

UNITED STATES PATENT OFFICE.

JOSHUA NORTON, OF BOSTON, MASSACHUSETTS.

PRODUCTION OF PAPER-PULP FROM SHAVINGS.

SPECIFICATION forming part of Letters Patent No. 646,557, dated April 3, 1900.

Application filed May 13, 1899. Serial No. 716,778. (No specimens.)

To all whom it may concern:

Be it known that I, JOSHUA NORTON, of the city of Boston, county of Suffolk, in the State of Massachusetts, have invented new and useful Improvements in the Production of Paper-Pulp from Wood; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to use the same.

The invention refers to the production of paper-pulp from shavings.

Heretofore the materials commonly used for medium and common grades of paper made from wood have been large pieces—such as logs, slabs, &c.—and the treatment has been to reduce them by grinding, resulting in what is known as “ground wood-pulp.” When a strong fiber is required, the logs are boiled prior to grinding. Pulp made in this way is known as “brown-boiled” pulp. All the above methods require a large amount of power—seventy-five to one hundred horse-power per ton of pulp. The wood is costly and its preparation laborious and expensive.

My invention consists in utilizing shavings by subjecting them to a water-pressure sufficient to thoroughly saturate and soften them and then directly subjecting them to the beating treatment in any of the ordinary beating-engines without any intermediate reducing treatment whatever.

No attempt is made to destroy or remove the gum or other constituents from the shavings in this invention.

I am aware that attempts have been made to make fiber from sawdust and shavings by cooking in alkali, and my Patent No. 496,275 treats sawdust, shavings, and waste by both the alkali and sulfite processes; but I am not aware that pulp or fiber has been made from shavings by saturating and softening such material by water-pressure and directly, without intermediate manipulation, introducing the same to the action of the common beating-engine.

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

The process of making paper fiber from shavings consisting of subjecting the shavings to a water-pressure sufficient to saturate and soften them, and then subjecting them to the usual beating treatment, without intermediate reducing manipulation, as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JOSHUA NORTON.

Witnesses:

GEO. T. CLARK,
JOS. W. CARTWRIGHT.