

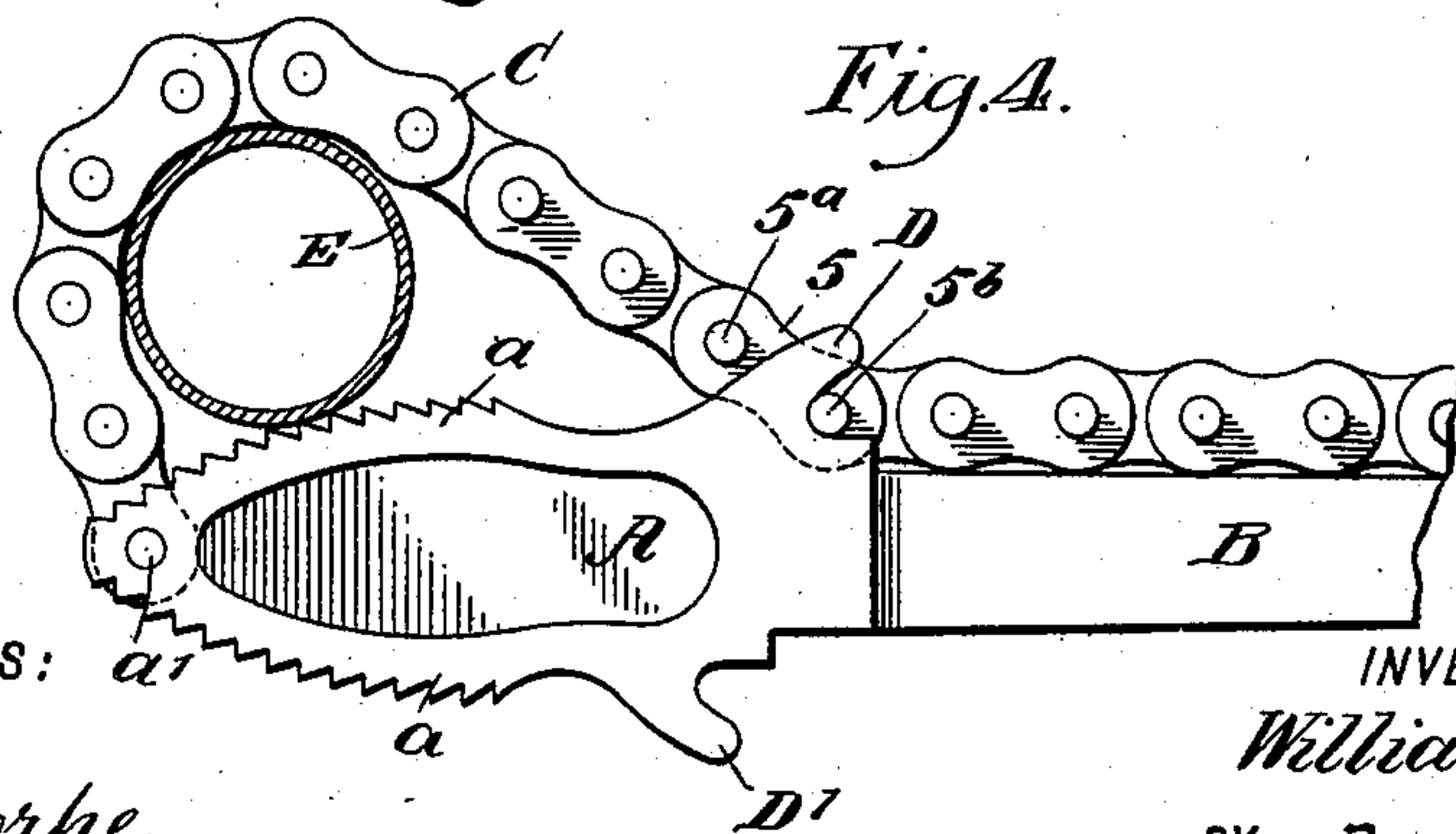
