

J. T. RIDER.
STOVEPIPE.
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912,490.

Patented Feb. 16, 1909.

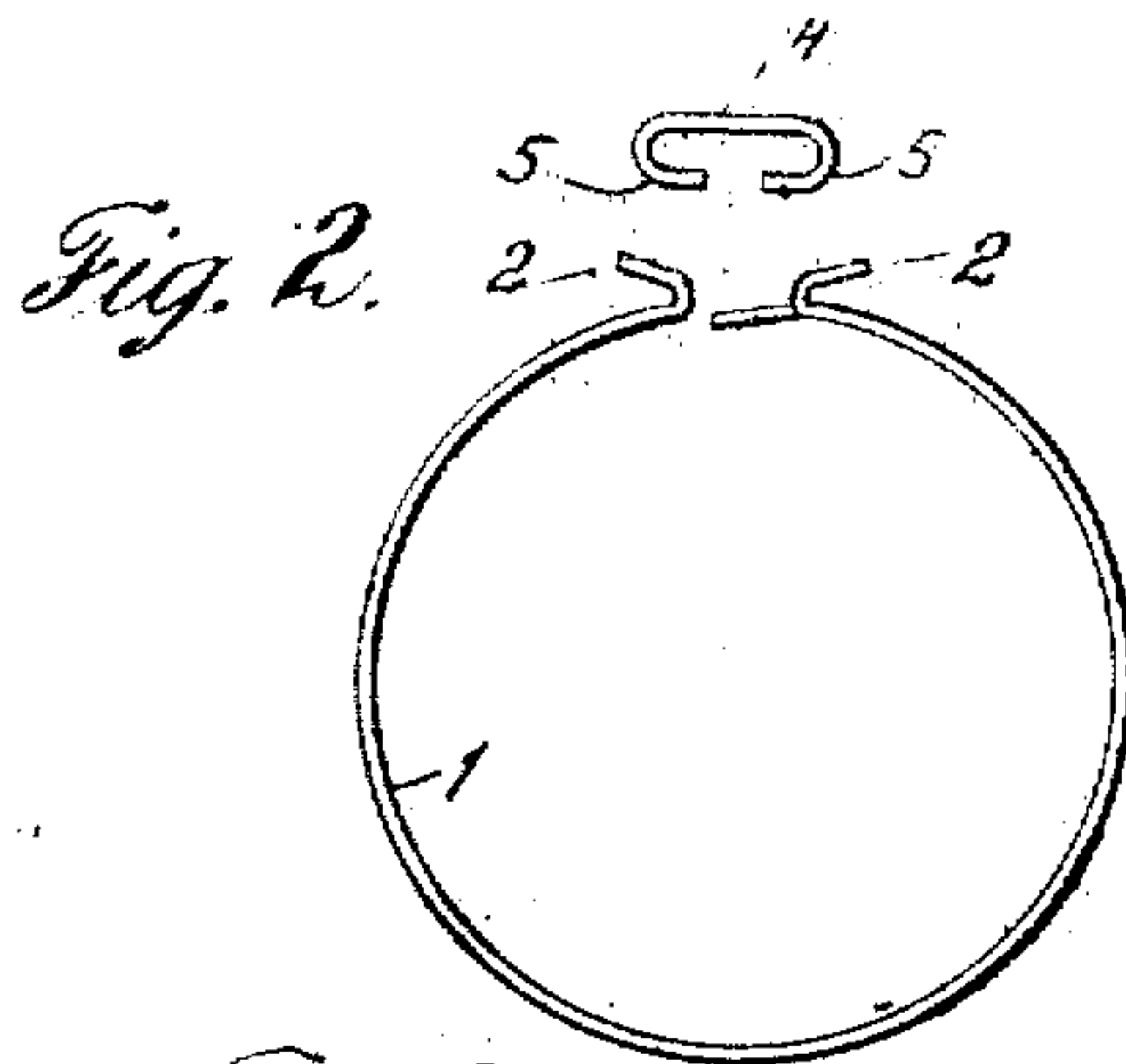
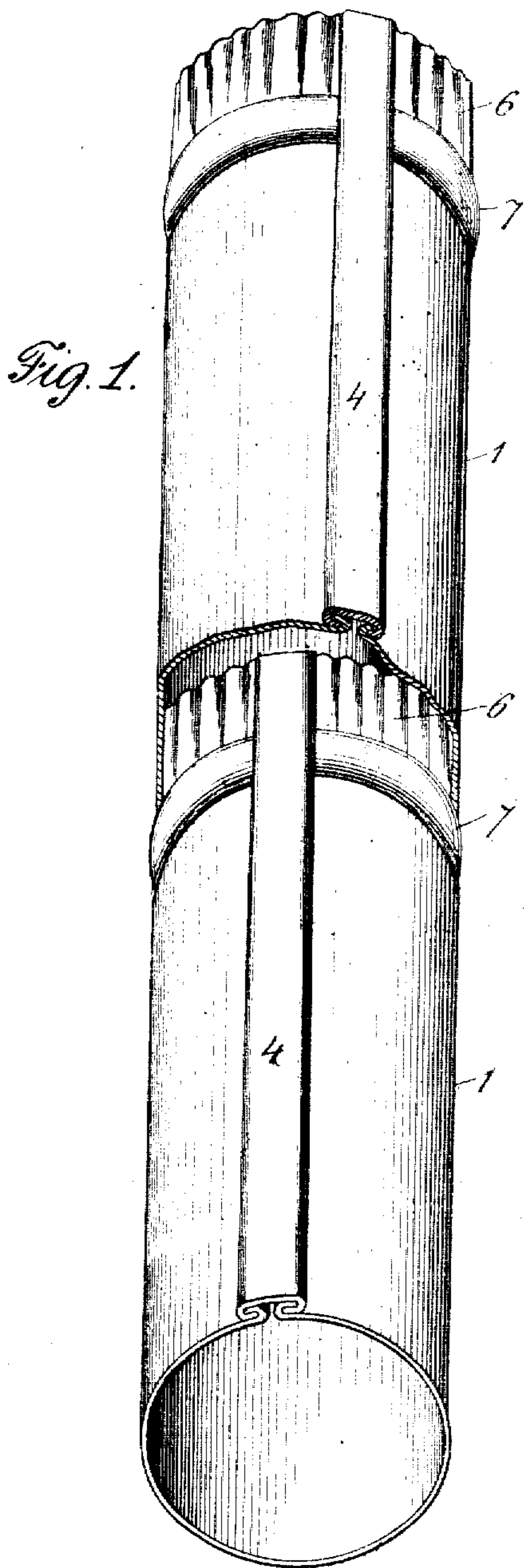


