

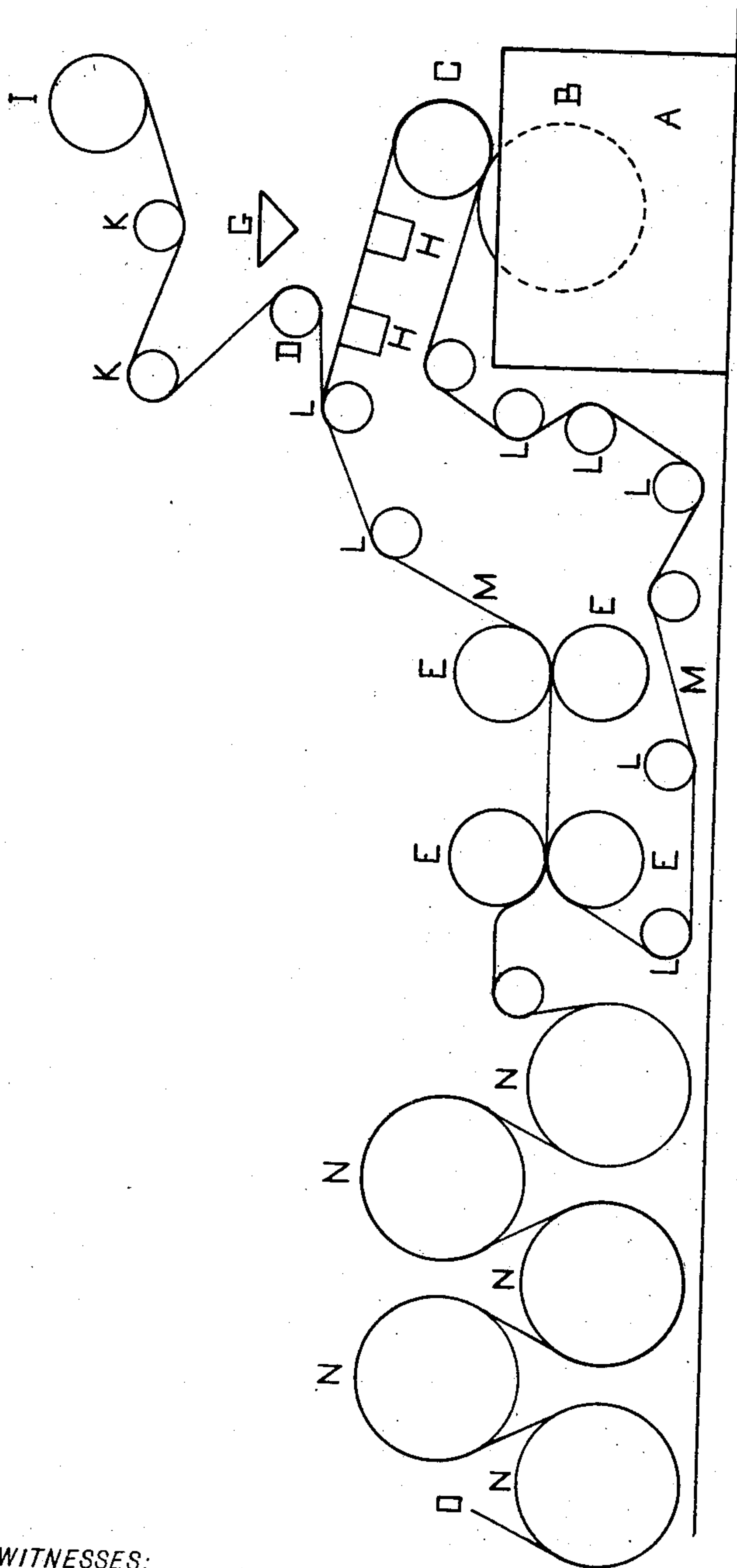
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E. Y. LE FEVRE.  
PROCESS OF MAKING CLOTH LINED PAPER.

