

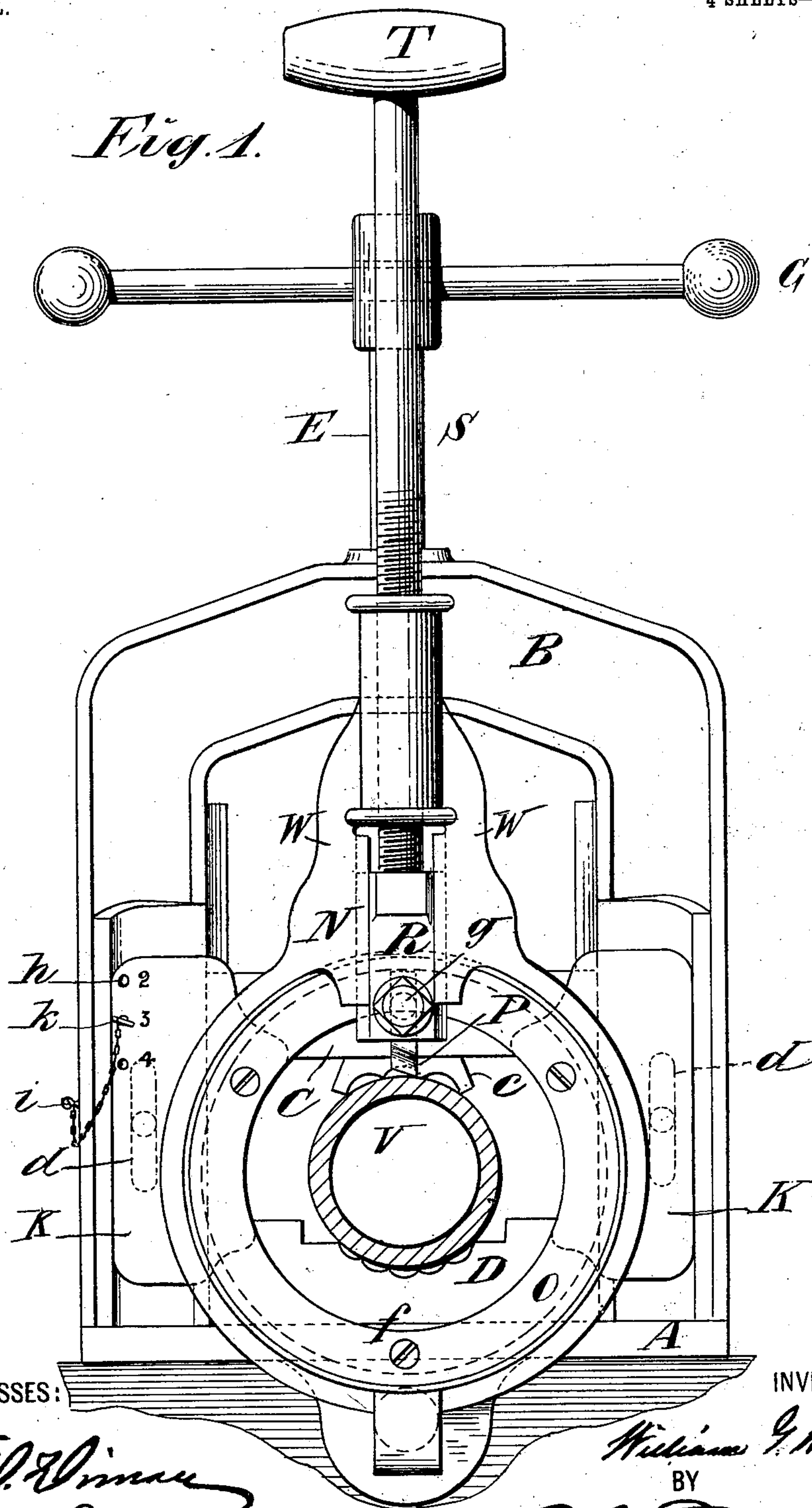
No. 731,257.

PATENTED JUNE 16, 1903.

W. G. WILSON.  
PIPE CUTTER AND VISE.  
APPLICATION FILED NOV. 1, 1902.

NO MODEL.

