

(No Model.)

J. G. LIND.

COMBINED WRENCH AND GAS PIPE TONGS.

No. 459,377.

Patented Sept. 8, 1891.

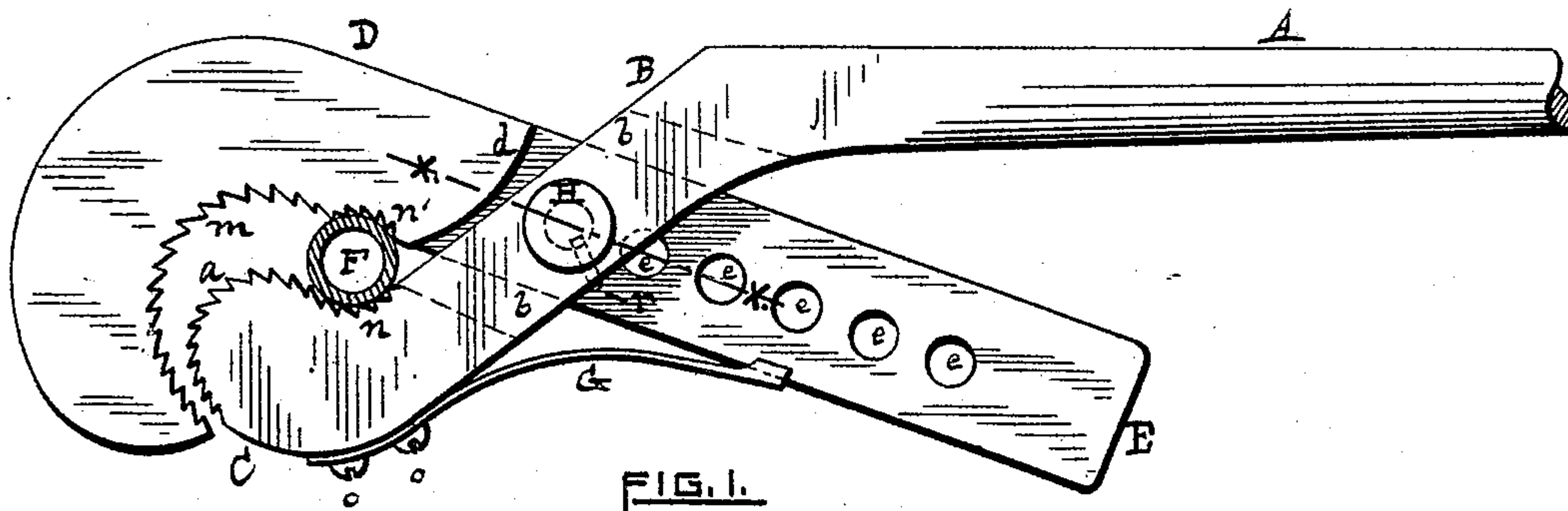


FIG. 1.

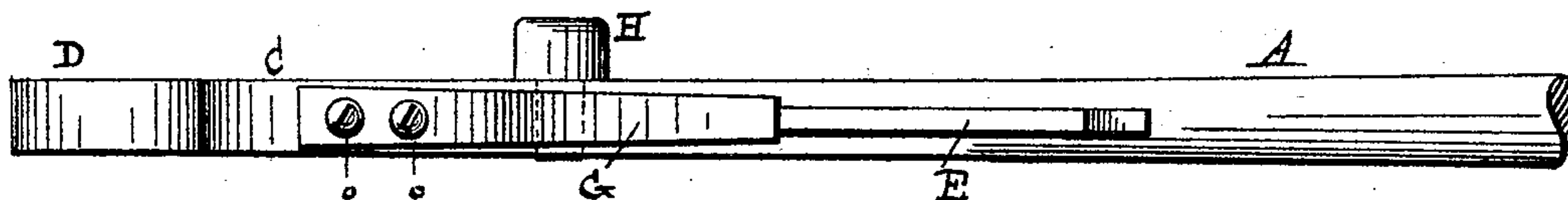


FIG. 2.

