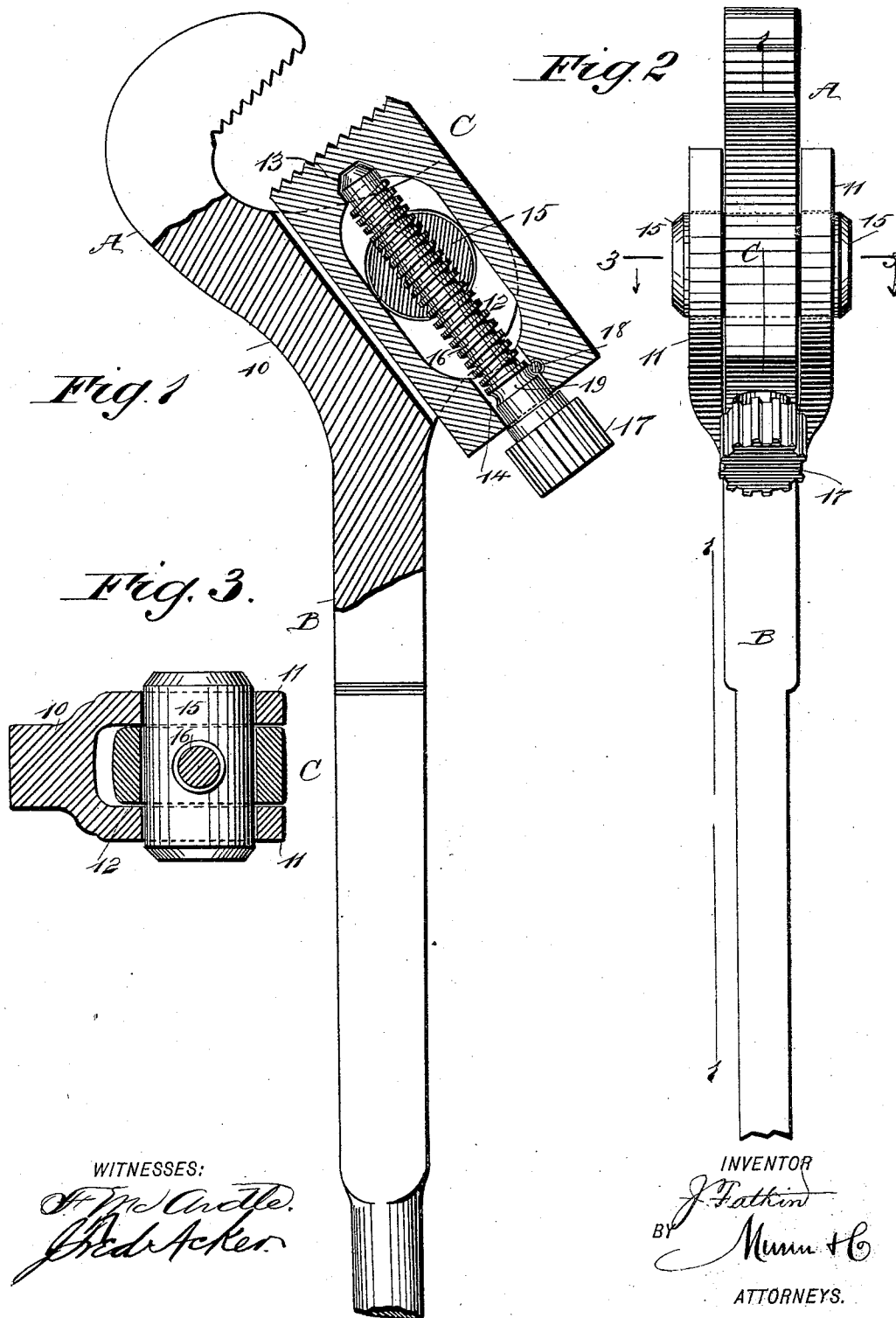


(No Model.)

J. FATKIN.
WRENCH.

No. 530,029.

Patented Nov. 27, 1894.



WITNESSES:

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JAMES FATKIN, OF ASPEN, COLORADO.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 530,029, dated November 27, 1894.

Application filed April 11, 1894. Serial No. 507,153. (No model.)

To all whom it may concern:

Be it known that I, JAMES FATKIN, of Aspen, in the county of Pitkin and State of Colorado, have invented a new and useful Improvement in Wrenches, of which the following is a full, clear, and exact description.

