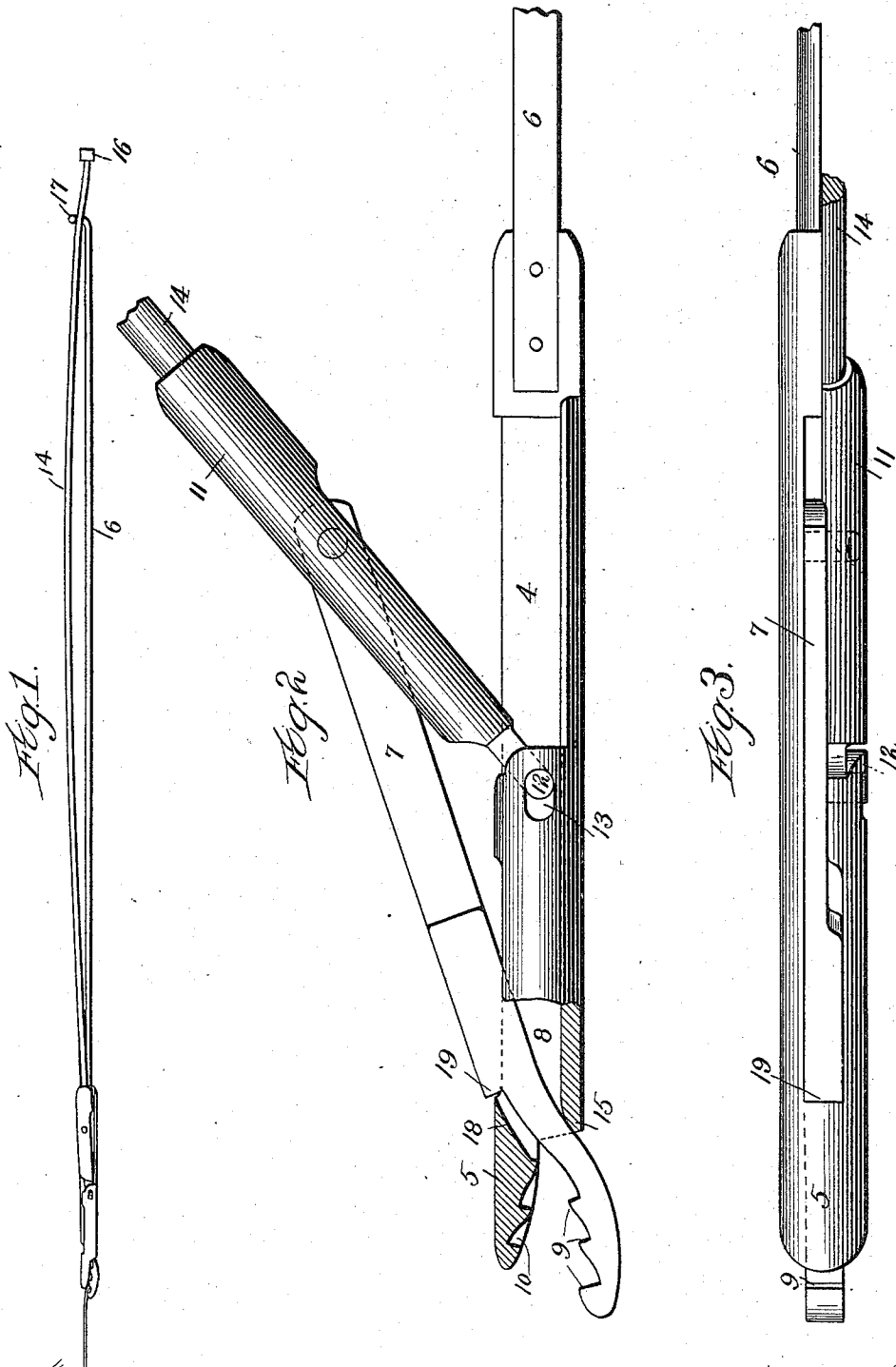


(No Model.)

