(No Model.) 2 Sheets—Sheet 1.

J. GODFREY.

MACHINE FOR MAKING BANDS FOR PAPER BOXES.

No. 365,124. Patented June 21, 1887.

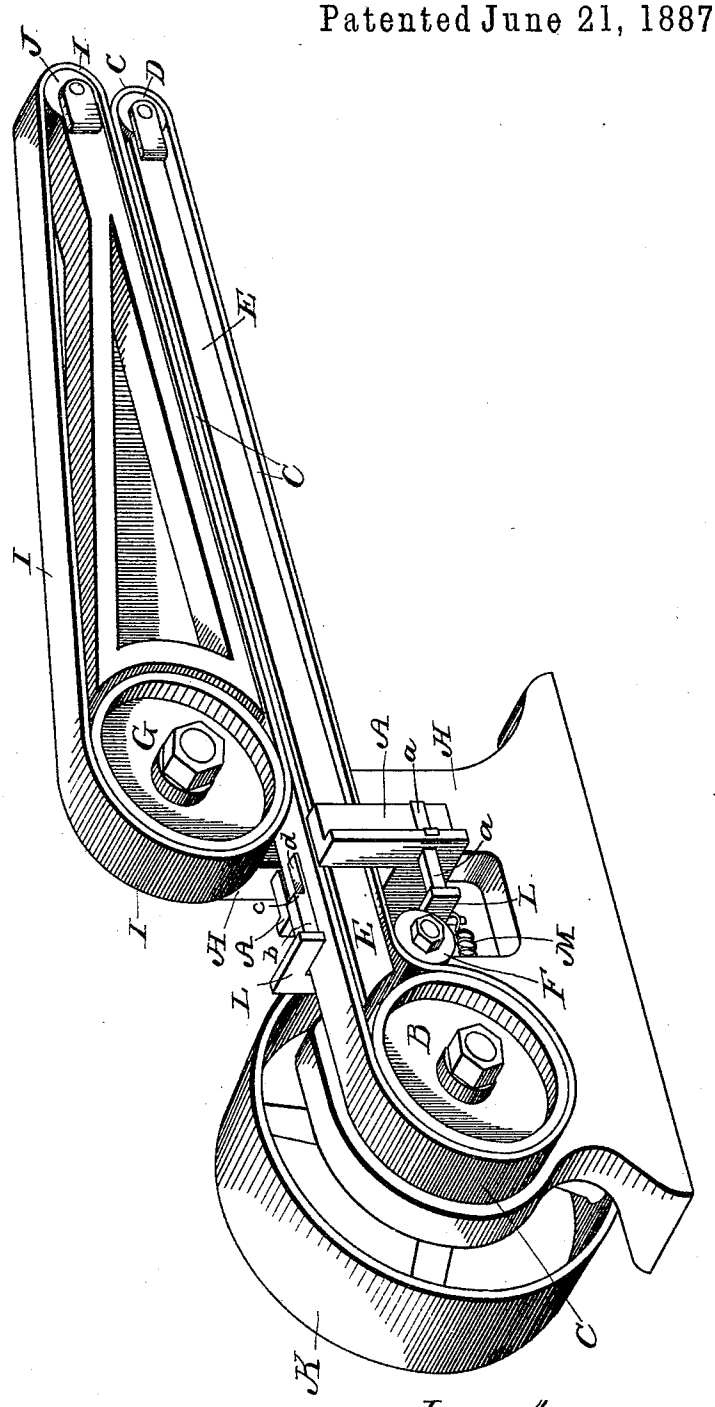


Fig. 1.

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Fig. 2.

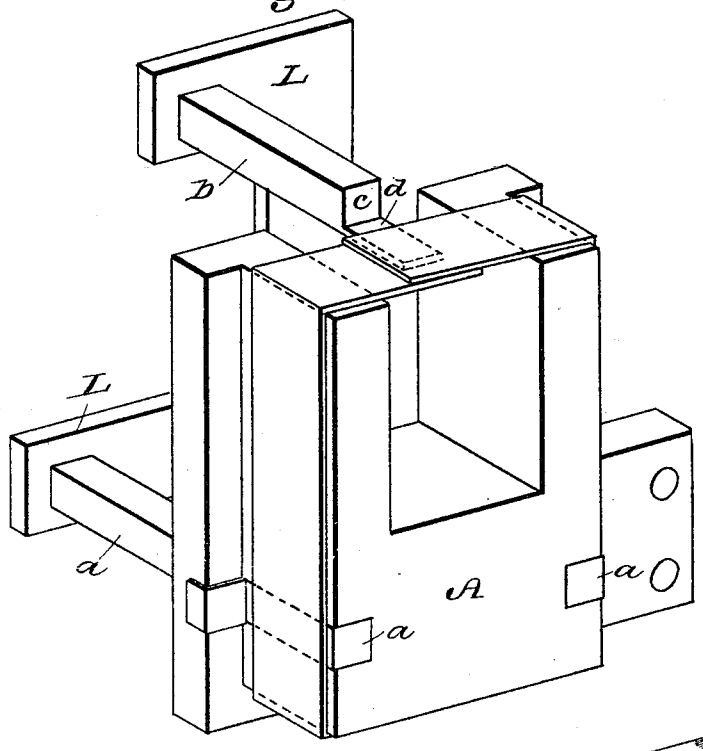
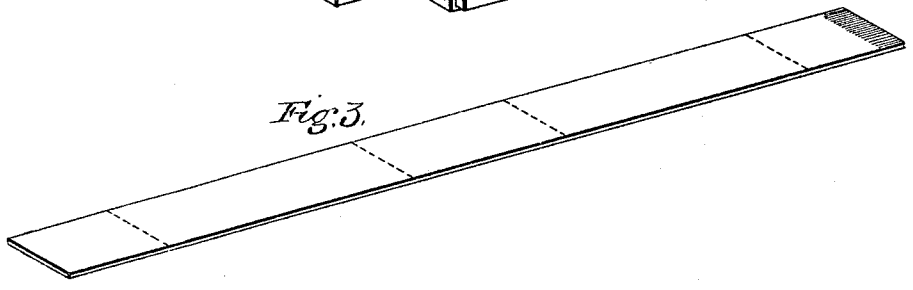


Fig. 3.



