

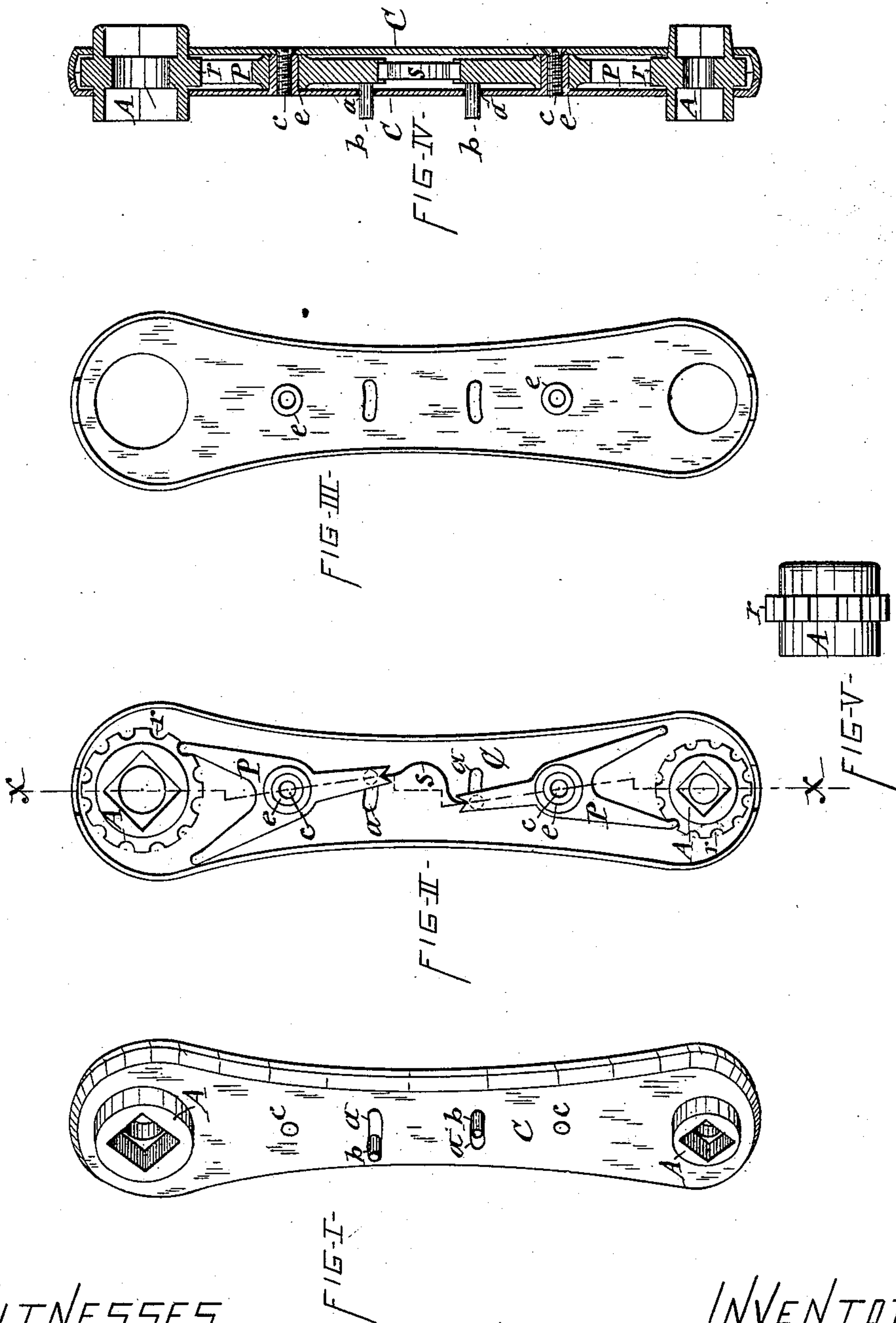
(No Model.)

D. FOLLETT.

WRENCH.

No. 334,010.

Patented Jan. 12, 1886.



WITNESSES

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INVENTOR

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UNITED STATES PATENT OFFICE.

DAVID FOLLETT, OF WEEDSPORT, NEW YORK.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 334,010, dated January 12, 1886.

Application filed September 28, 1885. Serial No. 178,365. (No model.)

