(No Model.)

J. ELLIS.

COMBINED VISE, PIPE TONGS, AND CUTTER.

No. 481,168.

Patented Aug. 23, 1892.

Fig.1.

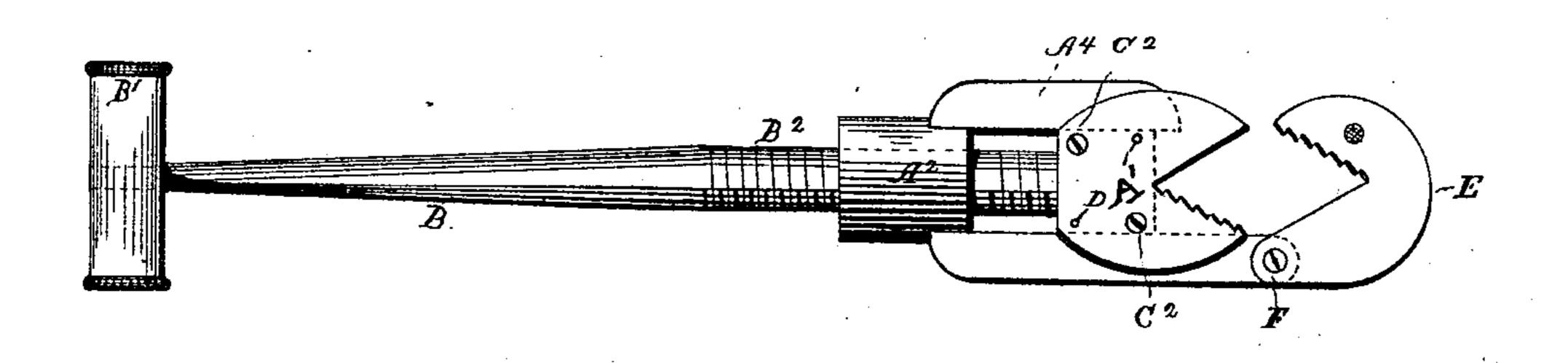


Fig. 2:

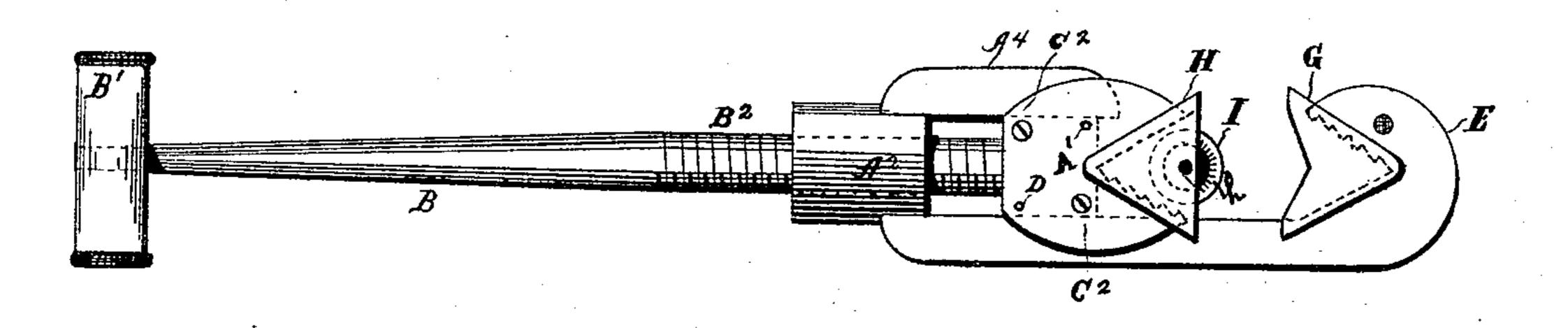


Fig.3;

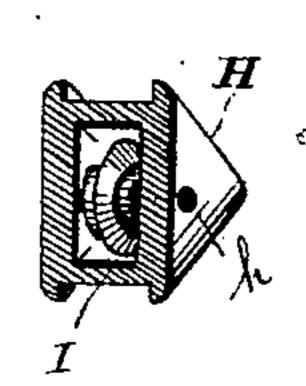
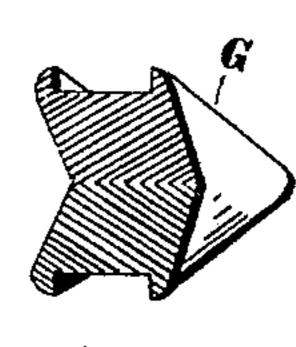


Fig4:



Witnesses. F. S. Holler, James Bummsville

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UNITED STATES PATENT OFFICE.

JOHN ELLIS, OF STOCKTON, CALIFORNIA.

SPECIFICATION forming part of Letters Patent No. 481,168, dated August 23, 1892.

Application filed December 11, 1891. Serial No. 414,771. (No model.)

To all whom it may concern:

Be it known that I, JOHN ELLIS, a citizen of the United States, residing at Stockton, in the county of San Joaquin and State of California, 5 have invented certain new and useful Improvements in a Combined Vise, Pipe-Tongs, and Cutter; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in 10 the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention is substantially an improvement on my Letters Patent No. 441,145, dated November 25, 1890, and relates to a combination of pipe-tools for the purposes of connecting pipes together and also of cutting the 20 same into proper lengths. It consists in the combination, with a handle, curved jaw, and sliding clutches, of a detachable cutting apparatus, and of such other parts as will be hereinafter described, and pointed out in the

25 claims.

My invention is illustrated in the annexed

drawings, in which—

Figure 1 is a side elevation without the cutter attachment and showing the flexible hook 30 of the curved jaw. Fig. 2 is a view of the same with the stiff curved jaw and the cutter attachment. Fig. 3 is a detached view of one of the cutter-blocks. Fig. 4 is a detached view of the concave holding-block of the cut-35 ter attachment.

B is a round handle, with a head B' at one end and with a threaded stem B² at the other end, which engages with a round and threaded nut A^2 .

A4 is a guide-bar, attached to the nut A2,

parallel and opposite to the foot of a curved jaw E, having an inner serrated face likewise attached at its foot to the round nut A². The curved jaw E may have a rigid head, as shown in Fig. 2, or a flexible head, as shown 45 in Fig. 1, in which latter case the head is flexibly secured to the foot by a screw F.

A' is a sliding clutch adapted to fit upon the neck of the handle B, and to which and to each other they are suitably secured. 50 The lower face of the clutch is serrated by turning the head B' and the handle B. The sliding clutch A' is moved back and forth easily, so as to facilitate grasping various sizes of pipe, and also to admit of the cutting de- 55 vice, which consists of a concave block G inserted in the inner face of the curved jaw E and of an opposite block H, which is inserted in the jaw of the clutch A', and is supplied with a revolving cutter I turning upon a pin h. 60

It will be seen that my invention consists of a vise, pipe-tongs, pipe-cutter, and of a tightener.

Having thus described my invention, what I claim is—

A combined vise, pipe-tongs, and cutter consisting, essentially, of the threaded handle B, the threaded nut A², the serrated curved jaw E, the guide-bar A4, secured to the nut A², the sliding clutch A', the convex block G, 70 and the block H, supplied with the revolving cutter I, and with the pin h, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN ELLIS.

Witnesses:

JOSHUA B. WEBSTER, JAMES T. SUMMERVILLE.