

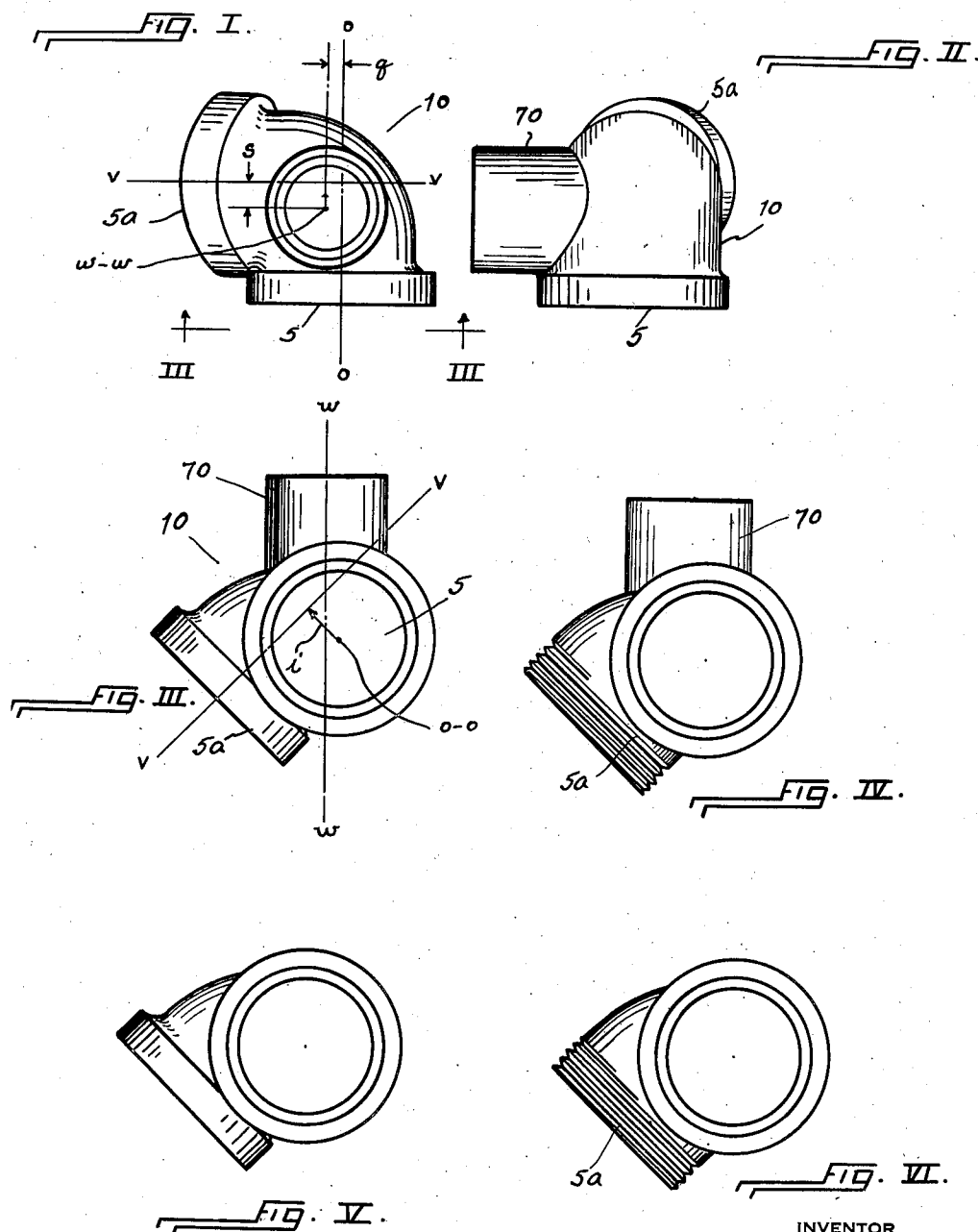
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PIPE FITTING

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2,292,328

PIPE FITTING

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Original application July 30, 1938, Serial No. 222,205. Divided and this application September 21, 1940, Serial No. 357,681

1 Claim. (Cl. 285—210)

My invention relates to plumbing installations, and consists in an improved pipe fitting, an elbow that in structure is designed particularly, though not exclusively, for use in a plumbing installation of the sort illustrated and described in an application for patent, Serial No. 222,205, filed by me July 30, 1938, now Patent No. 2,216,460, dated October 1, 1940. My present application comprises a division of such earlier application.

