

W. P. Slensby.

Pine Cutter.

No. 64,454.

Patented May 7, 1867.

Fig: 1.

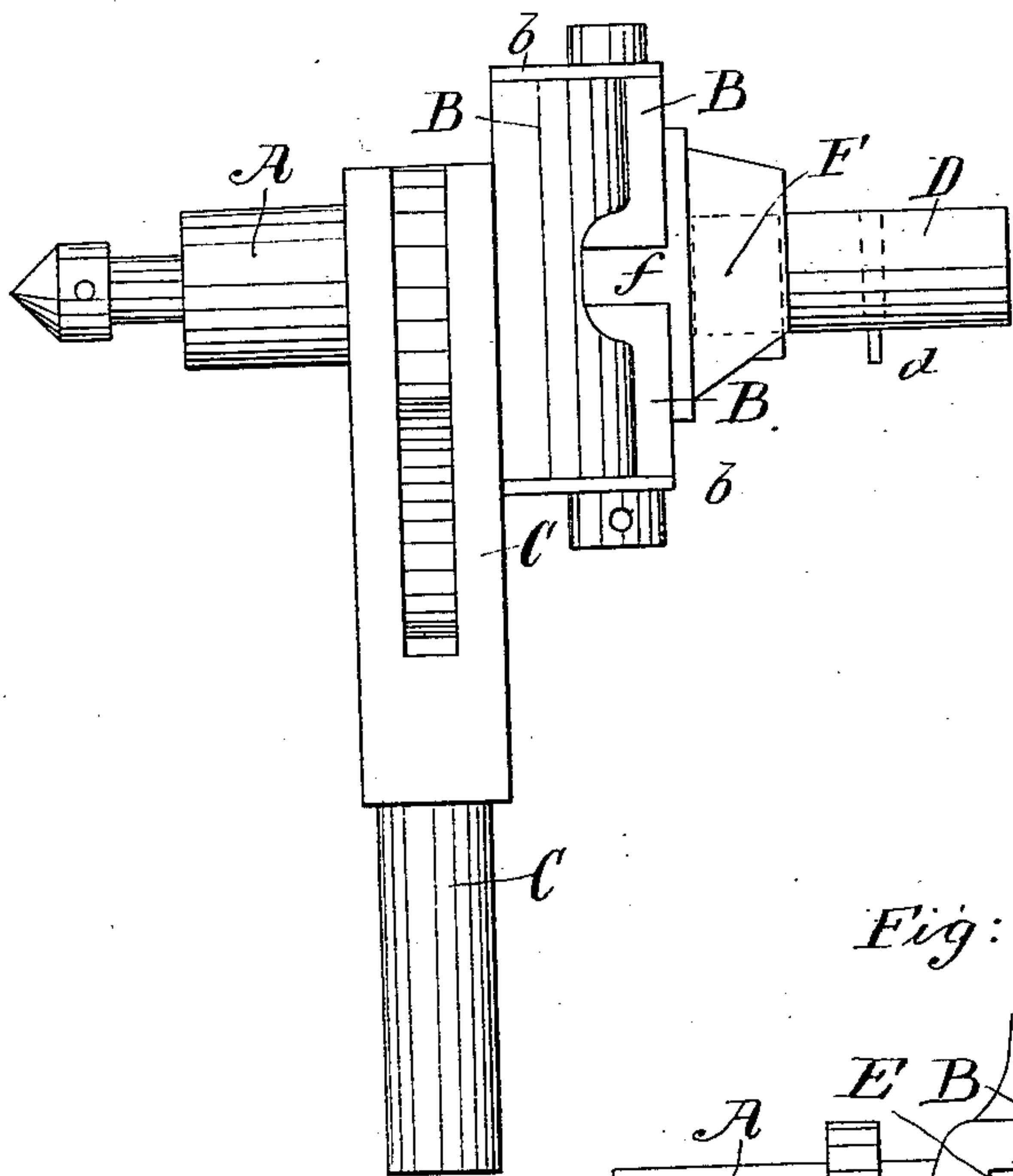


Fig: 2.

