

No. 778,567.

PATENTED DEC. 27, 1904.

M. A. COYKENDALL.
GRINDER FOR TOOTH CROWNS.
APPLICATION FILED AUG. 31, 1903.

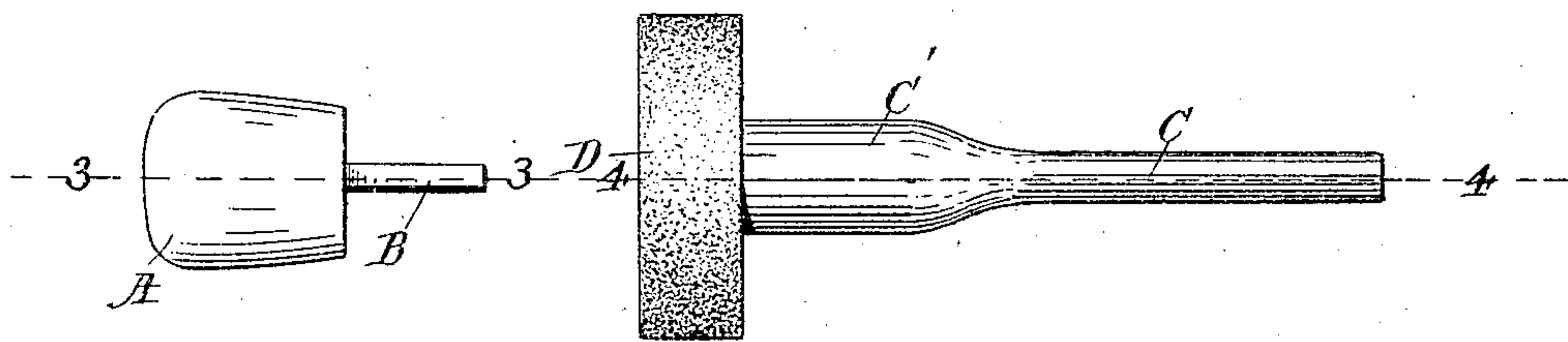


Fig. 1.

Fig. 2.

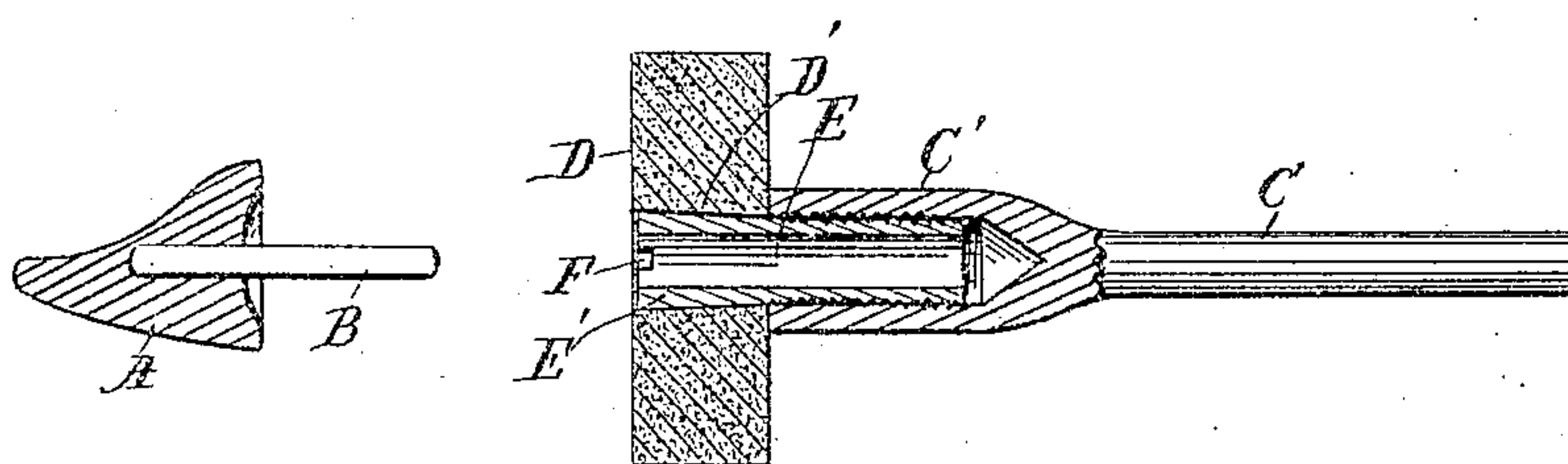


Fig. 3.

