

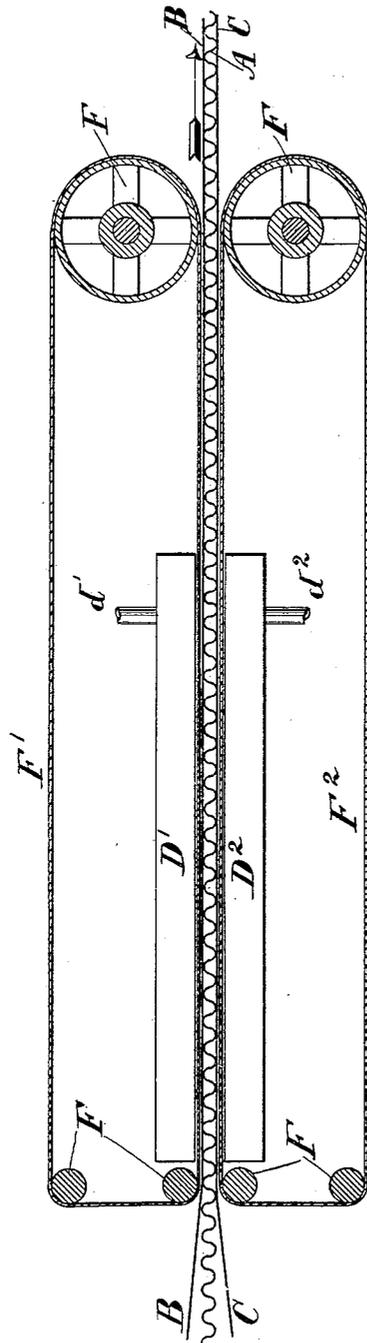
No. 620,756.

Patented Mar. 7, 1899.

L. L. DUERDEN.
PROCESS OF MAKING PACKING MATERIAL.

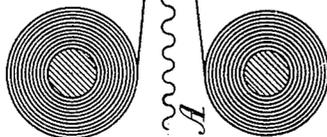
(Application filed Feb. 28, 1896.)

(No Model.)



WITNESSES:

A. H. Hayward
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INVENTOR

Lamence Louis Duerden
BY
Edwin H. Brown
HIS ATTORNEY

UNITED STATES PATENT OFFICE.

LAWRENCE LOUIS DUERDEN, OF NEW YORK, N. Y., ASSIGNOR TO THE THOMPSON & NORRIS COMPANY, OF SAME PLACE.

PROCESS OF MAKING PACKING MATERIAL.

SPECIFICATION forming part of Letters Patent No. 620,756, dated March 7, 1899.

Application filed February 28, 1896. Serial No. 581,130. (No specimens.)

To all whom it may concern:

Be it known that I, LAWRENCE LOUIS DUERDEN, of New York, (Brooklyn,) in the county of Kings and State of New York, have invented a certain new and useful Improvement in Processes of Making Packing Material, of which the following is a specification.

My improvement relates to the process of making packing material composed of a number of strips or pieces having spaces or passages extending through it between the edges, and particularly to paper of this character which is made of a corrugated strip of paper having flat sheets of paper attached to one or both sides.

Particularly the invention consists in uniting the strips going to make up the packing material by means of a paste containing starch, applying such paste to the strips in an uncooked condition, then securing the several strips together by cooking the paste after it has been applied, and drying the same. By "cooking" I mean that phenomenon which occurs whenever starch is suitably mixed with water and raised to a certain temperature—namely, the change of the nature of the paste from a mechanical mixture of granular starch or flour with water to a gelatinous substance.

The accompanying drawing is a side view of a piece of packing material composed of a corrugated strip and two plain strips, and also includes a side view of heaters and other parts.

A designates a corrugated strip of paper. B designates a plain strip of paper fastened to one side of the same. C designates another plain strip of paper fastened to the other side.

It will be seen that there are passages through the corrugations of the strip A and intermediate of it and the strips B and C.

Paste of the character hereinbefore described is applied to the paper, so that the three strips may be united together by it. It may be applied to the plain strips or to the salient portions of the corrugated strip. Af-

ter the application of the paste the strips are brought together in proper relation and passed between heaters D' D², which may be made hollow and supplied with steam. Endless bands F' F², passing around pulleys E, may be used to facilitate the passage of the paper strip between the heaters. The heaters merely cover the top and bottom of the compound strip, leaving the side edges uncovered.

The paste is applied in an uncooked state or in the form of a batter and is cooked and afterward dried or substantially dried after application and placing of the sheets in the proper relation to form the compound packing material. The spaces or passages through the packing material terminate in openings at the side and allow the moisture to pass away.

It is advantageous to have the heat applied by means of heaters, which have a bearing across the strips forming the packing material.

By my improvement I am enabled to produce a much stronger, smoother, and otherwise superior packing material composed of a number of separate strips than has heretofore been possible. I do not wish to confine myself to packing material made wholly or partly of paper.

What I claim as new is—

The process of making material composed of a number of strips or pieces and having spaces or passages extending through it, which consists in applying paste in an uncooked condition to the proper surface, and then cooking and drying the paste after the strips or pieces are brought in proper relation to each other, substantially as specified.

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

LAWRENCE LOUIS DUERDEN.

Witnesses:

VICTOR ERBACHER,
MARTIN H. DAY.