

(No Model.)

H. A. INMAN.
BOX STAYING MACHINE.

No. 555,817.

Patented Mar. 3, 1896.

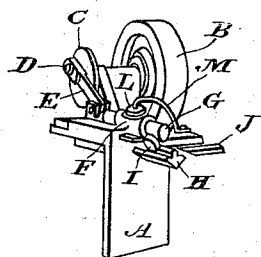


Fig. 1.

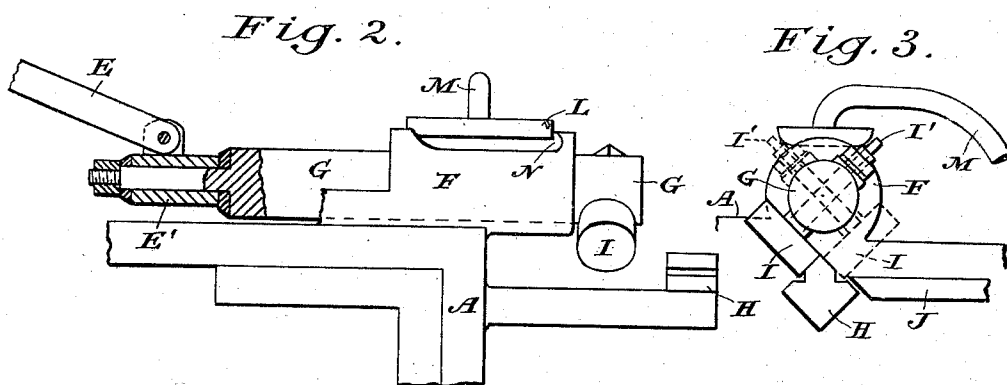


Fig. 2.

Fig. 3.

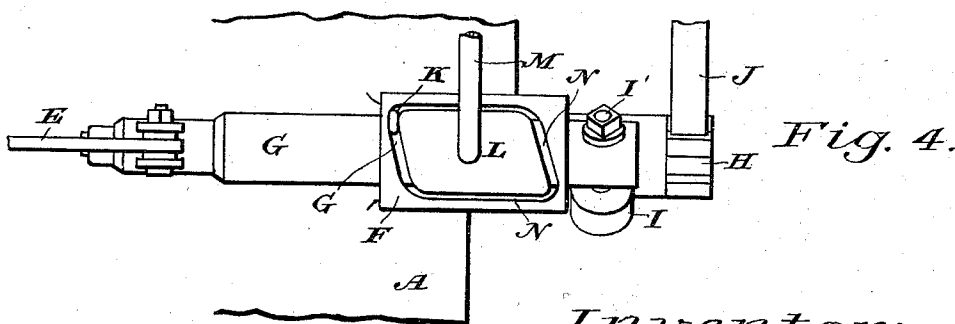


Fig. 4.

Witnesses:

E. B. Bolton
E. Simpson

Inventor:

Harry A. Inman

By

Phillips Abbott,
his Attorney

UNITED STATES PATENT OFFICE.

HARRY A. INMAN, OF AMSTERDAM, NEW YORK.

BOX-STAYING MACHINE.

SPECIFICATION forming part of Letters Patent No. 555,817, dated March 3, 1896.

Application filed January 29, 1896. Serial No. 577,309. (No model.)

To all whom it may concern:

Be it known that I, HARRY A. INMAN, a citizen of the United States, and a resident of Amsterdam, in the county of Montgomery and State of New York, have invented certain new and useful Improvements in Box-Staying Machines, of which the following is a specification.

My invention relates to improvements in box-staying machines; and it consists, generally stated, in the peculiar construction, arrangement and operation of those parts of the machine whereby the staying-strip is severed from the reel or ribbon and attached to the corners of the box.

In order that the general construction, arrangement, and operation of the machine may be more fully understood, I refer to the United States Letters Patent granted to Horace Inman on the 9th day of April, 1895, No. 537,205, my present invention being applicable to a machine constructed and arranged as the machine therein described is; and I will, in this application, illustrate and describe those parts only which especially appertain to it.

