

D. M. Smith.

Manuf'g of Wood & Paper Boxes.

N^o 50504

Patented Oct. 17. 1865.

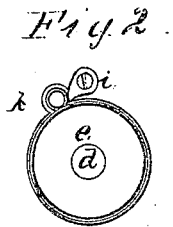
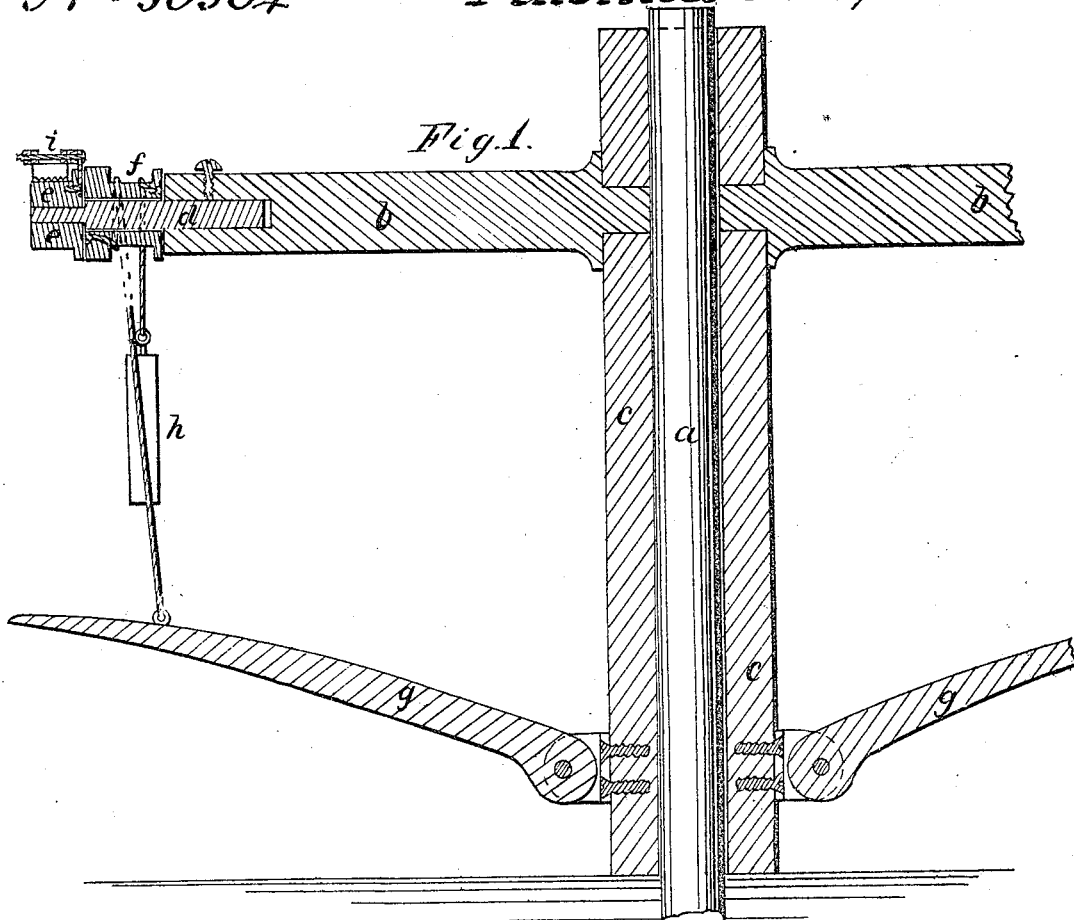


Fig. 3.

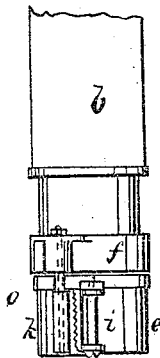
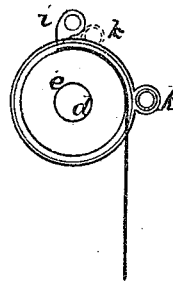


Fig. 4.



