

J. P. BIRD.
MACHINE FOR ATTACHING FLY STRIPS TO BOXES.
APPLICATION FILED SEPT. 23, 1907.

966,422.

Patented Aug. 9, 1910.

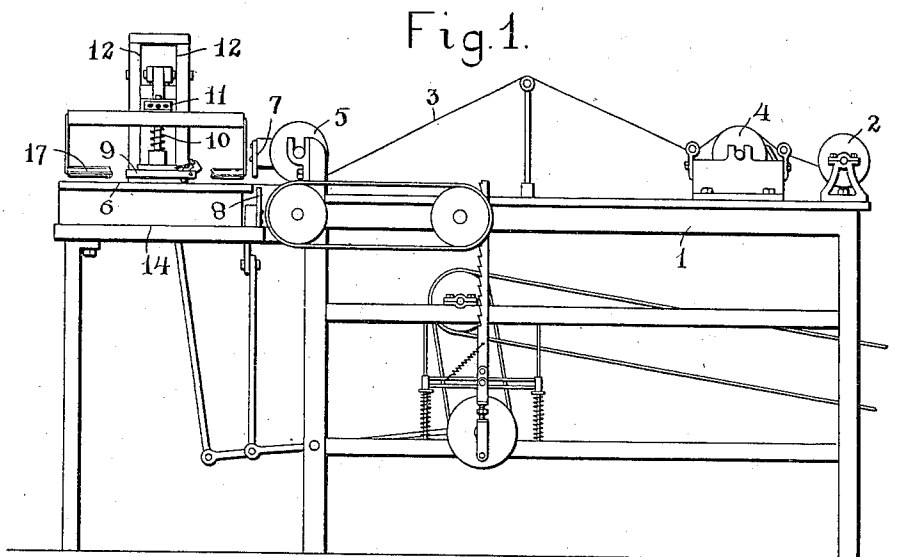


Fig. 2.

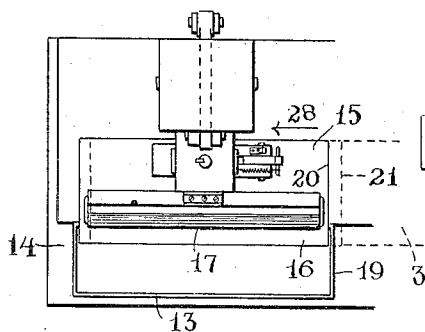


Fig. 6.

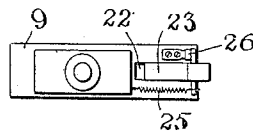


Fig. 4.

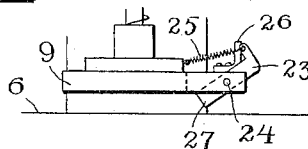


Fig. 3.

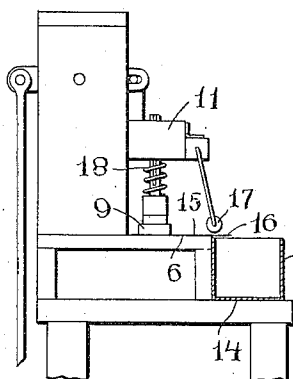
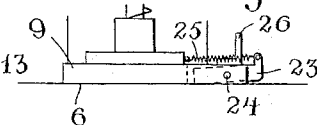


Fig. 5.



Witnesses

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MACHINE FOR ATTACHING FLY-STRIPS TO BOXES.

966,422.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JAMES PHILIP BIRD, a citizen of the United States, residing at Worcester, in the county of Worcester and Commonwealth of Massachusetts, have invented a new and useful Improvement in Machines for Attaching Fly-Strips to 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 machine for attaching a fly strip to the side of a paper box. Fig. 2 is an enlarged plan view of the mechanism directly concerned in attaching the fly strip to the side of the box. Fig. 3 is an end view of the same. Figs. 4 and 5 are detail views showing the mechanism for longitudinally moving the fly strip, the same being shown in two different positions, and Fig. 6 is a top view of the same.

Similar reference figures refer to similar parts in the different views.

The object of my present invention is to provide means in a machine for attaching fly strips to paper boxes whereby the detached fly strip may be moved lengthwise in order to provide a gap between it and the end of the continuous fly strip paper for the insertion of a paper box, and I accomplish this result by means of the mechanism as hereinafter described and pointed out in the annexed claims.

