

(No Model.)

A. M. HEWLETT.
PIPE DRAWING TOOL.

No. 537,457.

Patented Apr. 16, 1895.

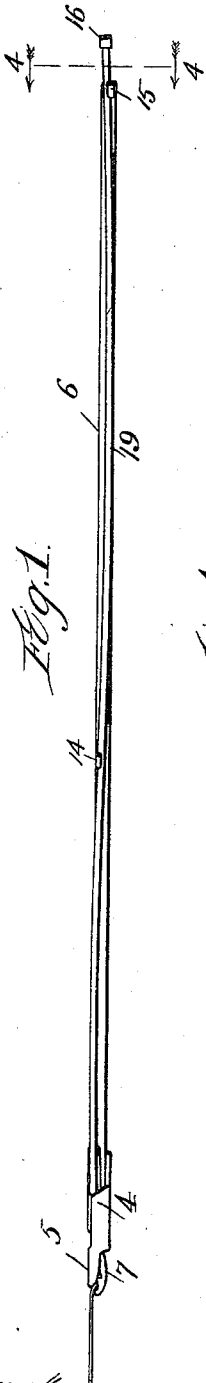


Fig. 1.

Fig. 4.

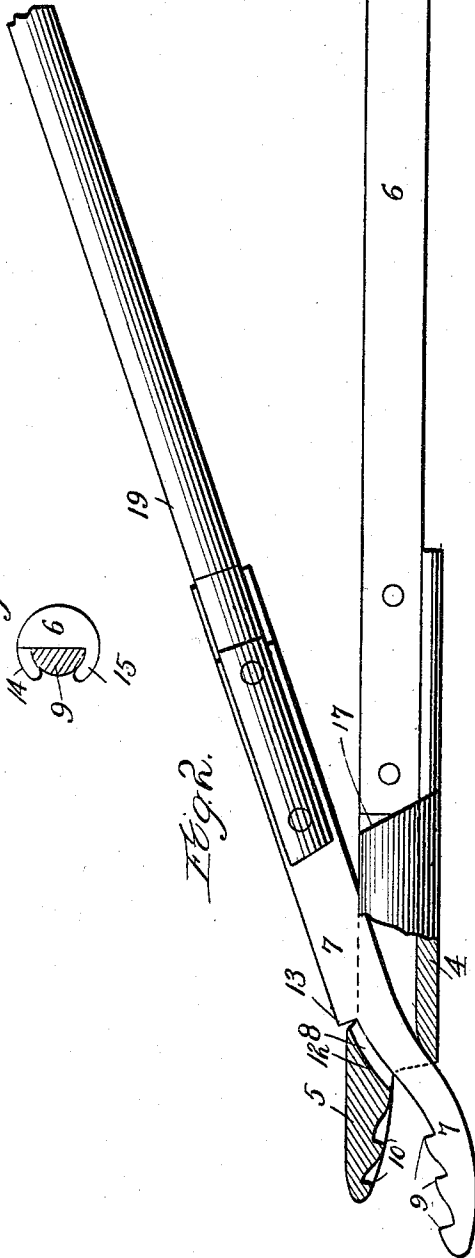


Fig. 2.

Fig. 3.



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PIPE-DRAWING TOOL.

SPECIFICATION forming part of Letters Patent No. 537,457, dated April 16, 1895.

Application filed April 24, 1894. Serial No. 508,892. (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, in the county of Henry and State of 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. 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; and Fig. 4 is a detail, being an enlarged section on line 4—4 of Fig. 1.

My invention relates to the manufacture of butt-weld pipe by drawing a strip or 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 head of the tag or tongs, which is provided at one end with a stationary jaw 5.

6 indicates a handle, which is rigidly secured to the head 4.

7 indicates a movable jaw, which passes through a suitable opening 8 in the head 4, and is provided with teeth 9 adapted to co-act with teeth 10 carried by the jaw 5 to grip the strip or skelp. 19 indicates a handle, which is rigidly connected to the movable jaw 7.

As best shown in Fig. 2, the under surface of the jaw 7 is curved and rests upon the adjacent portion of the head 4, thereby forming a bearing or fulcrum for said jaw. By pressing the handles 19 and 6 together the jaw 7 will be moved toward the opposite jaw 5, and by moving the handle 19 longitudinally of the handle 6 the peculiar shape of the jaw 7 will cause it to be moved toward or away from the jaw 5, depending upon the direction the handle 19 is moved.