Fig. 3.

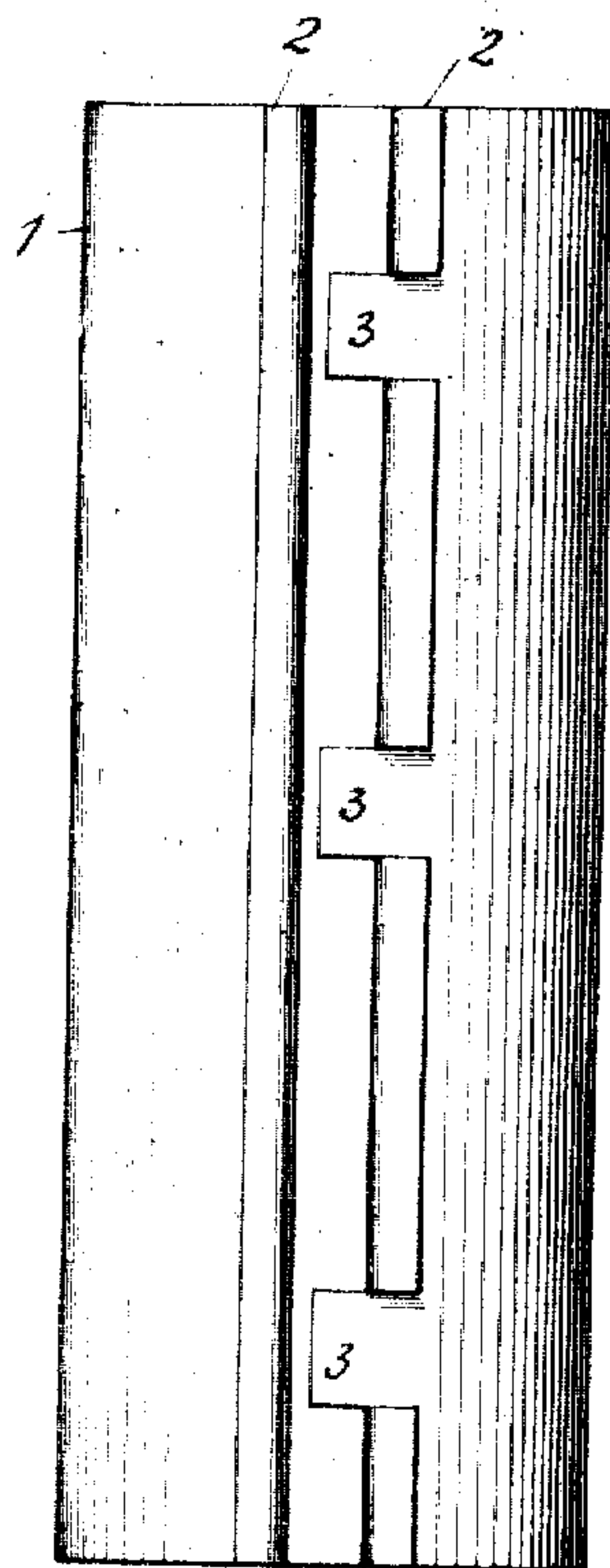
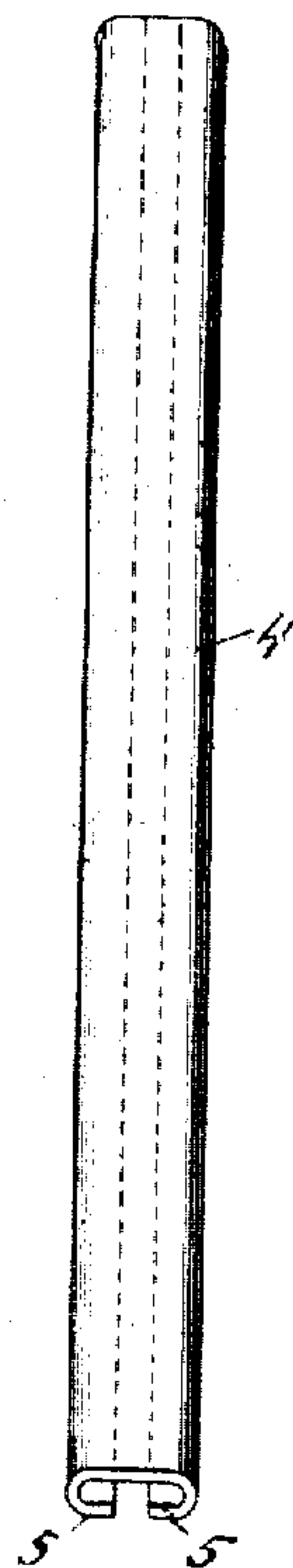


