

No. 614,120.

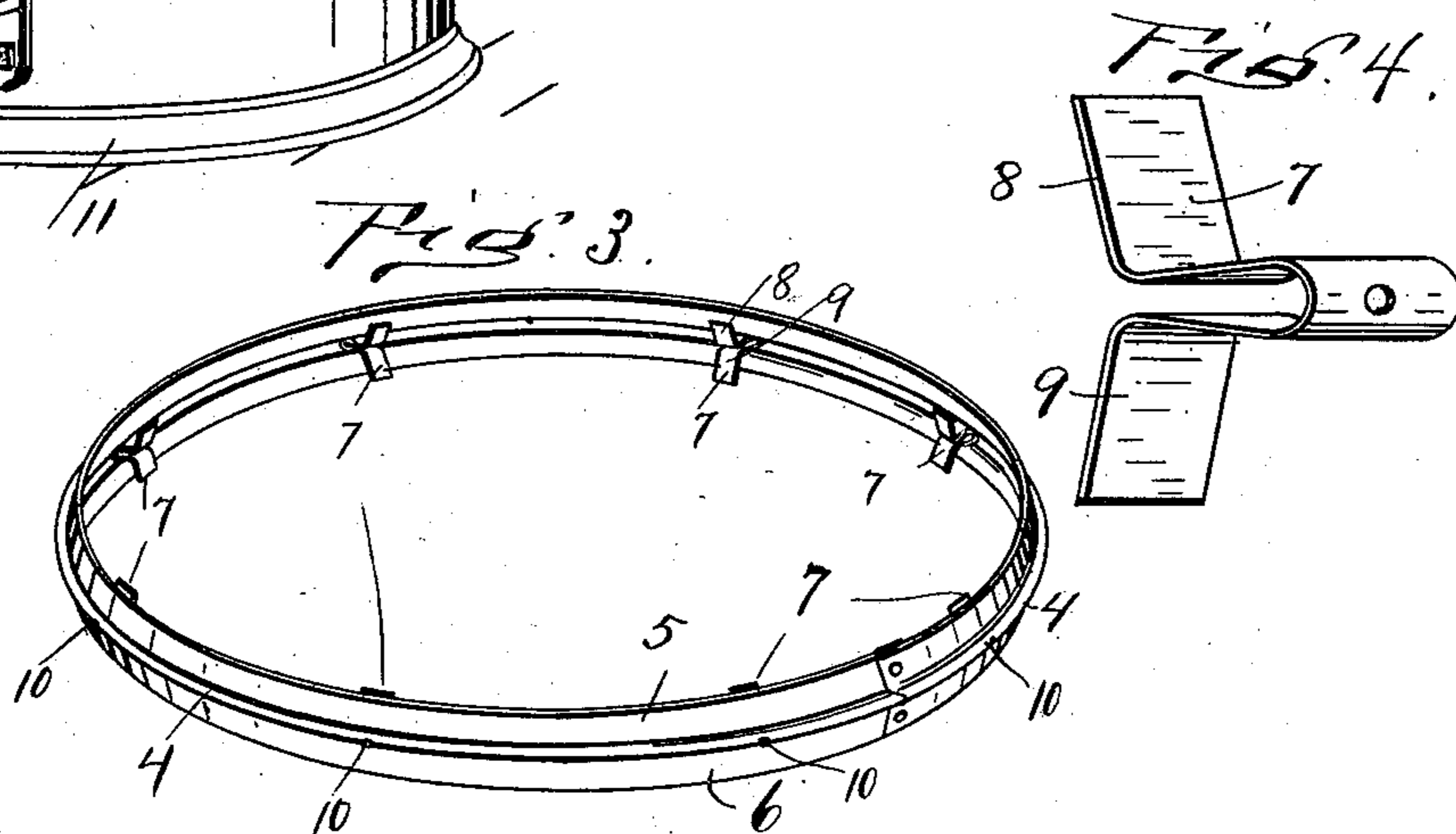