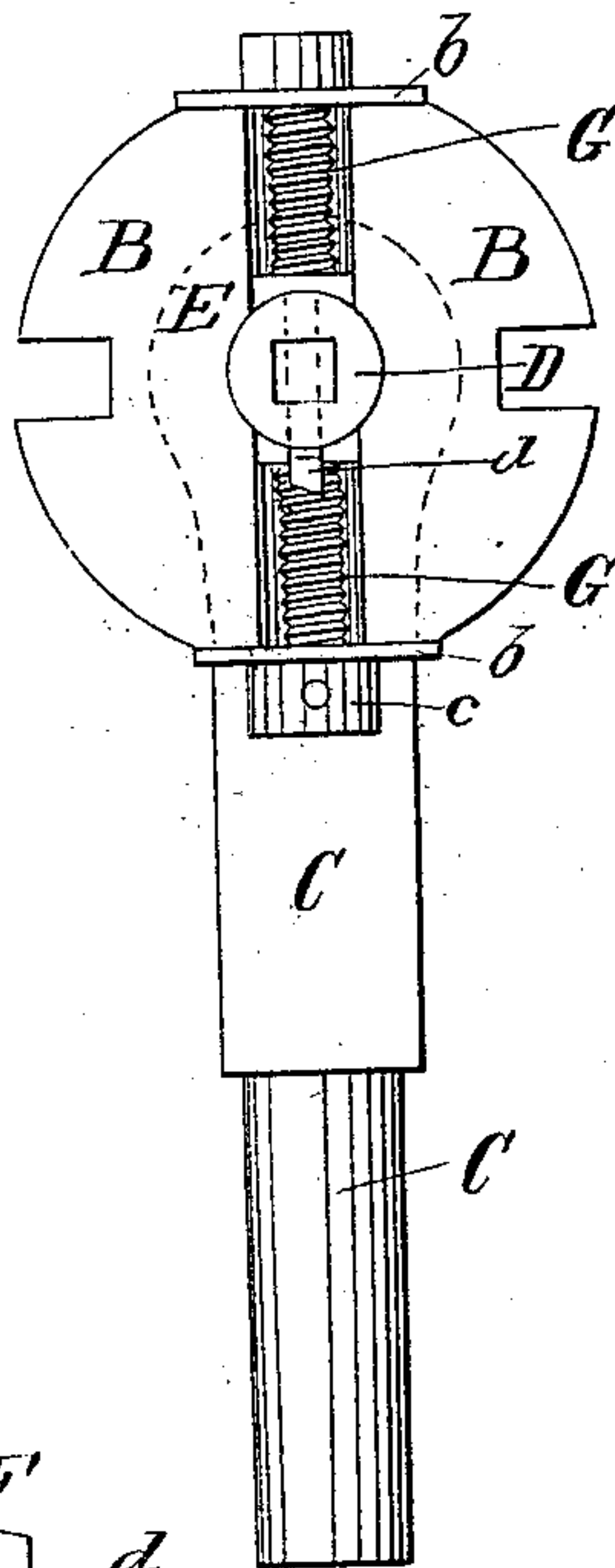


Fig: 3.

