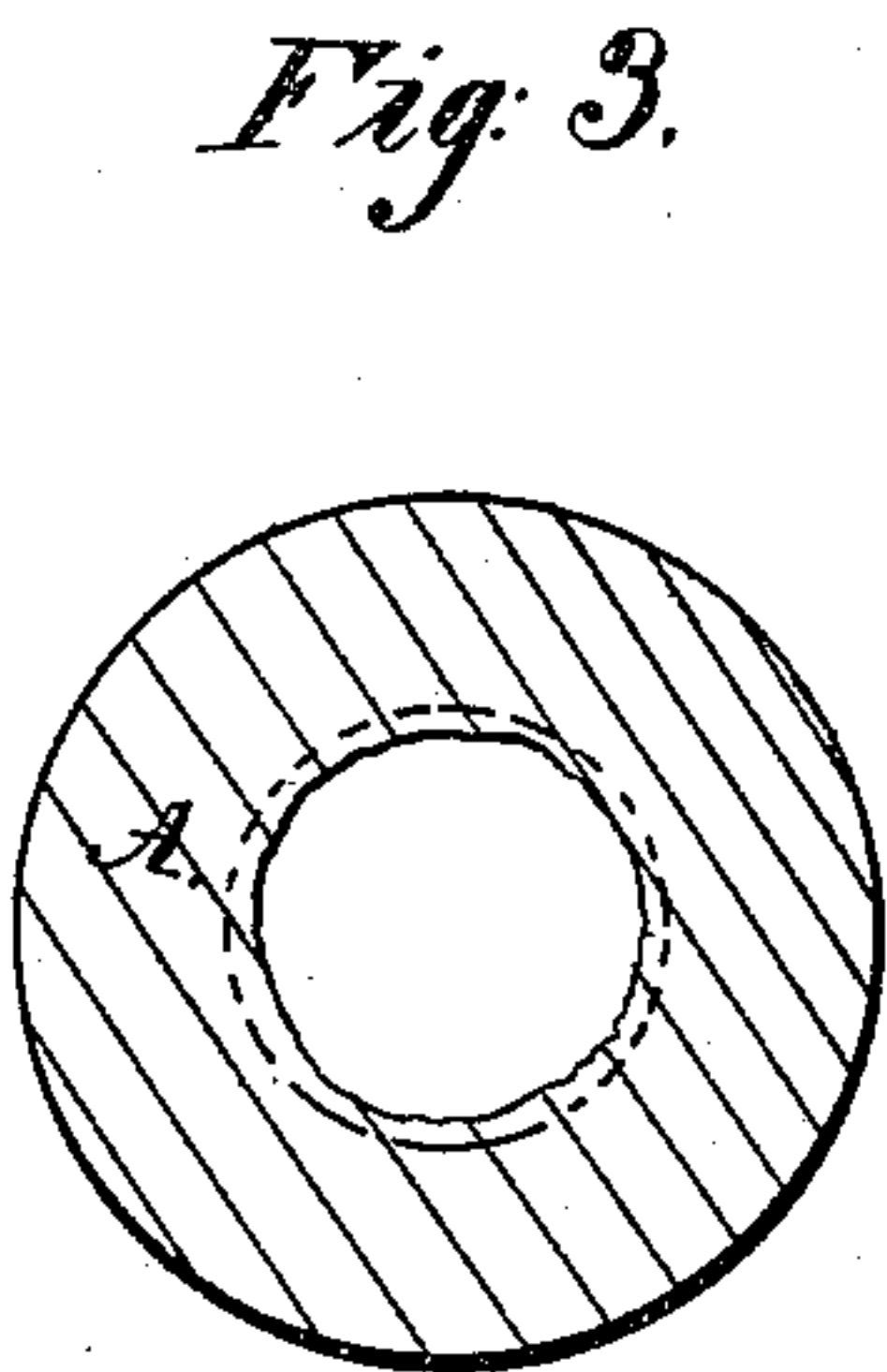