My invention relates to an improvement in wrenches, and especially to an improvement in pipe wrenches, and it has for its object to construct such a wrench of exceedingly few parts, capable of being expeditiously and conveniently assembled or separated, and any one part replaced when injured.

Another object of the invention is to construct the wrench in a durable and economic manner, and to provide for the adjustment of one jaw to the other, together with a rocking action of the movable jaw, one motion not interfering in the least with the other.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the improved wrench; its body portion being partially in section, the section being taken on the line 1—1 of Fig. 2. Fig. 2 is a front elevation of the wrench; and Fig. 3 is a horizontal section taken on the line 3—3 of Fig. 2.

A fixed jaw, or outer jaw A is attached to or made integral with a handle B, the shank 10 of the jaw being at an angle to the handle; and upon the inner face of the shank two opposing lugs 11, are formed, the space between the lugs forming a guide or slide-way for the inner or movable jaw C. The said inner or movable jaw normally faces the clamping surface of the fixed jaw, as shown in Fig. 2, the sliding jaw standing at an angle to the handle of the wrench. The sliding jaw C, is of block form, and its upper face is toothed and constitutes the working surface thereof. The said lower jaw is provided with a recess or opening 12 produced longitudinally therein, the said opening being of greater length than width, and the opening at the upper end is made to meet a recess 13, produced in that

wall of the opening, and in the lower wall of the opening an aperture 14 is made, which extends through the lower edge of the jaw. Each of the lugs 11 is provided with an aligning opening receiving a pivot nut 15, the said nut being of cylindrical formation; and it is provided at its center with an opening extending through from side to side, the wall of which opening is threaded, as shown in Fig. 1. The pivot nut passes through the opening 12 in the inner or movable jaw, and the said jaw is free to rock upon the said nut. An adjusting screw 16, is passed loosely through the lower opening 14 in the movable jaw, and through the threaded opening in the nut 15, the inner end of the screw being preferably made to turn loosely in the upper recess 13 of the said movable jaw, as is likewise best shown in Fig. 1. The lower outer end of the adjusting screw is provided with a head 17, milled or otherwise roughened, to facilitate manipulation of the screw, and the screw is held in place in the movable jaw, yet is free to turn, usually by passing a pin 18 through the said jaw from side to side and through a peripheral groove 19 made in the adjusting screw near its head. By thus securing the screw in the movable jaw the pivot nut 15 is likewise held in position in the lugs of the fixed jaw. By manipulating the screw the inner or movable jaw may be carried to or from the fixed jaw the desired distance, and at the same time the movable or inner jaw will have rocking movement to a predetermined extent on its pivot nut.

This wrench is exceedingly simple in its construction and embraces but few parts, which as heretofore stated may be quickly assembled or separated, and any one part may be duplicated when desired. When the jaws of the wrench are properly adjusted to the pipe to be operated upon they will let go of the pipe itself when required, on account of the swinging motion of the slotted block or movable jaw. The strain or thrust is in a direct line with the pivot nut or screw. When the wrench is applied to the largest size of pipe it is made to receive, the slotted block or inner jaw will swing on its pivot so that as the wrench is adjusted to its limit the screw and slotted inner jaw will become shorter with the parts that are under compression.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A wrench, the same comprising a handle, 5 a fixed jaw securely attached to the handle and located at an angle thereto, a slide-way formed upon the inner face of the shank of the fixed jaw, a sliding and slotted block fitting in said slide-way, its upper end comprising 10 ing the inner or movable jaw of the wrench, a pivot nut passed through the slot in the said block and pivoting the same in the slide-way, and an adjusting screw loosely carried by the block and having threaded connection 15 with the pivot nut, as and for the purpose specified.

2. In a wrench, the combination, with a handle, a shank at an angle to the handle, a fixed jaw projecting from the end of the

shank, and apertured lugs formed upon the 20 inner face of the said shank, of a block provided with a longitudinal slot, and having sliding movement between the said lugs, a pivot nut journaled in the lugs and passing 25 through the slot in the block, pivoting the same, the upper end of the block constituting the lower or inner jaw of the wrench, and an adjusting screw held to turn loosely 30 in the block, being capable of manipulation at one end of the block, the said adjusting screw being passed through an aperture in the pivot nut, the wall of which is threaded to receive the thread of the adjusting screw, as and for the purpose specified.

JAMES FATKIN.

Witnesses:

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