

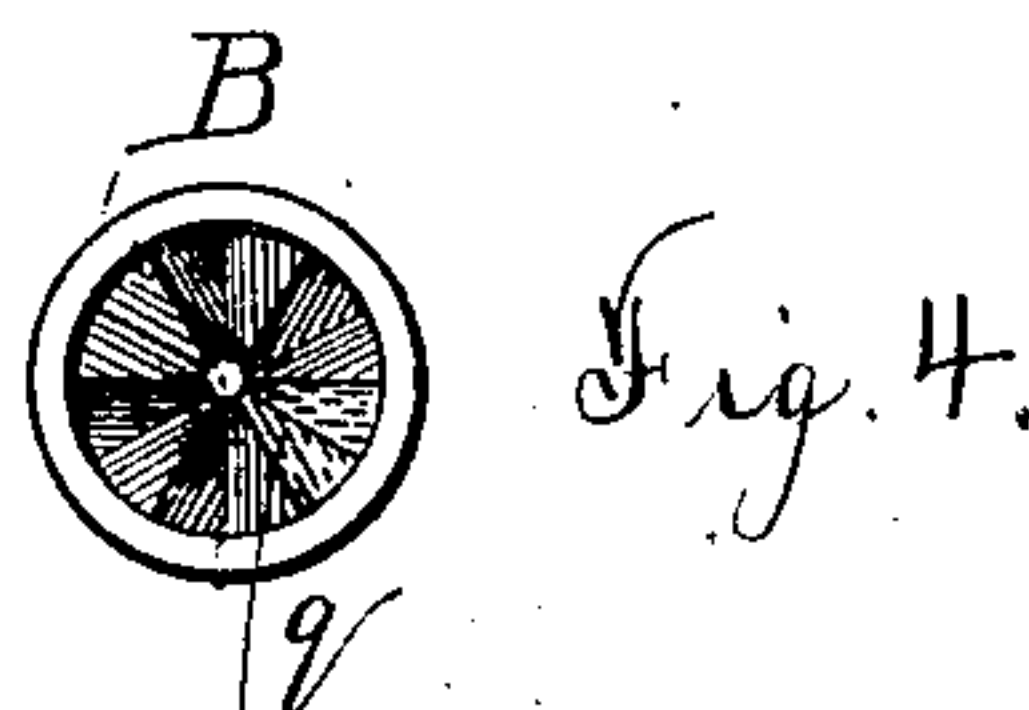
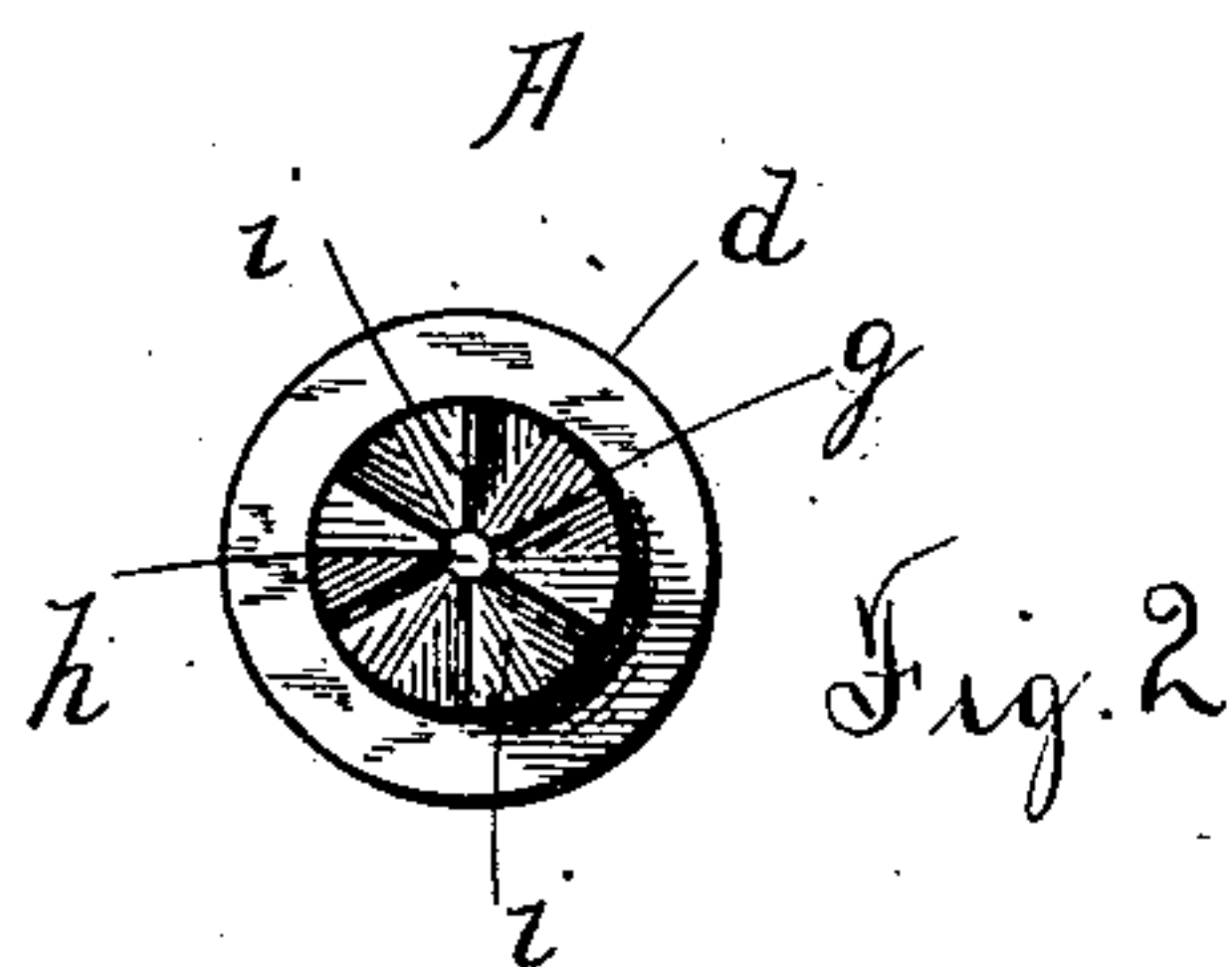