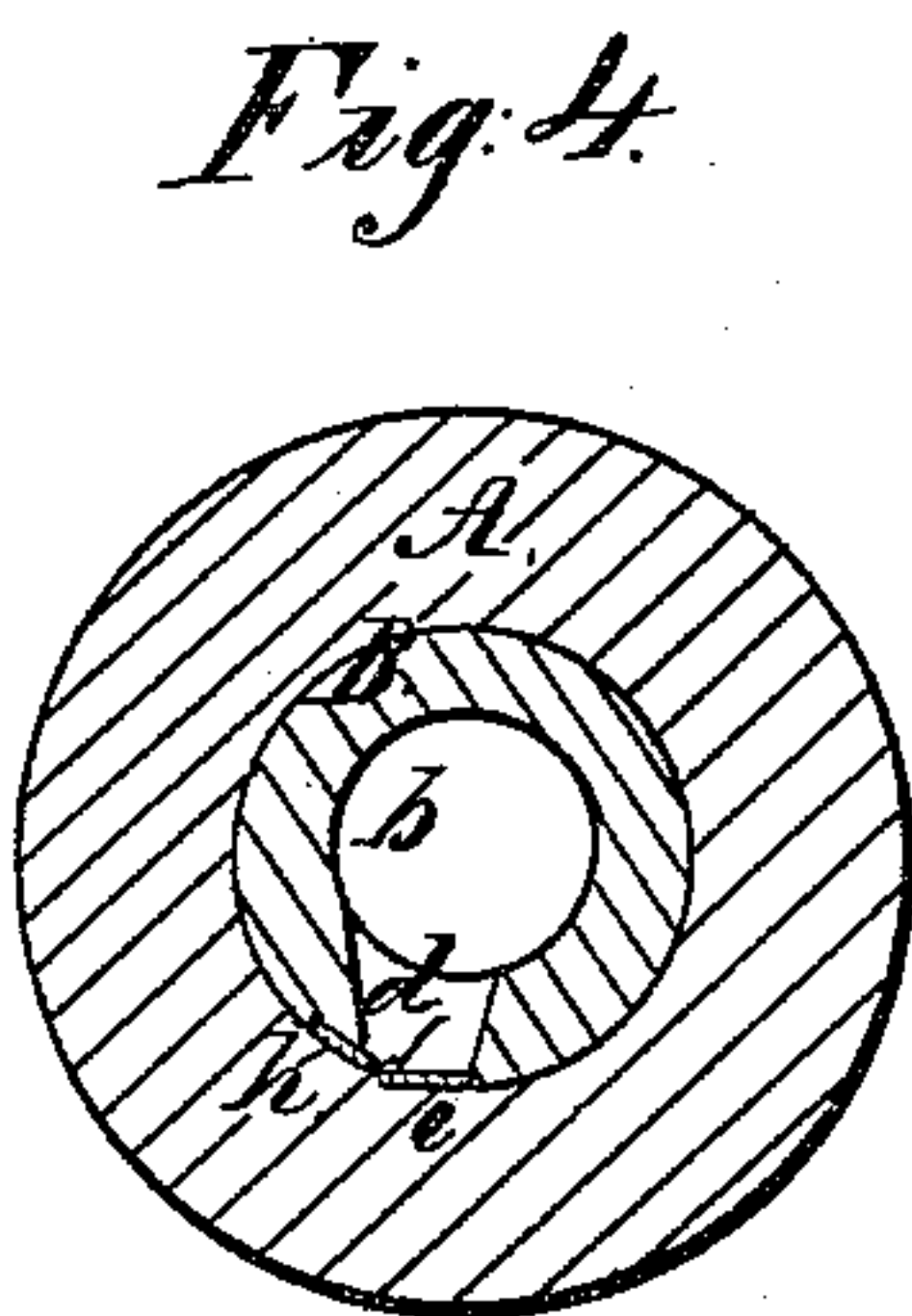
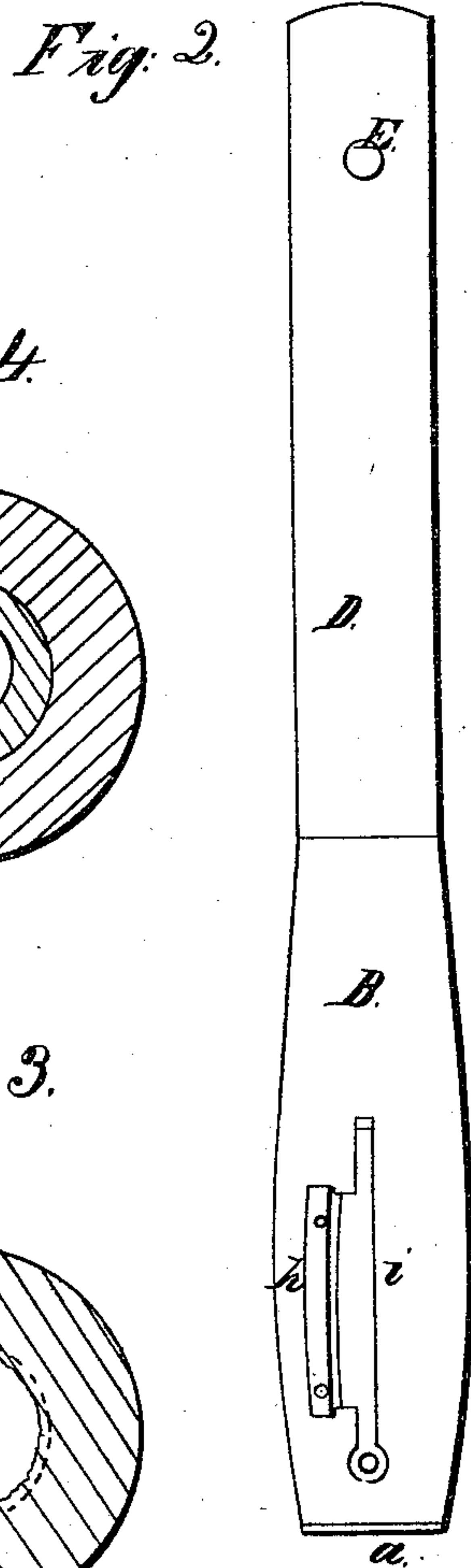