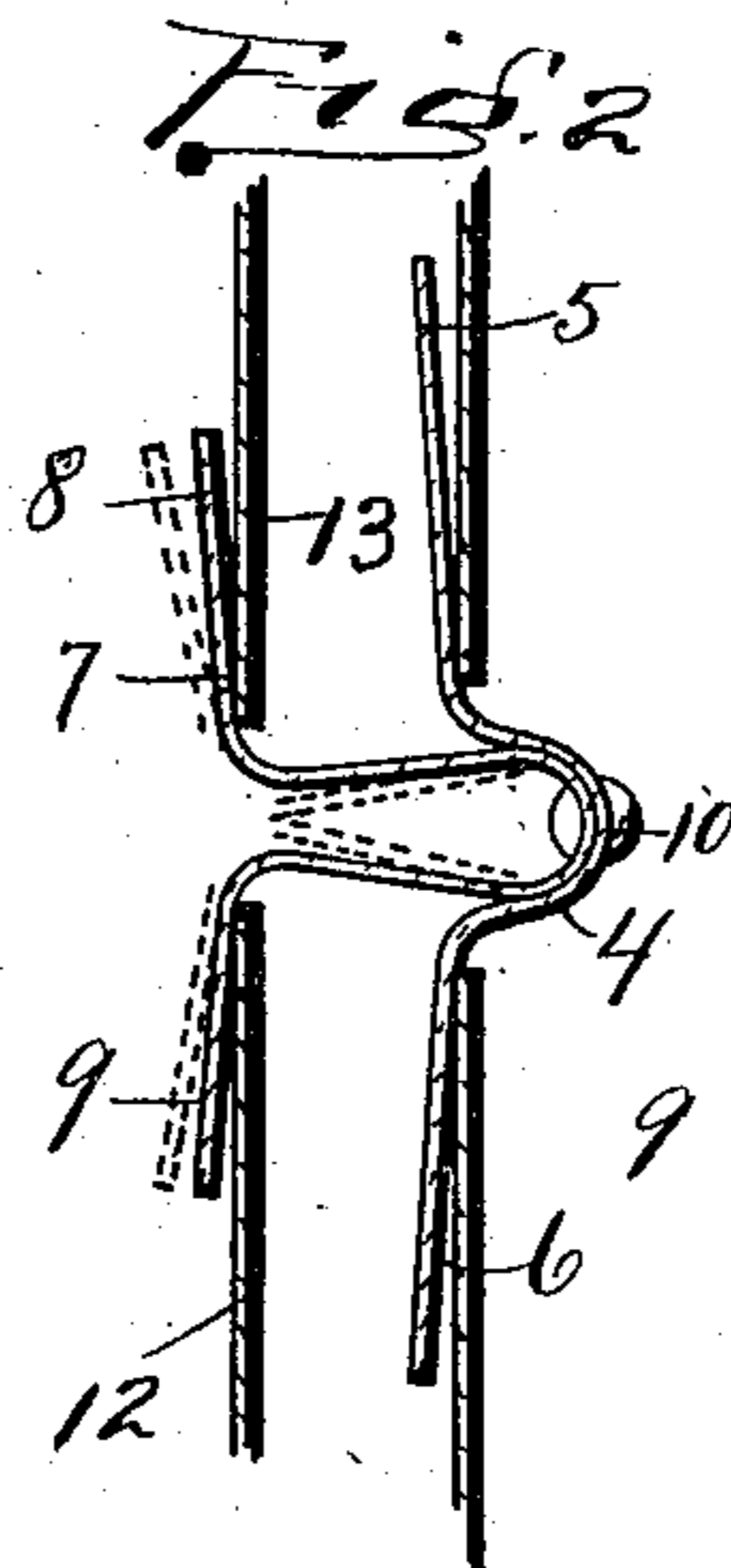