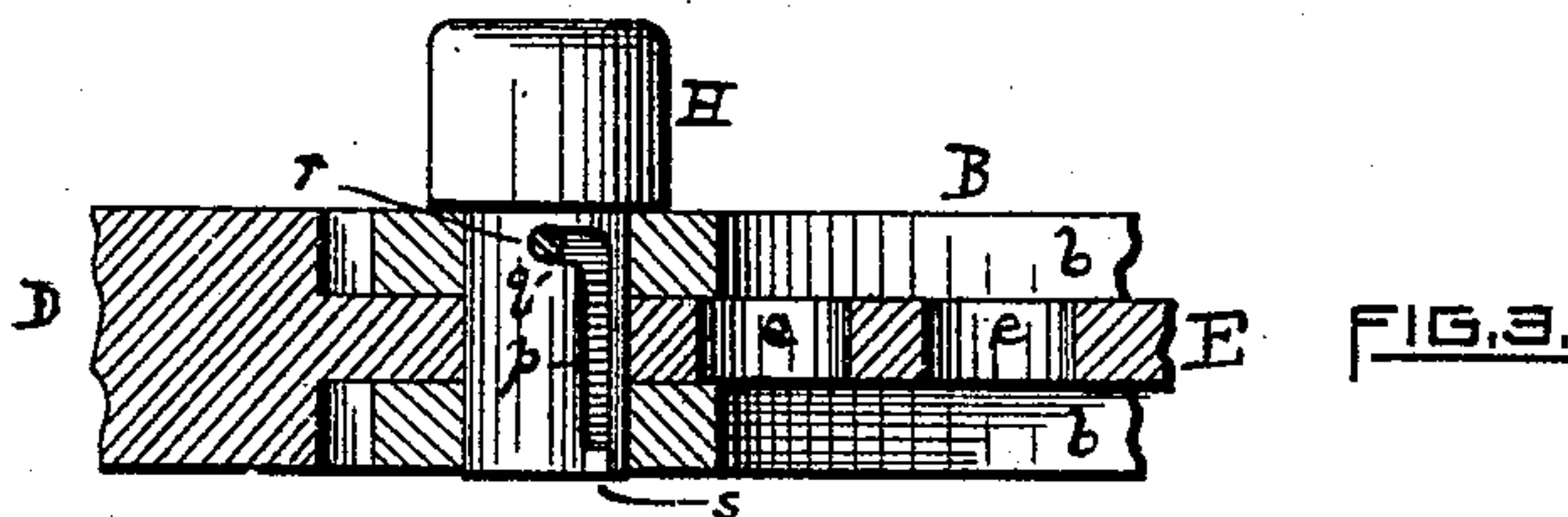


FIG. 3.