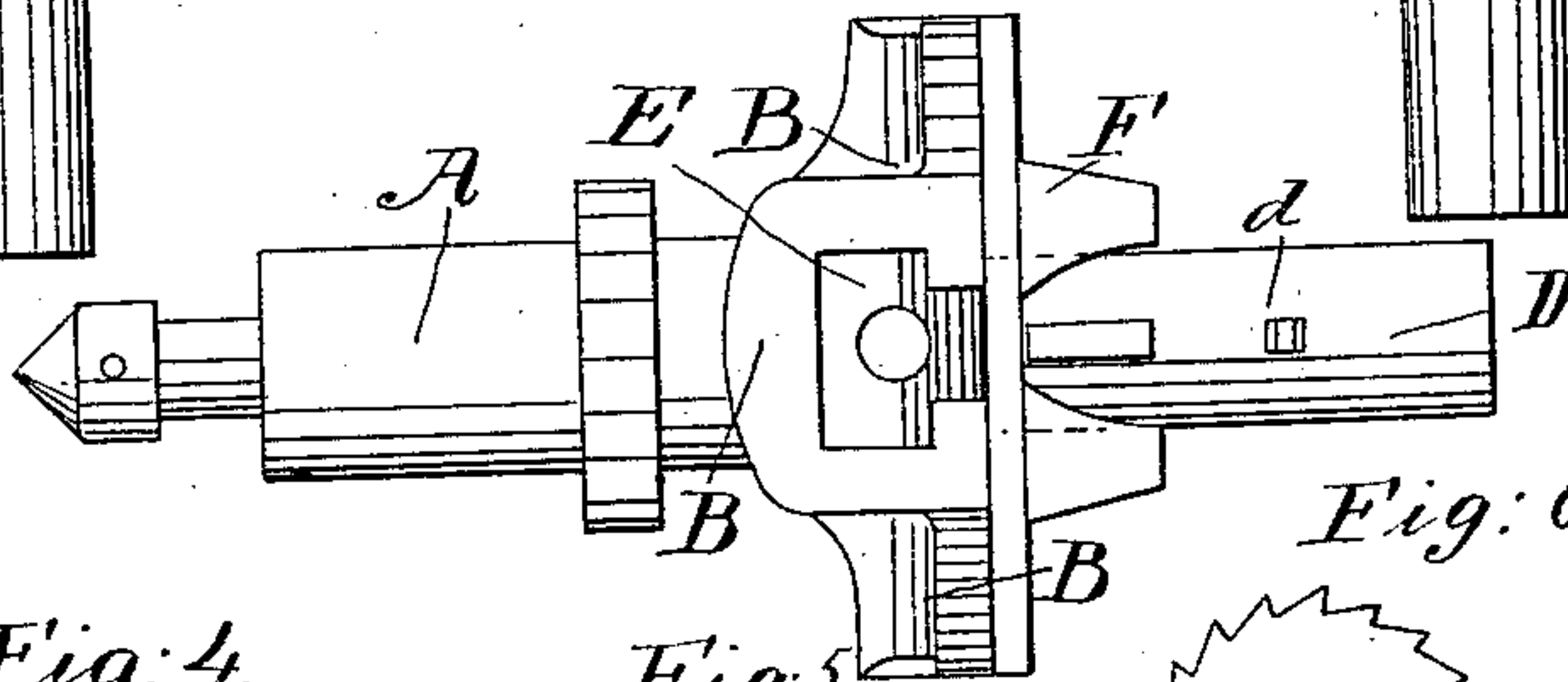


Fig: 4.

