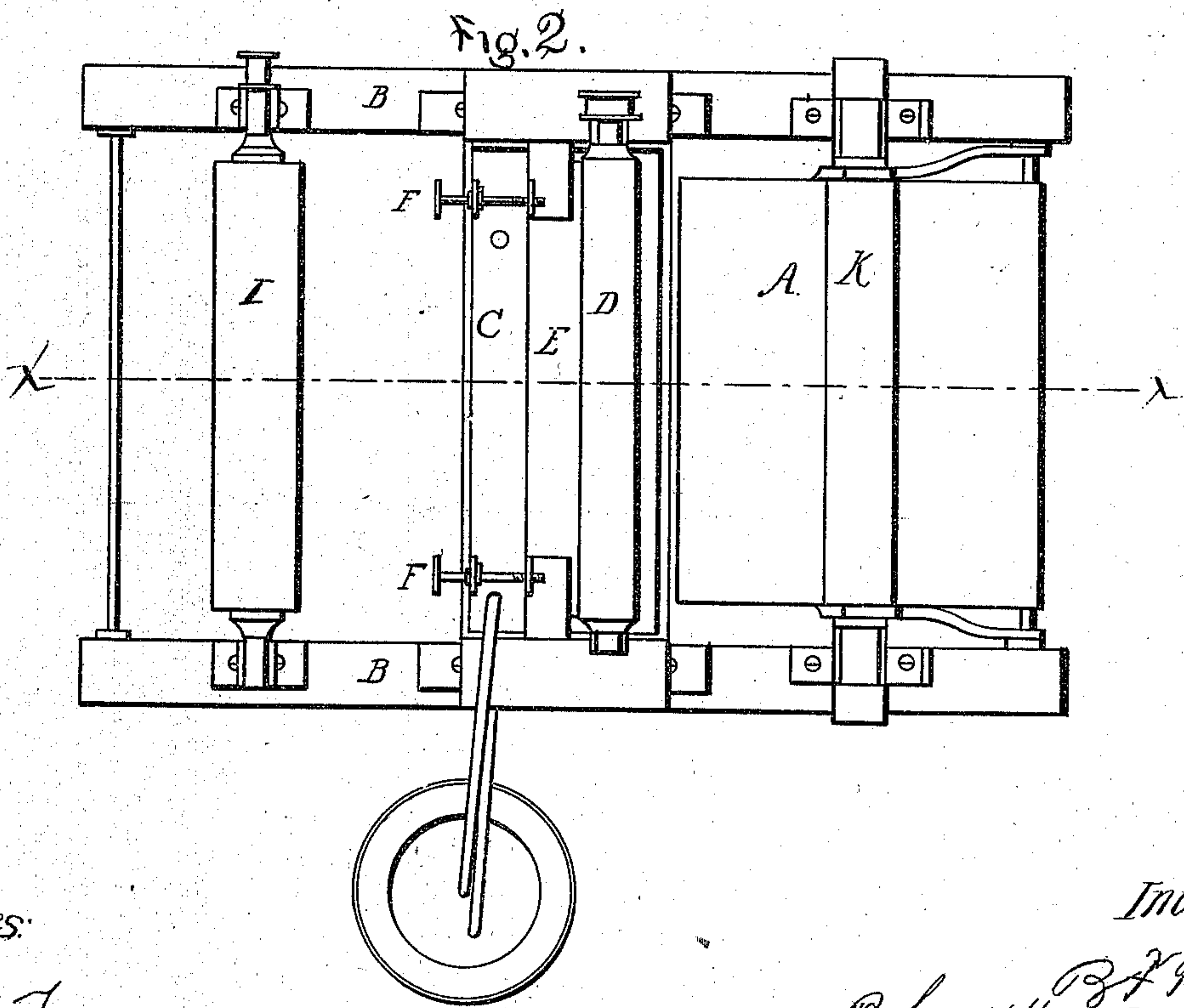
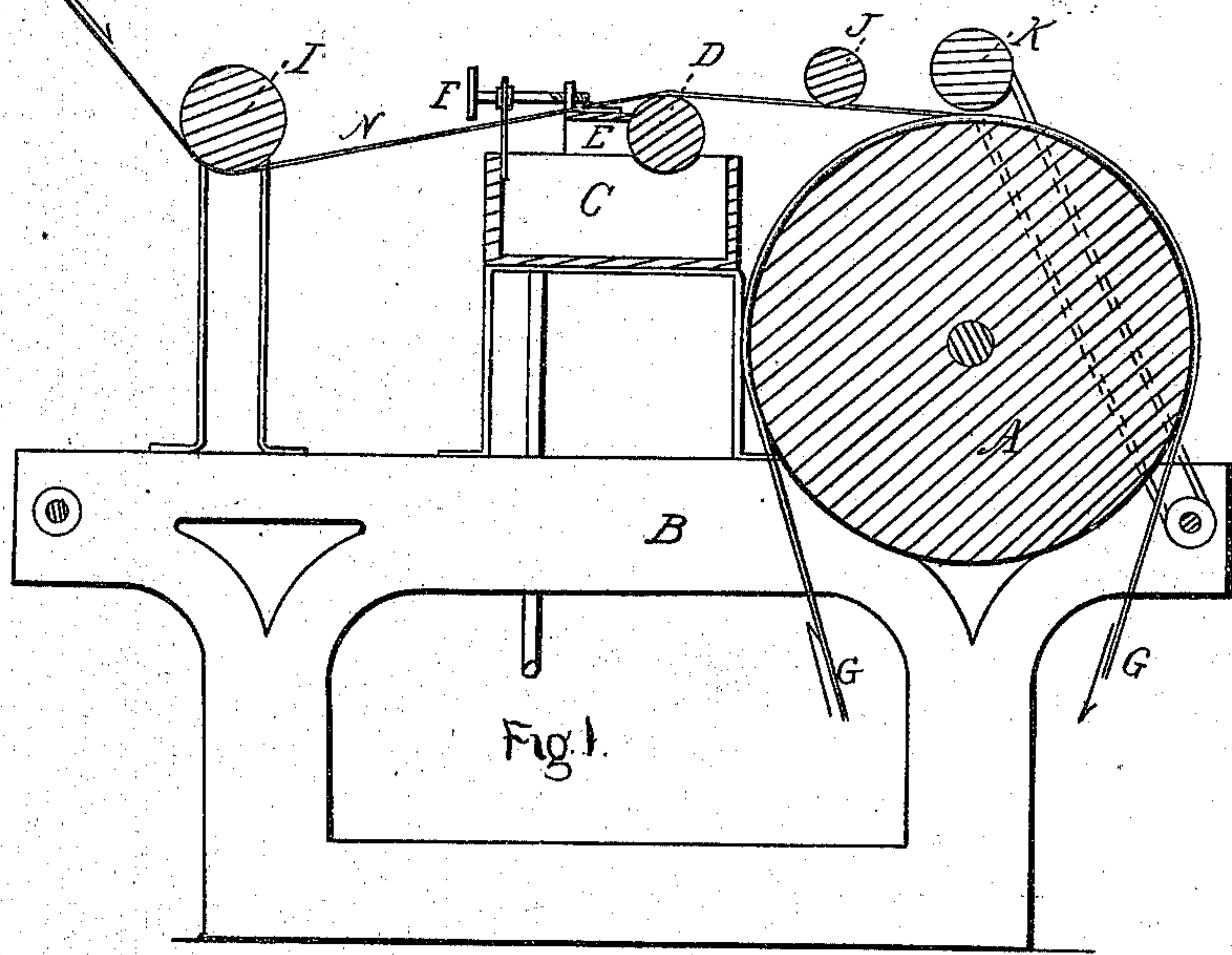