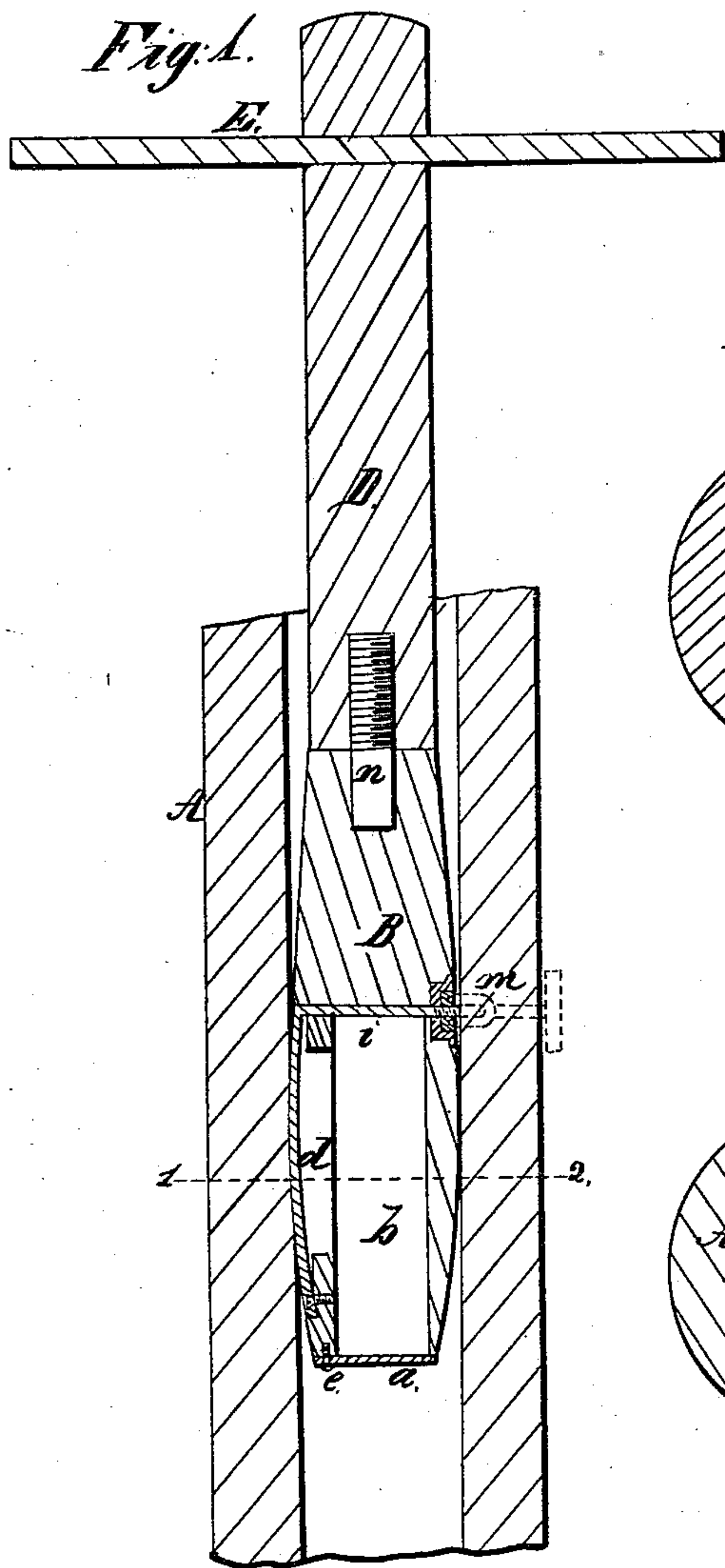