4 SHEETS—SHEET 1.



WITNESSES:

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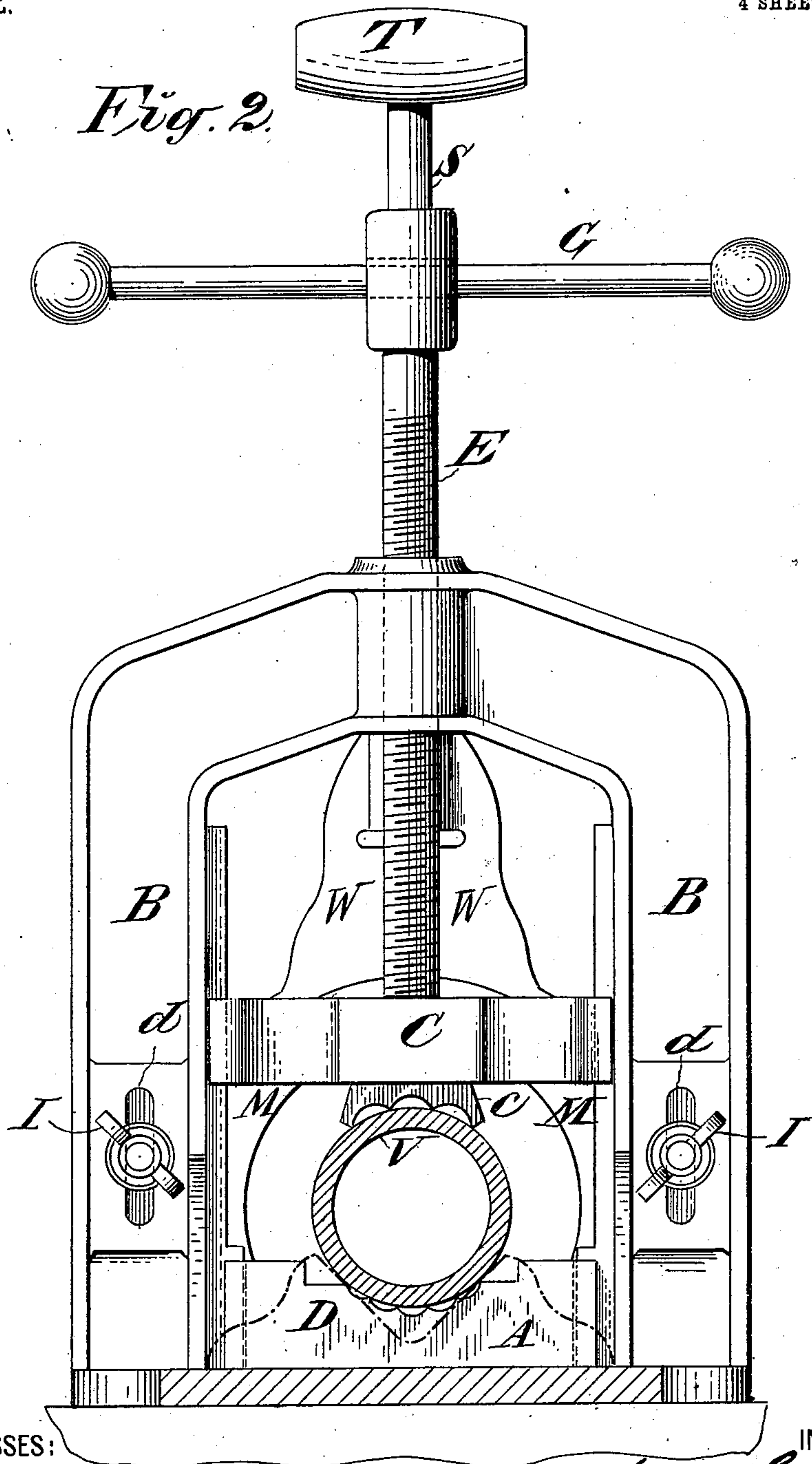
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4 SHEETS—SHEET 2.



