

X. KARCHESKI.

Apparatus for Hard-Sizing, Coloring, and Water-Proofing Paper.

No.149,316.

Patented April 7, 1874.

FIG. I.

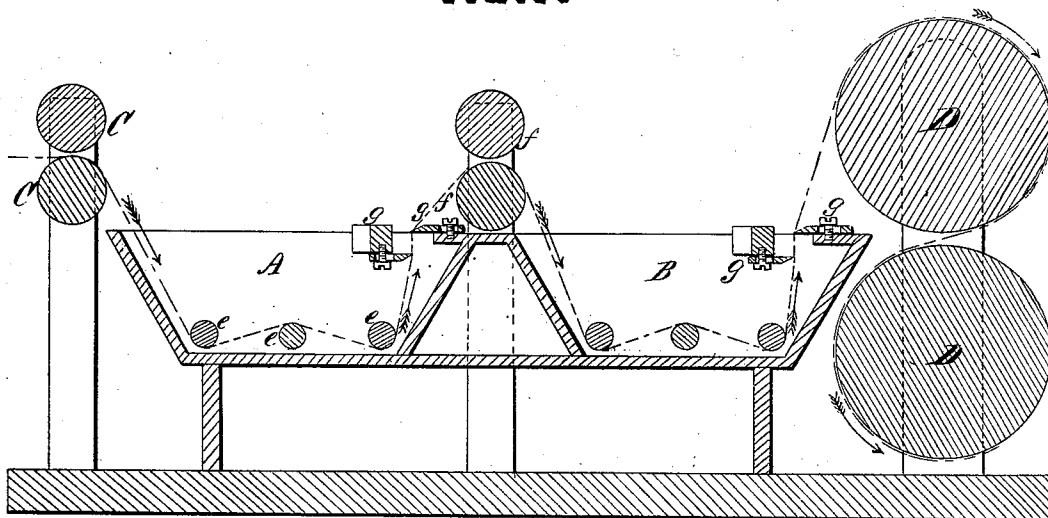
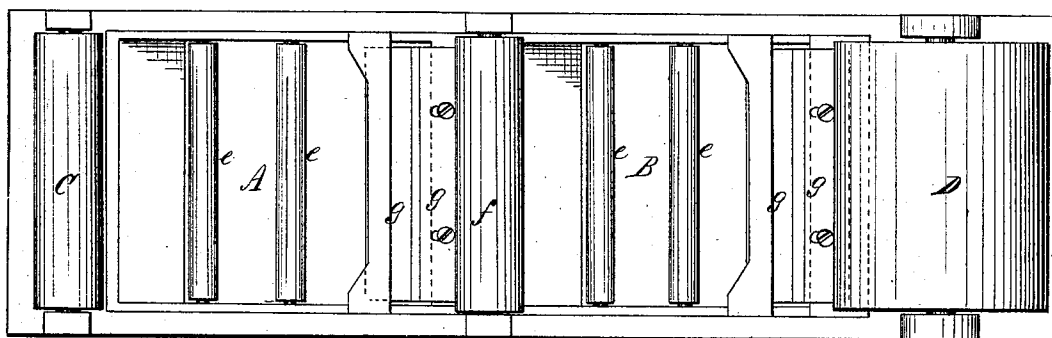


FIG. II.



Witnesses:

James Hill
Geo. H. Miatt

Inventor:

Xavier Karcheski
Per Edw. C. Zimby.
Atty.

UNITED STATES PATENT OFFICE.

XAVIER KARCHESKI, OF BELLEVILLE, NEW JERSEY, ASSIGNOR TO SOLOMON D. McMILLAN, TRUSTEE, OF NEW YORK, N. Y.

IMPROVEMENT IN APPARATUS FOR HARD-SIZING, COLORING, AND WATER-PROOFING PAPER.

Specification forming part of Letters Patent No. **149,316**, dated April 7, 1874; application filed July 28, 1873.

A.

To all whom it may concern:

Be it known that I, XAVIER KARCHESKI, of Belleville, New Jersey, have invented certain Improvements in Apparatus for Manufacturing and Hard-Sizing Paper and other materials, of which the following is a specification:

My invention relates to an apparatus for subjecting paper in process of manufacture, and other materials, to my improved method of hard-sizing and whitening or coloring, which I have made the subject of an application for a patent coincidently with this; and consists in the arrangement of adjustable scrapers for removing the superfluous sizes from the surface of the fabric operated upon.

My apparatus consists of two vats, A and B, interposed between the last pair of press-rolls C C and the drying-cylinders D D, of a Fourdrinier or cylinder machine. These vats are provided with guide-rollers *eee* and carrying-rollers *ff*, for the purpose of conveying the paper or other material operated upon into and from the sizing compositions contained in the vats. Each vat is provided with adjustable scrapers *g g*, for removing the superfluous size from the surface of the paper or other material.

In the accompanying drawings, Figure 1 is a vertical longitudinal section, showing my apparatus interposed between the last pair of press-rolls, and the drying-cylinders of a Fourdrinier machine, and Fig. 2 a plan of the same.

The dotted lines indicate the paper or other material under treatment, and the arrows indicate the direction in which it moves.

In sizing paper and other materials which vary in strength of tenacity, and in applying sizes which vary in consistency, it is necessary to regulate the tension to which the web is subjected by the scraping process; hence the importance of the feature of adjustability, as applied to the scraping mechanism.

I claim as my invention—

The adjustable scrapers *g g*, for acting upon opposite sides of the paper or other material operated upon, in combination with each other, and with the vats A B, provided with suitable guide-rollers, substantially as described.

In witness whereof I have hereunto signed my name this 24th day of July, 1873.

XAVIER KARCHESKI.

Witnesses:

EDW. E. QUIMBY,
GEO. W. MIATT,