Referring to the drawings, Figure 1 illustrates a perspective (reduced) of the invention. Fig. 2 illustrates an elevation, partly in section, of the parts immediately involved in the invention. Fig. 3 illustrates a front view. Fig. 4 illustrates a plan.

Referring to Fig. 1, A is a portion of the frame of the machine. B is the driving-wheel supported upon an axis, as shown. C is a face-plate to which a wrist-pin D is attached. E is a connecting-rod. F is a slideway. G is a horizontally-moving support for the pressure-wheel. H is the anvil. I is the roller for pressing the stay-strip upon the corner of the box. J is the fixed blade of the cutter. K is a strong pin which is set into the part G. L is what I call a "deflecting-plate," which is supported upon an arm M, which is attached to some suitable portion of the frame, the parts being so arranged that the plate L is centrally held within an opening in the upper part of the slideway F, so as to provide an open groove N on all sides of it, and the front and rear ends of this plate L are made at an angle, as shown.

The operation of the device is as follows:

The box-corner is placed upon the apex of the anvil, as usual, and the stay-strip is automatically gummed or dampened, as the case may be, and fed intermittently across the upwardly-presented corner of the box. The machine being now set in operation, the action of the crank D and connecting-rod E causes the roller-supporting bar G to move forwardly and rearwardly, and as it moves in these different directions the pin K, engaging with the sides of the lozenge-shaped slot N, causes the bar G to oscillate in such manner as that the roller I, which is supported upon an axis I' set in the bar G, will pass first on one side and then on the other of the corner of the anvil. I prefer to arrange it so that its first or upward movement shall be upon that side which is adjacent to the stationary cutter J, and I case-harden at least one side of the roller I, so that as it sweeps along across the edge of the cutter J it shall act as a rotary shears and sever the stay-strip, and at the same time roll it firmly down upon the corner of the box-blank, causing the severed portion to firmly adhere thereto, and when it has reached its uppermost position and starts to return, the pin K, engaging with the portion of the slot N which has the proper inclination, causes the bar G to make a partial rotation upon its axis, so that upon its return movement it shall roll over and in close contact with the opposite side of the corner of the box, and thus press down and firmly attach thereto the other half of the severed piece of stay-strip. In order to permit of this oscillation of the bar G, I connect it to the connecting-rod E by a pivot-joint, as shown at E'.

I do not limit myself to the details of construction shown and described, because it will be evident to those who are familiar with this art that modifications may be made therein without departing from the essentials of my invention.

I claim—

1. The combination of a support for the corner of a box, a roller adapted to press the stay-strip against said corner, a reciprocating support for the roller, and means to oscillate said support upon its axis, for the purposes set forth.

2. The combination of a support for the cor-

ner of a box, a roller adapted to press the stay-strip against said corner, means to reciprocate said roller forwardly and backwardly, and also to oscillate it from right to left, for the purposes set forth.

3. The combination of a support for the corner of a box, a fixed cutter-blade adjacent to said support, a roller adapted to act as the movable cutter-blade, and also to press the stay-strip against the corner of the box, and means to reciprocate said roller backwardly and forwardly, and also to oscillate it from right to left, for the purposes set forth.

4. The combination of a support for the corner of a box, a roller supported upon a longitudinally-movable bar, means to reciprocate said bar forwardly and backwardly, and also to oscillate it from right to left, and means for

severing the stay-strip, for the purposes set forth.

5. The combination of a support for the corner of a box, a roller supported upon a longitudinally-movable bar, means to reciprocate said bar forwardly and backwardly, and also to oscillate it from right to left, a fixed cutter-blade adjacent to the support for the box-corner, and a cutting-surface on said roller, for the purposes set forth.

Signed at Amsterdam, in the county of Montgomery and State of New York, this 28th day of January, A. D. 1896.

HARRY A. INMAN.

Witnesses:

PHILLIPS ABBOTT,
E. SIMPSON.