In the accompanying drawing the elbow of my invention is illustrated:

Fig. I is a view of the elbow in plan from above;

Fig. II is a view of the elbow in side elevation, as seen from the right of Fig. I;

Fig. III is a view in front elevation, as seen on the plane III—III of Fig. I;

Fig. IV is a view comparable with Fig. III, illustrating a modification in detail;

And Figs. V and VI are views severally corresponding to Figs. III and IV, illustrating a simpler form of the elbow of the invention.

Referring to the drawing, the elbow 10 is essentially a 90 degree elbow that has been elaborated and refined in form and structure. The tubular body of the elbow is formed on a compound curve; that is, the tubular body of the elbow curves in its extent from its opening 5 to its opening 5a through 90 degrees, and in its extent through such curvature the body is twisted laterally (downward, as viewed in Fig. III). Otherwise expressed, the end of the elbow that includes opening 5a is offset angularly (Fig. III) with respect to the general plane (the plane of the paper in Fig. I) in which the body of the elbow is seen to curve through 90 degrees. The degree of the angular offset, or the downward curvature, of such end of the elbow from said plane is less than 90 degrees—in this case 45°. The opening at each end of the elbow is belled; the two openings severally lie in planes that are normal to one another, and in this case both of the belled ends of the elbow are internally threaded, severally to receive threaded nipples, or other pipe fittings that are to be assembled therewith. The opening 5 of the elbow in the position shown in Fig. III lies in a vertical plane, and the opening 5a lies in a plane that is normal to said vertical plane, and that intersects said vertical plane in a trace that extends at an angle of 45° to the horizontal. Fig. III illustrates the position of the elbow in the plumbing installation shown in Fig. I of my above-noted application, Serial No. 222,205, and the herein specified relation of the openings 5 and 5a is (for purposes of description) given with the elbow considered in such position. And it will be understood that in the ensuing claims I use the

words "vertical" and "horizontal" as words of definition and not limitation.

The compound curvature of the body of the elbow is such that the axis $v-v$ of its opening 5a extends, as viewed in the plane of Fig. I, at an angle of 90 degrees to the axis $o-o$ of opening 5. It is further to be noted that these two axes, while appearing to intersect in Fig. I, do not intersect; there is a substantial interval i between such axes in the region of closest proximity of one axis to the other. Note Fig. III. Consideration of the several views given in the drawings, together with the above specification, will afford an understanding of the peculiar construction of the elbow of the invention. It is an elbow whose body is curved, and twisted in the extent of the curvature, and the relation of the curve to the twist is such that the axes $v-v$ and $o-o$ of the openings at the opposite ends of the elbow do not intersect, even though such openings lie in planes that are perpendicular to one another. What has been said of the elbow thus far applies to the structures shown in all six figures of the drawing, save that in the elbows of Figs. IV and VI the end 5a is externally rather than internally threaded.

The structure of Figs. I to III is elaborated beyond the description thus far given, and such elaboration particularly adapts the structure for use in the exemplary installation given in my said application Serial No. 222,205. Specifically, I provide a tubular boss or hub 70 on the elbow, by means of which a vent-pipe or other duct may be secured in communication with the passage that extends through the elbow. The axis $w-w$ of such boss extends parallel with the plane of opening 5 and angularly to the plane of opening 5a and to the axis $v-v$ thereof. Additionally, it is to be noted that the axis $w-w$ of the boss 70 extends transversely to both axes $o-o$, as well as to the axis $v-v$, and that the axis $w-w$ of the boss is spaced at an interval q from axis $o-o$ and at an interval s from axis $v-v$, as shown in Fig. I.

The elbow of the invention may be further modified without departure from the appended claims, particularly in the details illustrated and described in said application Serial No. 222,205.

I claim as my invention:

A fitting including an inlet and an outlet disposed in planes normal to each other, having axes spaced apart at their point of closest proximity, a tubular body of regular compound curvature connecting said inlet and said outlet, an integral vent-hub, the plane of whose outer end is disposed normal to the plane of said inlet and oblique to the plane of said outlet.

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