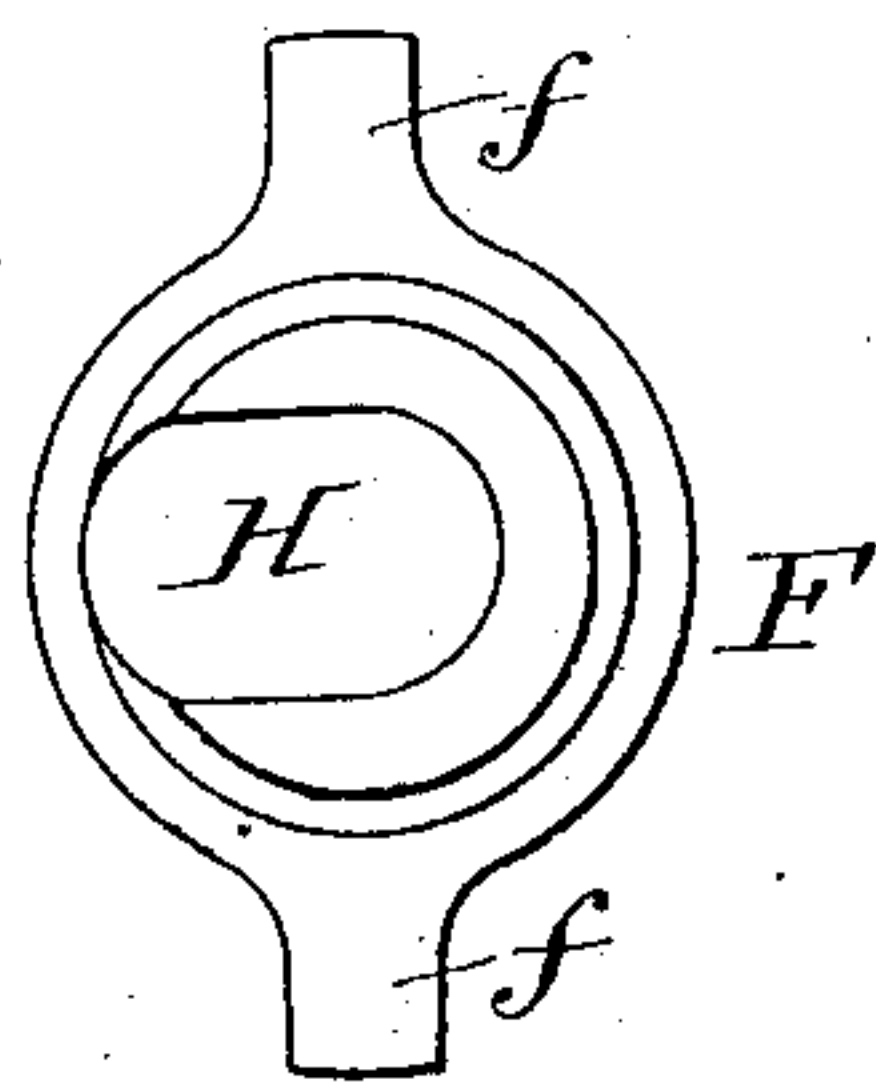


Fig: 5.

