

No. 638,413.

Patented Dec. 5, 1899.

C. W. HOBBS.

MACHINE FOR ATTACHING FLY STRIPS TO PAPER BOXES.

(Application filed Apr. 9, 1898.)

(No Model.)

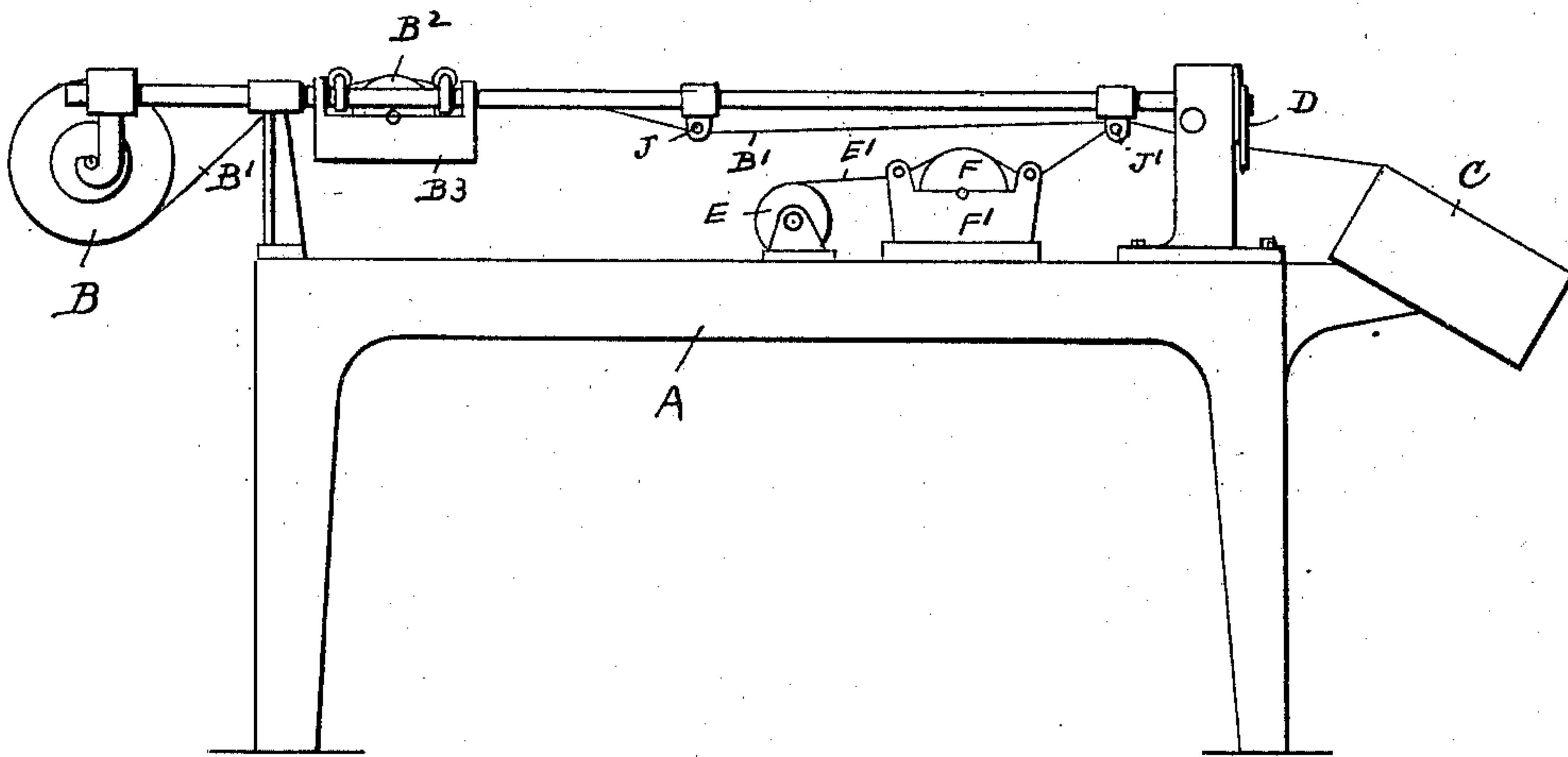


Fig. 1.

