

(No Model.)

C. J. BALTHASAR.

VALVE AND ELBOW FOR HOT WATER RADIATORS.

No. 563,120.

Patented June 30, 1896.

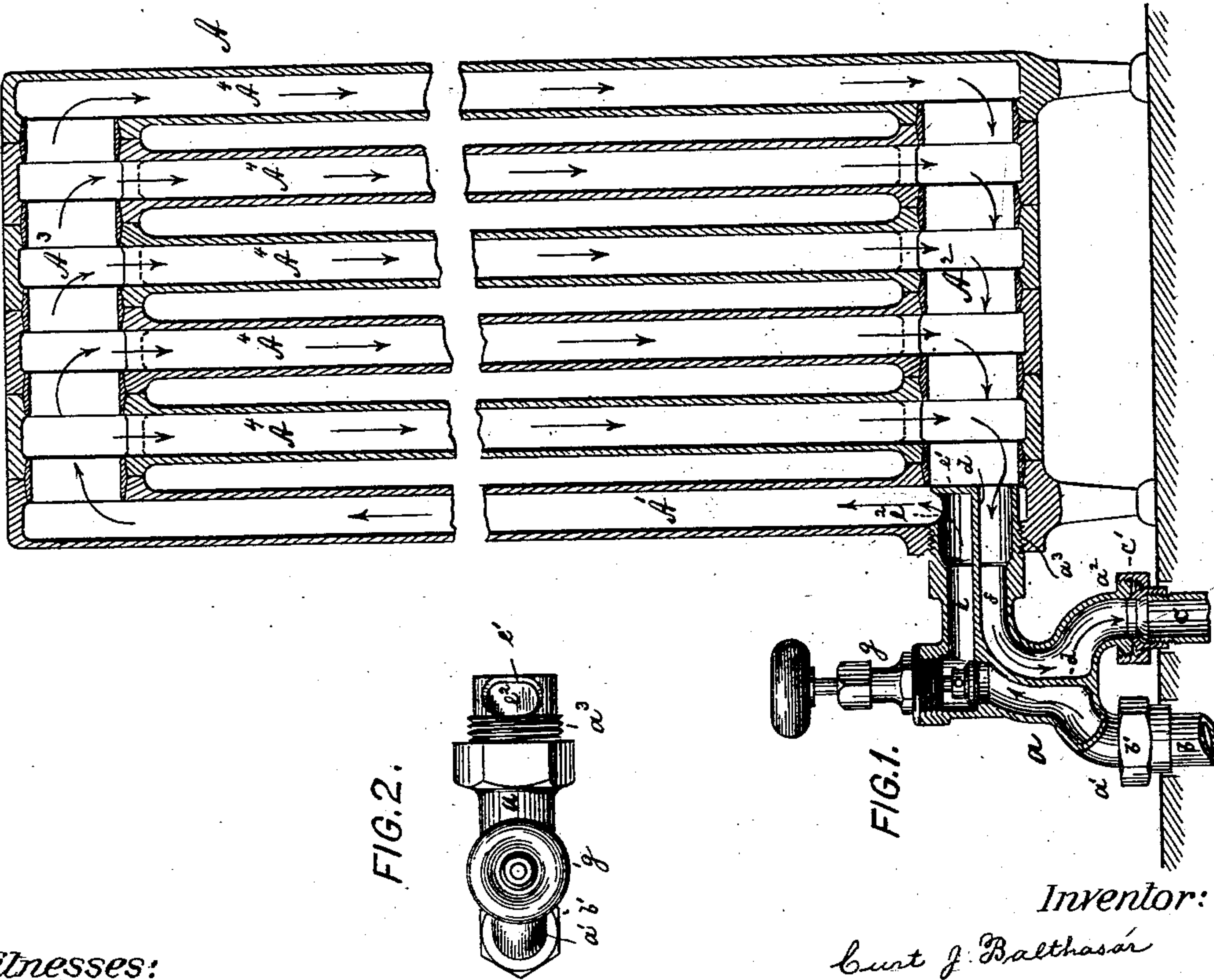
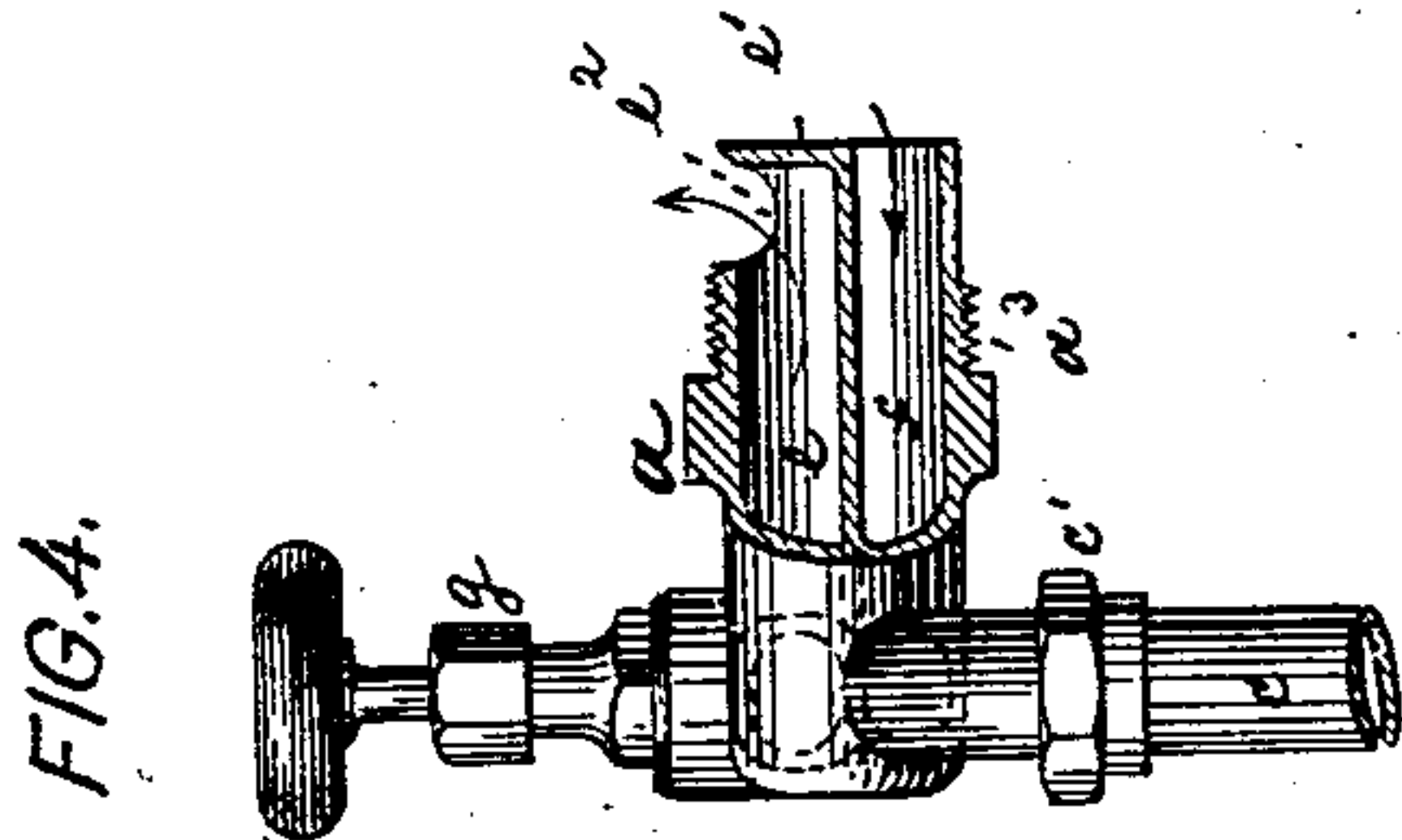