APPLICATION FILED MAY 2, 1903.

NO MODEL.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

EDWARD Y. LE FEVRE, OF FALLSBURG, NEW YORK.

## PROCESS OF MAKING CLOTH-LINED PAPER.

SPECIFICATION forming part of Letters Patent No. 747,445, dated December 22, 1903.

Application filed May 2, 1903. Serial No. 155,311. (No specimens.)

*To all whom it may concern.*

Be it known that I, EDWARD Y. LE FEVRE, a citizen of the United States, residing at Fallsburg, in the county of Sullivan and State of New York, have invented certain new and useful Improvements in Processes of Making Cloth-Lined 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.

The object of my process is to produce cloth-lined paper by a single passage of the cloth and paper through a paper-drying machine. One of the methods heretofore used in producing such a product consists in first producing a dry sheet of paper and then putting a wet adhesive coating, such as starch, on the paper, then running cloth onto the paper thus prepared, and then drying the double sheet in some drying apparatus. Another method by which cloth-lined paper has been produced consists in starching a sheet of cloth and drying it as a separate operation, then bringing it to a paper-mill and running it onto a wet sheet of paper, which is then run through a regular paper-drying machine. It is thus seen that in each of the methods heretofore used the double sheet of cloth-lined paper is only obtained by one of the parts having to go through a drying operation previous to the operation by which it is joined in the double sheet.

In my process I am able to accomplish the desired result in a more economical manner, as I produce the cloth-lined paper by a single passage of the material through the regular paper-drying machine. The double sheet is produced simultaneously with that of the sheet of paper. In order to accomplish this result, I proceed in the following manner: The wet pulp is formed as usual on the cylinder. It is then picked up by the felt and taken to the first press. I add an adhesive medium, such as finely-powdered flour, to the wet sheet of paper. On this wet sheet of paper, with the flour on it, the raw sheet of cloth is run and pressed. The double sheet with the adhesive medium between the paper and the cloth continues to run on the regular paper-machine, thus producing in a single passage through a paper-drying machine the finished cloth-lined paper.

In the accompanying drawing is diagram-

matically illustrated the novel part of a convenient apparatus for carrying out my invention.

A is the vat.

B is the cylinder.

M M is the felt; C, the couch-roll; H H, suction-boxes; E E and E E, the presses.

L L L L are felt-rolls.

G is the receptacle for holding the flour and is provided with openings along its lower edge.

I is a reel of cloth, and K K D are carrying-rolls for same.

N N are the ordinary steam-driers of a paper-drying machine.

O is the finished sheet of cloth-lined paper.

In the operation of my process the paper-pulp in the vat A is formed on the cylinder B and is then picked up by the felt M M, passing over couch-roll C and suction-boxes H H and felt-rolls L L. Between the couch-roll C and the cloth-roll D the powdered flour is added to the wet sheet of paper by dropping from the receptacle G in a continuous stream. The cloth on the reel I is continuously unwound and passed over the rolls K K and D, when it then meets the wet sheet of paper with the flour on it, and after passing over the rolls L L it is pressed by the press-rolls E E and E E. It is carried by the felt to driers N N N of the regular paper-drying machine, where the double sheet is finished.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The herein-described process of making cloth-lined paper which consists in forming a wet sheet of paper, then adding an adhesive medium to said sheet of paper, then running a sheet of cloth onto said sheet of paper, then pressing and drying the double sheet thus produced, whereby a finished cloth-lined paper is produced.

2. The herein-described process of making cloth-lined paper which consists of forming a wet sheet of paper, then adding flour to said sheet of paper, then running a sheet of cloth onto said sheet of paper, then pressing and drying the double sheet thus formed, whereby a finished cloth-lined paper is produced.

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

EDWARD Y. LE FEVRE.

Witnesses:

HERBERT H. WING,

B. B. WILLIAMS.