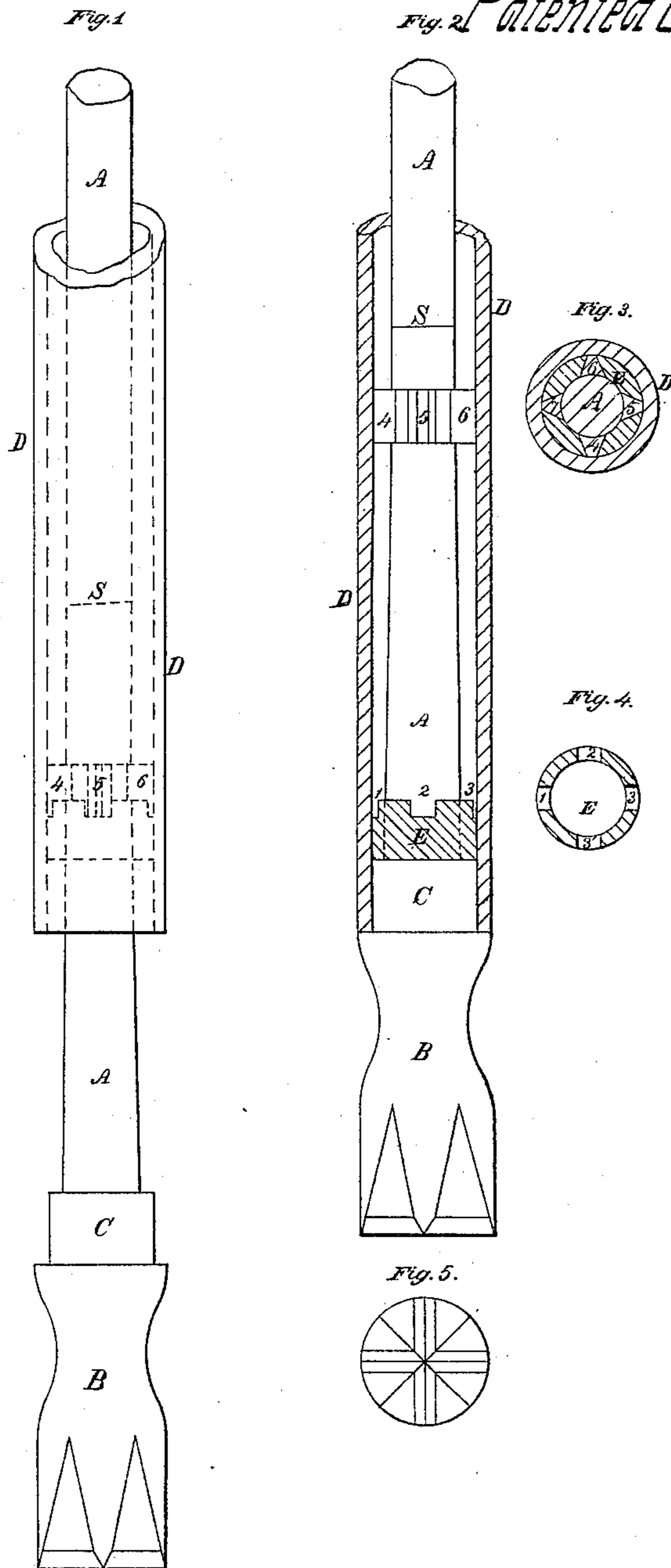


*J. Gilmore Jr. & A. W. Gilmore,*

*Rock Drill.*

*N<sup>o</sup> 58,809.*

*Patented Oct. 16, 1866.*



*Witnesses.*

*A. B. Richmond  
Louis L. Richmond*

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*John Gilmore  
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# UNITED STATES PATENT OFFICE.

JOHN GILMORE, JR., AND AARON WICKS GILMORE, OF UTICA, PA.

## IMPROVED MODE OF SINKING WELL-TUBES.

Specification forming part of Letters Patent No. 58,809, dated October 16, 1866.

*To all whom it may concern:*

Be it known that we, JOHN GILMORE, Jr., and AARON WICKS GILMORE, of Utica, Venango county, Pennsylvania, have invented a new and Improved Machine for Sinking Water-Wells; and we do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings and the letters of reference marked thereon.

Figure 1 represents our machine with all its parts adjusted in order. D D is a tube of iron—i. e., the well and pump tube. B is a drill; A A, the drill-rod, which is screwed together in sections, one joint being shown at s.

Fig. 3 is an end view of the drill-rod, showing a collar thereon with four flanges, 4 5 6 7. (Also, see 4 5 6, Figs. 2 and 1.) E is a collar on the inside of the tube D D, fastened to the tube. 1 2 3 are notches or grooves in the collar, made so that when the drill-rod A is forced down, the flanges 7 6 5 4 will fit into the notches 1, 2, 3, and 3', (see Fig. 4 and end view of the collar,) and thus prevent the lower or drill section of the rod from turning, so that the same can be unscrewed at s, thereby permitting the removal of the rod A while the drill-section must remain in the well. C is a shoulder on the upper end of the drill, which fits closely into the lower end of the well-tube D D, thereby preventing dirt from entering the tube while the same is being driven into the earth.

Our machine operates as follows, to wit: The drill is drawn up in the position shown in Fig. 2. The tube D D is now driven down until it strikes a rock or hard clay, when it can be driven no farther. The tube D D is then drawn back to the position shown in Fig. 1, the drill remaining down on the rock or clay. The drill can now be moved up and down between the end of the tube D D and the rock or clay, thus drilling a hole, when the tube D D can be forced after. When the tube is forced down the required depth for water it is then drawn back until the collar E clutches or meets the flanges 4 5 6 7. This opens the end of the tube D D, (as the drill-rod is smaller than the inside of the tube D D,) and the drill-rod is then unscrewed at s and the rod withdrawn. This leaves the lower end of the tube D D open for water to enter, which is drawn up by a pump.

What we claim as our invention, and desire to secure by Letters Patent, is—

The drill B, with the flanges 4 5 6 7, in combination with the collar E and the tube D D, when the same are constructed as described in the aforesaid combination, for the purposes set forth.

JOHN GILMORE.

AARON WICKS GILMORE.

Witnesses:

A. B. RICHMOND,  
LOUIS L. RICHMOND.