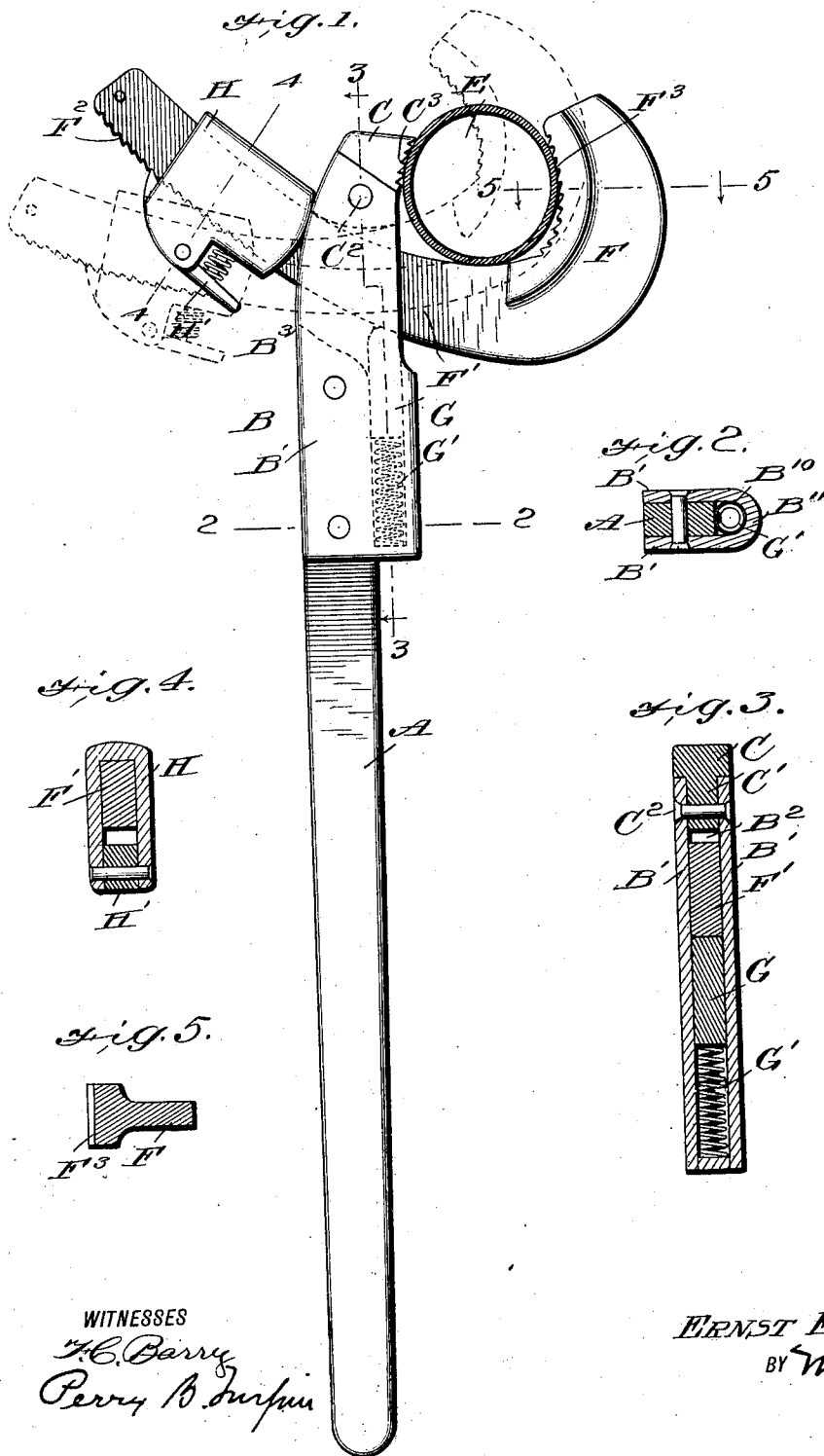


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PIPE WRENCH.

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ERNST ENDERES, OF LITTLEPORT, IOWA.

