

(No Model.)

G. D. EDDY.

PROCESS OF PRINTING ON RESAWED LUMBER.

No. 338,046.

Patented Mar. 16, 1886.

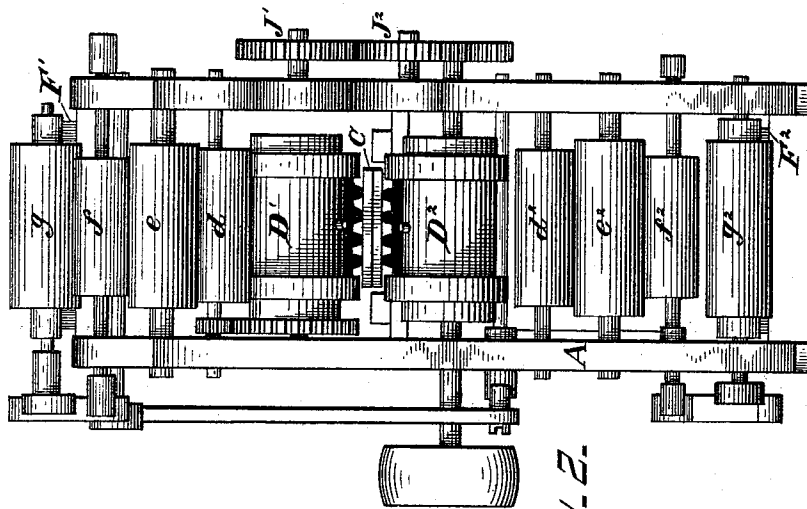


Fig. 2.

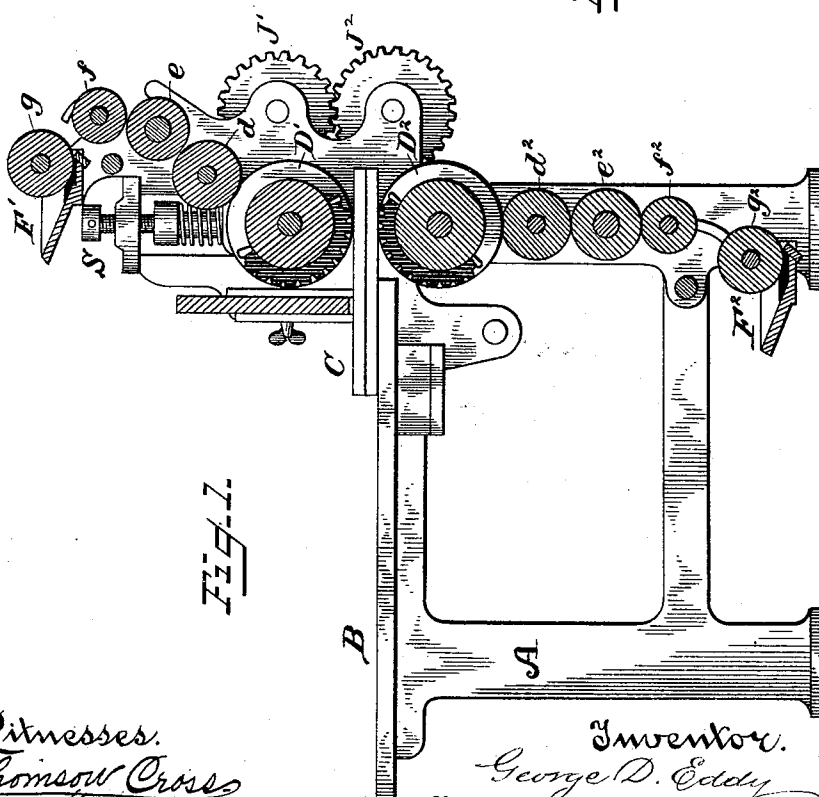


Fig. 1.

Witnesses.
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PROCESS OF PRINTING ON RESAWED LUMBER.

SPECIFICATION forming part of Letters Patent No. 338,046, dated March 16, 1886.

Application filed June 8, 1885. Serial No. 168,088. (No model.)

To all whom it may concern:

Be it known that I, GEORGE D. EDDY, of the city of Brooklyn, county of Kings, and State of New York, have invented a new and useful Improvement in the Process of Printing on Resawed Lumber; and I do hereby declare that the following specification, taken in connection with the drawings annexed to and forming part of the same, furnishes a full and clear description thereof, sufficient to enable those skilled in the art to which it pertains to make and operate the same.

My invention relates to the process of printing boards by machinery.

The industry of making packing-boxes has greatly increased within the past few years, and the demand for the same enlarged with the reduction in their cost of manufacture.