As shown in Fig. 2, the rear portion of the jaw 5 is provided with a beveled surface 12.

13 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 move to a certain position, thereby preventing farther 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 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 come into contact with the inner surface of the bell and be thereby fashioned into a rounded shape, thus preventing flattening of the skelp at that point. By this means a perfect pipe may be made 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.

14 indicates a hook or catch which is secured to the handle 6 at some point between the head 4 and the end of said handle, preferably slightly nearer the head, as shown in Fig. 1. 15 indicates a hook or catch which projects from the lower edge of the handle 6 near its end, as shown in Figs. 1 and 4. 16 indicates a knob on the end of the handle 19.

In using my improved tag, after the skelp has been sufficiently heated, it is seized by the tongs, the operator moving the handle 19 down sufficiently to pass it under the hook 14, then bringing the end of said handle up over the hook 15 so that said handle is held in the position shown in Fig. 1. The object of securing said handle in the manner above described is to prevent it from bowing sufficiently to prevent the bell from sliding freely upon it, as would be the case if a simple hook at the end of the tongs were to be used. When the handles are secured together as above described a sufficient grip upon the skelp will be secured for withdrawing it from the furnace. After the tongs have been attached to the skelp and the handles secured

as above stated, one or more bells are slipped upon the tag, and it is then connected to suitable drawing mechanism. The drawing mechanism commonly employed at present
 5 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,
 10 which in many of the tags heretofore employed has caused the tag to release the skelp, but with my improved construction the jerk operates merely to tighten the grip of the tag upon the skelp, as the handle 19 and jaw 7
 15 are drawn forcibly backward, the curved form of the jaw 7 causing said jaw to be forced by the head 4 closer to the jaw 5. If, however, mechanism is employed by which the tag is not jerked so violently the operation of the
 20 tag will still be the same, as in such cases the grip will be increased proportionately with the force of the pull. After the pipe has been formed, the tag may be released therefrom by releasing the handles from each other and
 25 moving the handle 19 forward. The forward portion of the jaw 7 will then strike the beveled surface 12 and be thrown downward away 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 freely pass through a bell.

In order to prevent the lower jaw from swinging forward upon the shoulder 13 as a
 30 pivot when the jaws are closed that portion of the head opposite the forward end of the handle 19 is inclined and the forward end of said handle is correspondingly inclined, so that as the handles are brought together the
 35 forward end of the handle 19 will strike the inclined portion 17 of the head 4, thereby preventing the jaw 9 from moving forward.

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

45 1. A pipe-drawing tool, consisting of a pair of handles having jaws which grip the skelp, said jaws having teeth 9 and 10, and the lower jaw being narrower than the upper jaw and projecting beyond the same, the parts of the
 50 tool when closed being susceptible of passing through a bell or die, substantially as described.

2. A pair of tongs consisting of two members, each having a jaw, the jaw of one of said members extending through a passage in the
 55 other member and being movable longitudinally of the other jaw, each of said jaws having a handle, and means for securing the handles together, so that they lie in substantially the same line and are susceptible of passing
 60 through a bell or die, substantially as described.

3. A pair of tongs consisting of two members, one of said members having a fixed jaw, the other of said members consisting of a movable jaw fulcrumed in the other member, for
 65 gripping a skelp, said movable jaw being curved, substantially as described, and movable longitudinally of the fixed jaw.

4. The combination with a head 4 having
 70 a passage 8 and jaw 5, of a curved jaw 7, and handles 6 and 19, substantially as described.

5. The combination with gripping devices, of handles 6—19 for operating said gripping devices, said handle 6 having hooks or catches
 75 14—15, substantially as described.

6. The combination with gripping devices, of handles for operating said gripping devices, means for securing said handles together, and means for preventing bowing of
 80 said handles, substantially as described.

7. A pair of tongs consisting of two members each having a jaw, the jaw of one of said members extending through a passage in the other member, and a stop, as 13, for limiting
 85 the forward movement of the inner jaw, substantially as described.

8. A pair of tongs consisting of two members having jaws which grip the skelp, the jaw of one of said members extending through
 90 a passage in the other member, and means for preventing forward movement of the inner jaw when the jaws are closed, substantially as described.

9. In a pair of tongs, the combination with
 95 jaws, and handles 6—19, of shoulders on the handles which abut when the handles close for preventing forward movement of the handle 19 when the jaws are closed, substantially as specified.

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