(No Model.)

A. M. HEWLETT.

PIPE DRAWING TOOL.

No. 537,455. Patented Apr. 16, 1895.

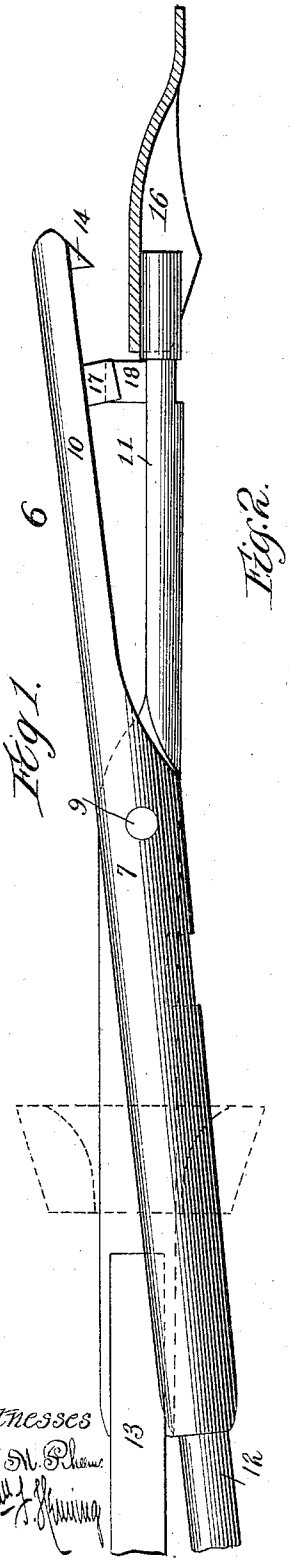

Fig. 1.

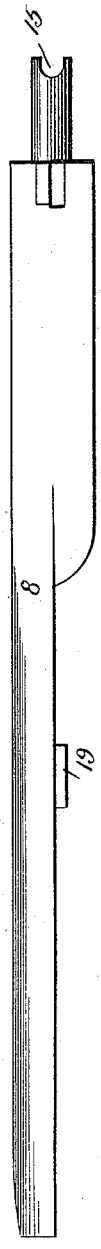

Fig. 2.

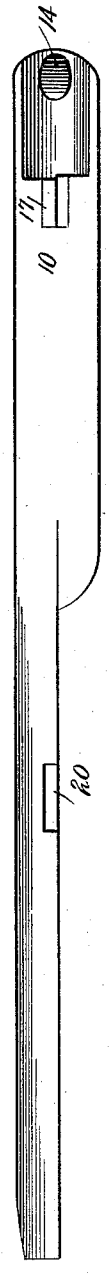

Fig. 3.

Fig. 5.

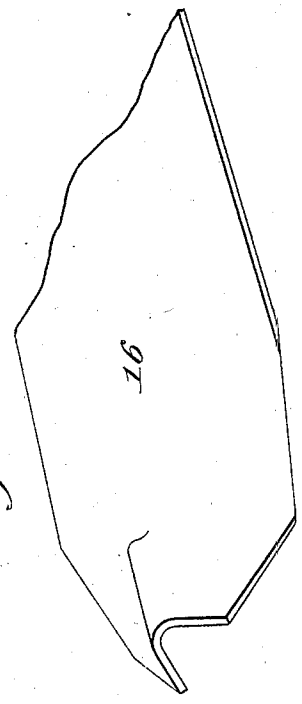

Fig. 4.

Witnesses
Wm. M. Phime
Wm. F. Fleming

Inventor
Alfred M. Hewlett
by Bond Thomas Pickard & Jackson
Atty's

UNITED STATES PATENT OFFICE.

ALFRED M. HEWLETT, OF KEWANEE, ILLINOIS.

PIPE-DRAWING TOOL.

SPECIFICATION forming part of Letters Patent No. 537,455, dated April 16, 1895.

Application filed April 24, 1894. Serial No. 508,890. (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. Fig. 2 is a top view of one of the members. Fig. 3 is an under side view of the other member. Fig. 4 is a perspective view of one end of the skelp. Fig. 5 is a vertical cross section showing the shape of the jaws.

My invention relates to the manufacture of butt weld pipe, and has particularly to do with tools employed for drawing the pipe through the bell.

