

A. F. Nagle.

Dressing Bolts and Nuts.

N^o 80,560.

Patented Aug. 4, 1868.

Fig. 1.

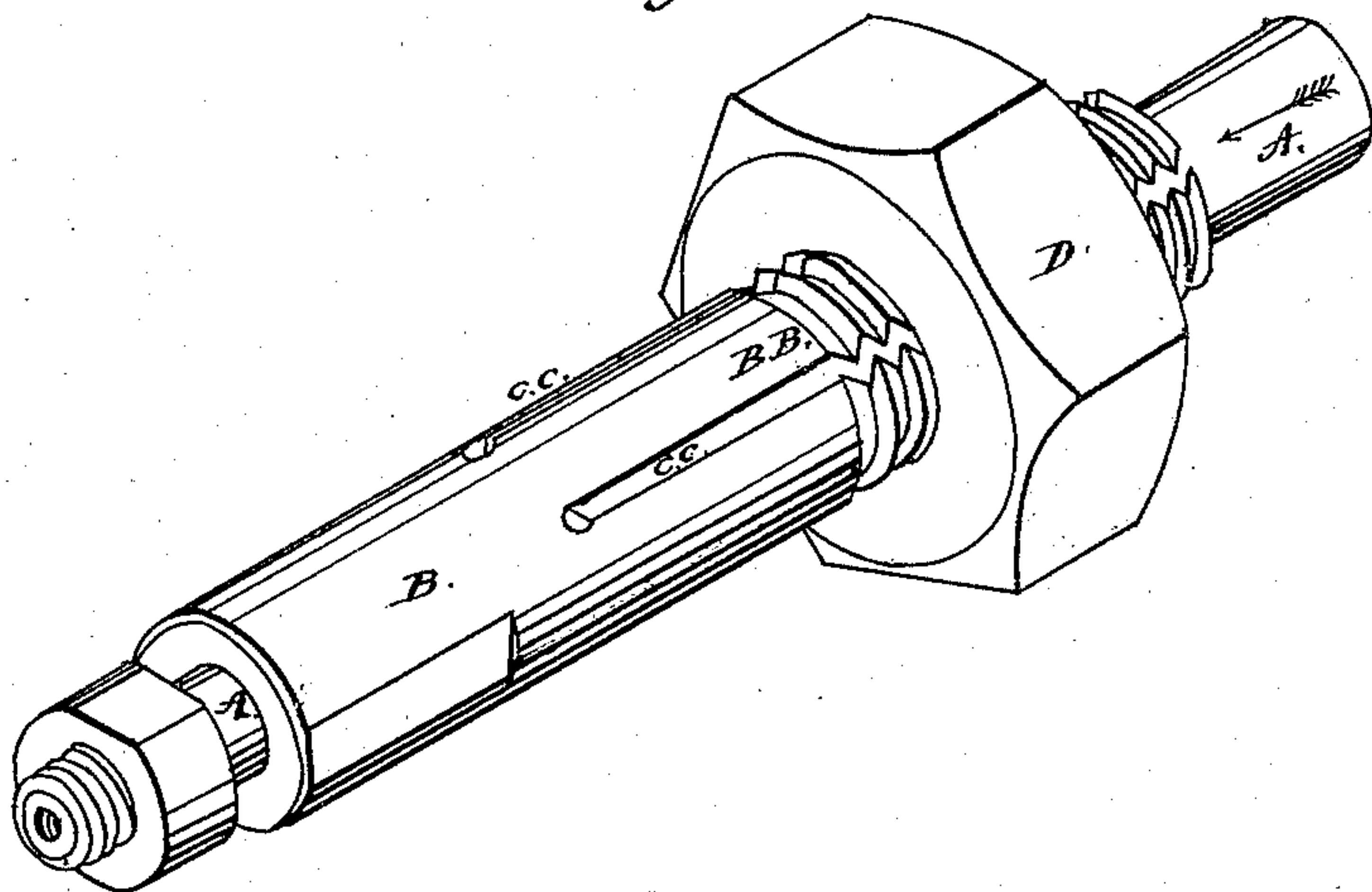
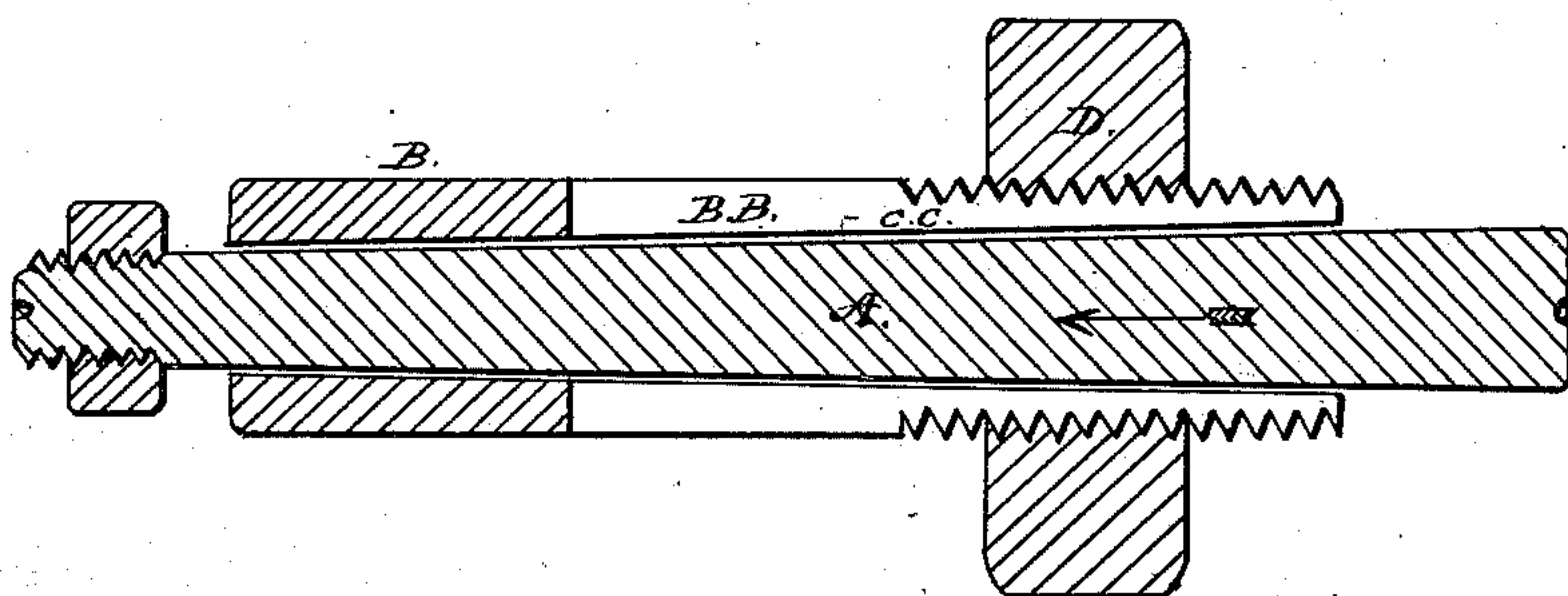