Witnesses

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DAVID M. SMYTH, OF NEW YORK, N. Y.

IMPROVEMENT IN WOOD AND PAPER BOXES.

Specification forming part of Letters Patent No. 50,504, dated October 17, 1865.

To all whom it may concern:

Be it known that I, DAVID M. SMYTH, of the city and State of New York, have invented, made, and applied to use a certain new and useful Improvement in the Manufacture of Boxes of Wood, Paper, &c.; and I do hereby declare the following to be a full, clear, and exact description of the said invention, reference being had to the annexed drawings, making part of this specification, wherein—

Figure 1 is a vertical section of my apparatus for making boxes. Fig. 2 is an end view of the forming-block with a box upon it. Fig. 3 is a plan of the same, and Fig. 4 represents the box in the process of being made.

Similar marks of reference denote the same parts.

My invention relates to forming a circular box around a stationary block by bending a strip of wood or other material around such block by means of a roller that travels around the block by the action of a treadle, and said roller also holds together the lapping ends while the glue or cement hardens; and a series of these forming devices are set at the end of arms or the edge of a table mounted on a central axis, so that it may be revolved and the boxes formed successively, in order that time may be allowed for the glue between the lapping ends to harden by the time the box comes around to the workman for one to be removed and another shaped on the block.

In the drawings, *a* is a vertical axis, around which is the table or a series of arms, *b*, with a hollow vertical leg, *c*, over the axis *a*. At the edges of this table, or at the ends of the series of arms forming the same, are mounted the forming-devices for the boxes. I will describe one of them, and their successive use as the table revolves and one formed box is removed and another shaped and glued will be apparent from the foregoing.

d is a projecting stud from *b*, upon the end of which is a circular block, *e*, of the size required for the box or lid. This block has a guide-flange at its back edge, and carries a toothed swinging clamp, *i*, on a stud projecting from the back of the block and parallel to the stud *d*. Around this stud *d* is a pulley, *f*, with a cord attached and passing off in one direction to the treadle *g*, and with a second cord

attached and passing off in the other direction to a weight, *h*, so that the block or pulley *f* will be rotated in one direction by pressure on the treadle *g*, or revolved back in the other direction by the weight *h* when otherwise free. An arm, *o*, from this block or pulley *f* projects over the block *e*, and forms the axis for the roller *k*.

A strip of veneer, card-board, or other material is introduced under the clamp *i*, (see red line in Fig. 4,) and also under the roller *k*, said roller having been brought by the weight to the position shown by dotted lines, Fig. 4. The said roller *k* is then caused to travel around the block *e*, bending the strip of material to the surface thereof, and the length of the strip is such that the ends lap, and one of them being previously glued, the roller *k* is moved until it rolls upon the lap, and there it remains until the cement is dry or set, (see Fig. 2,) after which the roller is pressed by hand off the lap, the weight *h* revolves it back to its former position, and the operation is repeated.

If desired, a circular bottom for the box may be applied at the end of the block *e* and the rim or sides of the box rolled around it, as aforesaid, and a covering of paper may have previously been put upon the strip forming the sides of the box, and, projecting at the bottom part, be turned down upon the circular bottom of the box to hold it in place and complete the formation of the box or lid.

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

1. A stationary block or form, in combination with a roller that travels around such block and bends the strip of material to form the box or lid and holds the ends together where they lap, as specified.

2. In combination with the block and roller aforesaid, the treadle and weight, acting in the manner specified.

3. The revolving table or arms carrying a series of forming-blocks and rollers actuated by treadles, as and for the purposes set forth.

In witness whereof I have hereunto set my signature this 3d day of August, 1865.

DAVID M. SMYTH.

Witnesses:

CHAS. H. SMITH,

JAS. E. SERRELL, Jr.