Fig. 4.



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UNITED STATES PATENT OFFICE.

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STOVEPIPE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN T. RIDER, a citizen of the United States of America, residing at Oil City, in the county of Venango and State of Pennsylvania, have invented certain new and useful Improvements in Stovepipes, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to stove pipes, and the primary object of the invention is, to provide a non-collapsible, strong and durable pipe that can be manufactured from sheet metal, bent and provided with interlocking edges, thereby dispensing with the use of rivets.

Another object of this invention is to provide a pipe having locked edges forming a seam, which will not be affected when the pipe is cut to produce pieces of various length.

A further object of this invention is to provide sections of stove pipe that can be easily and quickly connected together to insure a non-leakable conduit for smoke.

The invention comprises a sheet or blank having its edges bent upon themselves, and slitted to provide reinforcing lugs, in combination with a connecting strip engaging the bent edges of the sheet or blank.

The construction of the improvement will be fully described hereinafter in connection with the accompanying drawings, forming a part of this specification, and its features of novelty will be set forth in the appended claims.

In the drawings: Figure 1 is a perspective view of the stove pipe embodying my invention, Fig. 2 is an end view of a pipe with its closure strip removed, Fig. 3 is an elevation of the body portion of the pipe, and Fig. 4 is a similar view of the closure strip.

Referring to the drawings, 1 designates a blank sheet of metal which constitutes the body portion of the pipe, said blank being of the proper width so that when rolled and manipulated as hereinafter described, a pipe section of the proper diameter will be prepared. The longitudinal marginal edges of the blank are bent outwardly from the plane of the blank and then backwardly to form flanges 2, said flanges extending throughout the entire length of the body portion, the bending of the blank to form the flanges providing longitudinally extending recesses between the plane of the blank and the back-

wardly extending portions of the flanges. One of the flanges 2 is slitted in a direction at right angles to the axis of the blank, the slits being located at various points in the length of the flange, said slits extending from the edge of the flange to the plane of the blank, thereby providing a plurality of lugs which extend in the plane of and form a continuation of the blank and which protect the flanged edge thereof, said lugs being adapted to pass beneath the opposing edge of the blank when the blank is formed into the pipe.

The complete seam of the pipe section is formed by the use of a closure strip 4, which, like the body-portion has its longitudinally-extending portions bent backwardly to form flanges and the longitudinally-extending recesses, the flanges of one member extending into the recesses of the other member. The two members (the body-portion and the closure strip) are of equal length, and when assembled have their ends coincident, thereby providing a pipe-section complete in itself, and having its seam of similar cross-sectional configuration throughout its length. The two members of each section are only assembled when ready to be used, the prior non-assembling of the members permitting of a nesting of a number of different body-portions to economize space in shipments, the complementary seam portions of the members, however, being of predetermined form or shape to permit of a ready assembling of the members when the pipe-section is to be completed. It is to be noted that the flanges in shipping position extend in directions angular with respect to the plane of the members, the longitudinally-extending recesses being enlarged on the plane of the free edge of the flanges, to permit the members to be readily assembled.