Fig. 2.



Witnesses:

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By His Attorney
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United States Patent Office.

AUGUSTUS F. NAGLE, OF PROVIDENCE, RHODE ISLAND.

Letters Patent No. 80,560, dated August 4, 1868.

IMPROVEMENT IN EXPANDING-MANDRELS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, AUGUSTUS F. NAGLE, of the city and county of Providence, and State of Rhode Island, have invented a certain new and improved Expanding-Mandrel, particularly valuable as a tool for use in turning the faces of nuts true with the thread cut within.

Expanding-mandrels have been made before, and mine differs from such in the use of a conical arbor, closely fitted into a slotted shell, on the outside of which is cut a screw-thread corresponding with that in the nuts to be faced or turned straight to suit drilled holes. With the assistance of the accompanying drawings, I will give a true and exact description of my invention.

Figure 1 represents a full view of one of my mandrels, with a nut thereon.

Letter A represents a conical or tapering arbor or shaft, traversing and closely fitting the interior of the shell B.

B represents a slotted shell or hollow arbor, on one end of which is (or may be) cut a screw-thread, as shown.

C C represent the slots referred to.

B B represent that portion of the shell between the slots.

D represents a nut turned on the thread.

Figure 2 represents a vertical section of the mandrel. Parts therein are lettered and marked as in fig. 1.

The operation of the mandrel is as follows: The tapering shaft A being loosened, a nut is easily turned upon the thread of the slotted shell B B and B. In order to hold the nut firmly in position while being faced, the tapering shaft A is forced in the direction indicated by the arrow, expanding the slotted portion of shell B or B B, thus securely holding the nut in position.

I claim as my own invention, and desire to secure by Letters Patent—

An expanding-mandrel, as herein described, consisting of the slotted shell B, having spring-jaws B B, and tapering arbor A, all constructed, arranged, and operating in manner set forth.

A. F. NAGLE.

Witnesses:

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