J. W. LYON.

BLANKS FOR GAS-FITTERS' HOOKS.

No. 169,364. Patented Nov. 2, 1875.

Fig. 1.

Fig. 2.

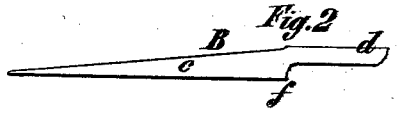


Fig. 3.

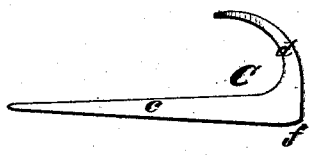
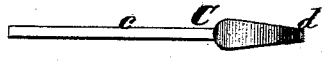


Fig. 4.



Witnesses.

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IMPROVEMENT IN BLANKS FOR GAS-FITTERS' HOOKS.

Specification forming part of Letters Patent No. **169,364**, dated November 2, 1875; application filed May 22, 1875.

To all whom it may concern:

Be it known that I, JAMES W. LYON, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Blanks for Hooks for Plumbers' and Gas-Fitters' use; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, which forms a part of this specification.

This invention consists in a new and improved blank for the kind of hooks which are used by plumbers and gas-fitters for securing in place gas and water pipes, said blank being of a novel construction, as will be hereinafter described.

In the accompanying drawing, Figure 1 represents a strip of metal suitable for being cut up to produce my improved blanks. The lines marked upon the strip show the form and direction of the cuts, and hence the outline of the blanks. Fig. 2 is a face view of one of my improved blanks. Fig. 3 is a side view of a hook formed from such blank by simply bending the forward or head end; and Fig. 4 is a front edge view of a similar hook, the curved or head end having been flattened to produce a wider bearing or hold on the pipe.

My improved blanks are, preferably, punched out of cold metal, and, in making them, I select strips of metal A, preferably wrought-iron, of a width and thickness appropriate for the size of the hook it is intended to make. Such strip is run endwise in between the punches, and they, with one blow, cut out of the strip the ogee-shaped piece shown in dotted outline at the left-hand end of said strip A, and designated by the letter H. This operation forms the head end *d* of the first blank. The strip is now passed between the dies, and their next operation upon the strip A is to make the severing-cuts *a* to *a'*, and *b* to *b'*, thus producing two complete and perfect blanks, B B, at the one operation. Of course the next operation of the the dies will produce two more blanks, and so on to the end of the strip of metal.

It will be noticed that the cut from *a* to *a'* runs diagonally or obliquely across the strip, thereby producing two pointed shanks, *c*, one for the first blank B, and one for the second blank B. These shanks are of the required shape when they leave the dies, and they need no subsequent manipulation.

The cut *b* to *b'* gives the form to the head ends *d d* of two blanks. This cut, it will be seen, forms a shoulder, *f*, (see Fig. 2,) at the back edge of each blank, in such manner as to leave a quantity of metal just where it is wanted to give strength to the blank after the head end is bent over, in the usual way, to form a hook, C, as shown in Fig. 3. It will be seen, on referring to said Fig. 3, that the usual driving-place is produced, and, at the same time, an extra quantity of metal is left across the hook at the bend, (across from *f*,) and hence, when driving the hook, it is not liable to crack or break at this point, which is a common occurrence with this class of hooks as ordinarily made.

When it is desired to have a broad-faced hook it is only necessary to flatten the head end *d* before, when, or after bending it.

It will be noticed that the peculiar cut *b* to *b'* provides a suitable quantity of metal to permit of this flattening operation without weakening the hook.

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

The within-described improved hook-blank B, produced by the cuts *a* to *a'* and *b* to *b'*, substantially as herein specified.

JAMES W. LYON.

Witnesses:
T. J. KEANE,
EDWIN H. BROWN.