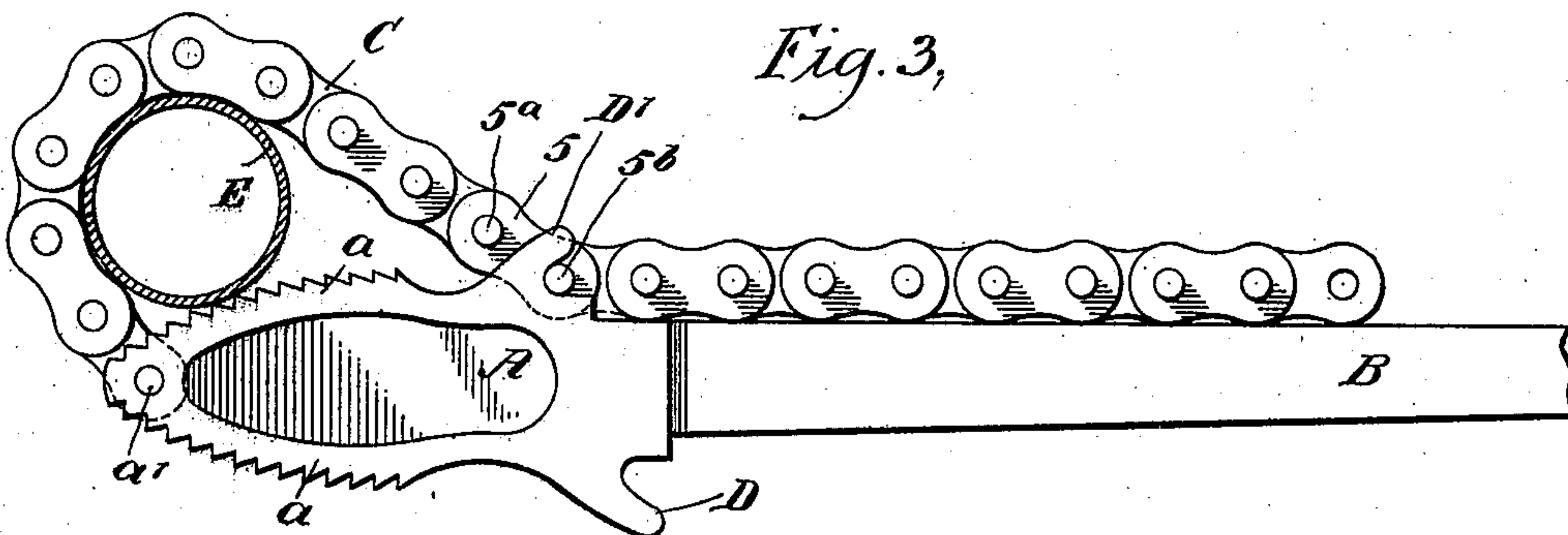
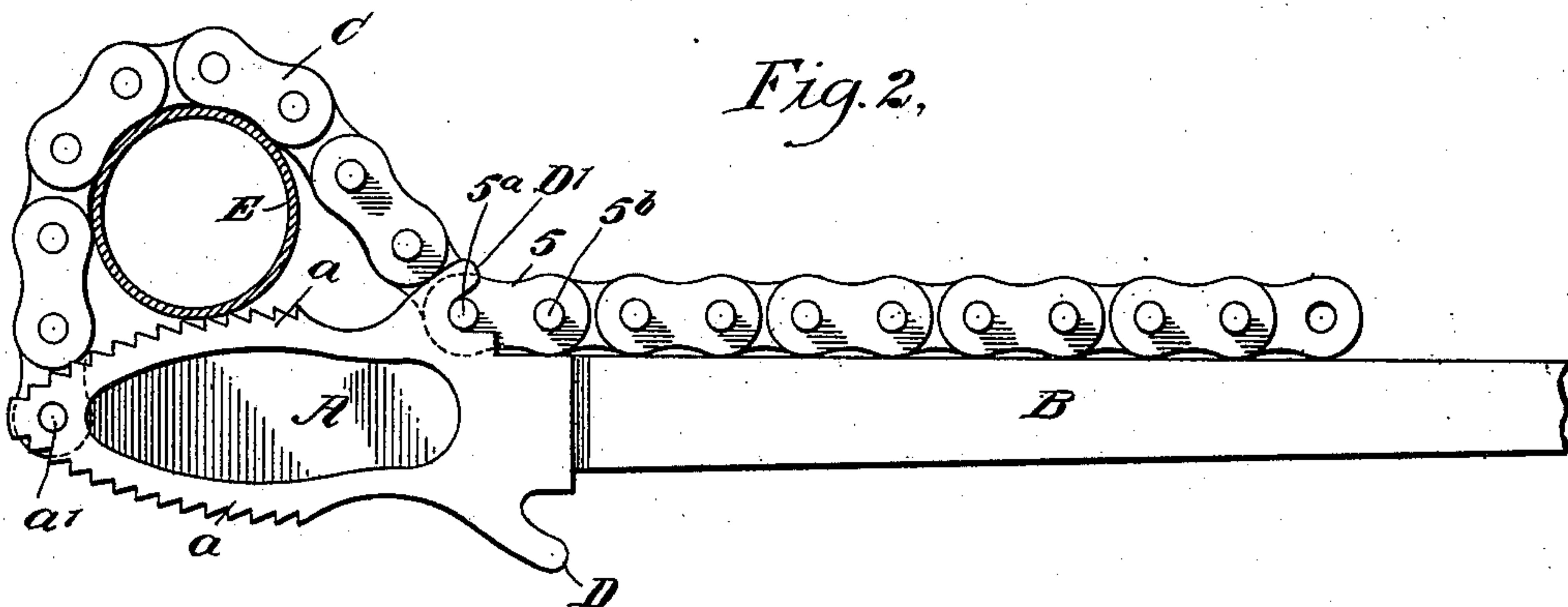
