May 15, 1923. 1,455,027

M. LUDWIG

STOVEPIPE REDUCING JOINT

Filed July 5, 1921

Fig. 1.

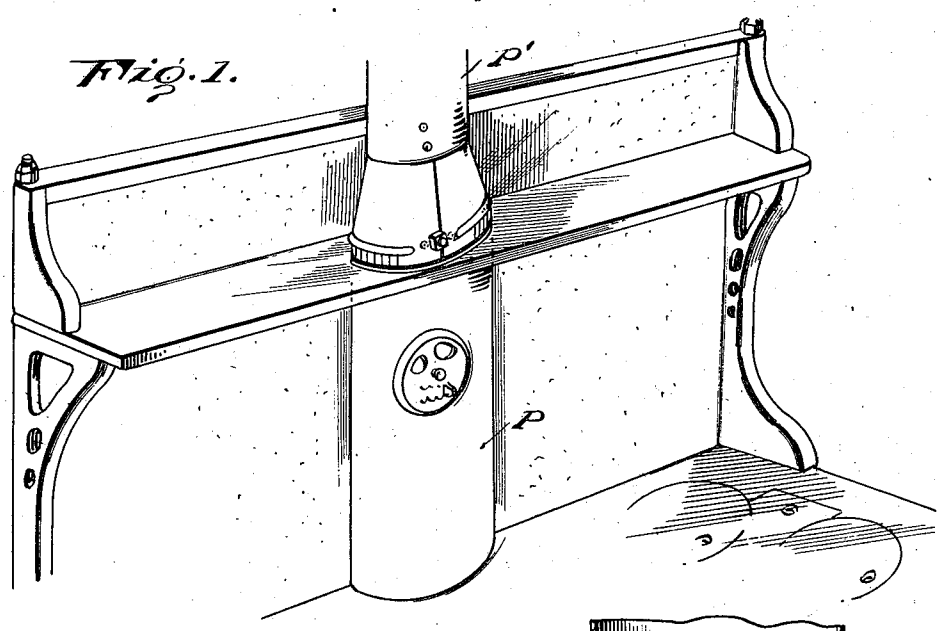


Fig. 2.

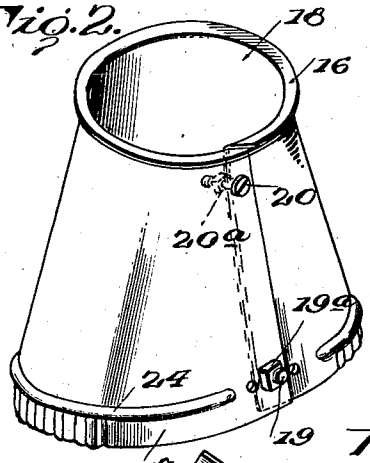


Fig. 3.

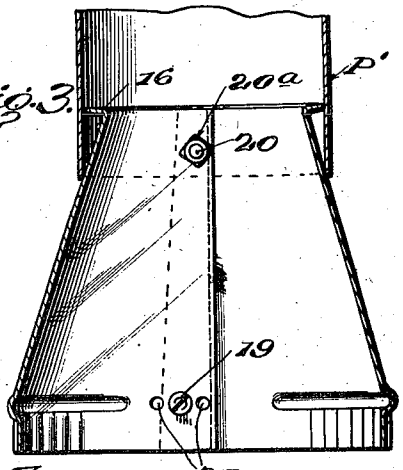
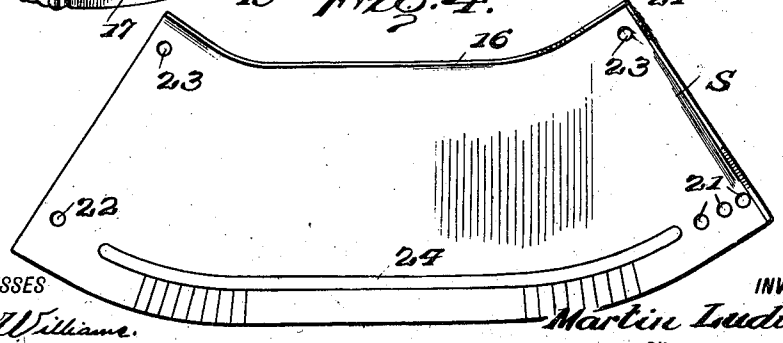


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

MARTIN LUDWIG, OF ALBANY, OREGON.

