

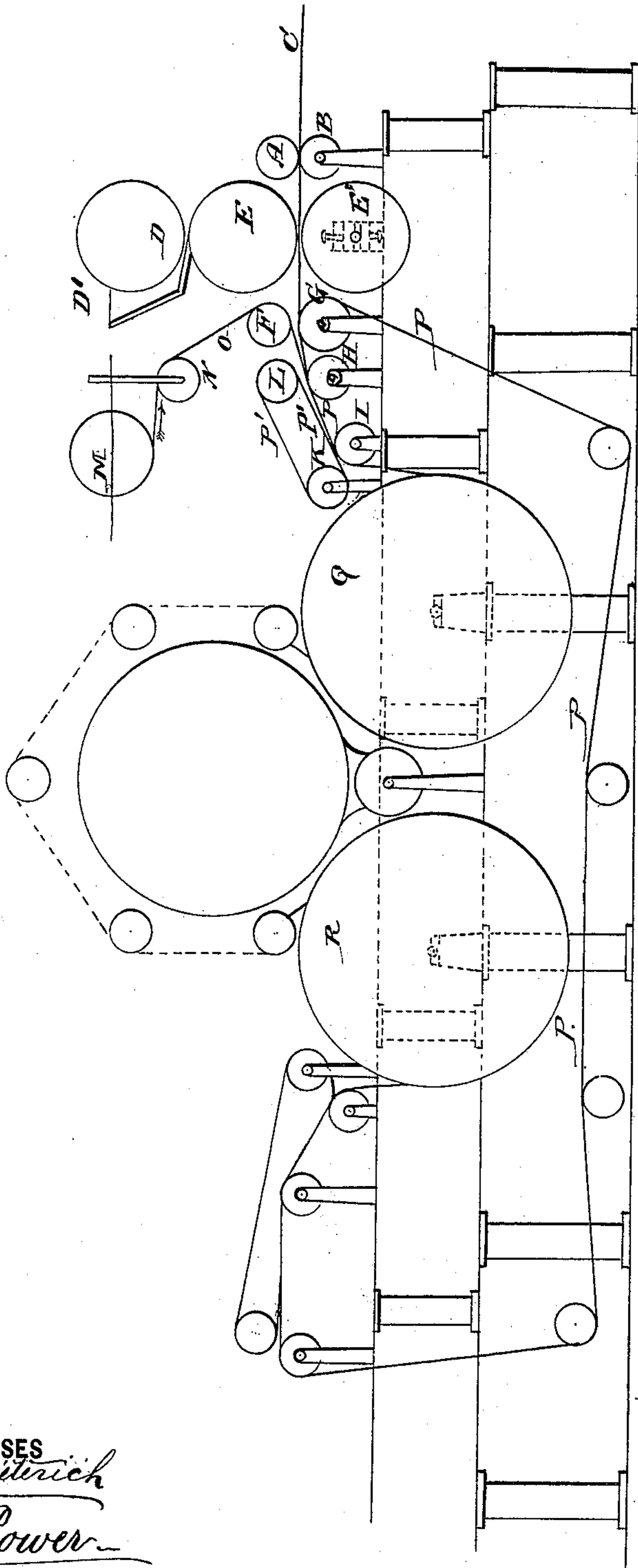
(No Model.)

G. S. EYSTER.

Machine for Lining Sheets of Straw Board.

No. 231,024.

Patented Aug. 10, 1880.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

GEORGE S. EYSTER, OF HALLTOWN, WEST VIRGINIA.

## MACHINE FOR LINING SHEETS OF STRAW-BOARD.

SPECIFICATION forming part of Letters Patent No. 231,024, dated August 10, 1880.

Application filed April 5, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE S. EYSTER, of Halltown, in the county of Jefferson and State of West Virginia, have invented certain new and useful Improvements in Machines for Lining Sheets of Straw-Board; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, which forms a part of this specification.

This invention relates to machines adapted for lining straw-board or analogous material in sheets of any suitable size; and it consists in an improved construction and combination of operative parts, having for its object to produce a machine in which the lining or facing paper is applied upon the sheets to be lined in a dry state and in a state of tension, substantially as and for the purpose hereinafter more fully set forth.

In the annexed drawing I have represented a longitudinal vertical section of a machine embodying my invention.

A B is a pair of feed-rolls, between which the straw-board (denoted by the letter C) is fed in between the distributing-roll E and its adjustable counter-roll E'. The distributing-roll E receives paste from the paste-roll D, which wades in the paste-vat D', and roll E' may be adjusted to regulate the amount of paste to be applied by the distributing-roller to the surface of the board. Passing between the rolls E E' in the manner described the paste-coated sheets of board are received upon an apron, P, which passes over rolls G H, set at different elevations.

F is an adjustable roll, which is hung in bearings above the roll G, and serves to guide the web of white paper (lining-paper) denoted by the letter O, which is wound upon the roll M, from the intermediate tension roll, N, down to and upon the paste-coated surface of the sheets of board. This adjustable roll F is, however, in no sense a pressure, compressing, or uniting roll, but merely serves to guide or conduct the lining-paper down upon the pasted board, to which it is united, not by pressure,

but by tension, by passing over over the roller H, set at a lower elevation, while the sheets are supported upon and carried by the apron P, which travels over the roll I, down around the drying-cylinder Q, and around a suitably-arranged system of rolls back to the starting-point, at roller G. In its downward passage between the rolls H I upon the apron P the sheets are guided by endless straps or bands P', which pass around rolls L K, set above and at elevations corresponding to the lower tension-rolls, H I.

The lining-paper, as it is pasted upon the sheets, may be cut by any suitably-arranged cutting or severing mechanism, and the sheets, after lining, may, if desired, be finished by drying and calendering in the usual manner.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a machine for lining straw-board or analogous material in sheets, the combination, with the feed-rolls A B, paste-distributing roll E, and its counter-roll E', of the rolls G H I, set at different elevations, and carrying the apron P, adapted to convey the sheets of board in a downward direction from the receiving-roll G across the intermediate tension-roll, H, guide-roll F, and rolls L K, carrying endless bands P', all constructed and combined to operate substantially as and for the purpose herein shown and set forth.

2. In a machine for lining straw-board or analogous material in sheets, a downwardly-inclined apron, P, suspended between and carried by rolls G I, with an intermediate adjustable roll, H, for breaking the inclined plane of the apron between said rolls, in combination with the rolls L K, set at different elevations, and carrying the inclined apron or endless bands P', the lower end of which converges with the apron P at its lower roll, I, substantially as set forth.

3. In a machine for lining straw-board or analogous material in sheets, the combination, substantially as set forth, of a pair of feed-rolls, a paste-distributing roll and its counter-roll, a receiving-roll, G, a guide-roll for the lining-paper hung above said receiving-roll, a

tension-roll, H, which receives the paste-coated board after it leaves the receiving-roll and the dry lining-paper after it leaves the guide-roll, and a series of rolls, L K I, carrying bands or  
5 aprons for conveying the lined sheets of board after they leave the tension-roll to the drying and finishing cylinders.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

GEORGE S. EYSTER.

Witnesses:

CHAS. THACKARA,  
H. E. GARSED.