The members may be assembled either by slipping the closure strip longitudinally of the body portion, the flanges 5 extending within the recesses formed between the flanges 2 and the body-portion, until the ends of the two members are coincident, or the unslitted flanged edge of the body-portion may be passed into the complementary recess of the closure strip while the two members have their ends coincident, and while in this position, the application of pressure on the slitted flanged edge of the body-portion causes said flanged edge to pass within the normal cylindrical plane of

the section to a point where the free edge of the closure strip flange will clear the free edge of the slitted flange of the body-portion, whereupon a release of the pressure permits the members to properly engage, the provision of the lugs on but one edge of the body-portion permitting this yielding movement while the other edge is in engagement with the complementary portion of the closure strip. The latter manner of assembling is preferred owing to the rapidity of operation, no essential care being required to have the flanges of the body-portion in substantial alignment and the lugs in proper position as is necessary where the longitudinal movement of the closure-strip is had; furthermore, the liability of a binding of the parts when the closure strip is being passed over the bead and crimped end portion of the body is prevented. While the members at this time are assembled, the pipe-section is not complete, as the engagement of the flanges may be broken by simply applying pressure on the slitted edge of the body-portion. The pipe-section is completed by flattening the seam-forming portions in any suitable manner, as by placing the assembled section on an anvil and hammering on the outer face of the closure strip throughout its length. This latter operation changes the shape of the seam in cross-section, the flanges being carried to positions where they extend in substantial alignment with the members and forming a seam of four thicknesses of the metal in close contact with each other, this being increased to five thicknesses only at the points where the lugs are located. This flattening of the seam brings the opposing edges of the body portion into close proximity, the width of the closure strip flanges being such that the flattening causes the free edges of the closure strip flanges to draw the edges of the body-portion together. When thus completed, the seam of the pipe-section is of substantially-similar cross-sectional configuration throughout the length of the section and is of a form to prevent breaking of the seam, bending of the pipe along the seam line, as well as preventing leakage. And inasmuch as the seam has the same configuration throughout, the section may be cut at any portion throughout its length to produce a section of less length without affecting the seam connection in any manner.

As pointed out, the body and closure strip have their ends coincident with each other. As the thickness of the seam is limited, the crimped end of the section, with the closure strip in position, may be inserted within the adjacent pipe section when two sections are assembled, in the same manner as the well-known riveted or soldered seam pipe sections are connected, with the advantage, however, of having within the telescoped end of the

adjacent section, a seam which is of exceeding strength against a bending of the pipe by the presence of the longitudinally-extending flanges and closure strip, these parts forming a reinforce within the telescoped end.

My improved construction provides a stove pipe having a continuous reinforced seam or joint, overlapping lugs within the pipe serving to brace the same transversely, and cooperating with the longitudinal closure strip to impart rigidity and strength to the pipe.

It is evident that a pipe retains its shape irrespective of where the same is severed.

Having now described my invention what I claim as new, is:—

1. A stove-pipe section comprising a sheet-metal blank and a closure strip, said blank and strip being of equal length and each having its longitudinal marginal portions bent backwardly to form flanges extending throughout its length, said flanges providing longitudinally-extending recesses between the flanges and the main portions on the same face of the main portions, the recesses of one part freely receiving the flanges of the other part throughout the length of the parts, said flanges being of a width to force the opposed edges of the blank into close proximity by a flattening of the strip and the several flanges, the parts in flattened position forming a seam of substantially-similar cross-sectional configuration throughout the length of the pipe-section.

2. A stove-pipe section comprising a sheet-metal blank and a closure strip, said blank and strip being of equal length and each having its longitudinal marginal portions bent backwardly to form flanges extending throughout its length, said flanges providing longitudinally-extending recesses between the flanges and the main portions on the same face of the main portions, the recesses of one part freely receiving the flanges of the other part throughout the length of the parts, said flanges being of a width to force the opposed edges of the blank into close proximity by a flattening of the strip and the several flanges, the parts in flattened position forming a seam of substantially-similar cross-sectional configuration throughout the length of the pipe-section, the blank having integral lugs projecting from one of its longitudinal edges, said lugs, when the section is completed, being located on the inner side of the opposing edge of the body-portion.

In testimony whereof I affix my signature in the presence of two witnesses.

JOHN T. RIDER.

Witnesses:

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EDWD. S. McALEVY.