W. REDETT.

Stove-Pipe Elbow.

No. 210,434. Patented Dec. 3, 1878.

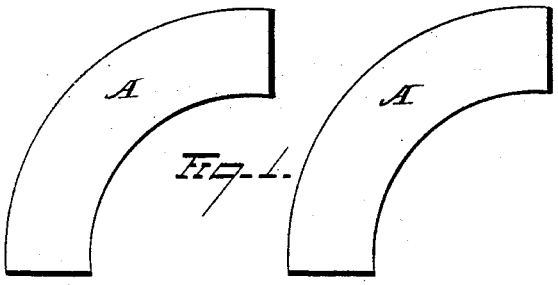


Fig. 1.

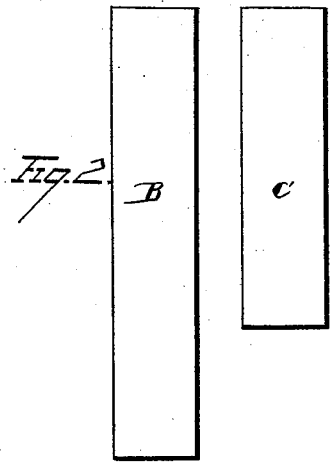


Fig. 2.

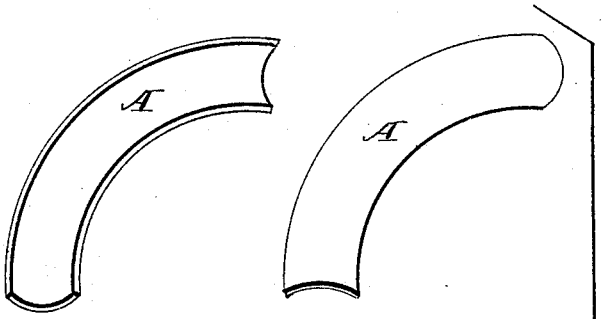


Fig. 3.

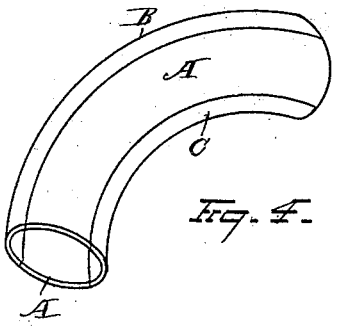
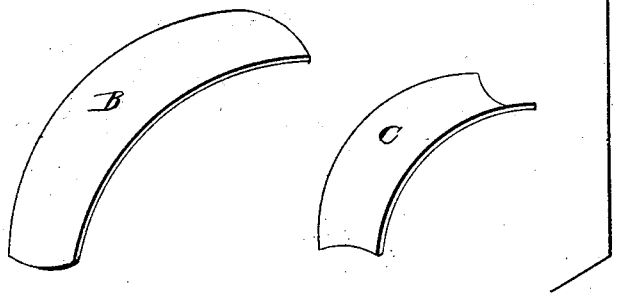


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

WILLIAM REDETT, OF FREDERICKSBURG, OHIO.

IMPROVEMENT IN STOVE-PIPE ELBOWS.

Specification forming part of Letters Patent No. **210,434**, dated December 3, 1878; application filed September 11, 1878.

To all whom it may concern:

Be it known that I, WILLIAM REDETT, of Fredericksburg, in the county of Wayne and State of Ohio, have invented certain new and useful Improvements in Stove-Pipe Elbows; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to stove-pipe elbows, and more particularly to that class of elbows which are made of a separate piece united by joints.

My invention consists in forming the elbow of four longitudinal sections united by longitudinal seams or joints, the side strips being cut in curved form, to conform to the general shape of the finished elbow, and bulged so as, with the other parts, to form a tubular elbow. The longitudinal edges of the strips are then joined or seamed in any suitable manner to complete the elbow.

In the drawings, Figure 1 represents the side pieces as they appear when cut from a flat piece before being struck up to the required shape to go into the elbow. In Fig. 2 the shorter piece represents the underneath strip, and the longer piece the top strip, which, with the side strips, form the elbow. Fig. 3 represents perspective views of the separate pieces after being struck up or bulged. Fig. 4 represents a finished elbow.

These strips having been cut out from suitable sheets of metal—as, for instance, stove-pipe iron—they may be placed successively upon suitable dies, and by these dies be struck up, so as to make them bulge or give them the proper lateral curvature to conform to the tubular contour of a finished elbow.

A represents the side pieces; B, the top piece, and C the bottom piece. These pieces, when suitably bulged, as shown in the perspective view, Fig. 3, may be joined at the edges by any suitable joint, and when all of them are joined together the product is an elbow in which the seams all run longitudinally of the elbow; consequently the inner curved surfaces of the elbow are perfectly smooth and uniform, thereby accumulating a minimum amount of soot, and offering the least impediment to the draft.

I do not limit myself necessarily to four strips, but I may use a greater number of strips; but for ordinary purposes, and for the ordinary sizes of elbow-joints, four pieces will generally be sufficient; nor do I limit myself necessarily to stove-pipe elbows, for the invention is equally applicable to elbows for other purposes.

I am aware that elbows for sewers, water-pipes, &c., have been made of two or more castings, which, when united by longitudinal joints, would form the elbow.

It is not material that the pieces should be given their bulged form by striking up between dies, for it is apparent that the metal-worker may fashion the pieces and give them the proper shape by other suitable machinery—as, for instance, between rollers, the faces of the rolls being of the proper curvature.

I propose to unite the sections by what is termed an "ordinary set-down grooved joint," and prefer to turn the flanges of the interior of the pipe-elbow so that the exterior of the elbow shall be smooth, and upon the interior the joint, lying flat, will present but little, if any, obstruction to the draft, inasmuch as they lie lengthwise of the elbow.

I am aware that curved sheet-metal tubes have been made of two parts curved to the desired form and united by longitudinal seams, and hence I make no claim to such construction.

My improved stove-pipe elbow is formed of four pieces, the blanks for which are cut to the desired form, and then struck up to form the different portions of the elbow. These pieces are so arranged that the elbow will be seamless on its lower side, and hence prevent the escape of the pyroligneous acid that accumulates in the lower portion of the elbow.

What I claim is—

1. A stove-pipe elbow consisting of two side strips, A, top strip, B, and bottom strip, C, of sheet metal, united at their longitudinal edges,

and having the proper longitudinal and lateral curvature, without a seam in the bottom portion of the elbow, substantially as and for the purposes described.

2. The combination of four pieces of sheet metal, cut to curved patterns longitudinally of the elbow, said pieces being of substantially the curvature described, so that when pressed to conform to the arc of the circumference of the elbow and united by longitudinal seams, substantially in the manner shown and described, the top and bottom portions of the elbow are formed without seam or joint.

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

WILLIAM REDETT.

Witnesses:

H. REDETT,

M. L. STOPHLET.