In the manufacture of butt weld pipe heretofore it has been customary to weld a rod, commonly called a tag, to the forward end of the strip or skelp, after which the skelp was placed in the furnace and heated to a welding heat. A bell was then slipped upon the tag and the strip drawn from the furnace by suitable mechanism to which the tag was connected. The bell being caught by a bell-holder, the strip was then drawn through the bell and formed into pipe. As the work of welding the tag to the skelp consumes considerable time and necessitates the use of expensive apparatus, many attempts have been made to provide a tag which could be quickly attached to the skelp and which would also be of such shape as to permit of its passage through the bell. Furthermore, as it is desirable that the tag should be capable of repeated use, it should be attached to the skelp after the latter has been heated, as when the tag is attached to the skelp before heating, the great heat to which the latter is subjected rapidly destroys the tag and unfits it for further use. The great difficulty in the way of the production of a practicable tag resides in the fact that in order to be a success the tag must be capable of being attached quickly to the skelp, but must also be so constructed that the bell may be slipped upon it after it has been attached to the skelp, and to the best of my knowledge no tag of such construction has heretofore been produced.

My present invention has for its object to overcome the objections incident to the use of the tags heretofore devised, by producing a tag so constructed that it can be attached to the skelp after the skelp has been heated, and which will be capable of being passed through a 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—6 indicates a tag, which consists of two members 7—8 pivoted together by a pivot 9, forming upper and lower jaws 10—11 and handles 12—13. The handles 12—13 may be from three to six feet long, and are provided at their ends with a collar or knob by means of which they may be connected to a suitable drawing device.

As shown in Fig. 5, the upper jaw 10 is broad, its inner face being concave and being provided with a tooth 14. The inner face of the tooth 14 is arranged perpendicularly to the surface of the jaw, its outer face being inclined, as shown in Fig. 1. The lower jaw 11 is substantially circular in cross section, and it is provided with a recess 15 adapted to receive the tooth 14 when the jaws approach each other. The degree of curvature of the lower jaw 11 is more than that of the inner face of the upper jaw 10, as shown in Fig. 5, the object of which construction is to permit the skelp 16 to assume the proper shape when it is gripped between the jaws 10—11.

By making the lower jaw 11 of a greater degree of curvature than the upper jaw, that portion of the skelp at each side of the lower jaw is permitted to fold in, giving the end of the skelp somewhat the shape shown in Fig. 4, and conducing to the ready formation of the skelp into pipe when it is drawn through the bell. When the jaws 10—11 are forced together by operating the handles 12—13, the tooth 14 punches a hole in the skelp, so that the skelp may be firmly held by the tag.

17—18 indicate lugs carried by the upper and lower jaws respectively near the ends of said jaws. The lugs 17—18 serve as stops to control the extent to which the jaws may overlap the skelp.

19 indicates an inwardly projecting lug car-

ried by the member 8 of the tongs or tag. The lug 19 moves in a recess 20 in the opposite member, but as such recess does not extend entirely across the inner face of the member 7 the lug 19 serves to control the extent to which the jaws 10—11 may be separated.

As the members 7—8 are semicircular in cross section, as illustrated in the drawings, when the two members are associated to form the tag the tag will be practically circular in cross section, its parts lying in substantially the same line; and the diameter of the tag so formed is slightly less than that of the bell through which it is to pass; so that after the tag is secured to the skelp a bell may be slipped upon it and the tag drawn through the bell.

In the use of my improved tag, when the operator observes that the skelp has arrived at the proper temperature he introduces the tag into the furnace and separates the jaws 10—11 sufficiently to permit the end of the skelp to be introduced between them. By then bringing the handles together the tooth 14 is forced into the skelp. One or more bells are then slipped upon the tag and a suitable hook is connected to the ends of the handles. By means of the hook the tag is then connected to a suitable drawing device and the tag and skelp pulled through the bell or bells, which are intercepted by a suitable holder. As soon as the pipe is formed the hook is removed, and by separating the handles the skelp is released.

Instead of using a hook to connect the tag to the drawing mechanism, the usual buggy or any other suitable device may be used.

The projection may be put on the lower jaw 11, and the recess to correspond in the upper jaw 10. I do not, therefore, restrict myself to the exact details shown.

As indicated in Fig. 1, the internal diameter of the bell is greater than the diameter of the head of the tag only sufficiently to permit the tag to pass freely through the bell when the jaws are closed. If therefore the handles should not be stiff enough to close the jaws tightly upon the skelp, and should bend when brought together, as is often the case in actual practice, yet when the tag is drawn through the bell the jaws will be forced together by the bell, thereby tightening the grip upon the skelp.

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 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—

1. A pipe-drawing tool having jaws, a pointed tooth, and means for operating said tool whereby the pointed tooth is caused to penetrate the skelp, substantially as described.

2. A pipe-drawing tool having jaws, handles for operating said jaws, said handles being adapted to lie in substantially the same line when the jaws are closed, whereby the tool may be drawn through a bell, and a projection adapted to perforate the skelp and enable the tool to be applied while the skelp is in the furnace, substantially as described.

ALFRED M. HEWLETT.

Witnesses:
JOHN L. JACKSON,
RALPH VAN DYKE.