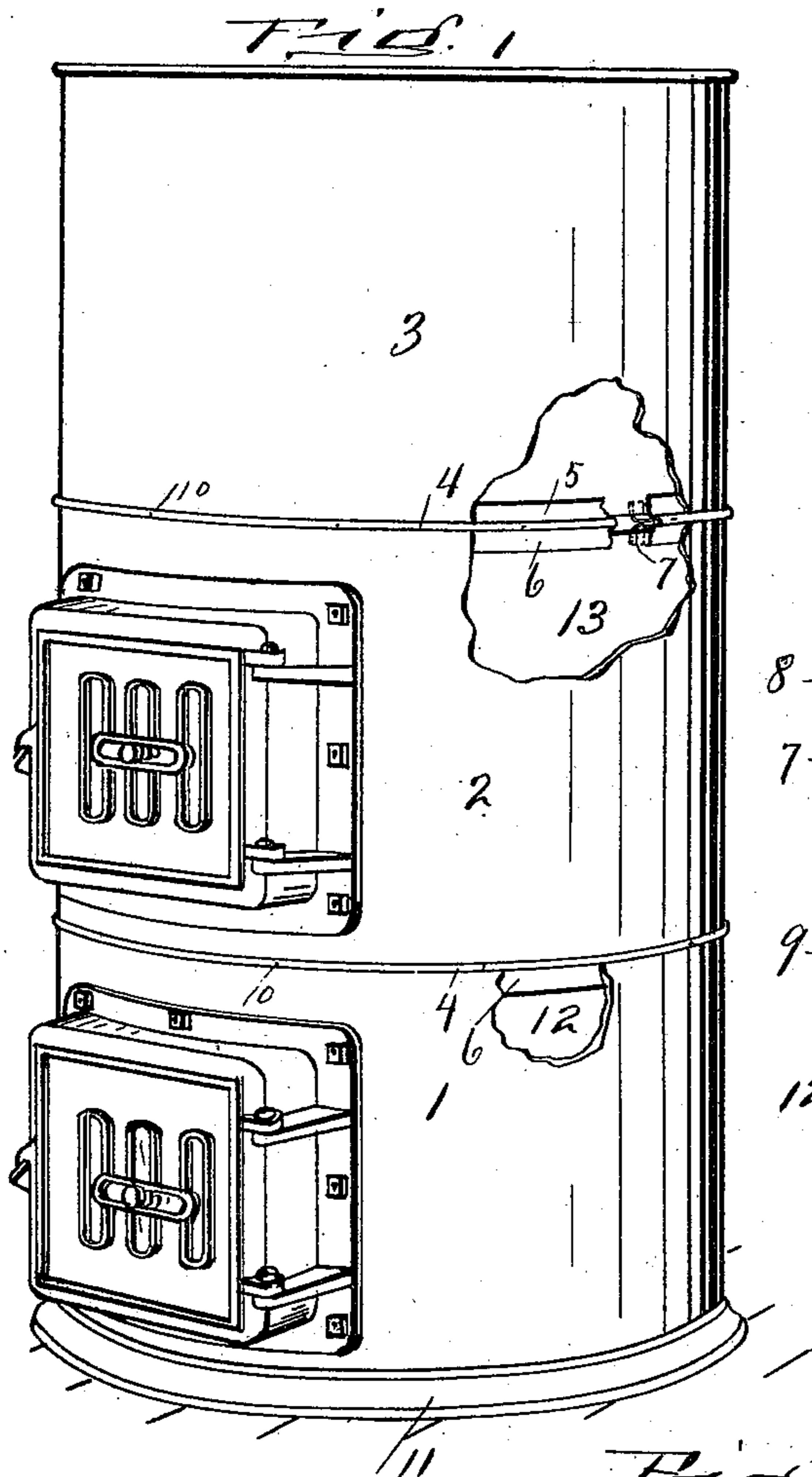
Patented Nov. 15, 1898.