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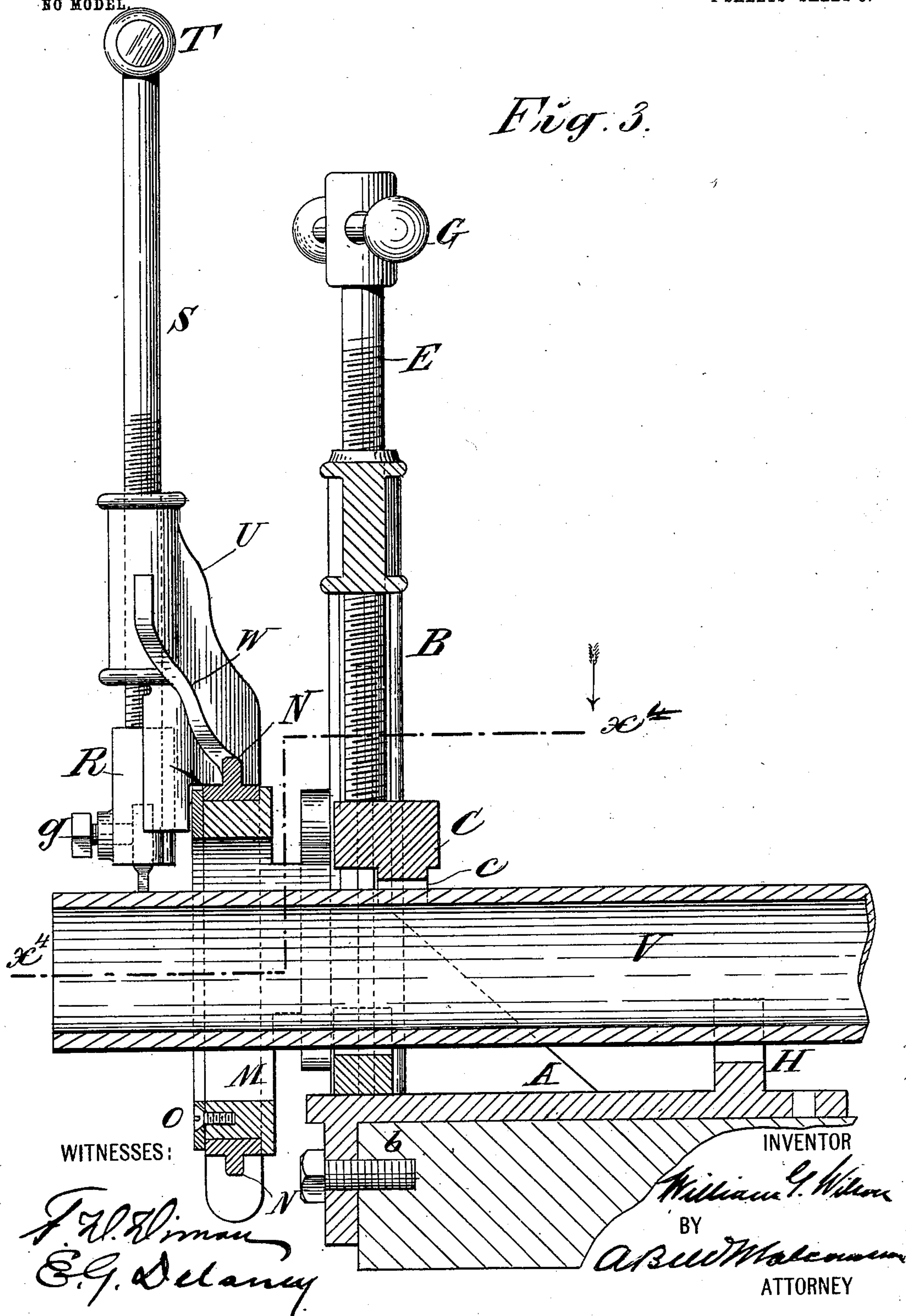
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4 SHEETS—SHEET 3.