STOVEPIPE-REDUCING JOINT.

Application filed July 5, 1921. Serial No. 482,494.

To all whom it may concern:

Be it known that I, MARTIN LUDWIG, a citizen of the United States, and a resident of Albany, in the county of Linn and State of Oregon, have invented certain new and useful Improvements in Stovepipe-Reducing Joints, of which the following is a specification.

My invention relates to reducing joints for stove pipes, and the purpose of my invention is the provision of a simple and inexpensive joint section which is adapted to securely connect stove pipes having different cross sectional contours, and which is readily adjustable to connect stove pipes of different and varied diameters.

I will describe one form of reducing joint embodying my invention and will then point out the novel features thereof in claims.

In the accompanying drawings:

Figure 1 is a view showing two lengths of stove pipe in applied position upon a stove and connected by one form of reducing joint embodying my invention.

Figure 2 is an enlarged detail perspective view of the reducing joint shown in Figure 1.

Figure 3 is a vertical sectional view of the joint and the adjacent end of one stove pipe shown in Figure 1.

Figure 4 is a view showing the sheet of metal forming the reducing joint before the same is bent.

Similar reference characters refer to similar parts in each of the several views.

Referring specifically to the drawing and particularly to Figure 4, S designates a sheet of suitable metal, the longitudinal edges of which are curved in the same direction, with the upper longitudinal edge provided with a securing flange 16. The transverse edges of the sheet are inclined in the direction of the upper or flanged longitudinal edge which, in conjunction with the curved longitudinal edges forms, when bent so that the transverse edges meet, a joint having an ovate lower end 17 and a circular upper end 18, as clearly shown in Figures 2 and 3. The sheet S is secured in joint formation by bolts 19 and 20, the bolt 19 extending through any one of a plurality of openings 21 formed in the sheet adjacent the lower longitudinal edge and another opening 22 formed at the corresponding point adjacent the opposite end of the lower longitudinal edge. By this arrangement, the diameter of the lower end of the joint is capable of being increased or decreased to receive pipes having an ovate cross sectional contour of various diameters. The bolt 20 is extended through openings 23 formed in the sheet in the manner shown in Figure 4 so that the upper end of the sheet is secured in circular formation. Each bolt 19 and 20 is provided with a nut 19^a and 20^a, respectively, which is adapted to retain the bolt in securing relation with respect to the joint. As shown in Figures 2 and 3, the lower edge of the joint is fluted and provided with a gripping rib 24 for securing the lower end of the joint within an ovate pipe.

In the applied position of the joint as shown in Figures 1 and 3, the lower end is adapted to receive an ovate pipe designated at P, while the upper or circular end is inserted in a circular pipe P′, and in such manner that the flange 16 engages the inner surface of the pipe and thus serves to secure the joint against accidental displacement.

It is to be particularly noted that an adjustment of the upper end 18 of the joint to accommodate circular pipes of different diameters is rendered unnecessary because of the substantial conical form of the joint. As shown in Figure 3, the circular pipe P′ when connected to the joint moves downwardly upon the joint until it engages the body of the joint, the flange 16 serving to prevent the downward passage of soot or other matter between the two. As previously described, the lower end of the joint can be varied to snugly fit within ovate pipes of different diameters, so that in conjunction with the upper circular end the joint is universally adaptable to connect circular and ovate pipes of different and various diameters.

Although I have herein shown and described only one form of stove pipe reducing joint embodying my invention, it is to be understood that various changes and modifications may be made herein without departing from the spirit of the invention or the spirit and scope of the appended claim.

What I claim is:

As an article of manufacture, a stove pipe joint made of a single piece of sheet material arranged with its vertical edge portions in lapped relation and so fashioned as to provide a body having a greater area at its

lower end than at its upper end, and having an outwardly extending flange at its upper end, said body having vertical corrugations extending from the lower end thereof so that the cross sectional area of the body is constant for the determined distance from the lower end thereof and decreases regularly toward the upper end of the body, means for fixedly securing the lapped portions together at the upper end of the body, and other means for securing the lapped portions together adjacent to their lower ends in various adjusted positions with respect to each other to vary the area of the body at the lower end thereof.

MARTIN LUDWIG.