Referring to Fig. 1 which represents a machine for applying a fly strip to a paper box, 1 denotes the framework, 2 a coil of continuous fly strip paper 3, which is conducted over a gumming or paste roll 4. The paste roll 4 rotates in the paste box and applies paste to one edge of the fly strip 3 which is conducted between a pair of feed rolls 5 to which an intermittent motion is given by any suitable mechanism, by which the fly strip 3 is projected forward upon a shelf 6 and between a cutting mechanism comprising a stationary shear blade 7 and a movable shear blade 8, by which a fly strip of the desired length is severed from the continuous strip 3, the severed strip resting upon the shelf 6. The severed strip is next clamped upon the shelf 6 by means of a vertically reciprocating plate 9 supported upon the end of a yielding spindle 10 which is carried by a cross head 11 having a sliding motion in ways 12. A box 13, Figs. 2 and 3, to which the fly strip is to be attached is supported upon a table 14 with its upper

edge substantially in the plane of the shelf 6. The severed fly strip 15, Figs. 2 and 3, when clamped between the shelf 6 and reciprocating plate 9 overhangs the edge of the shelf providing an overhanging margin 16 to which paste has been applied by the paste roller 4 adapted to be turned inside the box by means of a roller 17 carried by the cross head 11. After the fly strip has been clamped the continuous downward movement of the cross head pushes the roller 17 over the edge of the box and presses the overhanging pasted margin 16 against the inside of the box. During this continued movement of the cross head the clamping plate 9 is permitted to yield and still exert a pressure upon the fly strip by means of a spiral spring 18 inserted between the clamping plate and the cross head.

The above described mechanism for pasting, feeding, cutting and applying a severed fly strip to the inside of a paper box forms no part of my present invention. A mechanism of substantially the above described character was shown and described in the United States Patent to Charles E. Powell, No. 487,771, issued December 13, 1892, and therefore I have not described the actuating mechanism in detail.

My present invention has for its purpose to provide means for moving the severed fly strip lengthwise on the shelf 6 prior to its attachment to the inside of the box, in order to provide a gap between the end of the severed strip and the end of the continuous strip to receive the end 19 of the box, Fig. 2, in which the solid line 20 denotes the end of the severed strip and the broken line 21 denotes the end of the continuous strip 3.

I provide the clamping plate 9 with a mortise 22 in which is pivoted a rocking lever 23 upon a pivotal pin 24. When the clamping plate 9 is raised above the shelf 6 the lever 23 is rocked on its pivot by means of a spiral spring 25 against a stop 26, causing the rocking lever 23 to stand in an oblique position relatively to the clamping plate 9, with one of its corners 27 projecting below the clamping plate. As the clamping plate 9 descends, the corner 27 of the rocking lever is brought into contact with the upper surface of the severed fly strip 15, and as the plate 9 descends the lever 23 is rocked on the pivotal pin 24 into the position shown by broken lines in Fig. 5. The swinging movement of the lever 23 causes

the fly strip to be moved in the direction of the arrow 28, Fig. 2, thereby producing a gap between the end of the severed fly strip and the end of the continuous fly strip as shown between the lines 20 and 21, Fig. 2, of sufficient width to receive the end 19 of the box.

I claim,

1. In a machine of the character described, a support for the end of a piece of fly strip paper, means for severing said supported end from said piece of paper to form a fly strip, a clamp for holding said fly strip upon said support, and means for moving said fly strip on said support before said fly strip is engaged by said clamp, to separate said fly strip from said piece of fly strip paper.

2. In a machine of the character described, the combination with a support for a severed fly strip, a reciprocating jaw arranged to clamp said fly strip upon said support, and means operated by the reciprocation of said jaw for moving said severed fly strip on said support.

3. In a machine of the character described, a feeding mechanism for feeding a continuous fly strip piece, a cutting mechanism for severing an individual fly strip from the continuous piece, a support for the severed fly strip, and means for engaging the

surface of the severed fly strip and imparting a longitudinal movement thereto.

4. In a machine of the character described, a fly strip support, means for feeding a continuous fly strip piece over said support, means for severing said piece to form an individual fly strip, means for moving said severed fly strip longitudinally on said support, and means for clamping the fly strip on said support.

5. In a machine of the character described, a support for a single fly strip, a vertically moving clamping plate adapted to press the fly strip against said support, a pivoted lever carried by said clamping plate, a spring to rock said lever in one direction, and a stop to limit the rocking motion of said lever at an oblique position to said plate.

6. In a machine of the character described, a support for an individual fly strip, a yielding rocking lever normally held at an oblique angle to the supporting surface, and means for pressing said lever against the surface of the fly strip, whereby the latter is moved longitudinally by the rocking movement of the lever.

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Witnesses:

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