

A. C. HOGEN.

ELBOWS FOR STOVE-PIPES, &c.

No. 187,385.

Patented Feb. 13, 1877.

Fig. 1

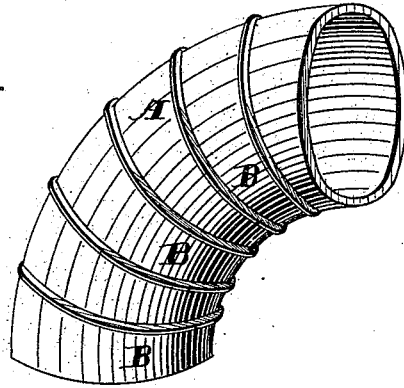


Fig. 2

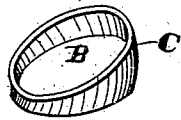
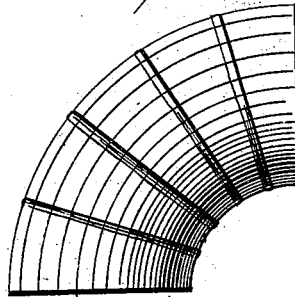


Fig. 3



WITNESSES

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# UNITED STATES PATENT OFFICE.

ANDREW C. HOGEN, OF CLEVELAND, OHIO.

## IMPROVEMENT IN ELBOWS FOR STOVE-PIPES, &c.

Specification forming part of Letters Patent No. **187,385**, dated February 13, 1877; application filed December 19, 1876.

*To all whom it may concern :*

Be it known that I, ANDREW C. HOGEN, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Elbow for Stove, Conductor, and other Pipes; 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 elbows for stove, conductor, and other pipes, and especially to improvements in that class which have the form of a quadrant or other arc of a circle. It consists in constructing the elbow of several separate pieces, each piece curved or bent to correspond with the curve of the arc desired, and which are joined together in any suitable manner.

In the drawing, Figure 1 is a perspective view of an elbow embodying my invention. Fig. 2 is a similar view of one of the pieces or sections when riveted together, showing the curve of the same. Fig. 3 represents a view of an elbow used for a water-conductor, wherein the seams are soldered together, or otherwise properly fastened.

A is the elbow, of sheet-iron or other sheet metal, according to the purpose for which intended. B represents the several pieces or sections which compose the elbow, a separate view of one of which is shown in Fig. 2. The said pieces are cut of the desired shape, in any ordinary manner, and are then bent or curved, as shown at C, so that when secured to each other to form the elbow the curve of each section will form part of the arc of the circle of the elbow. The curve or concavity of each section is produced by the process of striking up in suitable dies, or in any other suitable manner. The several sections are secured to each other either by any of the many differ-

ent forms of jointing, or are soldered together. Their ends are either riveted or soldered together.

The advantage of the curve or concavity in each section over a construction where the separate sections are straight or not curved, is that a less resistance is offered to the passage of the products of combustion, or of hot air or water, as the case may be.

The elbow may be constructed of a greater or less number of pieces than shown in the drawing, but will always have a greatly less number of joints than the number of corrugations or crimps rendered necessary in making elbows of a single piece of metal. These corrugations serve as a depository for dust, which is with difficulty removed, and they are for this reason objectionable.

In an elbow constructed according to my invention, with but comparatively few joints, there is less liability of the accumulation of dust, and when accumulated it is easily removed. Such an elbow is also very durable, as the joints are not likely to come apart, and, by reason of the curvature and the small number of joints, presents a neat appearance.

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

A pipe-elbow, consisting of three or more sheet-metal sections, B, rigidly secured to each other by radial or transverse joints, each section consisting of a plain-surfaced ring, gradually increasing in width from its inner to its outer side, and each ring having its entire inner and outer surface curved to correspond with the arc of the circle of the elbow A, substantially as set forth.

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

ANDREW C. HOGEN.

Witnesses:

WM. BEHRENS,  
FRANCIS TOUMEY.