N^o 105,790. Patented Jul 26, 1870.



Witnesses:

R. S. Turner.
Wm. H. Browne

Inventor:

Byrus att^o B^r Field
R^o Smith

UNITED STATES PATENT OFFICE

B. F. FIELD, OF BELOIT, WISCONSIN.

IMPROVEMENT IN THE MANUFACTURE OF STRAW AND OTHER PAPER BOARD.

Specification forming part of Letters Patent No. 105,790, dated July 26, 1870.

To all whom it may concern:

Be it known that I, BENJAMIN F. FIELD, of Beloit, in the county of Rock and State of Wisconsin, have invented a new and useful Improvement in the Manufacture of Board for Paper-Box Makers, and other purposes; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a vertical longitudinal section of that portion of my machine described in this patent, taken on line *x x*, Fig. 2. Fig. 2 is a plan view of above.

My invention relates, first, to the facing of straw or other fibrous board with white or colored paper before said board has quitted the machine upon which it was made; and, second, to the machine by which the facing-paper is applied; and it consists, first, in the production of a faced board for box-makers' use, (and for other purposes,) complete, in lengths or rolls to suit, as a new article of manufacture, in contradistinction to the hand-made sheets now known to the trade; and, second, in the devices and apparatus by means of which, in combination with the paper or straw-board making machine, the facing-paper is applied as a part of the general operation, and before the straw-board, &c., has quitted the machine, as hereinafter described.

That others may fully understand the construction and operation of devices suitable to the working of my invention, I will now particularly describe them.

A is one of the calenders of a paper or straw-board machine, and B is a part of the frame of said machine. At a suitable point, and as near as possible to one of said calenders, is placed the paste-trough C, into which dips the paste-roller D. An adjustable scraper, E, is placed along the side of said roller, to graduate the quantity of paste taken up thereby, and said scraper may be regulated in its position by the screws F F, or by some other well-known and sufficient device.

The line G indicates the web of straw or other board on its passage over the calenders of the machine, and at the particular point of its passage over the calender where it receives the facing-paper H.

This facing-paper comes from a reel located at some convenient point, and passes under the roller I, by which it is not only presented to the paste-roller smooth, but in a constant direction, so that an equal quantity of paste-roller surface is always exposed to the passing web, and a uniform quantity of paste taken up.

From the paste-roller D the facing-web is carried to the top of the calender A, and there joined to the web to be faced.

If the distance between the paste-roller and the calender is considerable, it may be necessary to introduce another roller, as at J, to straighten the wrinkles and present the facing-paper smooth to the straw or board web G.

I also think it desirable to employ a roller, K, to settle the facing-paper H firmly to the web G, as soon as the two webs have come in contact, and thus insure a perfect union between them, free from air-blisters and like defects.

These rollers receive their proper movements from belts and pulleys, or other sufficient means, so that the webs shall not be strained by the labor of revolving them.

In the manufacture of paper boxes, the facing-paper is usually applied after the box has been formed, and requires considerable skill in its manipulation. By the use of my continuous lengths of paper or board already faced, a great saving of time and labor is effected, and a superior article produced.

Having described my invention, what I claim as new is—

1. As a new article of trade and manufacture, the herein-described paste or straw board, faced with a web of finer paper, in a continuous length, as set forth.

2. In combination with the calender A of a paper or straw-board machine, the paste-roller D and supplemental rollers I and K, or the equivalents of those parts, for the purpose set forth.

Subscribed this 4th day of January, 1869.

B. F. FIELD.

Witnesses:

R. D. O. SMITH,
R. S. TURNER.