

UNITED STATES PATENT OFFICE.

NORMAN J. WELLS, OF HOLYOKE, MASSACHUSETTS.

IMPROVEMENT IN BLEACHING AND CLARIFYING GLUE, GELATINE, AND SIZE.

Specification forming part of Letters Patent No. 128,000, dated June 18, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, NORMAN J. WELLS, of Holyoke, in the county of Hampden, Massachusetts, have invented a certain new and useful Improvement in the Bleaching of Gelatine, Glue, and Sizing; and I do hereby declare the following to be a full and correct description of the same.

My attention was called to the importance of the clarification or bleaching of the gelatinous substances referred to by the observation of the effect of the use of imperfectly-clarified sizing in the manufacture of fine writing-papers. Large quantities of animal sizing are employed in the manufacture of such papers, the sizing being made either directly from manufactured glue, or by extracting the gelatine from hide parings, hoofs, &c., at the paper-mills. However made, the appearance and finish of the paper will depend very much on the transparency and purity of the sizing. Alum and other substances have been added to the size to refine and whiten it, but the improved color has been obtained at the expense of strength. The quantity of size used in large paper-mills is immense, and its quality is a matter of vital importance, affecting seriously the price of the manufactured product. At best, the size heretofore employed has been of a dingy light brown color.

My invention consists in filtering hot sizing, gelatine or glue, through bone-charcoal, by which process I greatly improve the color without impairing the strength of the product, which is clear and almost colorless, and vastly superior to the animal sizing heretofore used in the manufacture of fine writing papers.

I employ as a filter a cylinder, about ten feet high and three feet in diameter, filled with animal black or bone-charcoal. Through this cylinder the hot sizing, gelatine, or glue is passed, and comes out colorless and clear, as before stated. The charcoal is renovated, when it becomes unsuitable for use, by washing and reburning in suitable kilns.

I claim as my invention—

The hereinbefore-described improvement in the manufacture of gelatine, glue, and sizing, the same consisting in the bleaching and clarifying of those articles by passing them in a hot state through filters of bone-black or animal charcoal.

The above specification of my said invention signed and witnessed at Holyoke, Massachusetts, this 17th day of April, A. D. 1872.

NORMAN J. WELLS.

Witnesses:

J. P. BUCKLAND,
H. H. BILLINGS.