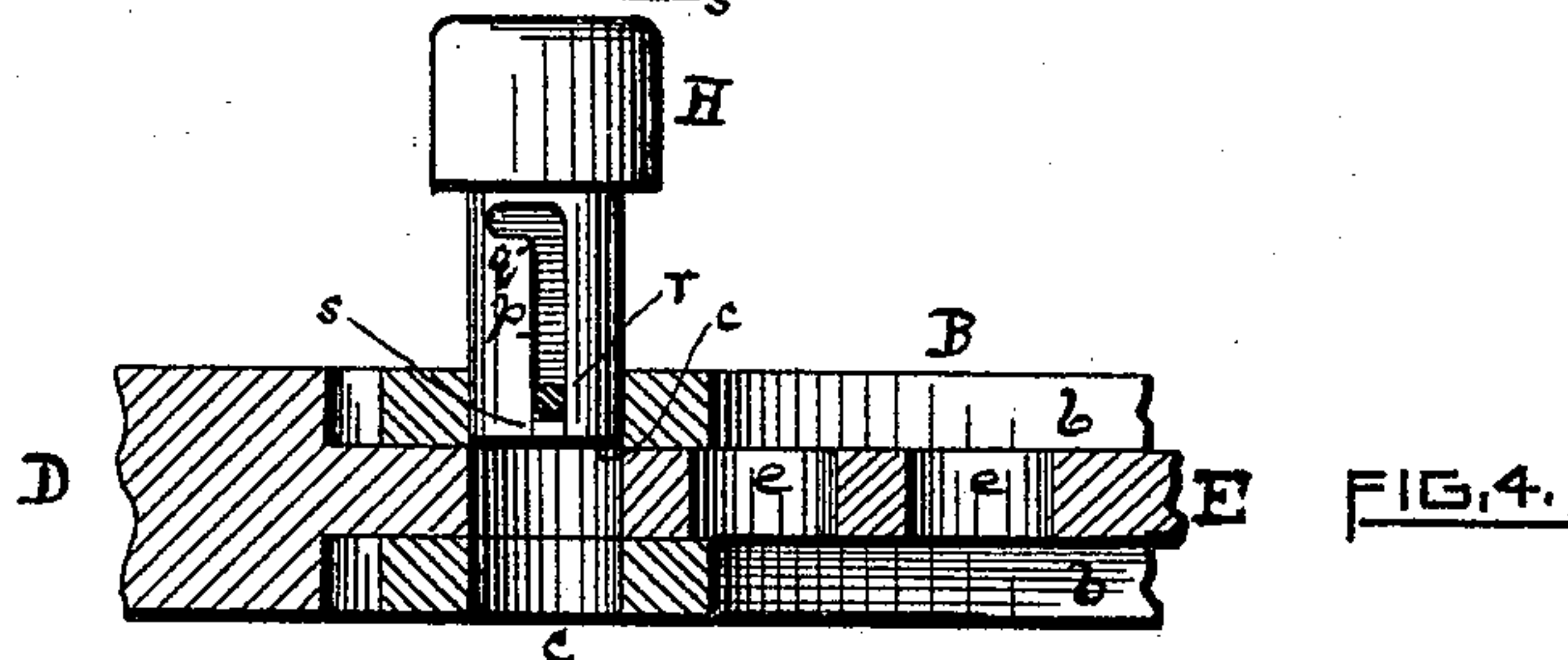


FIG. 4.

WITNESSES.

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COMBINED WRENCH AND GAS-PIPE TONGS.

SPECIFICATION forming part of Letters Patent No. 459,377, dated September 8, 1891.

Application filed April 13, 1891. Serial No. 388,766. (No model.)

To all whom it may concern:

Be it known that I, JAMES G. LIND, of the city and county of Providence, in the State of Rhode Island, have invented a certain new and
5 useful Improvement in Combined Wrenches and Tongs; and I declare the following to be a specification thereof, reference being had to the accompanying drawings.

Like letters indicate like parts.

10 Figure 1 is a front elevation of my invention. Fig. 2 is a side elevation of the same. Figs. 3 and 4 are enlarged sectional views on line $x x$ of Fig. 1, the former showing the hinge-pin passing through the two jaws of the
15 wrench and locked in position and the latter showing the hinge-pin withdrawn from the adjustable jaw.

My invention is an implement which is adapted for use both as a wrench and as tongs
20 for gas-pipes.

It consists of a handle having a mortise and a hole for the insertion of a hinge-pin and terminating in a jaw whose inner edge is convex and provided with teeth, in combination
25 with an adjustable jaw having a shorter handle which passes through the mortise of the larger handle and which has a series of holes, each adapted to receive the hinge-pin and terminating with a curved jaw provided with
30 teeth on its concave edge, and which is extended beyond and around the serrated portion of the first-mentioned jaw, and a locking-pin of peculiar construction to hinge the two parts of the wrench together, as hereinafter
35 specified.

