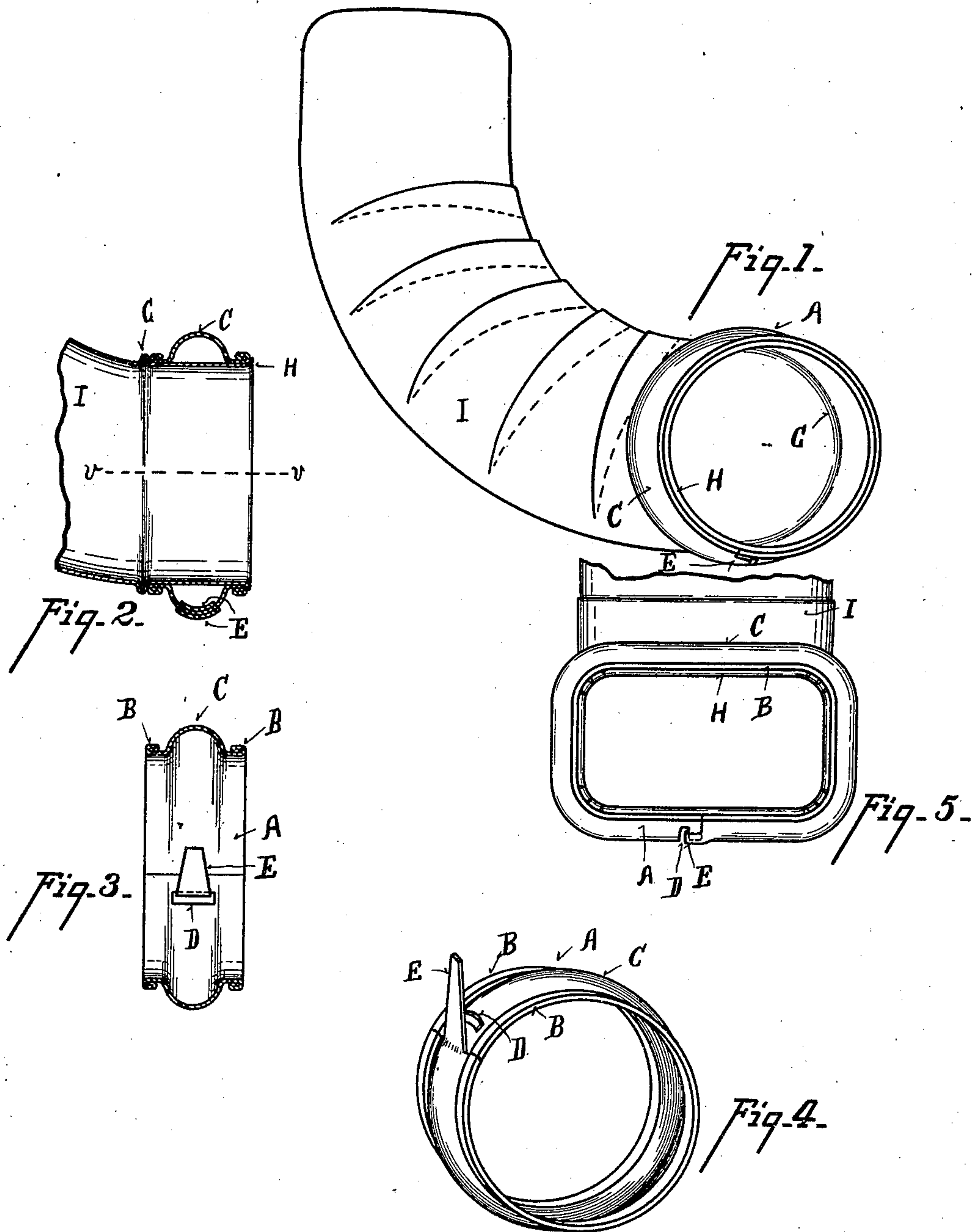


No. 669,161

Patented Mar. 5, 1901.

F. DIECKMANN.  
SHEET METAL ELBOW.  
(Application filed Sept. 17, 1900.)

(No Model.)



Inventor

Witnesses  
Harry Moreton  
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# UNITED STATES PATENT OFFICE.

FERDINAND DIECKMANN, OF CINCINNATI, OHIO.

## SHEET-METAL ELBOW.

SPECIFICATION forming part of Letters Patent No. 669,161, dated March 5, 1901.

Application filed September 17, 1900. Serial No. 30,228. (No model.)

*To all whom it may concern:*

Be it known that I, FERDINAND DIECKMANN, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Sheet-Metal 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 appertains to make and use the same.

My invention relates to improvements in sheet-metal elbows. Its principal object is to provide an improved shoe or elbow having a strengthening-band around one end and the manner of constructing and attaching the band in place.

It also consists in certain details of form and combination, all of which will be more fully set forth in the description of the accompanying drawings, in which—

Figure 1 is a perspective view of my improved shoe. Fig. 2 is a central vertical section through the lower portion of the shoe. Fig. 3 is a section through the detached band on line *vv* of Fig. 2. Fig. 4 is a perspective view of the detached band before the ends are joined. Fig. 5 is an end view of the lower end of a shoe, showing the band applied to a rectangular style of elbow.

Various expedients have been resorted to heretofore to form a band on the end of sheet-metal elbows, all of which have been rough and unsightly, lacking in strength or excessively heavy, besides involving a large amount of labor in their production and attachment. All these objections I overcome by the structure set forth in the accompanying drawings, which consists in employing the waste sheet metal resulting from the manufacture of the body of the elbow to form a band of peculiar form, giving it great strength and rigidity for the weight of metal employed. The band *A* is formed by arching or curving the band at *C* and turning its edges at *B*, as shown in the drawings, to give it strength and stiffness and also bending it into a ring or loop. *D* represents a slot in one of the meeting ends of the ring, and *E* a tongue projecting from

the other end. The tongue is inserted in the slot and its end bent down upon the inside of the band, holding the meeting edges of the loop tightly together. The metal of the elbow-body *I* is turned up at *G H* to assist in holding the band in place on the body portion, and the whole is preferably finally galvanized to seal all the joints and unite the parts.

The elbow-body may be of any approved pattern, of round, oval, rectangular, or similar cross-section, and either crimped or stamped. I do not wish to limit myself to the form of arch *C* shown, as this part of the band may be variously changed in outline without departing from the principle of my invention.

Having described my invention, what I claim is—

1. In a sheet-metal elbow, a band encircling one end of the body portion of the elbow, having its edges turned and the central portion curved, and with a tongue for joining the meeting edges of the band, substantially as specified.

2. In a sheet-metal elbow, a body portion, and a band consisting of a sheet-metal loop having a tongue adapted to join its meeting edges, the body portion being turned up on either side of the band to hold it in place, substantially as specified.

3. A sheet-metal elbow composed of a body portion and a band consisting of a loop of sheet metal having its edges turned, and its center arched, a tongue joining the meeting edges of the loop, the body portion being turned up on either side of the band to hold it in place, substantially as specified.

4. As a new article of manufacture a sheet-metal elbow composed of a body portion and a band consisting of a loop of sheet metal having its central portion arched, and provided with a tongue adapted to join the meeting edges of the loop, substantially as specified.

In testimony whereof I have affixed my signature in presence of two witnesses.

FERDINAND DIECKMANN.

Witnesses:

EDW. H. HOFFELD,  
OTTO DIECKMANN.