

G. LUPTON.
Blanks for Pipe-Elbows.

No. 150,170.

Patented April 28, 1874.

Fig. 1.

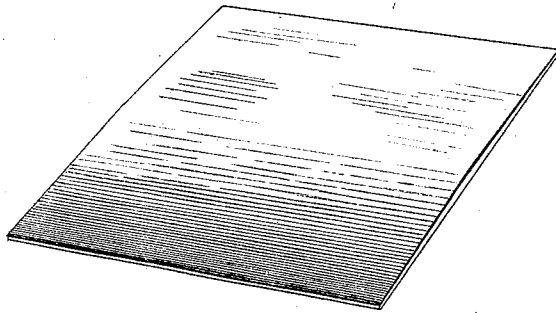


Fig. 2.

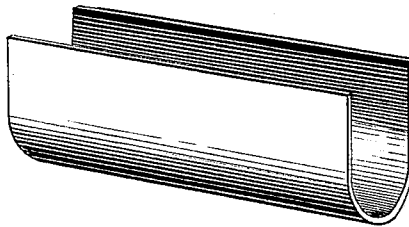
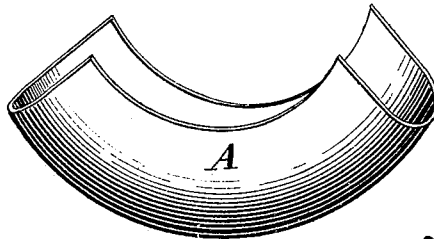


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

GEORGE LUPTON, OF INDIANAPOLIS, INDIANA.

IMPROVEMENT IN BLANKS FOR PIPE-ELBOWS.

Specification forming part of Letters Patent No. **150,170**, dated April 23, 1874; application filed March 7, 1874.

To all whom it may concern:

Be it known that I, GEORGE LUPTON, of Indianapolis, in the county of Marion and State of Indiana, have invented a certain Improvement in Blanks for Pipe-Elbows, of which the following is a specification:

The nature of my invention consists in providing a blank in the shape of a curved trough of even thickness of metal throughout, and formed from a single uncut and uncrimped piece of sheet metal. By suitably bending the straight sides of the trough over a mandrel, and seaming or otherwise joining them together, a complete pipe-elbow will result, such as described in another case filed in the Patent Office previous to this one.

The object of putting this blank on the market instead of the finished elbow is to save in the cost of transportation, the blanks being capable of being nested for shipment, and they can be readily converted into elbows by tin-smiths provided with the required tools, or a machine for that purpose invented by me, to obtain Letters Patent for which I have taken the proper steps by filing an application in the Patent Office.

In the annexed drawings, Figure 1 illustrates the blank before it is curved. Fig. 2 exhibits it in its second stage, curved into a U-shaped straight trough. Fig. 3 shows the blank in the condition in which it is put on the market—a curved U-shaped trough.

In the example illustrated the blank is made from a rectangular piece of sheet metal of va-

riable thickness, thickest along the middle, and gradually thinning toward the edges. This sheet is by suitable rollers curved into a U-shaped straight trough, as shown in Fig. 2. It is then passed between pressure-rollers, which will draw into the finished blank A, in doing which the metal is stretched lengthwise along the curved surface, and reduced in thickness, so that when the blank is completed the metal will be of even thickness throughout.

The above is a description of one mode of making the blank A. My invention is, however, not limited to this particular method. The blank may be struck up by dies from metal of even thickness, the machinery being so devised that, when completed, the blank shall still be of even thickness throughout, without necessitating the cutting or crimping the metal in the process of forming the blank.

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

As a new article of manufacture, a blank for pipe-elbows composed of an uncrimped and uncut curved trough, A, formed from a single piece of sheet metal, the same being smooth on its surface, and of uniform thickness throughout, substantially as specified.

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

GEORGE LUPTON.

Witnesses:

D. P. HOLLOWAY,
JOSIAH CURTIS.