R. A. MAY.

CONNECTING BAND FOR FURNACES.

(Application filed July 14, 1898.)

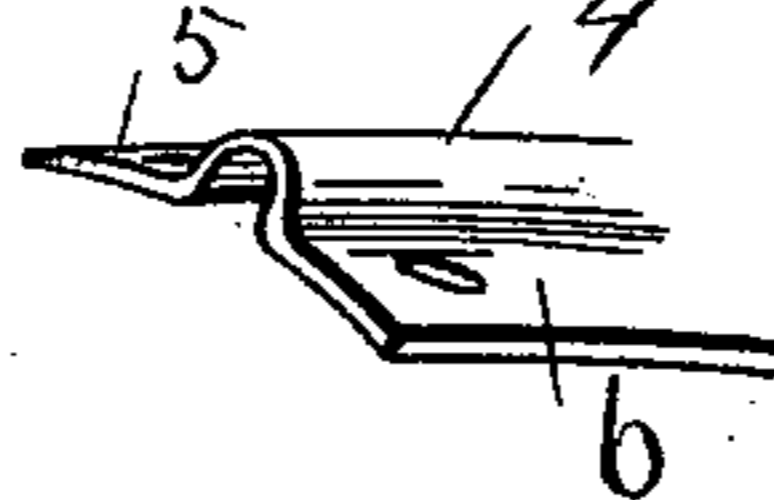
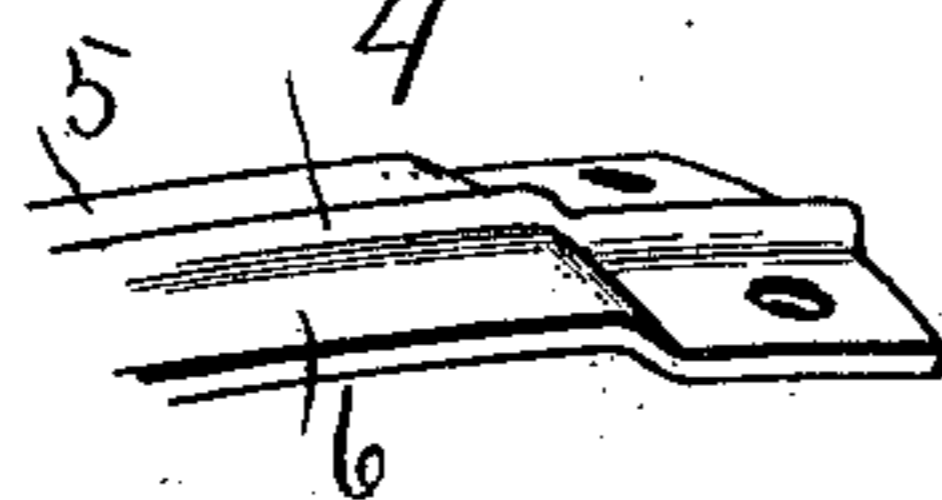
(No Model.)



WITNESSES

J. Cross.
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Fig. 5



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UNITED STATES PATENT OFFICE.

RUDOLPH A. MAY, OF AKRON, OHIO.

CONNECTING-BAND FOR FURNACES.

SPECIFICATION forming part of Letters Patent No. 614,120, dated November 15, 1898.

Application filed July 14, 1898. Serial No. 685,922. (No model.)

To all whom it may concern:

Be it known that I, RUDOLPH A. MAY, a citizen of the United States, residing at Akron, in the county of Summit and State of Ohio, have invented certain new and useful Improvements in Connecting-Bands for Furnaces; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the figures of reference marked thereon, in which—

Figure 1 is a side elevation showing the furnace-casing properly connected, also showing the outer shell broken away. Fig. 2 is a vertical section of the furnace casings or shells and a transverse section of the connecting-band and one of the clips or supports, one position of said supports being shown in dotted lines. Fig. 3 is a detached view of the connecting-band. Fig. 4 is a detached view of one of the clips or supports. Fig. 5 is a view showing portions of the band and their connecting ends detached.