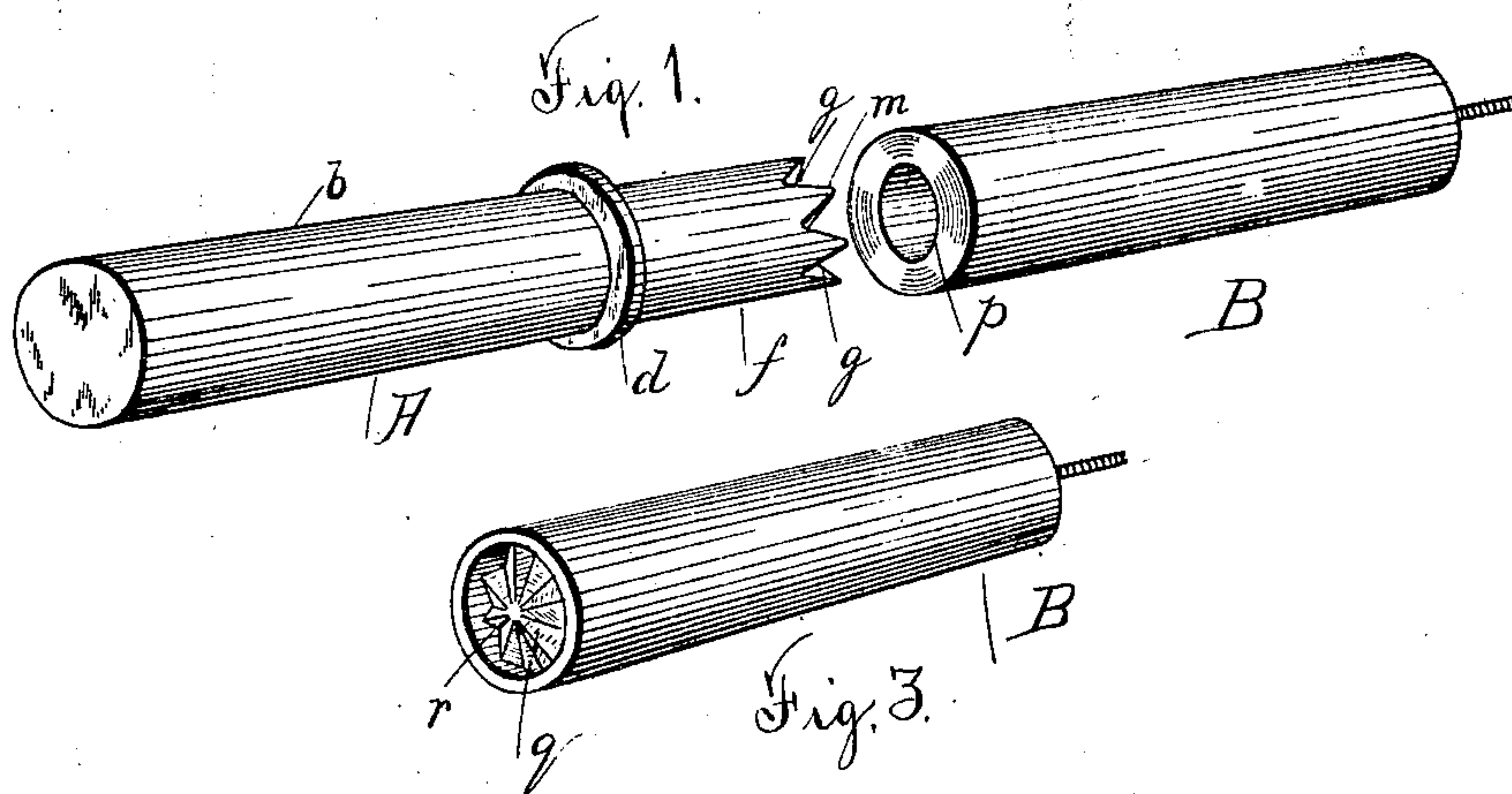
(No Model.)

