-tar, and water, in about the following proportions: one to two pounds of pine-tar, one to two pounds of sal-soda, and about three to four gallons of water, though a little more than the maximum, and a little less than the minimum, quantities of either of the ingredients above named may be used without seriously affecting the result, though I have found by experience that about the proportions named are the best. The sal-soda in above solution cuts the tar which is held in solution by the water, putting the tar in a condition to be readily absorbed by the fiber.

After the fiber is subjected to the above process, the soda taken up and remaining in the fiber is neutralized by passing the saturated fiber through a solution composed of muriatic or other similar acid and water, which last solution is in about the proportion of one to five per cent. of muriatic or other

acid to ninety-five to ninety-nine per cent. of water. After passing the fiber through this second (acid) solution it is dried, and then is ready for finishing by appropriate machinery.

The use of flax and hemp fiber is old, and I do not claim them.

A solution of tar, asphaltum, lime, and soda and water has been used, and I do not claim it; but I leave out the asphaltum and lime.

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

The process of making oakum by saturating new fiber of flax, hemp, or similar fiber, in a solution composed of tar, sal-soda, or similar alkali, and water, in about the proportion of one to two pounds of tar and one to two pounds of soda, or similar alkali, to about three to four gallons of water, and afterward cleansing the soda from the fiber by passing the latter through a second solution, composed of about one to five per cent. of muriatic or other similar acid to ninety-five to ninety-nine per cent. of water, substantially as above set out and specified.

WILLIAM E. GEER.

Witnesses:

F. J. SEYBOLD,  
MARY O. GEER.