In the drawings, A represents the long handle of the implement. It has a bent portion B and terminates in a rounded jaw C, which is made with serrations or teeth a on its edge,
40 as seen in Fig. 1. Through the portion B there is a mortise, (indicated at b by dotted lines in Fig. 1 and in elevation in Figs. 3 and 4.) A pivot-hole is made through each side of this mortise above and below, as seen at c in
45 Fig. 4, for the reception of the hinge-pin H. The adjustable jaw D has a handle or extension E of a thickness to allow its passage through the mortise b , leaving a shoulder d on each side, so that the jaws C D are of equal
50 thickness. In the handle E is a series of pivot-holes e , equal in diameter to the holes c in the

bent portion B of the handle A. The jaw D is curved so as to extend beyond and partially around the jaw C, as shown in Fig. 1, and its inner edge, which is concave, is furnished with
55 notches or teeth m . At nn' the jaws C D are hollowed out in a form adapted to seize a gas-burner or gas-pipe, as seen at F. A spring G, fastened by screws o to the outer edge of the jaw C, has its free end bear against the outer
60 edge of the extension E of the adjustable jaw D. It serves to normally press the jaws C D together. The hinge-pin H has a head, which may be knurled, and a cylindrical shank. A longitudinal slot p is made in the shank on
65 one side, which slot near the head is extended at a right angle for a short distance, as seen at q . A locking-pin r (seen in Fig. 1) extends through the bent portion B of the handle A at one side and projects slightly into the hole
70 c , which receives the hinge-pin. The hinge-pin is passed vertically through the holes c of the bent portion B and through some one of the holes in the handle E in such a way as to receive the inner projecting point of the
75 pin r in the pin-slot p , and when the hinge-pin H is inserted as far as its head will allow it is turned so that the pin r enters the slot q , as illustrated in Fig. 3. A stop-pin s is then driven into the pin H at the bottom of the
80 slot p , so as to lie flush with the outer surface of the shank, and closes the slot to prevent the withdrawal of the hinge-pin from the upper part of the bent portion B, as seen in Fig.
4. When the hinge-pin H is in the position
85 shown in Fig. 4, it is apparent that the adjustable jaw D is free from engagement therewith and may either be removed entirely or changed in position, so as to bring any one of the series of holes e into line with the holes c .
90 The hinge-pin is then passed through said holes and locked in position, as seen in Fig. 3. In this manner the hinge-pin is easily movable out of the adjustable piece, but cannot be separated from the other part of the
95 wrench. By thus changing the fulcrum from one of the holes e to another the leverage of the jaw D is adjusted, as may be desired, and the distance to which the jaws C D may be spread apart is increased or diminished. This
100 adjustment enables the implement to seize and hold a small wire or pin or any tube or

rod from that size up to several inches in diameter, as the case may be, and to hold the object seized with a firm grip.

When the implement is used as gas-pipe tongs, the hinge-pin is set, as seen in Fig. 1, and both handles A E may be grasped by the hand. When the implement is used as a wrench, the spring G automatically forces the jaw D against the object which is between the jaws and the handle A is used as a lever in the usual manner to turn the tube or pipe so seized.

I claim as a novel and useful invention and desire to secure by Letters Patent—

1. The combination of the handle A, having the mortise *b* and pivot-holes *c* and terminating in the jaw C, having teeth *a*, the adjustable jaw D, having teeth *m*, the handle E, with a series of pivot-holes *e*, and the hinge-pin H, mounted in the handle A, so as to be

inseparable therefrom, but movable longitudinally through said pivot-holes, either to pivotally connect said handles or to allow the withdrawal or longitudinal movement of the handle E in or through the mortise of the handle A, substantially as described.

2. In combination with the handles of a wrench provided with pivot-holes and a locking-pin *r*, the hinge-pin or pivot H, herein described, having in its shank the slots *p q* to receive the locking-pin *r*, and a stop-pin *s* to close the entrance of the slot *p* and adapted to pivotally connect the handles of the wrench or to allow them to be disconnected, substantially as specified.

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Witnesses:

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