E. S. HUNT.

TOOL FOR CRIMPING OR CLOSING THE ENDS OF PAPER CASES.

No. 438,268.

Patented Oct. 14, 1890.



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# UNITED STATES PATENT OFFICE.

EDMUND S. HUNT, OF WEYMOUTH, MASSACHUSETTS.

## TOOL FOR CRIMPING OR CLOSING THE ENDS OF PAPER CASES.

SPECIFICATION forming part of Letters Patent No. 438,268, dated October 14, 1890.

Application filed April 2, 1890. Serial No. 346,261. (No model.)

*To all whom it may concern:*

Be it known that I, EDMUND S. HUNT, of Weymouth, in the county of Norfolk, State of Massachusetts, have invented certain new and useful Improvements in Tools for Crimping or Closing the Ends of Paper Cases, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view of my improved crimping-tool represented in position for use with a fire-cracker case; Fig. 2, an end elevation of the tool, showing the working-face; Fig. 3, a perspective view of the cracker, showing its end crimped or closed; and Fig. 4 an elevation of the crimped end thereof.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My invention relates especially to a tool for crimping and thereby closing the ends of cylindrical paper cases, and to illustrate its uses it is shown herein in connection with the cylindrical paper case of a fire-cracker, the object of the improvement being to produce a simple, cheap, and more effective device of this character than is now in ordinary use.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation.

In the drawings, A represents the tool considered as a whole, and B the fire-cracker case. The case B is formed from a series of cylindrical layers of paper in the ordinary manner. The tool A has a cylindrical body portion *b*, whereby it may be secured in a clamp. An annular flange *d* is formed on the body A, said flange serving as a stop for the case. The portion *f* of the tool on the side of the flange opposite the body *b* is cylindrical in form and is of less diameter than the case B.

The body A is provided at its outer end with a working-face. This working-face is depressed at its center and provided with radial teeth which form alternating radial grooves *g*, which are V-shaped in cross-section, as shown in Fig. 1, their points of intersection being at the longitudinal center of the tool. The radial teeth taper or incline inwardly from the circumference of the tool to the depressed center. The depressed center is provided with a flat face *h*.

In the use of my improvement the tool is disposed in a treadle-actuated chuck or other suitable mechanism for imparting a plunging motion thereto, and the case B disposed on a bed below said tool. The grooved working-face of the tool is then forced against the end of the case, causing the inner layers *p* of the case to be separated from the outer layers and bent or crimped inward, as shown at *q*. The beveled edges *i* of the tool-face permit the material of the case to be forced in toward the center *h*. A peak *r* being formed thereon where said layers are brought together, the mouth or end of the case B is thereby tightly closed.

Having thus explained my invention, what I claim is—

1. A tool for crimping and closing the ends of paper tubes, consisting of a cylindrical body provided at one end with a working-face having a depressed center and radial teeth, and alternating radial grooves tapering toward said depressed center, substantially as described.

2. A tool for crimping and closing the ends of paper tubes, consisting of a cylindrical body provided at one end with a working-face having a depressed flat-faced center and radial teeth, and alternating radial grooves tapering toward said depressed center, substantially as described.

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