The present invention has relation to bands designed and calculated to connect the sections of a furnace casing or housing together; and it consists in the novel arrangement hereinafter described.

Similar numbers of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings, 1, 2, and 3 represent the outer sections of the casing or shell, and when properly connected together they are arranged substantially as shown in Fig. 1. In Fig. 1 three sections are shown connected together; but it will be understood that any desired number of sections may be connected together, reference being had to the height of the furnace-casing proper.

The band proper is formed of thin metal, and in its manufacture it is given the proper configuration by means of dies and before the metal has been bent to form a circle or band, after which it is bent to form a circle or band, as illustrated in Fig. 3.

As shown, the band is provided at or near its center with the convexo-concave bead 4, the convex side of which is located upon the outer periphery and the concave side upon the inner periphery. The band is also pro-

vided with the two oppositely-extending flanges 5 and 6, which flanges are inclined toward the center of the circle, thereby providing beveled flanges. Said beveled flanges are for the purpose hereinafter described. The clips or supports 7 are substantially of the form shown in Fig. 4, and, as shown, they are formed of a single piece of metal and are provided with the upward and downward extending flanges 8 and 9, which flanges are slightly inclined toward the center of the circle of the band to which they are attached. The outer ends of the clips or supports 7 are seated into the convex side of the bead 4 or, in other words, into the groove, by which arrangement they are held against tilting, and hence but a single rivet, such as 10, is required for each clip or support.

In assembling the different parts of the furnace-housing proper the bottom or lower section is connected to the base 11 in the ordinary manner and also the inner section 12. The band is then placed upon the top or upper end of the section, thereby bringing the beveled flange 6 upon the inner side of the outer section or shell 1 and the lower flange 9 of each clip upon the inside of the inner section or shell 12, as illustrated in Fig. 2. The band proper is forced into the upper open end of the sections until a closed joint is produced. The upper section 2 is brought into position by placing the bottom or lower end of said section over the upper flange of the band and forcing said section downward toward the bead 4 until closed and tight joint is produced, after which the inner section 13 is placed in position, the bottom or lower end of which rests upon the upper sides of the clips or supports 7 and the upper flange 8 being located upon the inner side of said section.

The different sections are connected in the same manner as just above described, and hence no further description is deemed necessary so far as connecting the joints together is concerned. It will be understood that by my peculiar arrangement I am enabled to so connect the different sections of the outer shell that they will be dust and substantially gas tight, and at the same time I am able to hold the inner sections in proper position and in such a position that a uniform space will be formed at all points.

For the purpose of providing a smooth joint for the band the under lapped end of said band is bent or pressed inward for a distance equal to the thickness of the overlapping end.

- 5 It will be understood that by leaving one end of the band in its original form all that is necessary to be done to constitute rings of different diameters is to cut a portion from the end designed to overlap the indented portion.
- 10 By this arrangement little difficulty will be experienced in manufacturing rings of different diameters.

By placing the connecting rings or bands in the position illustrated in Fig. 1 the convex portion of the bead will be exposed, thereby producing a neat finish and adding ornamentation to the furnace-casing proper.

15 It will be understood that forming the band of sheet metal and pressing the convexo-concave bead, as shown, will add strength to the band and at the same time make it more rigid.

20 Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of furnace-sections, a band interposed between the adjacent ends 25 of the sections, the said interposed bands provided with the convexo-concave rib, the beveled flanges extended in opposite directions from the rib and the clips or supports located 30 upon the inner periphery of the band, substantially as and for the purpose specified.

2. As an improved article of manufacture, a furnace-band consisting of the convexo-concave rib or bead, the beveled flanges extended in opposite directions from the rib or 35 bead, and the clips or supports seated into the concaved side of the bead and connected thereto, substantially as and for the purpose specified. 40

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

RUDOLPH A. MAY.

Witnesses:

F. B. THEISS,
VESTA L. DE LAND.