*Fig. 3.*





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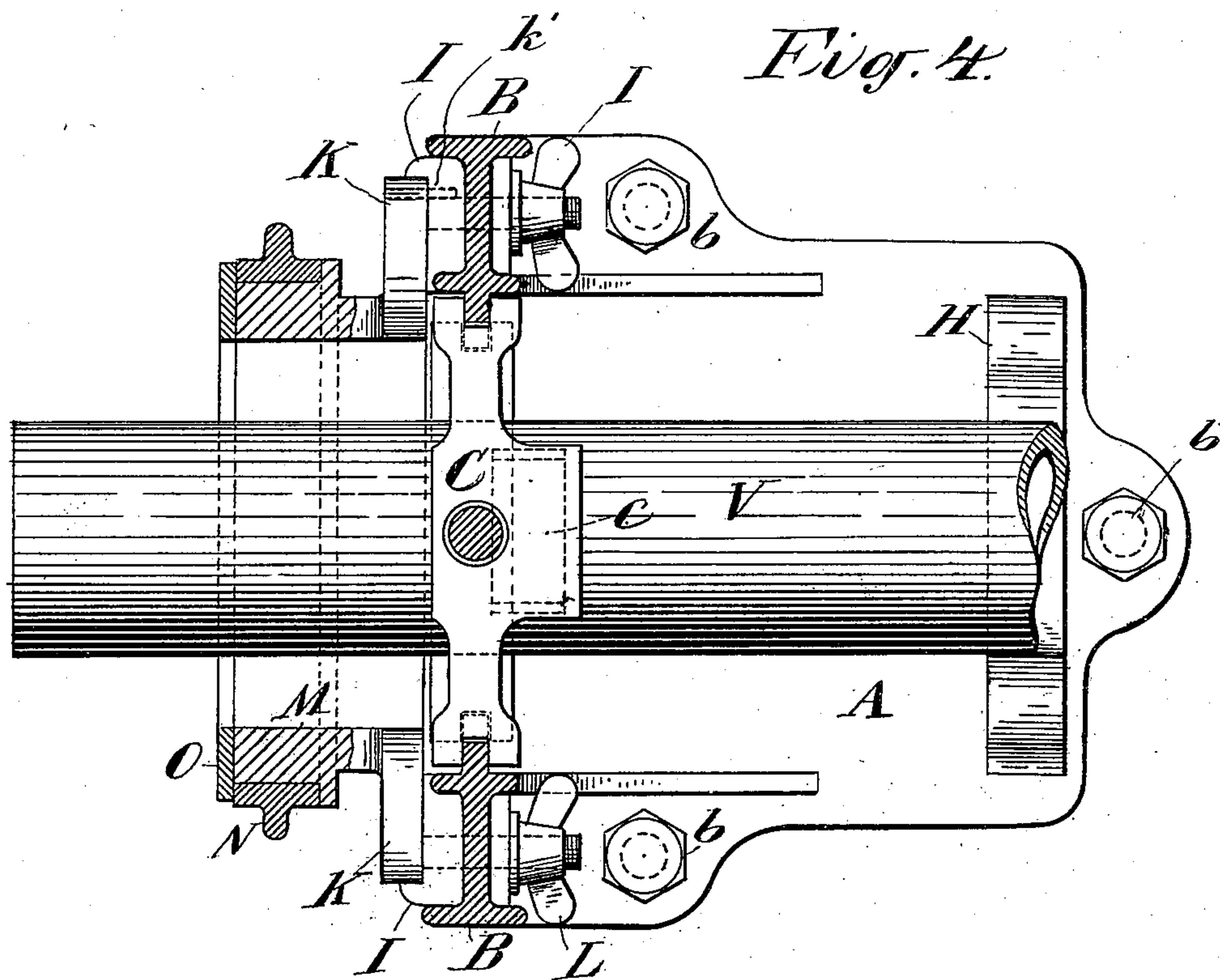
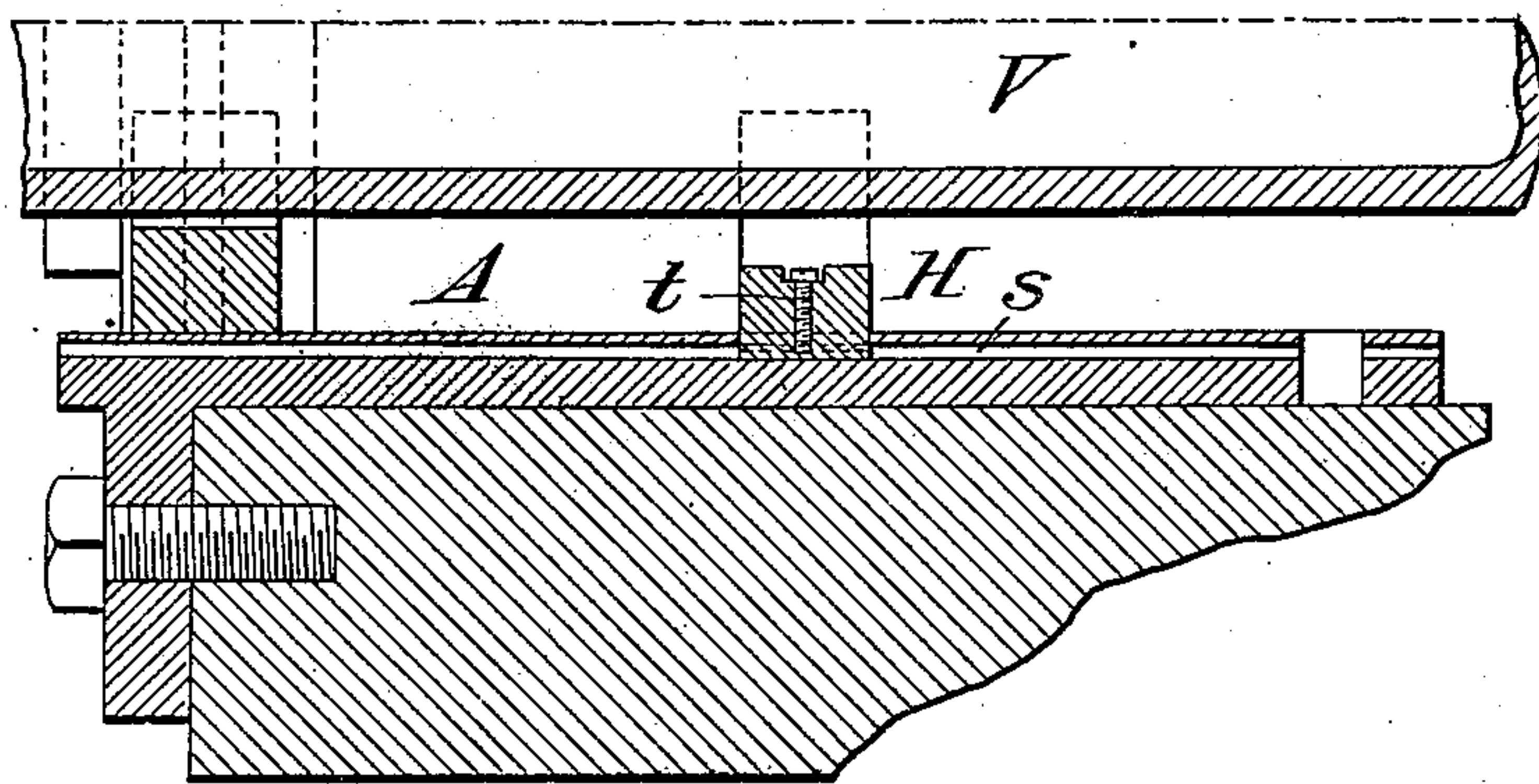