Fig. 4.

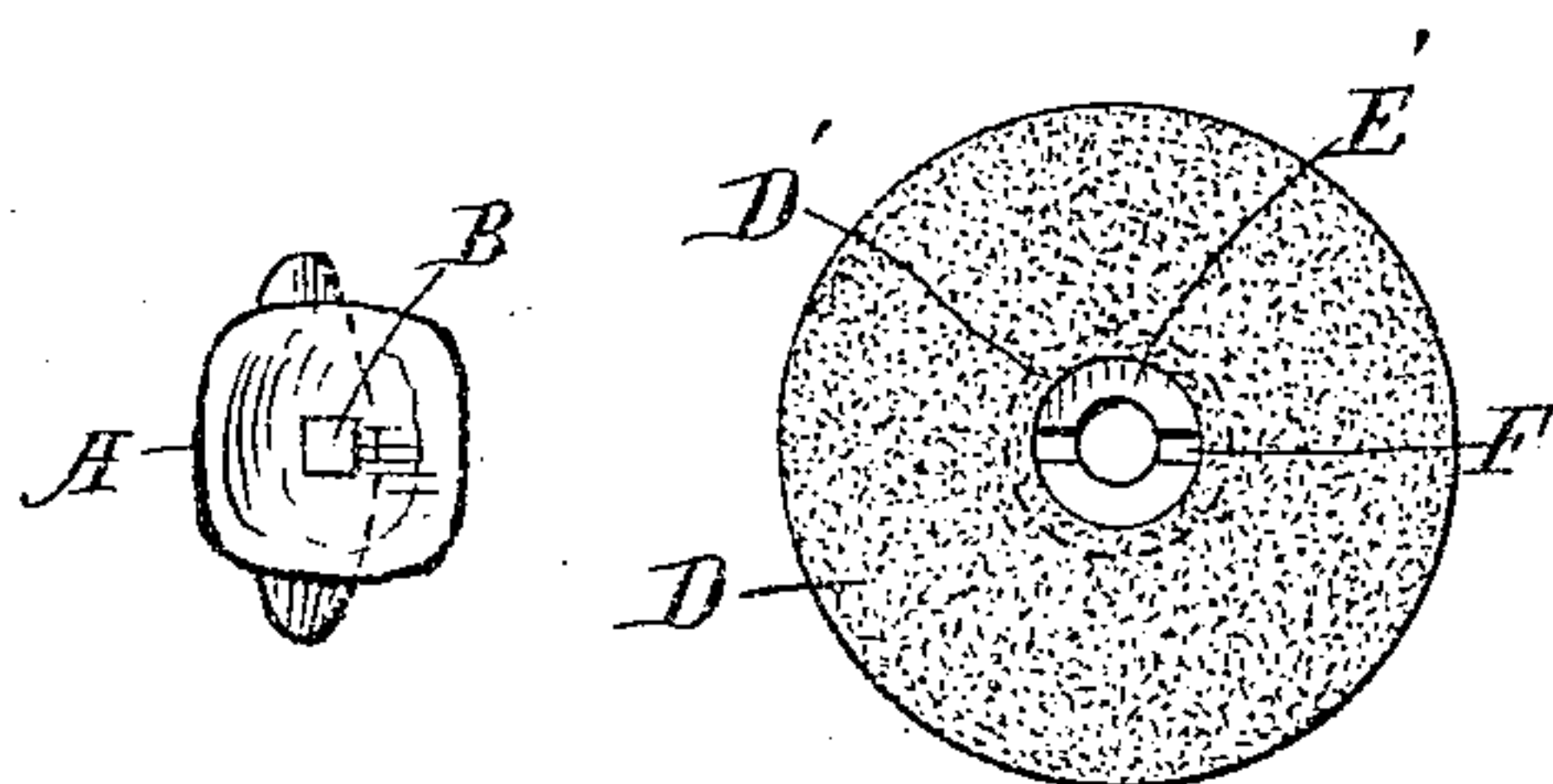


Fig. 5.

