

(Specimens.)

S. WHEELER.
PROCESS OF ORNAMENTING PAPER.

No. 502,337.

Patented Aug. 1, 1893.

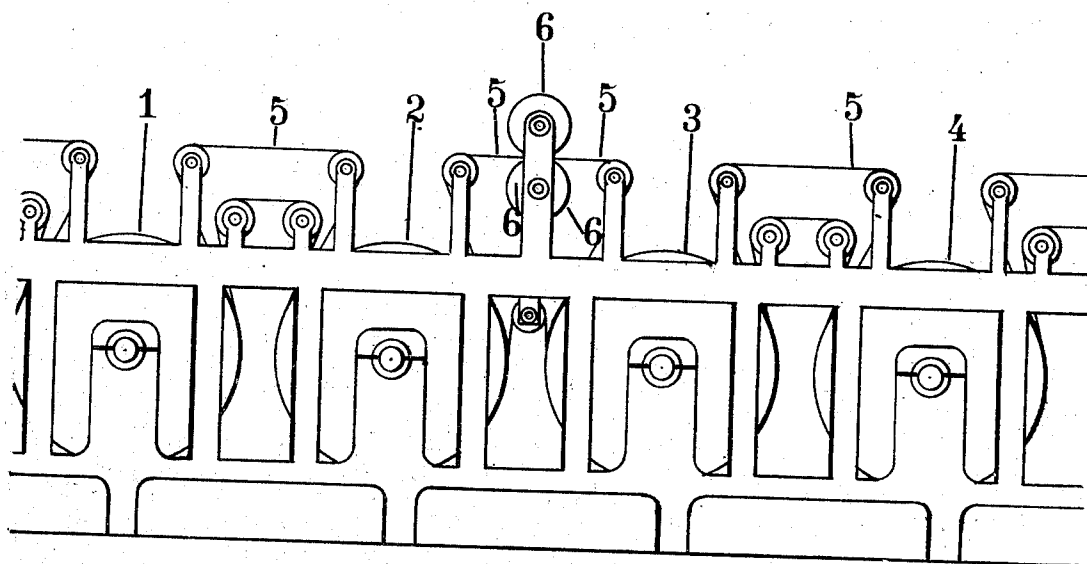


Fig: 1.

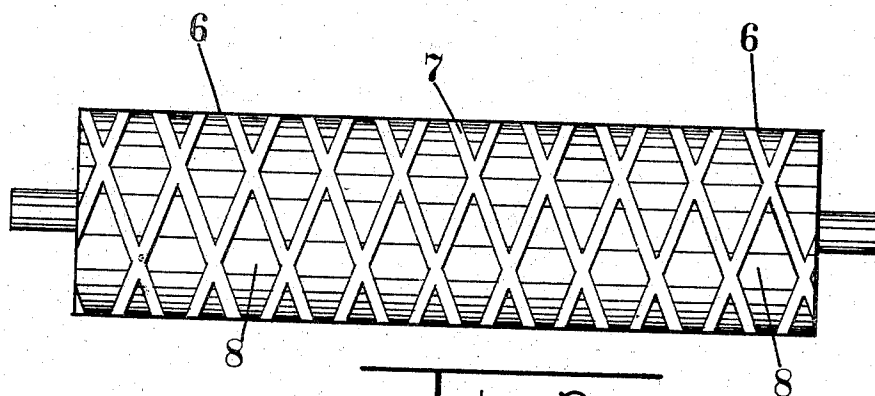


Fig: 2.

Witnesses
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UNITED STATES PATENT OFFICE.

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PROCESS OF ORNAMENTING PAPER.

SPECIFICATION forming part of Letters Patent No. 502,337, dated August 1, 1893.

Application filed September 15, 1892. Serial No. 445,946. (Specimens.)

To all whom it may concern:

Be it known that I, SETH WHEELER, a citizen of the United States, residing at Albany, Albany county, New York, have invented certain new and useful Improvements in Processes of Ornamenting Paper; 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

The object of my invention is to provide a new and improved process for ornamenting paper and other fibrous and analogous material, by wrinkling the same so that the wrinkles will be permanent, the wrinkles being produced by drying the damp sheet in lines or spots and afterward drying the remainder of the sheet.

In the drawings Figure 1. shows an end elevation of a part of a paper forming machine with my improvement in connection therewith and Fig. 2. a plan view of one of the rollers I use in carrying out my process.

The numerals 1, 2, 3, and 4 show successive drying cylinders of the ordinary paper forming machine.

5, shows the web of paper as it passes from cylinder to cylinder and as it reaches and is about to pass between the cylinders 6, 6, it is preferably dry enough to sustain itself and pass between these cylinders. Cylinders 6, 6, are tubular and heated by steam as are the ordinary drying cylinders of the paper machine. Their surface is cut away or grooved preferably, as at 7, the grooves 7 as they cross forming figures in the shape of diamonds 8, said figures 8 being practically raised surfaces. These figures 8 may be stars, cres-

cents, faces, or assume any form desired or may be straight, broken or curved lines if preferred. I prefer to operate on paper as it is being formed in the process of manufacture but paper after its manufacture may be dampened or wet and operated on by passing it over the drying cylinders and in contact with my figured rolls.

The operation is as follows: The wet and forming sheet or web of paper is carried round the cylinders 1 and 2 until it reaches cylinders 6, 6, whose surfaces are figured or raised. As the paper passes in contact with these cylinders 6, 6, the raised surfaces being heated, dry the damp web in spots corresponding to the conformation of the raised surfaces while the intervening parts of the paper are not dried but left damp. As the web of paper progresses, it passes round cylinders 3 and 4 and the remainder of it is dried. The result is, that the paper is wrinkled permanently and in the form of figure carried by the faces of the rollers 6, 6, whatever that figure may be, the process consisting of drying wet paper in lines or spots and then drying the remainder of the paper.

Having described my invention, what I claim is—

The process of ornamenting or wrinkling paper and fibrous or analogous material, consisting of operating on a damp or wet sheet so as to first dry it in spots or lines and second, to subsequently dry the remainder of the sheet substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

SETH WHEELER.

Witnesses:

E. J. WHEELER,
WM. A. WHEELER.