J. W. Miller.

Paper Box.

No. 47,069. Patented Mch 28. 1865.

Fig. 1.

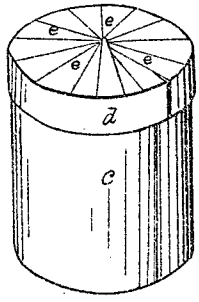


Fig. 2.

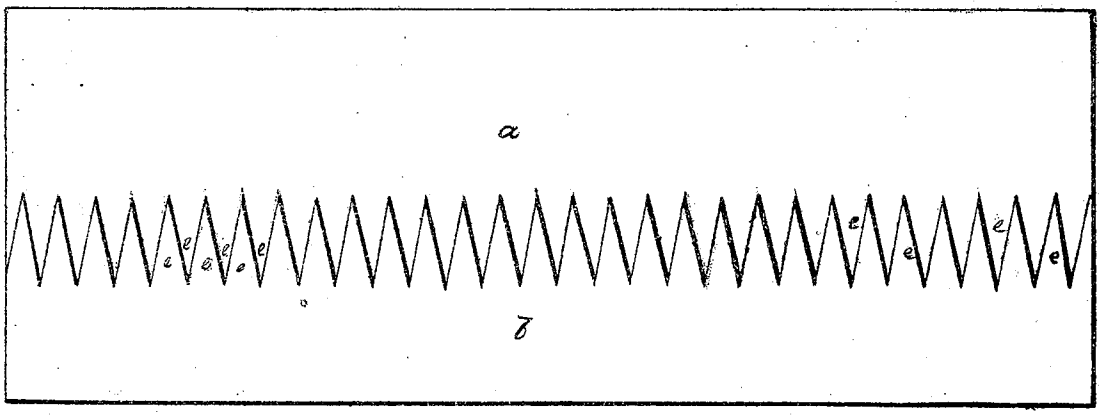


Fig. 3.

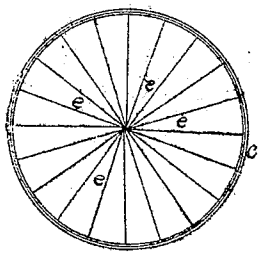
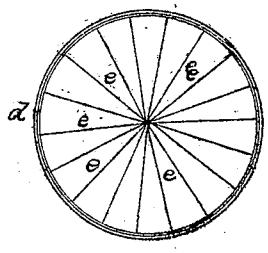


Fig. 4.



Witnesses:

R. H. Campbell

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by his Attys

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UNITED STATES PATENT OFFICE.

JOHN W. MILLET, OF ALBANY, NEW YORK, ASSIGNOR TO J. A. SUMNER.

IMPROVEMENT IN THE CONSTRUCTION OF PAPER BOXES.

Specification forming part of Letters Patent No. **47,069**, dated March 28, 1865.

To all whom it may concern:

Be it known that I, JOHN W. MILLET, of Albany, county of Albany, and State of New York, have invented a new and Improved Paper Box; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of my improved paper box. Fig. 2 is a view showing the method of cutting the paper for making the boxes, and also the covers thereof. Fig. 3 is a bottom view of the cover of the box. Fig. 4 is a top view of the box without the cover.

Similar letters of reference indicate corresponding parts in the several figures.

The object of my invention is to construct cylindrical paper boxes in such manner that the ends or bottom and top of the box, as well as the body thereof, can be made of a single piece of paper without any waste of stock, as will be hereinafter described.

To enable others skilled in the art to make and use my invention, I will describe its construction and operation.

In the accompanying drawings, Fig. 2, I have represented a narrow strip of paper divided longitudinally into two strips, *a b*, one of which, *a*, is intended to form the cylindrical body of the box, and also its bottom or closed end, and the other strip, *b*, which is narrower than *a*, is intended to form the rim and closed end of the cover for the box.

In order to make each portion *c d* of the box of a single strip of paper, without any waste of material, the strip of Fig. 2 is divided by a zigzag cut, which forms the sharp-pointed teeth *e e*, interlocking each other, as represented in Fig. 2. The length of these teeth should be slightly greater than half the diameter of the box which it is desired to make, and it is also desirable that these teeth be made very narrow at their widest part, so as to form a smooth flat surface when they are all folded together, as represented in Figs. 1, 3, and 4. The strip *a* is now moistened with paste or glue of any suitable description, after which this strip is wound several times around a cylindrical block of the proper diameter, which has a flat end. This forms the body of the box. The pointed ends of the strip, which should project from the flat end of the block, are pressed down and pasted together, thus forming the bottom or closed end of the box. The cover of the box is made precisely as above described, a larger block, however, being used upon which to form the cover.

It will be seen from the above description that I am enabled to produce a box and the cover therefor from a single strip of paper, (represented by Fig. 2,) without any waste of material, and by cutting this strip in two longitudinal pieces, as described, I provide for forming the closed ends of the box by the operations of folding, pasting, and pressing down the pointed ends of the strips. The stiffness of the boxes thus produced will depend upon the thickness of the paper which is used, and also the number of times the strips are wound around the blocks. With very thin paper I am enabled to make a very stiff and substantial box, which will possess greater strength and durability than boxes that are made in the usual manner, for the reason that the ends of my box form a part of their respective cylindrical portions.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The method, substantially as herein described, of constructing the body and top of a paper box from one piece of paper without waste, as set forth.

2. The method of stiffening the ends of a paper box made out of one strip of paper, substantially as described.

JOHN W. MILLET.

Witnesses:

JAS. H. BULLOCK,

M. V. B. WINNE.