Fig. 6.

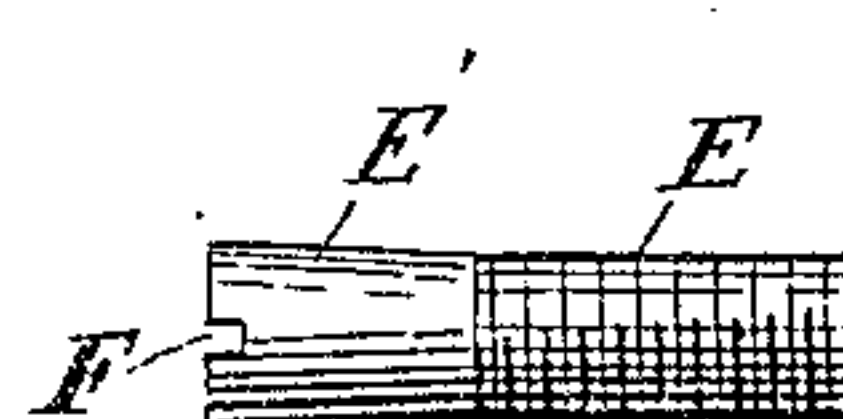


Fig. 7.

Witnesses

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MARCUS A. COYKENDALL, OF GRAND RAPIDS, MICHIGAN.

GRINDER FOR TOOTH-CROWNS.

SPECIFICATION forming part of Letters Patent No. 778,567, dated December 27, 1904.

Application filed August 31, 1903. Serial No. 171,371.

To all whom it may concern:

Be it known that I, MARCUS A. COYKENDALL, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Grinders for Tooth-Crowns; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in grinders for tooth-crowns; and its object is to provide convenient means whereby the grinding-wheel may be detachably secured upon the tube and with its side unobstructed and flush with or projecting beyond the end of the tube, to provide means for readily detaching said wheel and attaching another when occasion requires; and my invention consists in certain details of construction hereinafter more fully described, and particularly pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 represents a tooth-crown; Fig. 2, my tool for grinding the same; Fig. 3, a section of the crown on the line 3 3 of Fig. 1; Fig. 4, a section of the tool on the line 4 4 of Fig. 2; Fig. 5, an end view of the tooth-crown; Fig. 6, an end view of the tool, and Fig. 7 a detail of the tube.

Like letters refer to like parts in all of the figures.

A represents the usual form of porcelain tooth-crown, and B is the pin thereof, adapted to be inserted in the root of the tooth.

C represents any suitable spindle adapted to be rotated by any suitable means commonly used for operating rotary tools in dental work. Said spindle is provided with a hollow end C', internally screw-threaded to receive the tube E, on which tube the wheel D is mounted. One end, E, of the tube is screw-threaded to engage threads in the hollow end C' of the

spindle and the other end is truncated conical externally, as at E', to fit within a corresponding tapered central opening D' in the wheel D, and the wheel-opening is such that when the tube E is inserted therein the wheel will be flush with the end of the tube or projecting slightly beyond the same and with its outer side exposed, whereby the outer side of the wheel will contact the base of the tooth-crown and grind the same. The central opening of the tube E receives the pin B and serves to hold said pin in line with the axis of the wheel D, whereby the wheel will grind the surface of the tooth in a plane at right angles to the pin. A nick F is formed in the outer end of the tube, whereby the same may be turned into the spindle by means of an ordinary screw-driver. The end of the spindle engages the inner side of the wheel and crowds the same firmly upon the conical portion of the tube, and thus securely holds the wheel in place, and at the same time the wheel may be readily detached by taking the tube out of the spindle and driving it out of the wheel.

From the foregoing description the operation of my device is obvious and requires no further description.

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

The combination of a tube having one end screw-threaded and the other end externally truncated conical, a spindle having a screw-threaded opening in the end to receive the tube, and a wheel of abrasive material having a tapered central opening to fit the truncated conical end of the tube.

In testimony whereof I affix my signature in presence of two witnesses.

MARCUS A. COYKENDALL.

Witnesses:

LUTHER V. MOULTON,
GEORGIANA CHACE.