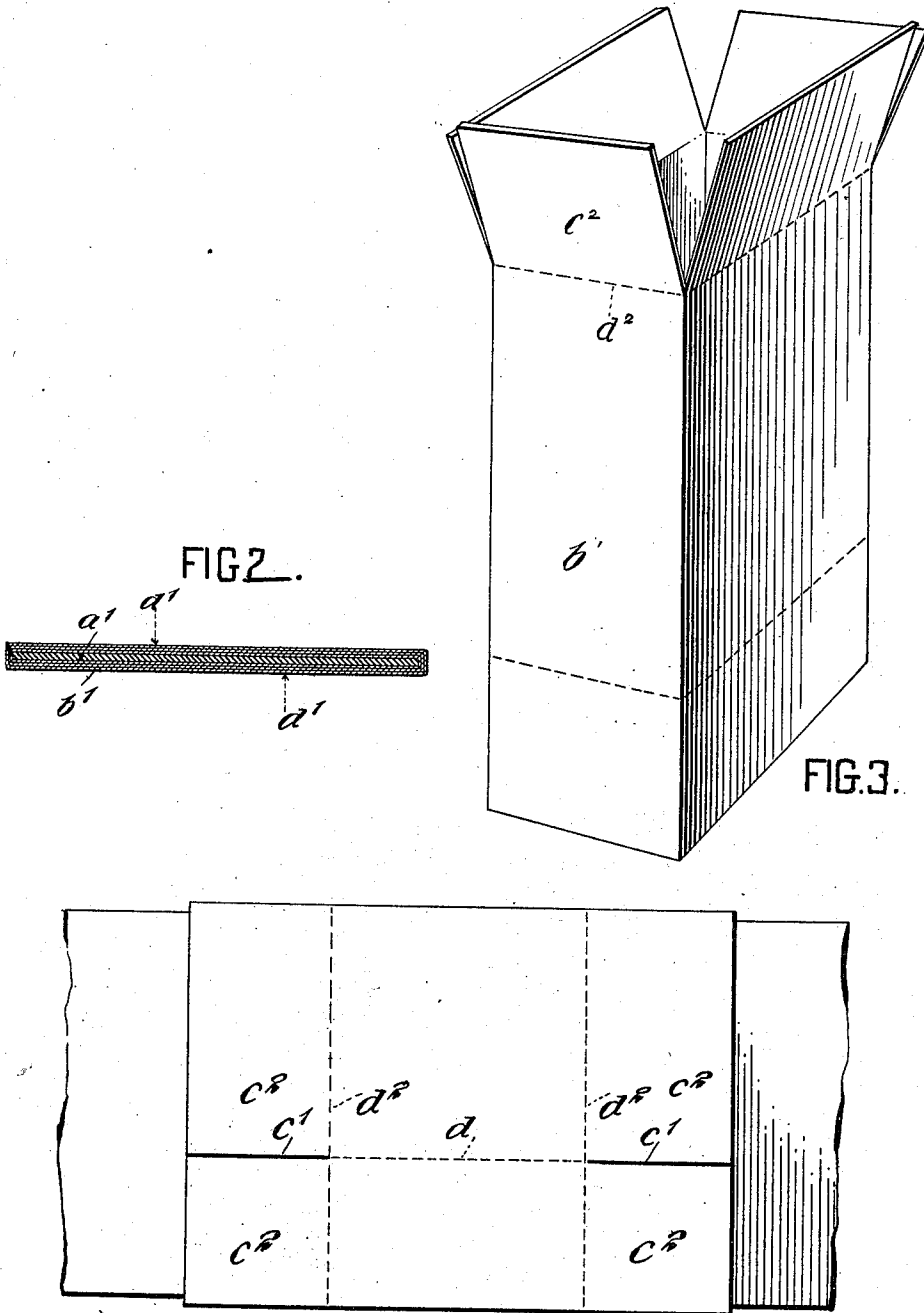


F. J. MOTZ.
METHOD OF MAKING PAPER BOXES.
APPLICATION FILED APR. 14, 1908.

996,785.

Patented July 4, 1911.



WITNESSES
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FIG. 1.

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FREDERICK J. MOTZ, OF NEW YORK, N. Y.

METHOD OF MAKING PAPER BOXES.

996,785.

Specification of Letters Patent.

Patented July 4, 1911.

Application filed April 14, 1908. Serial No. 426,934.

To all whom it may concern:

Be it known that I, FREDERICK J. MOTZ, a citizen of the United States, and a resident of the city of New York, county of New York, and State of New York, have invented certain new and useful Improvements in Methods of Making Paper Boxes, of which the following is a full, clear, and exact specification, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to the manufacture of paper boxes, cartons and the like, such for example as are usually manufactured of cardboard; and the object of the invention is to enable such boxes to be constructed stronger, more rapidly and cheaply than heretofore. I attain this end by certain novel features which will be fully set forth hereinafter and particularly pointed out in the claims.

Reference is had to the accompanying drawings which illustrate two of the possible manners in which my invention may be practiced and in which,

Figure 1 is a plan view of a form or mandrel showing the winding of the paper around it in the construction of the box. Fig. 2 is an exaggerated cross section thereof, and Fig. 3 is a perspective view of the box thus formed, after being "set up".

As shown in Figs. 1 and 2 a flat mandrel a' is provided and around this mandrel is wound a continuous sheet of paper b' in two or more thicknesses or co-extensive layers until the aggregate thickness is equal to that desired. Simultaneously before thus winding the sheet, or at any other convenient period in the operation, the sheet is coated with an adhesive compound, so that the folds are closely cemented together, forming an extremely tough and perfectly seamless box. To enable the structure shown in Fig. 2 to be easily distended to form a square box, I form creases or scores d with a suitable instrument preferably while the adhesive substance of the sheets a' is still moist. These creases or scores d are two in number, one in each side of the plate a' , for example, in the positions indicated by the arrows d' in Fig. 2. I then cut the ends of the structure as for example at c' and score the box at d^2 to form the tabs c^2 , shown in Fig. 3.

This structure readily folds flat for shipment and may be distended at will and filled, at which time it assumes its normal form.

My invention is not limited in respect to the manner in which its ends are closed. The method described admits of exerting considerable pressure on the sheet and thereby increasing the closeness of the bond between the layers.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. The art of forming a rectangular seamless paper receptacle which consists in wrapping sheet paper on itself around a flat mandrel to form two or more complete layers each extending around the receptacle, in applying an adhesive substance to such layers to unite them integrally into a seamless structure the edges of the mandrel forming two corners of the receptacle, in scoring the sides of the receptacle between the edges of the mandrel to facilitate forming the two remaining corners of the receptacle and in removing the receptacle from the mandrel whereby said receptacle may be shipped flat and distended into its normal form when desired.

2. The art of forming a rectangular seamless paper receptacle which consists in wrapping sheet paper on itself around a flat mandrel to form two or more complete layers each extending around the receptacle, in applying an adhesive substance to such layers to unite them integrally into a seamless structure the edges of the mandrel forming two corners of the receptacle, in scoring the sides of the receptacle between the edges of the mandrel to facilitate forming the two remaining corners of the receptacle, in slitting the ends of the receptacle to produce sealing tabs and in removing the receptacle from the mandrel whereby said receptacle may be shipped flat and distended into its normal form when desired.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FREDERICK J. MOTZ.

Witnesses:

W. N. JOHNSON, Jr.,
A. K. OSBORNE.