Fig. 5.



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## UNITED STATES PATENT OFFICE.

WILLIAM G. WILSON, OF BAYONNE, NEW JERSEY.

## PIPE CUTTER AND VISE.

SPECIFICATION forming part of Letters Patent No. 731,257, dated June 16, 1903.

Application filed November 1, 1902. Serial No. 129,784. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM G. WILSON, of Bayonne, in the county of Hudson and State of New Jersey, have invented a new and useful Pipe Cutter and Vise, not heretofore known or used, of which the following is a full and clear description, reference being had to the accompanying drawings.

My invention comprises a device for holding pipe of different sizes together, with means for operating a cutter concentrically about the axis of the pipe, and embodies the construction, form, and arrangement of the different parts of which the device consists. These different parts and their arrangement and purposes will be more fully described hereinafter.

The object of my invention is to provide a hand-power machine by means of which pipe of different sizes may be firmly held and readily cut into different lengths. It is particularly adapted for use in cutting cast-iron pipe.

In the drawings, Figure 1 is a front view with pipe gripped. Fig. 2 is a rear view. Fig. 3 is a vertical mid-section in axis of gripped pipe. Fig. 4 is a sectional view substantially on the line  $x^4$  in Fig. 3. Fig. 5 is a detached view showing one manner of adjusting the support H on the base.

Referring to the drawings, A is a base-plate, adapted to be secured to a table or other support by bolts  $b$ .