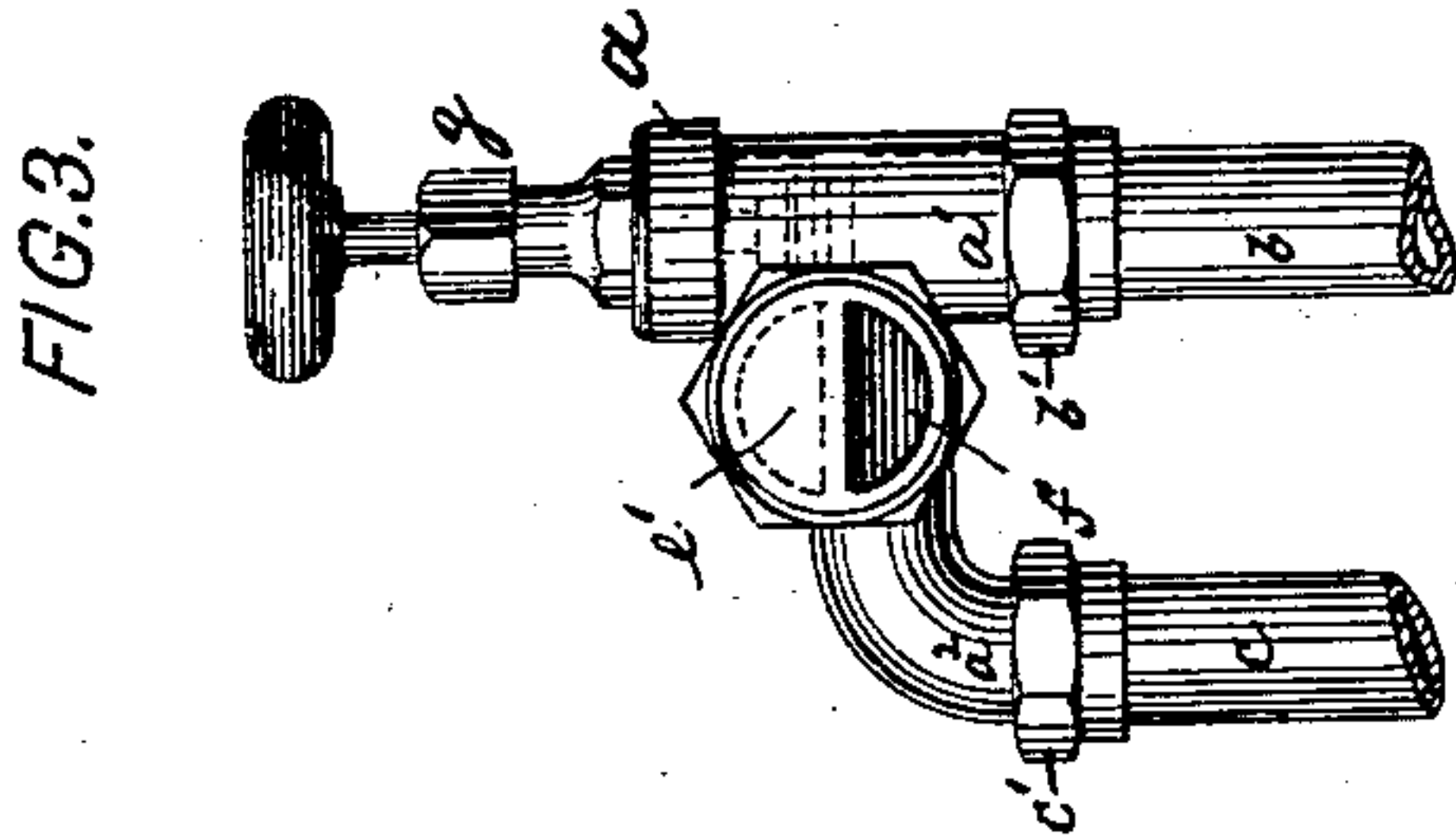
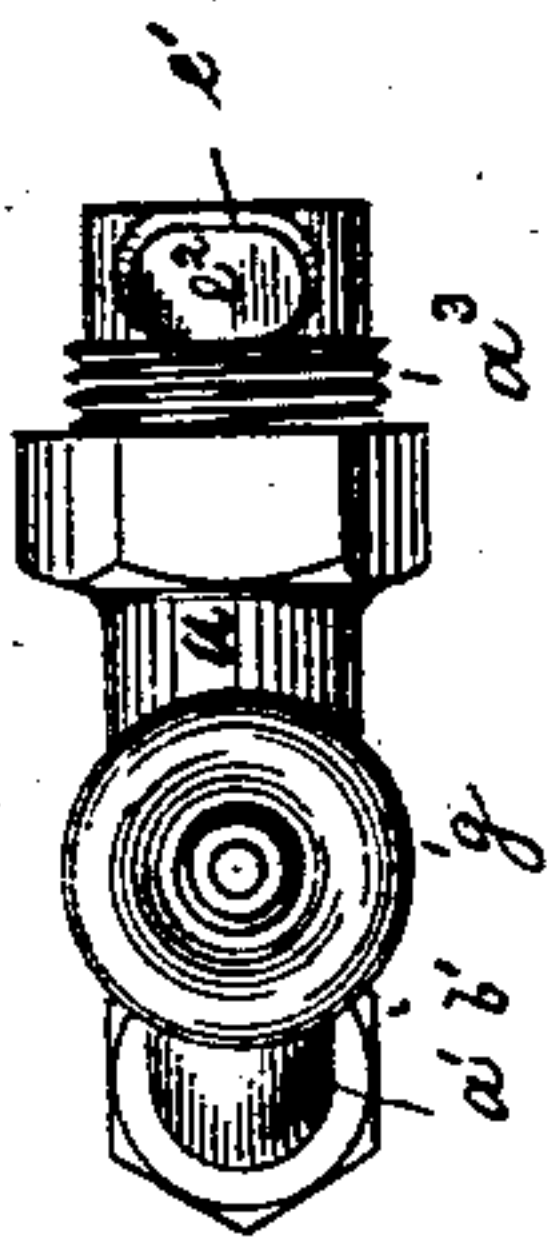