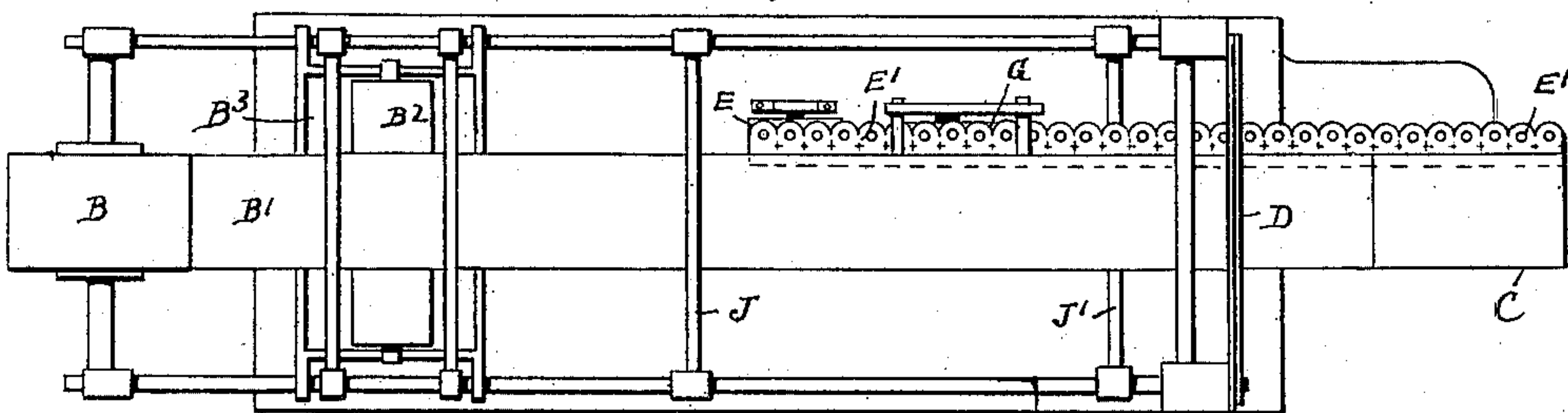


Fig. 2.

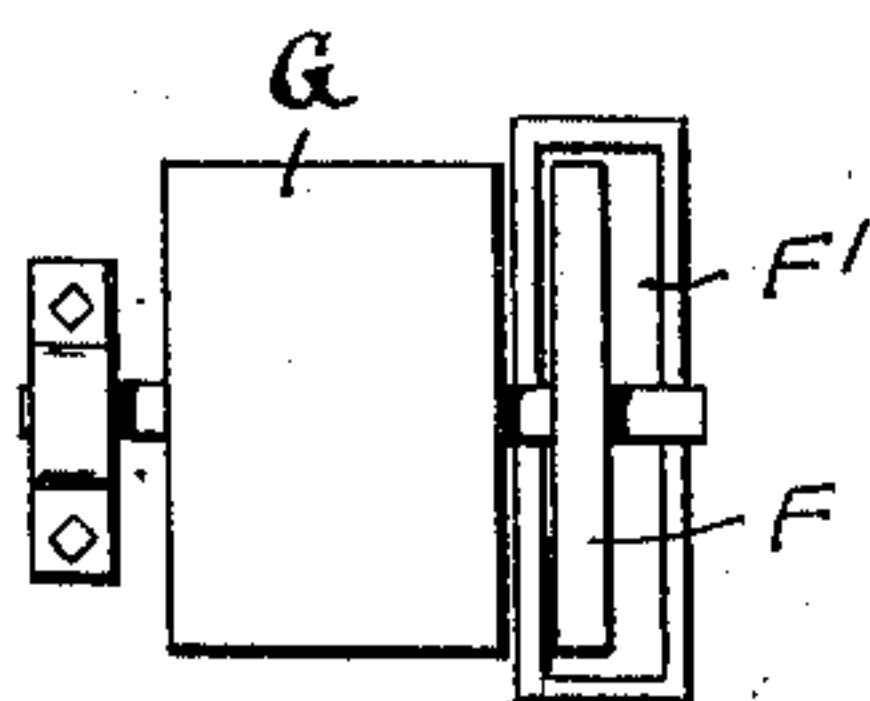


Fig. 3.

WITNESSES:

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MACHINE FOR ATTACHING FLY-STRIPS TO PAPER BOXES.

SPECIFICATION forming part of Letters Patent No. 638,413, dated December 5, 1899.

Application filed April 9, 1898. Serial No. 676,998. (No model.)

To all whom it may concern:

Be it known that I, CLARENCE W. HOBBS, a citizen of the United States, and a resident of Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Machines for Attaching Fly-Strips to Paper Boxes, of which the following is a specification, accompanied by drawings, forming a part of the same, in which—

Figure 1 represents a side view of a box-covering machine embodying my improved mechanism for pasting and applying the strip of lace-paper or fly to a paper box. Fig. 2 is a plan view of the same, representing a strip of lace-paper applied to the paper box as a fly-strip simultaneously with the operation of covering the box. Fig. 3 is a top view of the pasting mechanism for pasting the fly-strip, shown on a larger scale than in the preceding figures.

Similar letters refer to similar parts in the different figures.