*S. H. Sugett,*  
*Wood Auger,*  
*No. 36,626,*      *Patented Oct. 7, 1862.*



*Witnesses:*

*Charles E. Foster—*

*Charles Howson,*

*Inventor:*

*S. H. Sugett*



# UNITED STATES PATENT OFFICE.

SAMUEL H. SUGETT, OF EDEN, MAINE.

## INSTRUMENT FOR REAMING OUT THE BARRELS OF SHIPS' PUMPS.

Specification forming part of Letters Patent No. 36,626, dated October 7, 1862.

*To all whom it may concern:*

Be it known that I, SAMUEL H. SUGETT, of Eden, Hancock county, Maine, have invented an Instrument for Reaming Out the Barrels of Ships' Pumps; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention consists of an instrument, fully described hereinafter, for reaming out the barrels of ships' pumps without removing them from their places, the instrument being so constructed that the chips it produces cannot lodge in the barrel.

In order to enable others to make and use my invention, I will now proceed to describe its construction and operation.

On reference to the accompanying drawings, which form a part of this specification, Figure 1 is a vertical section of the instrument for reaming out the barrels of ships' pumps; Fig. 2, an exterior view; Fig. 3, a section of the pump-barrel, showing the condition of the bore prior to the application of the reaming-instrument; and Fig. 4 is a sectional plan of Fig. 1 on the line 1 2.

Similar letters refer to similar parts throughout the several views.

A represents a portion of the barrel of an ordinary ship's pump, and B the lower end of the reaming-instrument, within which is formed a chamber, *b*, the latter being closed by a plate, *a*, which is so connected by a pin, *e*, to the bottom of the reamer as to be readily moved on one side, thereby exposing the chamber *b*.

In the side of the lower portion, B, of the reamer is an elongated opening, *d*, which communicates with the chamber *b*, and in front of the opening are the plate *h* and cutter *i*, the plate being secured to the reamer, while the cutter which is similar to that of an ordinary spokeshave, is secured at one end to the reamer, the opposite end having a tongue, *i'*, which passes through the body of the reamer, and which is furnished with a nut, *m*, Fig. 1, so that on turning the latter the edge of the cutter may be made to project to a greater or less extent, so as to take a heavy or light cut, as desired. The lower portion, B, of the

reamer is furnished with a pin, *n*, which screws into a stem, D, of any required length, this stem being furnished at or near its upper end with a cross-bar, E, which forms an appropriate handle, by which the instrument is turned.

The barrels of ships' pumps are liable to become so worn and in such bad condition generally that the plungers will not operate with the desired effect, an evil which may be most disastrous in case of a sudden leak. In using my above-described reaming-instrument, however, there is no necessity of removing the barrel of the pump from its place, the instrument being simply inserted into the bore of the barrel, turned round, and gradually lowered until the desired reaming effect has been accomplished. If the chips removed by the cutter should fall to the bottom of the barrel, they would so interfere with the valves of the pump as to render the latter inoperative. The chips, however, in using my improved instrument, pass between the plate *h* and cutter *i*, through the elongated opening *d*, and into the chamber *b*. When the operator has reason to suppose that this chamber is nearly full of chips, he raises the reaming-instrument from the barrel, and moves the plate *a* on one side, so that the contents of the chamber may be discharged, after which he again inserts the instrument, continues the reaming process until the reamer is again full of chips and has to be emptied, and this is continued until the reaming process is completed. It will be seen without further description that all danger of the collection of chips in the bottom of the barrel is avoided, and that by the use of the improved reamer a damaged and inoperative barrel may be readily repaired without removing it from its position.

My improved reaming-instrument has been fully tested during a voyage from St. Thomas to Aspinwall, during which my ship sprung a leak. The pumps were found to be inoperative, owing to the bad condition of the barrels, which required reaming out, for which purpose I made the instrument above described. In the absence of this instrument I should have been under the necessity of abandoning the ship.

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

The reaming-instrument with its cutter *i*, chamber *b*, and movable plate *a*, the whole being arranged substantially as set forth, for the purpose specified.

In testimony whereof I have signed my

name to this specification in the presence of two subscribing witnesses.

SAMUEL H. SUGETT.

Witnesses:

HENRY HOWSON,  
JOHN WHITE.