

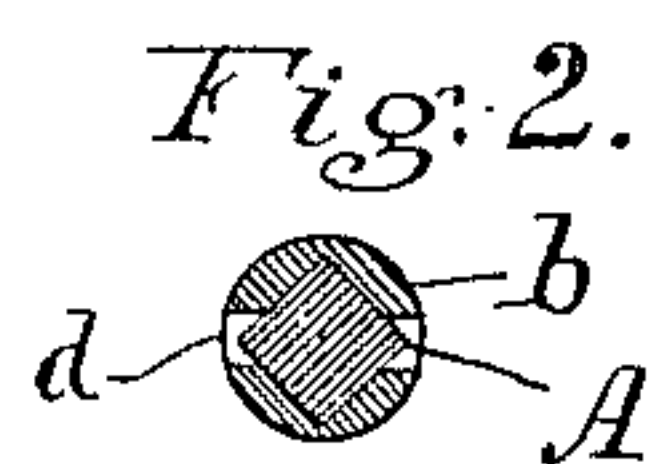
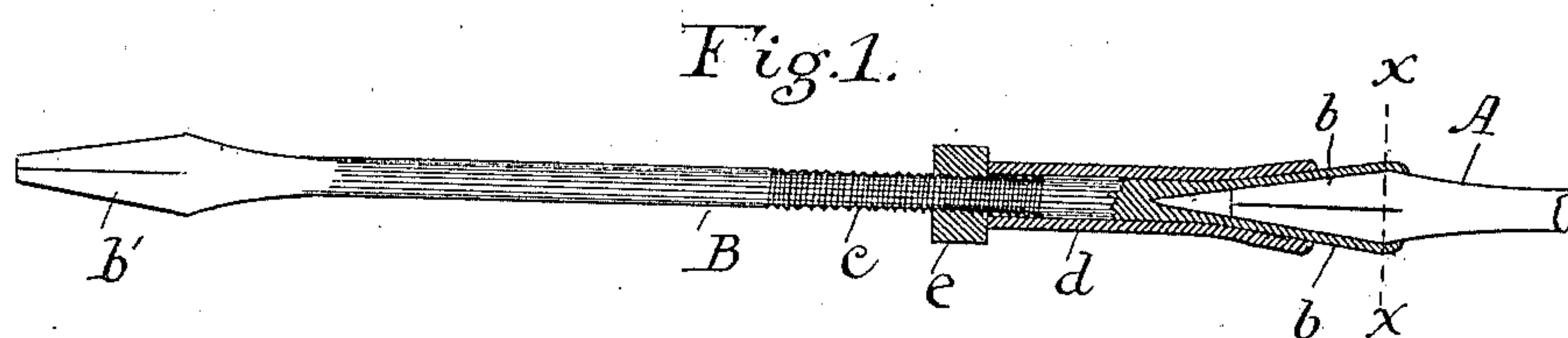
No. 698,001.

Patented Apr. 22, 1902.

B. F. FOSS.
LENGTHENING ATTACHMENT FOR BITS.

(Application filed May 3, 1901.)

(No Model.)



Witnesses:

William J. Gato
Frank J. Gato

Inventor:

Benjamin F. Foss
by *S. M. Bates*
his atty.

UNITED STATES PATENT OFFICE.

BENJAMIN F. FOSS, OF ALBION, MAINE.

LENGTHENING ATTACHMENT FOR BITS.

SPECIFICATION forming part of Letters Patent No. 698,001, dated April 22, 1902.

Application filed May 3, 1901. Serial No. 58,628. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. FOSS, a citizen of the United States of America, and a resident of Albion, Kennebec county, State of Maine, have invented certain new and useful Improvements in Lengthening Attachments for Bits, of which the following is a specification.

This invention relates to an extension or lengthening piece for bits in use in boring holes through partitions and other places where a long hole is required.

It often happens that a long hole is to be bored and that no bit of special length is available for this purpose.

The object of the invention is to make an extension-piece which will fit the shank of any bit and which shall be small enough in diameter to enter the hole made by bits—say from five-eighths of an inch up—the clamping portion being designed so as to take up as little room laterally as possible.

The device consists of a screw-threaded rod the end of which is split to form jaws capable of closing about the bit and made as thin as is consistent with the necessary strength. A sleeve slides on the rod and slips over the jaws to close the same, and a nut operates the sleeve and holds it and the jaws in position.

In the accompanying drawings I have illustrated an extension device embodying my invention, in which—

Figure 1 is a longitudinal section with a portion of the rod in elevation, and Fig. 2 is a cross-section on the line *xx* of Fig. 1.

B represents the rod on which is cut the screw-thread *c*, one end of the rod being formed, as here shown, into two thin jaws *b*, adapted to embrace and retain the end of the

bit A. The jaws thus formed will be somewhat larger than the body of the rod B. The jaws are closed by a sleeve *d*, which slides on the rod and which has, as here shown, a flaring end fitting over the jaws. To operate the sleeve and hold the jaws firmly together, I provide a nut *e*, which engages the screw-thread *c*. This nut may be operated either by hand or by a wrench; but ordinarily it works sufficiently easy to be operated by hand. The end *b'* opposite the jaws is squared to adapt it to fit the stock of a brace.

Having described the construction of my lengthening-piece, its mode of operation is evident. The bit A is simply clamped in the jaws *b* by drawing back the slide, inserting the bit, and pushing along the slide, following it with the screw, which is set firmly. Having clamped the bit in the lengthening-piece, the rod is in turn clamped into the brace or bit-stock.

I claim—

The herein-described device, consisting of a rod adapted to be engaged by a brace and having a split outer end to form jaws to receive and retain the shank of a bit, a sleeve having a tapering channel fitting upon said rod near its split end, screw-threads upon the rod below the sleeve, and a nut upon the screw-threads adapted to contact the lower end of the sleeve to force the sleeve upward to compress the split end of the rod upon the shank of the bit.

Signed at Portland, Maine, this 22d day of April, 1901.

BENJAMIN F. FOSS.

Witnesses:

S. W. BATES,
L. M. GODFREY.