B is a frame secured on the base A, between the two uprights of which slides the upper jaw C of a vise. At the bottom of the frame and resting on the base-plate is the lower jaw D of the vise. The upper jaw C is secured to the lower end of screw-bar F, which is threaded and travels in the frame B when turned by the sliding bar G, similar to the usual construction and operation of a press or vise. On the base-plate A at the end opposite the lower jaw D is a rest H, which is of the same height as the jaw D. The upper jaw C is provided with a grip  $c$ , which does not come directly over the lower jaw D, but is offset, so as to come between that and the support H, in order that when a pipe is gripped between the two jaws it will be held at three points along its length.

On each of the two uprights of the frame

B, I form face-plates I I, adapted to receive wings K K, which form a part of the cutting-tool carrier hereinafter described. The uprights of the frame and the face-plates are slotted at  $d$ .

L L are thumb-screws which pass through the slots and take into the wings K K to hold them against the face-plates. Secured to the wings K K and preferably cast in one piece with them is a circular trackway or ring-like bearing M, adapted to receive a cutting-tool carrier N. The carrier N is held in place in the circular trackway by the plate O, which is secured to the rim of the bearing M by screws  $f$ .

P is a cutting-tool socketed in a tool-holder R and held in position therein by a set-screw  $g$ . The cutting-tool holder R slides in ways provided in the tool-carrier and is adapted to be adjusted to and fro by a threaded rod S, turned by a handle T.

V indicates a piece of pipe in position to be cut.

It will be seen that the pipe V rests at one point on the lower jaw of the vise and at another point on the support H. These two points on which the pipe rests should be adjusted so that the pipe will be level and true and having its horizontal axis at right angles with the line on which the cutter P will travel when operated by the handle T and rod S.

The support H is located on the base-plate and may be at any desired distance from the lower jaw D. If desired, it can be provided with means for adjustment to and from D, so that the distance will be varied to suit the length of the piece of pipe being cut. In Fig. 5 one mode of such adjustment is shown. A slot  $s$  is made in the base-plate, and the support H is provided on its under side with a corresponding formation which is passed through said slot and made to slide therein, a set-screw  $t$  being passed through the support H to steady it in position.

In one of the wings K are a series of holes  $h$ , through which a pin  $k$  when passed will enter a hole  $k'$  in the face-plate I at points where the two holes are even. The holes  $h$  are arranged at points which will set the cutter for cutting pipes of different sizes when the pin is passed through them and into the hole  $k'$ . The tool-carrier N rides free in the



circular trackway M and moves concentrically about the axis of the pipe in the operation of cutting, the operator grasping the handle T to exert the power necessary to do the work and turning the rod S to feed forward the cutter. The rod S should be sufficiently strong to act as a lever when the power necessary to cut is applied to it. In order to strengthen this part of the cutting device, the tool-carrier is braced by an excess of metal or flange W on each side of the tool-holder and also has a flange v at the rear to stiffen the parts.

The drawings, Fig. 3, show the preferred arrangement of the tool-holder with respect to the plane of the carrying-rest. To provide convenient access to the cutting-tool, the holder is set out of said plane.

I do not wish to limit myself to the exact construction or form of the different parts of my cutter, as these may be varied and the effectiveness of the device still retained.

The use of the pin k is to conveniently hold the circular track of the cutter in position at points proper for different-sized pipe until the thumb-screws L are turned to hold it there during the operation of cutting. The essential feature of the device is the adjustment of the cutter so that it will cut different sizes of pipe with a cutter which moves concentrically about the axis of the pipe whatever its diameter may be.

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

1. A pipe-cutter having a tool-carrier traveling in a circular trackway, and a stationary holder to grip the pipe to be cut with means for adjusting the tool-carrier and trackway with respect to the holder so that the carrier will be concentric with different-sized pipes in the holder, substantially as shown and described.

2. In a pipe-cutting device of the construction shown a jaw D and rest H to engage the pipe at one side and a jaw C to engage the pipe at the opposite side, and means for adjusting the rest H to and from the jaw D substantially as set forth.

3. In a pipe-cutting device such as shown the tool-carrier N riding in a circular trackway M provided with wings K, K, and means for securing the same to the pipe-holder substantially as shown and described.

4. In a pipe-cutter of the character shown the tool-carrier N riding in a circular trackway M, said trackway being provided with means for securing it to the frame B and adjusting its position thereon substantially as shown and described.

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Witnesses:

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