J. F. PIEHL.

Stove-Pipe Elbow.

No. 164,872. Patented June 22, 1875.

Fig. 1.

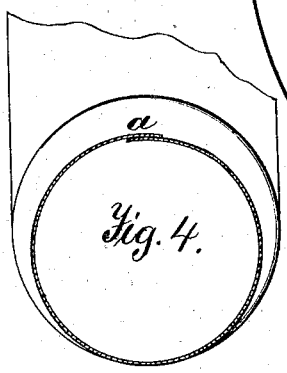


Fig. 4.

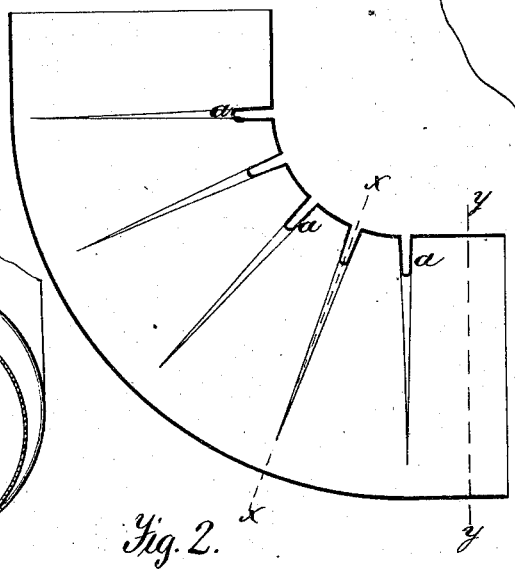


Fig. 2.

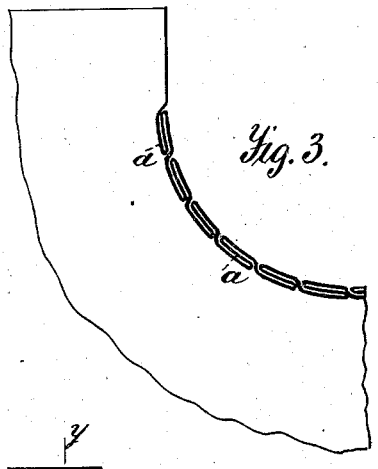


Fig. 3.

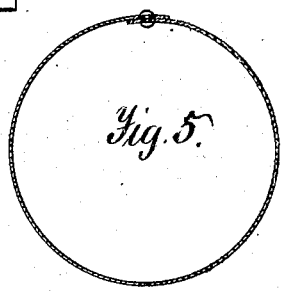
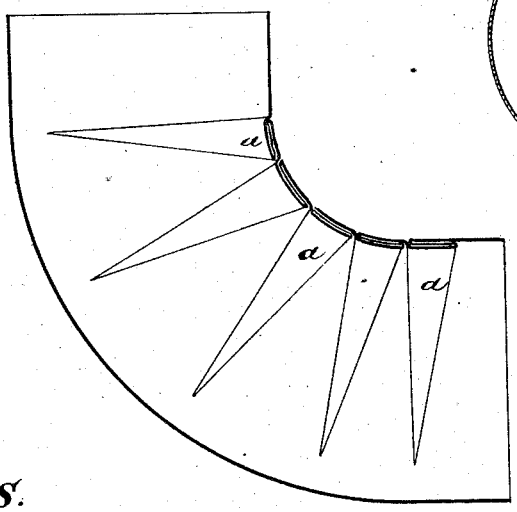


Fig. 5.



Witnesses.

A. Ruppert.

C. Edwd. Gibbs

J. F. Piehl

Inventor.

D. P. Holloway & Co

Attys

UNITED STATES PATENT OFFICE.

JOHN F. PIEHL, OF RICHMOND, INDIANA, ASSIGNOR OF PART OF HIS RIGHT TO JOHN H. McINTYRE AND JAMES E. TAYLOR, OF SAME PLACE, AND GEORGE KRICK, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN STOVE-PIPE ELBOWS.

Specification forming part of Letters Patent No. **164,872**, dated June 22, 1875; application filed December 23, 1874.

To all whom it may concern:

Be it known that I, JOHN F. PIEHL, of Richmond, in the county of Wayne and State of Indiana, have invented a certain Improvement in Stove-Pipe Elbows, of which the following is a specification:

This invention consists of a sheet-iron stove-pipe elbow, suitably curved by crimping the iron of an originally straight pipe along one side, the crimps or tucks being upon the inside of the elbow, instead of on the outside, as in crimped elbows as heretofore made. In consequence of this construction the elbow, when finished, presents a smooth exterior, all the defects or irregularities of the crimps are hidden, and the article can be furnished at a much lower price than the ordinary crimped elbows, because it is less difficult to make and less expensive iron can be used in its manufacture.

In the annexed drawings, Figure 1 is a section of my crimped elbow as it appears before the crimps or tucks are folded down. Fig. 2 is a similar section, showing the tucks folded down. Fig. 3 is a similar view of part of the elbow. Fig. 4 is a section in a plane indicated by broken line *x x* in Fig. 1. Fig. 5 is a section in plane indicated by broken line *y y* in Fig. 1.

The same letters of reference are used in all the figures in the designation of like parts.

In manufacturing my improved elbow, the iron is tucked in upon the concave side of the elbow by means of a suitable machine, preferably such a one as described in another application made by me of even date with this. In this condition the elbow is placed upon a mandrel and subjected to pressure or hammering for the purpose of folding the inwardly-projecting tucks or crimps *a* against the shell, so that when finished the elbow will appear as shown in Figs. 2 and 3, having three thicknesses of iron, produced by inward crimps folded in a downward direction, forming a smooth and continuous surface on the out and in side. The gaps left by the crimper or tucker will be practically closed by the subsequent folding of the tucks or crimps.

It is well known that it requires expensive machinery and the best quality of sheet-iron in order to successfully manufacture marketable crimped elbows of the kind now known. My elbow, on the other hand, is easily made, and in first-class condition, from comparatively cheap sheet-iron, and is, both in point of construction and of appearance, far superior to the old style. It is also much more easily polished and kept clean.

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

A crimped stove-pipe elbow having the crimps or folds of the shorter curved wall upon the inside of the pipe folded entirely downward, and presenting a smooth and continuous surface on both the out and in side, substantially as and for the purpose described.

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

JOHN F. PIEHL.

Witnesses:
D. P. HOLLOWAY,
GEORGE KRICK.