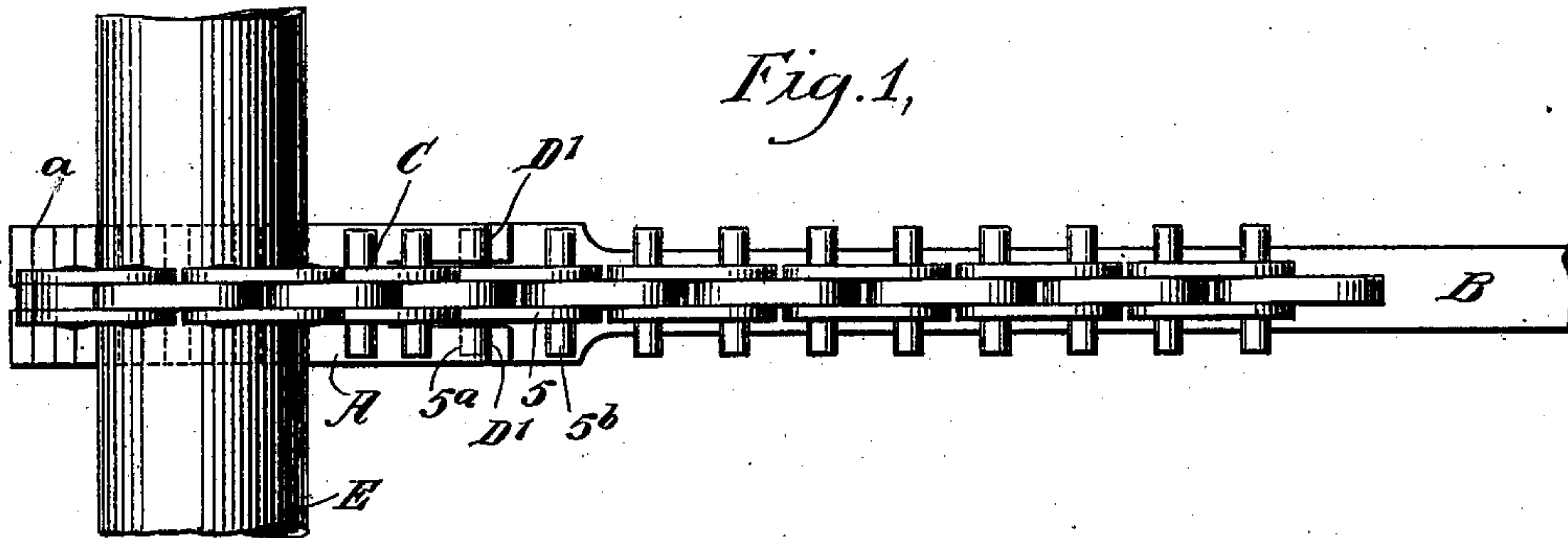
No. 674,194.