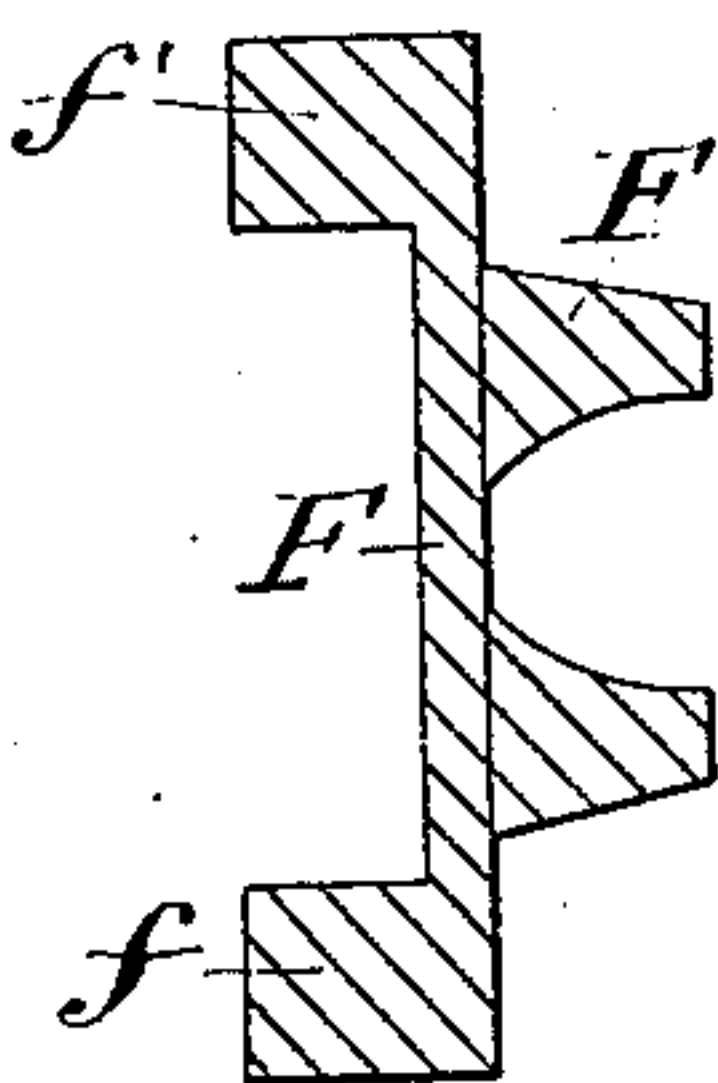
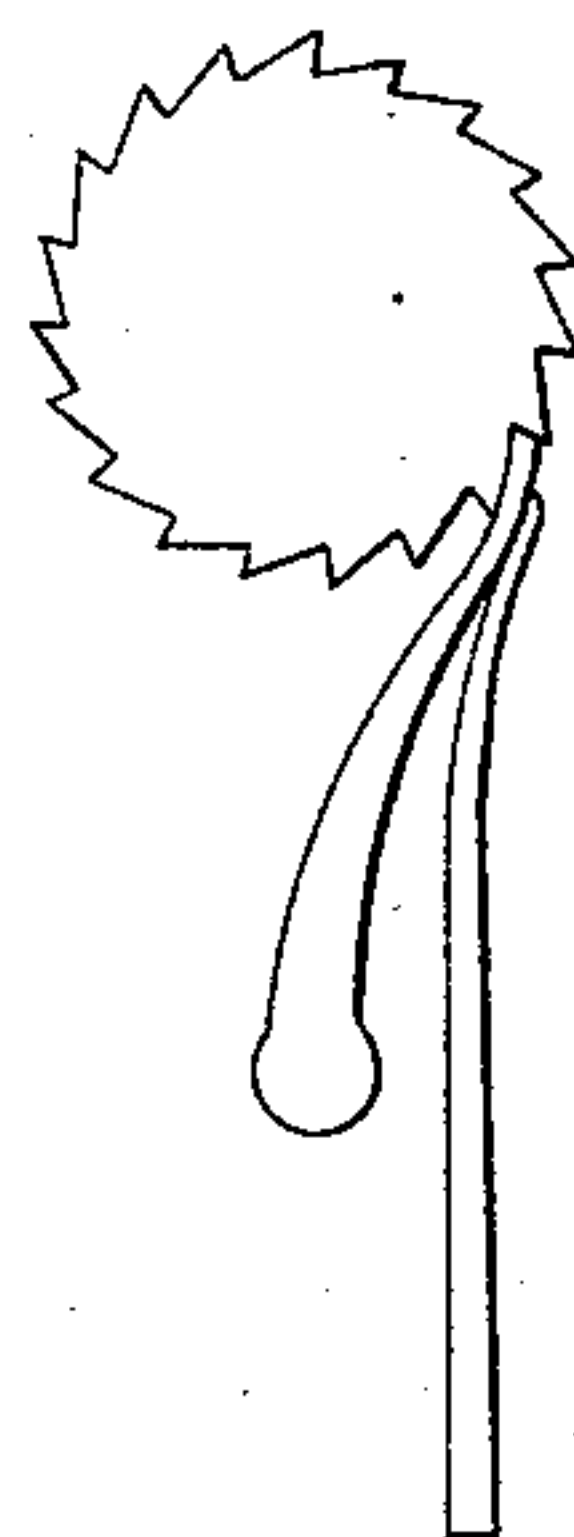


Fig: 6.



Witnesses;
N. E. Maus
J. W. Heerhel.

