

(No Model.)

R. M. CLARK.
PAPER CASE OR TUBE.

No. 586,704.

Patented July 20, 1897.

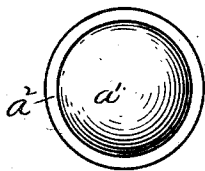


Fig. 2.

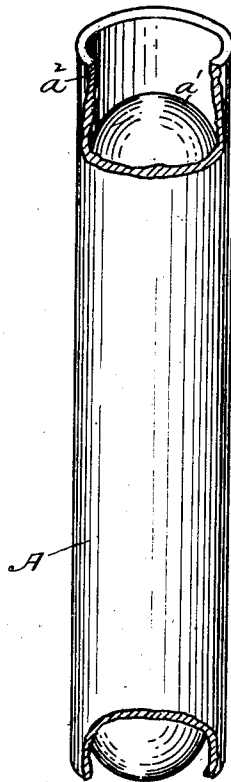


Fig-1.

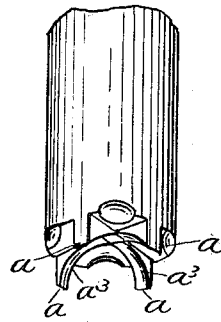


Fig. 4.

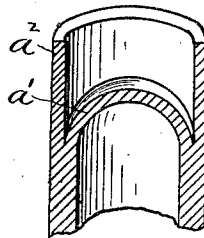


Fig-3.

WITNESSES.

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PAPER CASE OR TUBE.

SPECIFICATION forming part of Letters Patent No. 586,704, dated July 20, 1897.

Application filed August 15, 1896. Serial No. 602,904. (No model.)

To all whom it may concern.

Be it known that I, ROBERT M. CLARK, a citizen of the United States; residing at Newton, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Paper Cases or Tubes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature.

The invention relates to a paper tube or case in which the end of the tube is closed by a section thereof which is severed or cut from the rest of the wall in the form of a sleeve and turned inward from the base of said section to the form of a continuous rounded or dome-shaped end. One or both ends of the tube or case may thus be closed.

In the drawings, Figure 1 is a view of the case or tube, a portion at each end being broken away to show the closed ends. Fig. 2 is a view in end elevation thereof. Fig. 3 is detail view, in central section, of one end. Fig. 4 is a view in perspective of the tool employed for closing the end.

A represents a paper tube or case made in the usual way of such cases. To form an end to the case or tube, a rotary tool like that represented in Fig. 4 is employed. The cutters a thereof, rotating, cut the inner section a' of the wall of the tube at the end from the outer section a'' , and the curved working surfaces a''' of the tool turning such severed inner section inward as fast as the cutter will permit, and by a rotating action against the end of the tube, thereby causing the tube to

be gradually closed by a rotary wiping action which spins or turns in the inner section until it assumes a dome-shaped form, entirely and tightly closing the end and forming an outer surface which is smooth and entirely free from raised or depressed sections. This operation is done when the tube is entirely dry and provides it with a very strong and durable end, as being done dry there is no shrinkage or tendency to take any other shape from that in which it is left by the action of the tool.

As above stated, one or both ends of the tube or case may thus be closed, and, if desired, anything may be inserted into the case before the case is closed, such as a match or a fuse, in which case, of course, the tool would be provided with a recess for receiving and holding such inserted thing during its rotary closing action, and the case end would then be closed by the tool being against it, or the tool may have a central extension or spur upon which the end of the tube may be closed, and which upon its removal will leave a hole in the closed end for the reception of anything which may be placed in the tube.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

A case or tube having an end formed from a cut inner section thereof turned inward to a dome shape, as described.

ROBERT M. CLARK.

Witnesses:

JAMES A. LOWELL,
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