My present invention has for its object to provide means for pasting a fly-strip of lace-paper or plain paper and applying the same to a paper box simultaneously with the operation of covering the box with covering-paper; and it consists in providing means for pasting one edge of the fly-strip along a narrow margin, comprising a pasting-roll partially immersed in adhesive material and rotating in contact with the edge of the fly-strips and means for supporting the remaining width of the fly-strip in a plane corresponding to the periphery of the pasting-roll in contact with the fly-strip; and it consists in the construction and arrangement of parts, as hereinafter described, and set forth in the annexed claims.

Referring to the drawings, A represents a supporting table or framework upon which the cutting and pasting mechanisms are mounted.

B denotes a coil of covering-paper B', which is pasted upon one side by a rotating pasting-roller B², partially immersed in adhesive material contained in the paste-box B³.

C denotes a revolving box-form upon which the box to be covered is supported, and D denotes a cutting mechanism for severing the covering-strip.

The above-enumerated parts are common in box-covering machines and may be of any known form of construction and arrangement.

E denotes a coil of lace-paper or plain paper designed for the fly of a paper box. The fly-strip E' is taken from the coil E over the paste-roller F, which rotates in a box F', containing adhesive material in contact with a portion of the paste-roller. The paste-roller F is in contact with and applies paste to a narrow margin upon one edge of the fly-strip E' as it is conducted from the coil E. The remaining width of the fly-strip rests upon a roller G, capable of rotating about an axis coincident with the axis of the paste-roller F and having the same diameter and forming a support for the unpasted portion of the fly-strip in the same plane as the periphery of the pasting-roller F, which is in contact with the edge of the fly-strip. The strip of covering-paper B', conducted from the coil B, and the fly-strip E' are arranged in proper alinement with each other and with the box-form C, so that the covering-paper B' will be applied to cover the outer surface of the paper box held upon the form C, and the pasted edge of the fly-strip E' will be applied to the top edge of the box, with its pasted edge between the edge of the box-body and the edge of the covering-strip, the covering-strip B' overlapping the fly-strip E' the width of its pasted margin.

The covering-paper B' and fly-strip E' are supported upon rods J J' as they pass from the pasting mechanisms through a cutting mechanism D, of any known form, to the box-form C.

The operation of my improved machine is as follows: A strip of covering-paper B' of the proper width to cover the side of the box is conducted from the coil B over the paste-roller B² and through the cutting mechanism D, and a strip E' of lace-paper or plain paper, as the case may be, of sufficient width to form the fly of the paper box is conducted from the coil E over the paste-roller F, running in the paste-box F', and the supporting-roller G, running outside the paste-box. The covering-strip B' overlaps the pasted edge of the fly-strip E', and both strips are adapted to wind about the paper box held upon the form C by rotating the box-form in the usual and well-

known manner in box-covering machines, causing the sides of the box to be covered by the covering-strip in the usual manner, with the edge of the fly-strip E' pasted to the upper edge of the box and overhanging the box, so as to be turned in over the edge of the box and form a fly in the usual manner. By means of my improved machine the covering-strip and fly-paper are both applied simultaneously and at one operation to the outside of the box held upon the form C.

The fly-strip requires no previous preparation, and the cost of applying it to the box during the operation of covering the box does not increase the cost of manufacture.

I do not confine myself to the use of a rotating roll for the purpose of supporting the unpasted portion of the fly-strip, but I deem it preferable, as it reduces the friction upon the fly-strip and allows it to run in accurate alinement with the strip of covering-paper.

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

1. In a box-covering machine, the combination with a coil of covering-paper, of pasting mechanism by which paste is applied to one side of the paper strip taken from said coil, of a coil containing a fly-strip arranged in alinement with said covering-coil so that the fly-strip will be delivered with one of its edges overlapping the pasted surface of the covering-strip, a narrow paste-roll arranged to apply

paste to the margin only of the strip which overlaps the pasted surface of the covering-strip and a support at one side of said narrow pasting-roll arranged to support the unpasted margin of the fly-strip in the plane of the periphery of the narrow paste-roll, substantially as described.

2. In a box-covering machine, the combination of the paper coil B containing a covering-strip B', the paste-roll B² running in a paste-box B³ and arranged to apply paste to the underside of the covering-strip B', a supporting-rod J, paper coil E containing the fly-strip E' held in alinement with the covering-strip B' so that one edge of the fly-strip will overlap the pasted edge of the covering-strip, a narrow paste-roll F running in the paste-box F' and arranged to apply paste to the under side of the fly-strip E' of the margin only which overlaps the pasted surface of the covering-roll and a supporting-rod J' by which the covering-strip and fly-strip are brought into contact and the supporting-roll G at one side the narrow paste-roll F, whereby one margin of the fly-strip is supported while paste is being applied to the opposite margin, substantially as described.

Dated this 15th day of March, 1898.

CLARENCE W. HOBBS.

Witnesses:

RUFUS B. FOWLER,
M. C. PRICE.