A. M. HEWLETT:
PIPE DRAWING TOOL.

No. 537,458.

Patented Apr. 16, 1895.



Witnesses
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UNITED STATES PATENT OFFICE.

ALFRED M. HEWLETT, OF KEWANEE, ILLINOIS.

PIPE-DRAWING TOOL.

SPECIFICATION forming part of Letters Patent No. 537,458, dated April 16, 1895.

Application filed April 24, 1894. Serial No. 508,893. (No model.)

To all whom it may concern:

Be it known that I, ALFRED M. HEWLETT, a citizen of the United States, residing at Kewanee, Henry county, Illinois, have invented certain new and useful Improvements in Pipe-Drawing Tools, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of the tool. Fig. 2 is an enlarged view, being a side elevation of the operating parts of the tool, part being in section. Fig. 3 is a plan view.

My invention relates to the manufacture of butt weld pipe by drawing a skelp through a bell. It has for its object to provide an improved tag or tongs by means of which the skelp may be seized and drawn through the bell. I accomplish this object as hereinafter specified and as illustrated in the drawings.

That which I regard as new will be set forth in the claims.

In the drawings, 4 indicates the body of the tag or tongs, which is provided at one end with a stationary jaw 5. At the other end the body 4 is provided with a fixed handle 6.

7 indicates a movable jaw, which passes through a suitable recess 8 in the body 4 and is provided with teeth 9 adapted to coact with teeth 10 carried by the jaw 5, to grip the skelp. The movable jaw 7 is pivotally connected to a lever 11, which lever is pivoted to the body 4 by a pivot 12 fitted in a slot 13 in the body 4, as shown in Fig. 2. The lever 11 is provided with a handle 14. The arrangement is such that by moving the lever 11 into line with the body 4 the jaw 7 will be moved backward, and as it is fulcrumed at 15 upon the body 4 the two jaws will be brought closer into contact. As the jaws are closed the pivot 12 will naturally move to that part of the slot 13 nearest the jaws, so that the lever 11 and jaw 7 are capable of being moved still farther backward,—that is, toward the handle. As the under surface of the jaw 7 is curved, as shown in Fig. 2, such backward movement of the jaw 7 will bring the two jaws still closer together, thereby increasing the grip of the tool, and such grip will continue to increase until the pivot 12 reaches the end of the slot 13. The handle 14 is provided at its free end with a knob or

collar 16, by means of which it may be attached to a suitable drawing device, the handle 6 being provided with a hook 17 adapted to engage the handle 14 so that the two handles may be locked together.

As shown in Fig. 2, the rear portion of the jaw 5 is provided with a beveled surface 18.

19 indicates a shoulder formed on the upper portion of the jaw 7, which shoulder is adapted to strike the rear portion of the upper jaw 5 when the jaws have been separated a sufficient distance, thereby preventing further separation of such jaws.

As best shown in Fig. 3, the upper jaw 5 is considerably broader than the lower jaw, and the lower jaw projects beyond the upper jaw. The lower jaw is also curved up at its end, so that when the jaws are closed the end of the lower jaw moves up almost into line with the end of the upper jaw, as best shown in Fig. 1. By this arrangement, when the skelp is gripped by the tag or tongs that portion of the skelp at each side of the lower jaw is permitted to bend downward sufficiently to facilitate its passage into the bell, while the end of the lower jaw forces up that portion of the skelp with which it comes into contact, sufficiently to cause it to assume a rounded shape in the bell, thereby avoiding flattening of the skelp at that point. By this means a perfect pipe may be formed of almost the entire length of the skelp, whereas by the use of prior devices a considerable portion of the end of the skelp was unfit for use, as it was not true and therefore it was necessary to trim off more of the pipe.