PIPE-WRENCH.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ERNST ENDERES, a citizen of the United States, and a resident of Littleport, in the county of Clayton and State of Iowa, have made certain new and useful Improvements in Pipe-Wrenches, of which the following is a specification.

This invention is an improvement in pipe wrenches, and consists in certain novel constructions and combinations of parts as will be hereinafter described and claimed.

In the drawing Figure 1 is a side view of a wrench embodying my invention. Fig. 2 is a cross section on about line 2—2 of Fig. 1. Fig. 3 is a cross section on about line 3—3 of Fig. 1. Fig. 4 is a cross section on about line 4—4 of Fig. 1, and Fig. 5 is a cross section on about line 5—5 of Fig. 1.

In the construction shown, the wrench handle A has a head B, which is provided at its extremity with a jaw C preferably secured removably to the end of the head B, and having its face at one side as shown in Fig. 1. In securing the jaw C I form it with a stem C', which is fitted between the side plates B' of the head B, and held in place by the rivet C². The jaw face C³, at one side of the jaw C is shown toothed or serrated to better engage with a pipe, as shown at E. Below the jaw C, the head B is provided with an opening B² between its spaced apart side plates B', and the shank F' of the movable jaw is movable longitudinally in this opening B² and rests at its lower edge against a spring actuated plunger G, whose spring G' presses the said plunger yieldingly against the under edge of the shank F', such edge being preferably curved from end to end as shown. The face B³ of the head B opposite the jaw face C³ is rounded as shown in Fig. 1, to permit a sliding thereon of the adjusting slide H, which is held adjustably upon the shank F' so it can be set to different positions thereon to adapt the wrench for pipes of different sizes. As shown, the slide H embraces the shank F' and is movable thereon and is provided with a spring actuated dog H', which engages the ratchet teeth F² on the under edge of the shank F' of the movable jaw F. This jaw F has a toothed jaw face F³ see Fig. 1, which coöperates with the wrench head in turning a pipe in the oper-

ation of the tool. The spring actuated plunger operates to slidably hold the movable jaw in position and the wrench head fulcrums against the adjusting slide H, so the wrench can be conveniently slipped back upon a pipe for a fresh hold in the operation of the tool.

In forming the head B I bend it from a plate of metal producing the side plates B' which lap on opposite sides of the handle A, and at the juncture of said side plates B' I form between the bend of the head and the handle A the socket B¹⁰, in which the plunger G and its spring G' operate as best shown in Figs. 1 and 2 of the drawing. It will be noticed that the bent portion B¹¹ forming the socket B¹⁰ is cut away at the head end of the tool exposing the outer end of the plunger G and permitting the longitudinal movement of the shank F' of the jaw F between the side plates as will be understood from Fig. 1 of the drawing.

I claim—

1. A pipe wrench substantially as herein described comprising a handle, a head bent from a plate of metal forming side plates lapping on opposite sides of the handle, and a bent portion uniting the said side plates and forming with the handle a socket in the direction of length of the head, an opening being afforded between the said plates above the said socket for the passage of a jaw shank, a jaw carried by the head above the said shank, a movable jaw adapted to oppose that of the head and having a shank movable longitudinally in the opening in the head, and provided near its extremity with ratchet teeth, an adjusting slide on the shank and having a pawl engaging its ratchet teeth, the slide being on the opposite side of the wrench head from the movable jaw, and a spring actuated plunger in the socket of the wrench head and engaging the movable jaw shank, all substantially as and for the purposes set forth.

2. The improvement in wrenches comprising a head having an opening for a jaw shank, a movable jaw having a shank operating in said opening, a slide on the jaw shank on the opposite side of the head from the movable jaw, and a spring actuated plunger engaging below the shank of the movable jaw, substantially as set forth.

3. The combination of a wrench head having a transverse opening, a movable jaw having a shank movable longitudinally in said opening and having said shank provided on the opposite side of the head from the jaw with ratchet teeth, a slide on the jaw shank and having means engaging said teeth, and means carried by the head and pressing against said shank.

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Witnesses:

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