FIG. 2.



Witnesses:  
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Inventor:  
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# UNITED STATES PATENT OFFICE.

CURT J. BALTHASAR, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO  
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## VALVE AND ELBOW FOR HOT-WATER RADIATORS.

SPECIFICATION forming part of Letters Patent No. 563,120, dated June 30, 1896.

Application filed March 5, 1896. Serial No. 581,884. (No model.)

*To all whom it may concern:*

Be it known that I, CURT J. BALTHASAR, of New York city, New York, have invented an Improved Valve and Elbow for Hot-Water Radiators, of which the following is a specification.

This invention relates to a valve and elbow for hot-water radiators which is so constructed that by it the proper connection between the radiator and the hot-water-circulating pipes may be effected in a quick and simple manner.

In the accompanying drawings, Figure 1 is a vertical section, partly in elevation, of my improved valve and elbow, showing it coupled to a radiator. Fig. 2 is a plan of the valve and elbow; Fig. 3, an end view of a modification; and Fig. 4, a side view, partly in section, thereof.

The letter *a* represents the casing of my improved elbow, the vertical leg of which terminates in two branches *a'* and *a''*. Of these, the branch *a'* is by coupling *b'* adapted to be connected to the riser *b*, while the branch *a''* is adapted to be connected by coupling *c'* to the return-pipe *c*. Longitudinally through the elbow *a* there extends a diaphragm *d*, which divides the elbow into the inlet *e* and the exit *f*, of which the inlet communicates with the riser *b*, while the exit communicates with the return-pipe *c*. A valve *g*, extending into passage *e*, controls the flow of hot water into the radiator. The horizontal branch of the elbow *a* is provided at a distance from its end with a threaded section *a''*, which screws into the first loop *A'* of the hot-water radiator *A*, so that the end of the elbow projects transversely across said loop. The lower or exit passage *f* of the elbow is open at its end and communicates directly with the lower chamber *A''* of the radiator. The upper or inlet passage *e* of the elbow, however, is closed at its end by a wall *e'* and is perforated in front of such wall, as at *e''*, so that the inlet *e* is put into communication with the loop *A'*, but out

of communication with the chamber *A''*. Thus it will be seen that by simply coupling the elbow to the radiator and to the pipes *b c* the proper connection is at once effected in a most simple manner, and that not only a multiplicity of connections but a tedious fitting of the parts is dispensed with.

The circulation is as follows: from riser *b* and passage *e* through perforation *e''* into the first loop *A'*, thence through chamber *A''* and loops *A'* to chamber *A''*, and thence through outlet *f* to return-pipe *c*.

In Figs. 1 and 2 the branches *a'* *a''* of the elbow are shown to be placed side by side, *i. e.*, in the plane of the radiator. In Figs. 3 and 4 they are shown to be placed in front of one another, *i. e.*, in a plane at right angles to the radiator. With this slight modification the arrangement of parts is the same as that previously described.

What I claim is—

1. A valve and elbow for hot-water radiators composed of a casing, a longitudinal diaphragm extending therethrough to form inlet and outlet passages, of which the inlet-passage is closed at its horizontal end and provided with a discharge-orifice in front of such end, and with a valve within the casing, substantially as specified.

2. A valve and elbow for hot-water radiators composed of a branched casing, a longitudinal diaphragm extending therethrough to form inlet and outlet passages, a threaded section on the casing at a distance from its discharge end, and a regulating-valve, all being so constructed that the inlet-passage is closed at its horizontal end and perforated in front of such end, while the outlet-passage is open at its horizontal end, substantially as specified.

C. J. BALTHASAR.

Witnesses:

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