In using my improved tag, after the skelp has been sufficiently heated it is seized by the tongs, the handles being brought together and locked by means of the hook 17, which may be done even though the jaws are separated by the thickness of the skelp, as the handles are made of steel and bend sufficiently to permit of their being locked together. The bell or bells are then slipped upon the tag, and it is connected by a suitable device to the drawing mechanism. The drawing mechanism commonly employed at present consists of an endless belt constantly moving at a fixed rate of speed, and the tag is attached to it either by a hook or through a buggy; so that

upon the attachment of the tag to the drawing mechanism it is given a sudden jerk, which in many of the tags heretofore employed has caused the tag to release the skelp, but which with my improved construction operates merely to tighten the grip of the tag upon the skelp, as the lever 11 and jaw 7 are thereby drawn backward forcibly, thereby increasing the grip of the jaws upon the skelp.

10 If, however, mechanism is employed by which the tag is not jerked so violently, the operation of the tag is not affected, as in such cases the grip will be increased proportionately with the force of the pull. After the pipe

15 has been formed, the tag may be released therefrom by releasing the handles from each other and raising the lever 11. The forward portion of the jaw 7 will then strike the beveled surface 18 and be thrown downward away

20 from the jaw 5, releasing the pipe.

It will be observed that the parts of my improved tool are adapted to lie in substantially the same line when it is closed, so that the tool will pass freely through the bell.

25 In my application of even date herewith I have shown a pair of pipe tongs in some respects similar in construction to that above described, notably in the shape of the jaws. In such tongs, however, the jaws are closed

30 upon the skelp by the direct action of the handles, while in my present application I have shown lever mechanism for closing the jaws upon the skelp, whereby a much firmer grip may be secured upon the skelp at first and

35 thereby all danger of the slipping of the tag be avoided.

It should be understood that the word skelp is herein used to apply to the strip of metal which is to be drawn through the bell regardless of whether or not such strip has been

40 previously treated to make it adapt itself more readily to tubular form.

That which I claim as my invention, and desire to secure by Letters Patent, is—

45 1. The combination with a body, a fixed jaw, and a fixed handle connected thereto, of a movable jaw fulcrumed upon said body, and a lever pivoted at one end to said body and connected between its ends to said movable jaw, whereby by operating said lever

50 the jaws may be opened or closed, substantially as described.

2. A pipe-drawing tool consisting of two members, having gripping jaws which grip

55 the skelp, the jaw of one of said members ex-

tending through a passage in the other member and having a bearing therein, and a lever pivotally connected to said members for opening and closing the jaws, said lever being movable longitudinally of one of said members, substantially as described.

3. The combination with a body 4, having a passage 8 and a jaw 5, of a lever 11, jaw 7 pivotally connected to said lever and passing through said passage, the lower surface of said jaw being curved or inclined, substantially as and for the purpose specified.

4. The combination with a body 4, having a passage 8 and jaw 5, of a lever 11, said lever having a pivot 12 moving in a slot 13 in said body 4, jaw 7 pivotally connected to said lever and passing through said passage, the lower surface of said jaw being curved or inclined, substantially as and for the purpose specified.

5. The combination with a body 4, having a passage 8 and jaw 5, of a lever 11, jaw 7 having a shoulder 19 and being pivotally connected to said lever and passing through said passage, the lower surface of said jaw being curved or inclined, substantially as and for the purpose specified.

6. The combination with a body 4, having a passage 8 and jaw 5, of a lever 11, said lever having a pivot 12 moving in a slot 13 in said body 4, jaw 7 pivotally connected to said lever and passing through said passage, the lower surface of said jaw being curved or inclined, handles 6 and 14, and a hook connecting said handles together, substantially as specified.

7. A pipe-drawing tool having jaws adapted to grip the strip or skelp, means for operating said jaws, the lower jaw projecting beyond the upper jaw and being adapted to press the skelp beyond said upper jaw, and a lever for closing said jaws, substantially as and for the purpose specified.

8. The combination with a fixed gripping jaw, and a movable gripping-jaw, for gripping the skelp, of a fixed handle and a movable handle, said movable handle being adapted to operate the movable jaw and being movable longitudinally of said stationary jaw and handle, substantially as specified.

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Witnesses:

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