

J. R. VAN VECHTEN.

Paper Box.

No. 165,137.

Patented June 29, 1875.

Fig. 1.

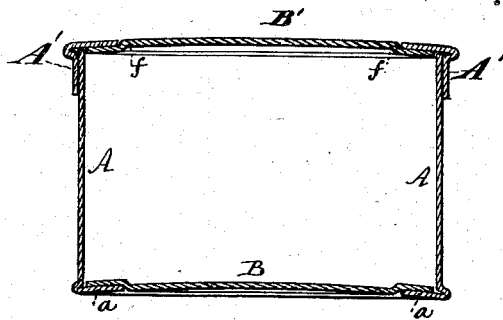


Fig. 2.

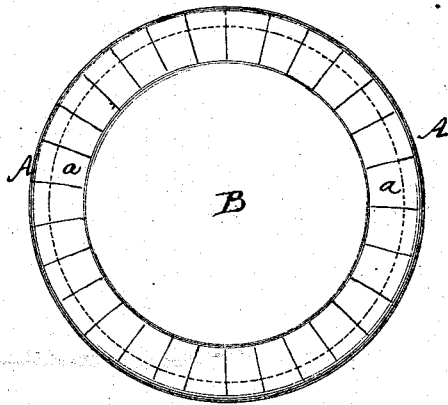
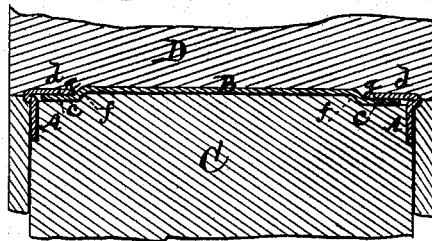


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

JUNIUS R. VAN VECHTEN, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN PAPER BOXES.

Specification forming part of Letters Patent No. **165,137**, dated June 29, 1875; application filed June 11, 1875.

To all whom it may concern:

Be it known that I, JUNIUS R. VAN VECHTEN, of Brooklyn, in the county of Kings and State of New York, have invented an Improvement in Paper Boxes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, which forms part of this specification.

My invention consists in a novel construction of a box having its body composed of a tube, and a head made of a separate piece, whereby said head is supported, re-enforced, and secured to the body of the box by means of a crimped and turned-in portion of the tube, and whereby, also, a smooth and even exterior surface is imparted to said head.

In carrying out my invention I first prepare a paper tube for the body of the box, in which tube I place a mandrel in such a position that the end of the tube will extend somewhat beyond the end of the mandrel. I then cut a piece of paper to form the head, place it on the end of the mandrel within the projecting portion of the tube, apply paste around its edges, and then crimp and turn in the projecting portion of the tube, pressing it firmly against the head so as to support and re-enforce said head, and attach it securely to the body with its external surface flat and smooth. The box and its lid are both made in the same manner, the head forming in the one case the bottom of the box, and in the other case the top of the lid, and they may be made either by hand or by machinery.

To enable those skilled in the art to which my invention appertains to more fully understand the same, I will proceed to describe it in detail, referring to the accompanying drawing, in which—

Figure 1 is a sectional view of a box and lid constructed according to my invention. Fig. 2 is an end view of the same. Fig. 3 is a sectional view, illustrating the manner of attaching the head.

A represents a paper tube forming the body of the box, and B the piece forming the heads of the tube or bottom of the box. C is a mandrel or former of a diameter corresponding with that of the tube A, and having at one end a rabbet or depression, *c*, extending entirely around its circumference, and enabling it to

serve as a male die. D is a female die, with a central depression corresponding with the central projecting portion of the mandrel, and a circumferential projection, *d*, corresponding with the rabbet or depression *c*. The tube A is placed on the mandrel C with the end of the tube projecting beyond the end of the mandrel for a distance equal to the width of the rabbet *c*. The head B is cut from a piece of paper, and placed on the end of the mandrel, within the projecting portion of the tube, supplied with paste around its edges. The projecting portion *a* of the tube is then crimped and turned inward, and the mandrel, tube, and head carried under the female die D, which is caused to descend with such force as to press the crimped portion of the tube closely down around the edges of the head, and at the same time to countersink the central portion of the head at *f* to a level with said crimped portion *a*, and thus firmly secure the two parts together, and give a smooth and even exterior surface to the entire head. The lid is formed in the same manner as the box, by using a shorter tube, A', for the body of the lid, and a head, B', for the top. Thus the bottom of the box and the top of the lid each has a smooth and even external surface imparted to it, so that if covered with an additional coating of ornamental or other paper no cavities or irregularities will appear. When the boxes are made by machinery, the mandrel is attached to a revolving table, and is carried by suitably-arranged mechanism into engagement with devices for cutting and placing the head, applying the paste, crimping and turning in the end of the tube, and, finally, stamping and pressing the parts in place.

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

A paper box having its body composed of a tube, A, and its head of a separate piece, B, supported, re-enforced, and secured to the body by means of the crimped and turned in portion *a*, and having the central portion of the head countersunk within said portion *a*, substantially as shown and described.

JUNIUS R. VAN VECHTEN.

Witnesses:

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