Patented May 14, 1901.

W. H. BROCK.
CHAIN WRENCH.

(Application filed Feb. 8, 1901.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM H. BROCK, OF LONG ISLAND CITY, NEW YORK.

CHAIN WRENCH.

SPECIFICATION forming part of Letters Patent No. 674,194, dated May 14, 1901.

Application filed February 8, 1901. Serial No. 46,496. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. BROCK, a citizen of the United States, and a resident of the city of New York, (Long Island City,) borough of Queens, in the county of Queens and State of New York, have invented new and useful Improvements in Chain Wrenches, of which the following is a full, clear, and exact description.

10 With chain wrenches of the ordinary construction it is not always possible to obtain a proper grip on a pipe, owing to the infinite variety in the diameters of pipes and the fact that the ordinary chain wrench is not capable
15 of fine adjustments, the unit of adjustment being the distance between the pins of the chain-links.

In the wrench forming the subject of the present invention two different units of adjustment are available, the one, as in the ordinary wrenches, corresponding to the distance between the chain-pins and the other a fraction of said distance, the latter adjustment being due to a novel arrangement or position of the hooks for engaging the chain,
25 as hereinafter particularly described, and defined in the claims.

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

Figure 1 is a broken edge view of a chain wrench embodying my invention, showing the same as applied to a section of pipe. Fig. 2
35 is a broken side elevation showing one adjustment. Fig. 3 is a broken side view showing the chain engaging the same hooks as in Fig. 2, but engaging said hooks by a different pin of the chain; and Fig. 4 is a broken side
40 elevation showing the chain engaging the hooks at the opposite side of the chain by means of the same chain-pin as is shown engaged in Fig. 3.

In constructing a wrench embodying my invention I have adopted a very simple construction, so that the elements may be formed and assembled at a low cost. The head A and handle B are integral, and the head has opposite curved serrated edges a converging toward the apex, where the chain C is pivoted, as at a' , to swing back over either curved edge,
50 as desired.

The chain C has, as is usual, its links secured by pins, and the pins, except those immediately adjacent the securing-pivot a' , project laterally beyond the sides of the links for
55 engaging the hooks D D'. The chain is received between a pair of these hooks, as best seen in Fig. 1, but this is not material. One set of hooks, as D, is located farther from the chain-pivot a' than is the other set of hooks D'. Thus the two sets of hooks are not on the same transverse line, and, furthermore, the distance between the sets of hooks longitudinally of the chain is out of conformity
65 with the distance between the projecting chain-pins. Thus taking the fifth chain-link, for instance, which I have designated by the numeral 5, and its two pins 5^a and 5^b , the drawings illustrate the different adjustments
70 in connection with the hooks D D', arranged as specified. I have used for illustrating the adjustments a pipe of a given diameter, and it will be seen that in Fig. 2, with the pin 5^a engaging the hooks D', the pipe E is gripped
75 near the rearmost teeth of the head A, and in Fig. 3, with the next pin 5^b engaging the same hooks D', the same pipe is gripped by teeth near the front of the head. Now, taking the hooks D, as in Fig. 4, and the pin 5^b , the
80 teeth of the wrench-head will grip the pipe in a position on the wrench-head intermediate the positions shown in Figs. 2 and 3. Therefore by disposing and spacing the hooks D D' out of conformity with the spacing of the
85 chain-pins a finer adjustment is obtained than the distance between the pins, and a pipe of any diameter within the maximum capacity of the wrench may be readily and effectively gripped, for it follows that a pipe, for instance, which is just out of the range of, say,
90 the pins 5^a and 5^b when engaging the hooks D', can be gripped by the engagement of one of said pins with the hook D, since the last-named adjustment is intermediate the two
95 first-mentioned adjustments.

By connecting the chain at the front of the head I avoid the use of links or the like to permit the swinging of the chain to either side and am enabled to avoid slotting the head.
100

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

1. A wrench comprising a handle, a head

thereon, a chain pivotally secured to the head near the front end to swing to either side, and hooks on opposite sides of the wrench in the rear of the head, the chain having members 5 for engaging said hooks, the hooks on the opposite sides being located different distances from the securing-pivot of the chain.

2. A wrench comprising a handle, a head 10 thereon, a chain pivotally secured to the head near the front end to swing to either side, and hooks on opposite sides of the wrench in the rear of the head, the chain having members for engaging said hooks, the hooks on the op-

posite sides being located different distances from the securing-pivot of the chain, and the 15 distance between the hooks longitudinally of the wrench being out of conformity with the spaces between the engaging members of the chain.

In testimony whereof I have signed my 20 name to this specification in the presence of two subscribing witnesses.

WILLIAM H. BROCK.

Witnesses:

J. L. MCAULIFFE,

EVERARD BOLTON MARSHALL.