Inventor;
W. P. Slensby

United States Patent Office.

WILLIAM P. SLENSBY, OF CHICAGO, ILLINOIS.

Letters Patent No. 64,454, dated May 7, 1867.

IMPROVEMENT IN TOOLS FOR CUTTING OFF BOILER-TUBES.

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, WILLIAM P. SLENSBY, of Chicago, in the county of Cook, and State of Illinois, have invented a new and useful improved Tool for Cutting Off Boiler-Tubes; and I do hereby declare and make known that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and the letters and figures marked thereon, which form part of this specification.

My invention consists in a novel device or tool to be used for the purpose of cutting off the ends of defective and leaky boiler-tubes, in order to repair the same, the tool being so constructed as to fit into or enter the tube, and having cutters so arranged as to revolve within the same, working gradually outward until the entire thickness of the tube is cut through, as desired.

To enable those skilled in the art to understand how to construct and use my invention, I will proceed to describe the same with particularity, making reference in so doing to the aforesaid drawings, in which—

Figure 1 represents a side elevation of my invention.

Figure 2, an end view of the same, the collar F being removed.

Figure 3, a top view, with the plate *b* removed.

Figure 4, an end view of the said collar F.

Figure 5, a sectional view of the same; and

Figure 6, a detached view of the ratchet attached to the handle of the tool.

Similar letters of reference in the several figures denote the same parts of my said invention.

A represents a short shaft, having a ratchet-handle, C, attached upon it in such a manner that the movement of the handle in one direction will revolve said shaft, while the handle will turn freely upon the shaft in the opposite direction without revolving the shaft, thus permitting the shaft to be continuously revolved in one direction by a reciprocating or alternating movement of the handle. Upon one end of said shaft is fixed, so as to revolve with it, a block, B, having a circular face, as shown in fig. 2. In said block B there is a vertical groove, as seen in figs. 2 and 3, in which is arranged an adjustable block, marked E, which has a sliding movement in said groove, and has a screw, G, passing through the same, held in position by the plate *b* secured upon each end of said groove, so that by turning said screw the block E is adjusted in said groove as desired. To said block E is attached the shaft or rod D, which is moved with the said block E, and has secured to it a suitable cutting-tool, *d*, as shown. F represents a collar, which is designed to be of the same size as the tube to be cut off, so as to fit into the same, and is attached to the instrument upon the face of the block B by means of the lugs *f*, which enter the corresponding recesses in B, as shown; the shaft D passing through the elongated opening H in said collar, which is shown in fig. 4. By having different sizes of the collar F, the instrument is adapted to boiler-tubes of all sizes, the said collars being readily removed and replaced when desired.

Having described the construction of my invention, I will now describe its operation.

The tool being arranged as seen in fig. 1, and the proper-sized collar being adjusted thereon, the collar is introduced into the tube, fitting closely therein, so that the tool may have a steady bearing in its revolution, which is effected by means of the ratchet-handle C, as aforesaid. The shaft D being arranged at the centre, and the cutter *d* being properly adjusted, the screw G is turned by inserting a small lever in the hole *e*, in one end of said screw, as shown, thus gradually moving the shaft towards one side, the slot H in the collar permitting said motion, and bringing the cutter *d* upon the inner surface of the tube to be cut off. The tool being revolved and the tool adjusted from time to time, as required, the tube is soon cut off as desired. If desired, the collar F may be so constructed as to fit outside of the tube, so as to turn upon the tube instead of within it.

Having described the construction and operation of my invention, I will now specify what I claim, and desire to secure by Letters Patent:

1. I claim the combination and arrangement of the revolving head-block B, the adjustable cutter-holder D, and the slotted collar F, operating as and for the purposes set forth and shown.
2. I claim, in combination with the above, the shaft A, and ratchet-handle C, operating as specified and for the purposes described.

W. P. SLENSBY.

Witnesses:

W. E. MARRS,

J. W. HERTHEL.