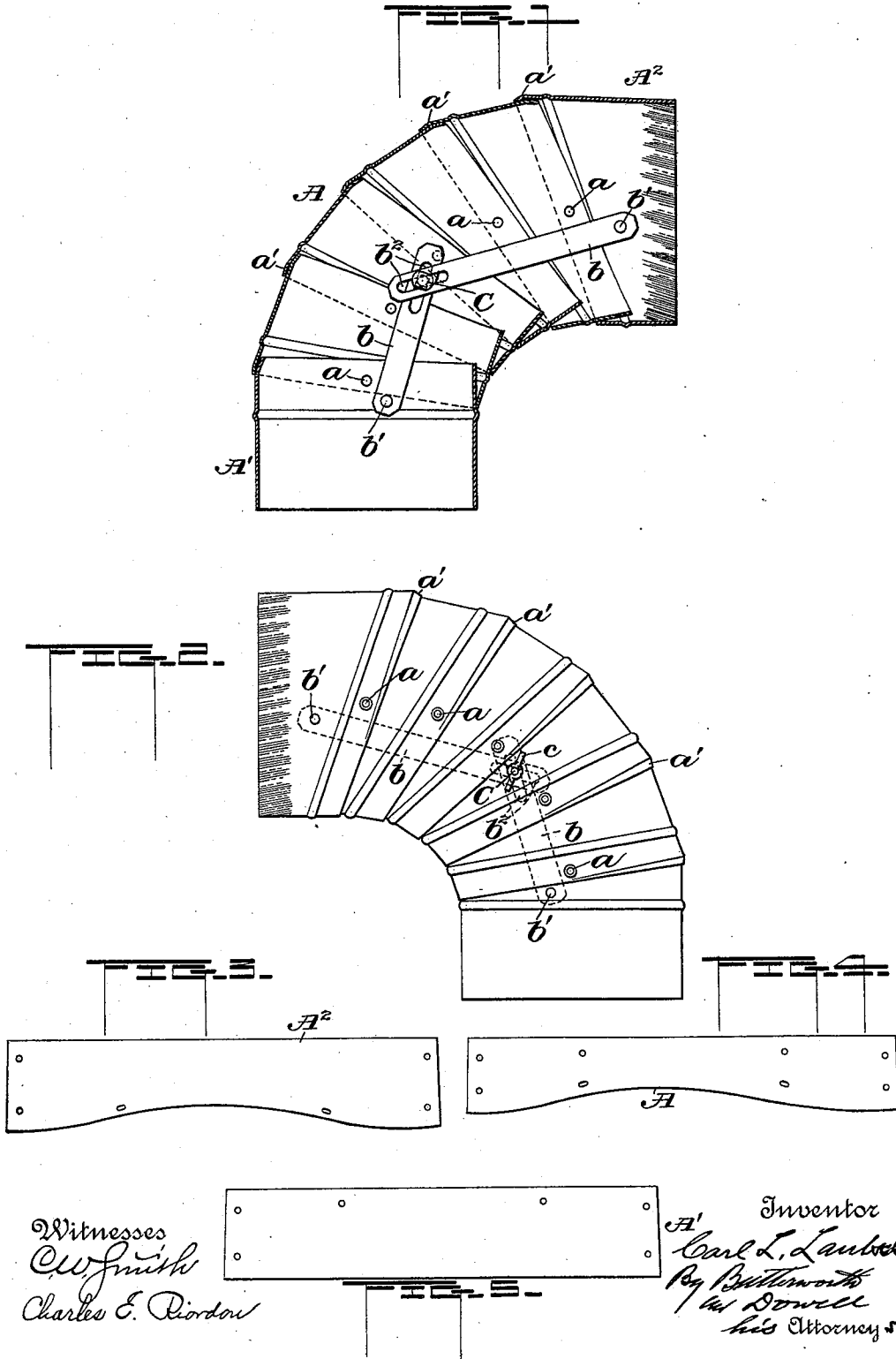


(No Model.)

C. L. LAUBSCH.
ELBOW.

No. 568,537.

Patented Sept. 29, 1896.



UNITED STATES PATENT OFFICE.

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LUDWIG A. WETZEL AND OSCAR E. UHLE, OF SAME PLACE.

ELBOW.

SPECIFICATION forming part of Letters Patent No. 568,537, dated September 29, 1896.

Application filed March 21, 1896. Serial No. 584,348. (No model.)

To all whom it may concern:

Be it known that I, CARL L. LAUBSCH, a citizen of the United States, residing at Norfolk, in the county of Madison and State of Nebraska, have invented certain new and useful Improvements in Elbows for Piping; 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.

This invention relates to adjustable pipe-sections or elbows, but more particularly to adjustable elbows for stove or smoke-conveying pipes.