Prior to the invention of printing-machines to print upon the surface of the boards such boxes were usually marked with the brand of the manufacturer or contents by the use of a stencil-plate or by pasting paper labels thereon. Thereafter improvements in printing-presses were made which enabled the printing to be rapidly effected upon the surfaces of the boards themselves, either before or after their construction into the boxes.

Most packing-boxes—such as are used for inclosing soap, candles, starch, oil-cans, &c.—are now made almost entirely by machinery, which saws, planes, cuts, and nails together the boards. Most of such boxes are made of what is known as “resawed lumber”—that is to say, of boards or planks which are brought to the factory in original thicknesses of an inch, (more or less,) and which are there subdivided by being resawed edgewise, so as to split the board as nearly as possible in two. It is very difficult and impracticable in the present economical methods of sawing to so evenly divide such a board as to make the resawed lumber run of uniform thickness, it frequently happening that one of the pieces will be an eighth of an inch thicker than the other. This difference in the thickness of the resawed lumber, though not of any material consequence in the construction of the boxes, becomes of considerable importance in its relation to the printing process, for the types be-

ing rigid and the distance between the face of the types and the bed of the machines being adjusted to a certain thickness of board, a board which is an eighth of an inch thicker than the standard thickness would be apt to interfere with the working of the press, while a board an eighth of an inch thinner would fail to receive the proper impression of the type. It has therefore been necessary to use either the unsatisfactory feature of type made of compressible material—*e. g.*, rubber—or to incur the increased expense of dressing down the lumber after it has been resawed until it is all of a uniform thickness.

My invention provides, first, for the uniform printing of the resawed lumber, irrespective of degree of accuracy with which the boards are divided; and, second, for accomplishing a saving in the labor of feeding the press and handling the material by printing two boards at once.

In the drawings, Figure 1 represents a view in cross-section of a machine for printing the material, with a pair of boards, C, inserted between the two printing-cylinders D' D². Fig. 2 is an end view of the same.

In the drawings, A represents the frame of the printing-press.

B is the bed-plate along which the material to be printed is fed.

C is the pair of boards upon which the operation is to be performed.

D' D² are the printing-rollers, the one operating on the upper and the other on the lower side of the boards.

d, e, f, and g, and d², e², f², and g² are the inking-rollers for transferring from the ink-fountains F' and F² the ink for the respective printing-cylinders.

S is a screw for adjusting the bearings of the upper cylinder, so that the space between the two cylinders may be increased or diminished to correspond with the thickness of the material to be printed. The power is applied by cog-wheels J' J², engaging with each other and moving the printing-cylinders D' D² at a uniform rate of speed.

The process I carry out as follows: The boards which are supplied at the machine for making the resawed lumber are of uniform

thickness, and are smooth on both sides. As they are passed along the sawing-machine, of ordinary construction, they are split in two, but the two sides maintain their same relative position, the smooth faces being outside and the rough sides left by the saw being together on the inside. The two pieces thus kept back to back are uniform in their aggregate thickness, though they may vary from each other in their separate thickness. The two pieces of resawed lumber, still maintaining their relative position, are thus subjected to the usual machine or saw, which cuts them into the required lengths for the sides or ends of the boxes. The piles of these cut pieces (still remaining in duplicate) are then taken to the printing-machine. This machine is of the ordinary construction used in printing boards, with this modification, that it is provided with two printing-cylinders or printing-plates which act simultaneously, the one printing from above and the other from below, so that while the two pieces, still retained in their relative position by the friction between their rough backs, are passed through the press the smooth surface of each receives the impression from the respective types. By this method half of the labor of printing is saved, inasmuch as two boards are printed at once, and, in addition, the difference of thickness in the individual boards is rendered immaterial and the labor of reducing them to uniform thickness is avoided. The process affords an additional advantage in this, that it is customary for many dealers to have different matter printed on opposite sides

of the box—*e. g.*, the name of the manufacturer on one end and the brand or contents of the box on the other—and it has been necessary heretofore to print this matter by separate machines and then select and pair the respective sides or ends afterward; but by this process the already-paired boards can have the different matter simultaneously printed on the two opposite sides.

Having thus described my invention, I do not claim, broadly, a printing-press for printing on boxes by machinery; nor do I by this patent claim a printing-press which shall print simultaneously from above and below; but

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

1. The process or method hereinbefore described of printing on resawed boards—to wit, by subjecting to the simultaneous action of type in a printing-press the severed sections of a single resawed board combined in their original relative positions, substantially as and for the purposes described.

2. The within-described process of box-printing—to wit, splitting a smooth board of uniform thickness by sawing the same, cutting the two parts maintained in their original relative position into suitable lengths for the opposite sides or ends of boxes, and simultaneously printing the smooth faces of said lengths, substantially as and for the purposes described.

GEO. D. EDDY.

Witnesses:

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