To all whom it may concern:

Be it known that I, DAVID FOLLETT, of Weedsport, in the county of Cayuga, in the State of New York, have invented new and
5 useful Improvements in Ratchet-Wrenches, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to the class of wrenches
10 in which the wrench heads or nut-seats are pivoted on opposite ends of a handle, and are provided with circumferential ratchets, with which engage duplex pawls pivoted on the handle. A spring connecting the two pawls
15 serves to maintain them in engagement with the ratchets, and hitherto a lever has been pivoted on said wrench and made to engage the intermediate part of the spring for the purpose of changing the deflection thereof, so as to
20 shift the direction of its action on the pawls, and thus reverse the action of the latter on ratchets of the wrench-heads or nut-seats. The connection of the spring with the pawls was made so rigid that the deflection of the
25 spring carried the heels of the two pawls toward one and the same side of the case or handle, and consequently said pawls were invariably held in such positions in relation to the ratchets that while one pawl operated right
30 handed the other operated left handed.

The object of this invention is to provide a double-ratchet wrench of the class before referred to which shall be adjustable without the employment of an extra lever for shifting the
35 spring, and in which the two pawls shall invariably be held to operate in corresponding direction; and to that end my invention consists in the novel construction and combination of parts, as hereinafter described, and
40 specifically set forth in the claims.

The invention is fully illustrated in the annexed drawings, wherein Figure I is a perspective view of my improved wrench. Fig. II is a plan view of the interior of the same. Fig.
45 III is a view of the interior of that part of the case or handle on which the pawls are pivoted. Fig. IV is a longitudinal section of the complete wrench, taken on line *x x*, Fig. II; and Fig. V is an edge view of one of the
50 wrench-heads detached.

Similar letters of reference indicate corresponding parts.

C represents the handle, in the form of an elongated case, composed of two plates provided with marginal flanges, by which they are
55 fitted to each other. One of said plates or sections of the case is provided with hollow cylindrical studs *ee*, which are integral therewith, and are screw-threaded internally for the reception of the screws *cc*, by which the
60 two sections of the case are united.

A A represent the nut-seats or heads, pivoted on the ends of the case C, and provided with the circumferential ratchets *r*.

pp are the duplex or bifurcated pawls, each
65 of which I provide with an eye, by which I pivot it on one of the studs *e*, thereby obtaining stout, rigid, and durable supports for the pawls, a secure fastening for the screws *cc*, and a substantial support for the central por-
70 tion of the two plates or sections of the case around the attaching-screws. Each of the pawls is formed with a rearward shank or prolonged heel, the extremity of which is provided with a V-shaped notch, for the purpose
75 hereinafter explained.

S denotes the spring for holding the pawls in engagement with the ratchets *r r*, said spring consisting of a flat steel strip, which is
80 of such a length that by placing the two ends thereof in the V-shaped notches of the pawls the central portion of said spring becomes bowed or deflected toward one side of the case C. The flaring V shaped seats for the ends of
85 the spring allow the heels of the pawls to swing toward opposite sides of the case C, and thus cause the two pawls *pp* to stand in corresponding positions in relation to the ratchets
90 *r r*, so that both pawls are set to operate in one and the same direction, whereas in prior wrenches of this class the two pawls were held to be operated in reverse directions. Hence
95 if the operator reversed the wrench end for end he either had to reverse the application of his force or shift the spring S.

In my improved wrench the two ends thereof are adjusted simultaneously and alike. This change of the position of the pawls I effect by means of lugs *bb*, which are rigidly
100 attached to the pawls and protrude through slots *aa* in the case C, said lugs serving as thumb-pieces by which to obtain the requisite hold on the pawls for swinging them in either direction from their central position, thus

dispensing with the extra lever heretofore employed for that purpose.

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

In a duplex ratchet - wrench, the pivoted heads A A, provided with ratchets *r r*, in combination with the case C, provided with two slots, *a a*, the pawls *p p*, provided with
10 lugs *b b*, and V-shaped notches in the heels, and the spring S, bowed at its center and bearing with its ends in the aforesaid V-shaped notches of the pawls, the whole constructed and com-

bined to simultaneously shift the two pawls into corresponding positions in relation to the
ratchets, substantially as described and shown. 15

In testimony whereof I have hereunto signed my name and affixed my seal, in the presence of two attesting witnesses, at Weedsport, in the county of Cayuga, in the State of New
20 York, this 24th day of September, 1885.

DAVID FOLLETT. [L. S.]

Witnesses:

S. W. TREAT,

C. M. HENDERSON.