The primary object of my invention is to provide a pipe-section or an elbow which may be readily adjusted and held at various angles or degrees of curvature, so as to permit the pipes to which the sections are secured to be placed in any desired position without bending the pipes or in any way injuring the joints between the pipes and the elbow.

A further object is to provide a simple, durable, and inexpensive elbow which may be readily placed and held at the desired angle and at the same time provide joints between the several sections composing the elbow or pipe-section which will effectually prevent the escape of the smoke or gases through the joints.

The invention consists, essentially, in a series of overlapping sections pivotally connected together and provided with means for securely holding the sections in an adjusted position.

The invention also consists in the construction and combination of the several parts, substantially as hereinafter described, and more particularly pointed out in the claims at the end of the description.

Referring to the accompanying drawings, forming a part of this specification, Figure 1 is a vertical sectional view of a stovepipe-elbow embodying my invention, illustrating the means for securely holding the parts when adjusted. Fig. 2 is a side elevation of the elbow reverse to that shown in Fig. 1. Figs. 3 and 5 are plan views, on a smaller scale, of the blanks from which the end sections are formed; and Fig. 4 is a plan view, on a re-

duced scale, of the blanks from which the intermediate sections are formed.

In the drawings, A may designate a series of intermediate sections of any desired number preferably formed from blanks having a straight and a curved edge, substantially as shown in Fig. 4, so as to provide an enlarged upper portion and a reduced lower portion when bent in the form of a cylinder, as indicated in Figs. 1 and 2, in order to permit the series of sections to be readily adjusted to various angles or degrees of curvature. The end section A' is preferably formed from a substantially rectangular blank, as shown in Fig. 5, while the end section A² is similarly formed, but somewhat wider than the intermediate sections A, as shown in Fig. 3. Each section, beginning with the end section A², overlaps and is pivoted to the next succeeding section on opposite sides thereof transversely to the plane of curvature, as at *a*, so as to permit the sections to be adjusted independent of each other. The sections may each have an offset *a'* at its upper edge, which partly surrounds the circumference, in order to permit the edges of the overlapping sections to slide over the next section without causing a binding action between their sliding surfaces, so that the angle or degree of curvature of the several sections may be varied as desired.

For the purpose of securing the several sections and rigidly holding the same when adjusted I may arrange within the interior of the elbow or pipe-sections a pair of levers or straps *b b*, having one of their ends pivoted preferably to the end sections, as at *b'* *b'*, and their other ends inclined and provided with slots *b² b²*, so as to pass over the body of a bolt C. This bolt passes through one of the sections and is preferably arranged centrally or intermediate the end sections, said bolt being preferably provided with a square body, over which the slotted ends of the levers or straps *b b* pass, and a thumb or other nut *c* upon its outer end, so that by tightening the nut the levers or straps will be rigidly held to the sections in order to rigidly hold said sections in an adjusted position. By this means the several sections may be adjusted to any desired

angle or degree of curvature and held so as to prevent their slipping or displacement.

The manner of using and constructing the invention will be readily understood from the foregoing description, when taken in connection with the accompanying drawings. Assuming the parts to be in the position shown in Fig. 1, it will be readily seen, if the nut *c* is released, that any or all of the sections may be moved or tilted upon their pivots, so as to cause each overlapping section to slide upon the next succeeding section. This movement will cause the straps or levers *b b* to slide upon the bolt *C*, whereupon the nut may be tightened and the several parts rigidly held together by the binding action between the straps and sections. I thus provide a pipe-section or elbow in which the sections may be independently or simultaneously adjusted to various angles or degrees of curvature, and readily clamped and held from movement when adjusted.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A pipe-section or elbow, comprising a series of independent sections, each pivoted to the next adjacent section so as to be independently adjusted, and means for holding the sections in an adjusted position, whereby the elbow or pipe-section may be caused to assume various angles or degrees of curvature, substantially as described.

2. In an elbow or pipe-section, the combi-

nation with a series of independent sections pivotally secured together, of a pair of levers or straps arranged within the elbow and pivoted at one of their ends to the sections and provided with slots in their other ends, a bolt foreengaging the slots in the straps, and means for tightening the bolt so as to clamp the sections and straps, whereby the elbow or pipe-section may be adjusted and held at various angles or degrees of curvature, substantially as described.

3. In an elbow or pipe-section, the combination with a series of independent overlapping sections pivotally held together so as to be independently adjusted, each overlapping section being provided with an offset upon its upper surface to permit the overlapping section to slide readily over the next succeeding section, a pair of levers or straps arranged within the elbow having one of their ends pivoted to the end sections and their other or inner ends provided with slots and extending inwardly so as to overlap, a bolt passing through one of the sections and engaging the slots in the straps, and means for tightening the bolt so as to clamp the sections and straps, whereby the elbow or pipe-sections may be adjusted and held at various angles or degrees of curvature, substantially as described.

CARL L. LAUBSCH.

Witnesses:

E. W. ZUTZ,

ARTHUR P. PILGER.