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UNITED STATES PATENT OFFICE.

JONATHAN GODFREY, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO THE COMPRESSED PAPER BOX COMPANY, OF SAME PLACE.

MACHINE FOR MAKING BANDS FOR PAPER BOXES.

SPECIFICATION forming part of Letters Patent No. 365,124, dated June 21, 1887.

Application filed October 5, 1886. Serial No. 215,351. (No model.)

To all whom it may concern:

Be it known that I, JONATHAN GODFREY, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Machines for Making Bands for Paper Boxes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain new and useful improvements in machines for the manufacture of bands from strips of paper or other suitable material, the ends of which are to be cemented or glued together, and has for its object to provide a machine which shall be capable of producing bands of the above description cheaply and of uniform size, and at the same time retaining the glued edges under pressure until firmly set without lessening the production; and with these ends in view my invention consists in the details of construction and combination of elements, hereinafter explained, and then specifically designated by the claims.

In order that those skilled in the art to which my invention appertains may fully understand its construction and operation, I will proceed to describe the same in detail, referring by letter to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a perspective of my machine; Fig. 2, a similar view of the former and push-off mechanism with a band thereon, and Fig. 3 a similar view of a strip before it has been bent around the former.

Similar letters denote like parts in the several figures of the drawings.

In the manufacture of boxes and similar articles it is necessary to form bands by folding or bending strips of paper or the like and cementing the ends together, such bands being used for the inner guide-flanges and pasted within the body for receiving the detachable flanged top.

In the manufacture of the cheap styles of boxes it is necessary to make such bands rapidly and at small expense; yet it is essential that they sahll be absolutely uniform in size. To effect this I provide a former, A, corresponding in size and shape to the band to be formed, and support the same on the frame of the machine, so that the operator can readily take a strip similar to that shown in Fig. 3 and fold it around the former, bringing the ends together, one of which has previously been provided with paste or glue, thereby making a band which will correspond in size and shape with every other band made upon the same former.

As the retention of the bands upon the former until the paste had dried would prevent their rapid manufacture, I combine with the former A a carrying device whereby the bands are moved with their ends closely pressed together until the paste has set.

The construction and operation of this device are as follows:

B is a band-wheel journaled in the frame and carrying an endless belt, C, which extends out through the former A and around the pulley D, journaled at the extremity of the extension or arm E, and back over a guide-pulley, F.

G is a second band-wheel journaled in a standard, H, and carrying the endless belt I, which extends out around the pulley J, journaled in an extension of said standard. The upper surface of belt C and the lower surface of belt I travel in the same direction and together.

K is a driving-pulley secured on the same shaft with the band-wheel B, and by which power is transmitted to the machine. A counter-belt (not shown) may impart motion to the band-wheel G, or it may get its motion from the friction of its belt with that of the wheel B. As soon as a band is folded around the former A and its ends cemented it is pushed forward until its overlapping ends are between the belts C I, when it will be carried forward under pressure while another band is being formed as above set forth, and so on.

To facilitate the transfer of the bands from the former A to the position between the belts, I use a push-off. This consists of a frame, L, having three bars, *a*, *a*, and *b*, the bars *a* acting as guides entering grooves in the former A, and the bar *b* extending parallel with and just above the belt C, and terminating in a shoulder, *c*, and thin blade *d*, which latter extends just above said belt and flush with the upper

surface of the former A. When a band has been folded and its ends cemented, to transfer it from the former A it is only necessary to operate the push-off against the action of the coil-spring M, which latter will return said push-off to its normal position, leaving the completed band between the belts, by which it will be carried forward and dropped into a suitable receptacle. For convenience, the former may be detachable from the frame, so that it may be replaced by another of different size or shape, by which is determined the size and shape of the completed band.

I do not wish to be limited to the exact construction shown, as I am enabled to make many minor changes without departing from the spirit of my invention, which consists in the broad idea of a former around which the strips are bent and a carrying device adapted to receive and convey the completed bands with their cemented ends under pressure while the latter are drying.

Having thus fully described my invention, what I claim as new and useful is—

1. In a machine for making bands, a former corresponding in shape to the bands to be made, and a carrying device, substantially as described, arranged adjacent to the former, to receive and carry the bands as delivered from the former, as and for the purposes set forth.

2. The combination, with the former and the carrying device, constructed substantially as described, of a push-off whereby to carry the bands off the former to the carrying device, as and for the purposes set forth.

3. The combination of the former, arm E, standard H, and endless driven belts I C, substantially as set forth.

4. The combination of the former, arm E, standard H, belts, and push-off, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

JONATHAN GODFREY.

Witnesses:
L. H. HUBBARD,
E. H. RANEY.